

**SECOND SEMI-ANNUAL GROUNDWATER
MONITORING REPORT
FOR YEAR 2017**

**LAS CRUCES FOOTHILLS LANDFILL
LAS CRUCES, NEW MEXICO**

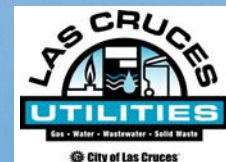


prepared by



JOHN SHOMAKER & ASSOCIATES, INC.
Water-Resource and Environmental Consultants
www.shomaker.com
505-345-3407

prepared for



LAS CRUCES UTILITIES
City of Las Cruces, New Mexico

MARCH 6, 2018



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NOTICE OF CORRECTION

Annual and Semi Annual Groundwater Monitoring Reports of the Foothills Landfill Las Cruces, New Mexico 1999-2019

This document is to provide notice of corrected operational dates. Reports prepared by John Shomaker & Associates, Inc. (JSAI) between 1999 and 2019 and submitted to New Mexico Environment Department included incorrect operational dates for the Las Cruces Foothills Landfill, Las Cruces, New Mexico.

The correct operational dates are 1966 to 1996.

To the extent possible, all historic copies, digital and bound, of public record should be updated with this notification. A copy of this notification is available at <http://www.las-cruces.org/186/SOLID-WASTE>. Further inquiries can be made to John Shomaker & Associates, Inc. at 505-345-3407.

Testified to as representative official of

John Shomaker and Associates, Inc. of Albuquerque, NM

on 22 of May, 2019.

A handwritten signature in cursive script that reads "Annie McCoy".

Annie McCoy

5/22/2019

Date

JOHN SHOMAKER & ASSOCIATES, INC.

**SECOND SEMI-ANNUAL
GROUNDWATER MONITORING REPORT FOR YEAR 2017,
LAS CRUCES FOOTHILLS LANDFILL, LAS CRUCES, NEW MEXICO**

EXECUTIVE SUMMARY

As a result of ongoing groundwater monitoring at Las Cruces Foothills Landfill since 1999, background and baseline conditions have been established and the extent of groundwater contamination at the site based on assessment monitoring levels (AMLs) for constituents of concern has been defined.

The primary constituents of concern are tetrachloroethene (PCE), trichloroethene (TCE), methylene chloride, and trichlorofluoromethane. The occurrences of PCE, TCE, methylene chloride, and trichlorofluoromethane in monitor wells are likely related to leachate derived from Las Cruces Foothills Landfill.

Contaminant transport mechanisms appear to have been active in the vadose zone, and controlled by clay-rich horizon(s) and the structural geology beneath Las Cruces Foothills Landfill. PCE concentrations remain highest at monitor wells MW-1 and MW-7, which are both located off hydraulic gradient from the landfill, demonstrating the important role that has been played by vadose zone contaminant transport. The driving force for contaminant transport in groundwater is the hydraulic gradient. Downgradient contaminant migration in the groundwater is limited by a relatively flat hydraulic gradient west of the Jornada Horst, and PCE and TCE concentration trends in downgradient monitor wells MW-2, MW-5, and MW-6, and assessment monitor well MW-9, do not indicate that the plume is moving downgradient.

In 2017, monitor wells MW-1, MW-2, MW-4 through MW-7, and MW-9 were sampled in June, and MW-1 through MW-9 were sampled in December. Pump equipment has been replaced at MW-3 and MW-8 after the old pumps were found to have malfunctioned in December 2016. The current nature and extent of groundwater contamination have been determined by the monitoring network. Historical PCE trends that show fluctuations and overall decreasing concentrations at MW-2, MW-6, and MW-7 suggest that PCE is naturally attenuating at these locations. As PCE concentrations have decreased below the AML at MW-2, it appears that the PCE plume is becoming smaller and more localized in the vicinity of MW-1 and MW-7. These decreasing trends may be related to completion of the cap and re-routing of storm water in the Phase III Closure Plan. Increasing PCE concentration at MW-8 indicates that vadose zone contaminant transport continues to play an important role. Based on the groundwater sample collected from MW-8 in December 2017, PCE increased above the AML at MW-8, but remains below the groundwater protection standard. Additional sampling at MW-8 would be required to determine whether the December 2017 sample is representative. Concentration contour maps for PCE and TCE presented in Figures 5, 6, 8, and 9 define the extent of groundwater contamination at the site in 2017.

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ABBREVIATIONS

AML	assessment monitoring level
BLM	Bureau of Land Management
CAL	corrective action level
DBCP	1,2-dibromo-3-chloropropane
EDB	ethylene dibromide
EPA	Environmental Protection Agency
°F	degrees Fahrenheit
Fig(s).	Figure(s)
ft	feet/foot
ft amsl	feet above mean sea level
ft bgl	feet below ground level
ft bmp	feet below measuring point
ft/ft	feet per foot
gpm	gallons per minute
gw	groundwater
GWPS	groundwater protection standard
GWQB	Ground Water Quality Bureau
JSAI	John Shomaker & Associates, Inc.
mg/L	milligrams per liter
MW	monitor well
NMED	New Mexico Environment Department
NMSU	New Mexico State University
PCB	polychlorinated biphenyl
PCE	tetrachloroethene
PQL	practical quantitation limit
PSTB	petroleum storage tank bureau
PVC	polyvinyl chloride
SWB	Solid Waste Bureau
TCE	trichloroethene
USGS	U.S. Geological Survey
VOCs	volatile organic compounds

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1.0 INTRODUCTION

Las Cruces Foothills Landfill, owned and operated by the City of Las Cruces, has been undergoing site closure. The City of Las Cruces Utilities Department contracted with John Shomaker & Associates, Inc. (JSAI) to oversee groundwater monitoring activities to fulfill the requirements of the New Mexico Environment Department Solid Waste Bureau (NMED/SWB) regulations (NMAC 20.9.9). Presented in this report are the following:

- Results of the year 2017 sampling events (monitor wells MW-1, MW-2, MW-4 through MW-7, and MW-9 in June 2017, and MW-1 through MW-9 in December 2017), and summary of past sampling.
- Background values for each constituent from upgradient monitor well MW-3 calculated using analytical results from all five 1999 sampling events, and the May 2000 sampling event.
- Baseline values for each constituent from monitor wells MW-1, MW-2, MW-3, and MW-4, calculated using analytical results from all 1999 sampling events, and the May 2000 sampling event.
- Baseline values for each constituent from monitor wells MW-5, MW-6, and MW-7, calculated using analytical results from all 2003 sampling events, and the December 2004 sampling event.
- Baseline values for each constituent from assessment monitor wells MW-8 and MW-9, calculated using analytical results from the December 2010 sampling event, and all 2011 sampling events.
- Demonstration of source for constituents detected above the groundwater protection standard (GWPS) or assessment monitoring level (AML).
- Recommended strategy for continued monitoring requirements.

1.1 Background Information

Las Cruces Foothills Landfill is located east of Las Cruces city limits in Section 11 of Township 23 South, Range 2 East, at the east end of East Lohman Avenue (Fig. 1). The landfill was in operation for approximately 15 years, from 1980 to 1995. There are no precise records of volume and types of waste deposited at the landfill, although, the fill material is approximately 40 ft below current surface grade and consists of household and construction waste. There are no records of hazardous waste delivered to this landfill. The landfill has been capped with a low hydraulic conductivity protective cover and re-contoured. Currently, the landfill has a groundwater monitoring system consisting of nine monitor wells (MW-1 through MW-9). Monitor well locations are shown in Figure 1, and monitor well details are presented in Table 1. The wells are equipped with dedicated pumps. Depth to groundwater beneath the landfill is approximately 400 ft, and the climate is considered semi-arid to arid with approximately 8.78 in. of precipitation annually (New Mexico State University (NMSU) weather station, period of record 1892 to 2017). The evaporation rate is almost 10 times the precipitation rate. The type of material beneath the landfill consists of semi-consolidated to very well-consolidated sand, silt, and clay. Geothermal groundwater is present beneath the landfill, with groundwater temperatures ranging from about 90 to 130 degrees Fahrenheit.

1.2 Groundwater Monitoring Plan

JSAI prepared the report *Results from installation of ground-water monitoring system, and proposed ground-water monitoring plan, Las Cruces Landfill, Las Cruces, New Mexico* (JSAI, 1999) for the City of Las Cruces in support of landfill closure documentation required by the NMED/SWB. The NMED/SWB approved the proposed groundwater monitoring plan on May 10, 1999. The groundwater monitoring plan was amended in March 2009 based on the installation of three additional monitor wells in 2003, sampling methods developed with dedicated submersible pumps in each monitor well, previously-approved alternate sampling schedules and parameter lists, and the NMED/SWB request to collect a vadose-zone gas sample from MW-7. JSAI has prepared groundwater monitoring reports for Las Cruces Foothills Landfill from 2000 to present, and the references for these reports are listed in Section 9.

In addition to the groundwater monitoring plan, the City submitted a workplan to NMED/SWB for sampling of all nine monitor wells and preparation of a technical memorandum to address concerns set forth by NMED/SWB in 2016 (JSAI, 2016c), and the aforementioned technical memorandum in 2017 (JSAI, 2017b).

Table 1. Details for monitor wells MW-1 through MW-9, Las Cruces Foothills Landfill, Las Cruces, New Mexico

monitor well	year drilled	average depth to water, ft bmp	well depth, ft bgl	average water column, ft	screen interval, ft bgl	casing diameter, in.	pump setting, ft bgl	Grundfos pump
MW-1	1990	393	464	71	434-454 (20)	4.5 ^b	444	5SQE10C-340NE ^a
MW-2	1999	406	435	29	395-435 (40)	4.5 ^b	433	5SQE10C-340NE ^a
MW-3	1999	308	340	32	299.5-339.5 (40)	4.5 ^b	338	5SQE-230 ^d
MW-4	1999	374	455	81	415-455 (40)	4.5 ^b	440	5SQE10C-340NE ^a
MW-5	2003	399	455	56	390-450 (60)	4.5 ^b	422	5Redi-Flo3-380
MW-6	2003	421	435	14	375-435 (60)	4.5 ^b	432	5Redi-Flo3-380
MW-7	2003	381	443	62	378-438 (60)	4.5 ^b	409	5Redi-Flo3-380
<i>assessment monitor wells</i>								
MW-8	2010	363	430	67	370-430 (60)	5.0 ^c	427	5SQE-320 ^d
MW-9	2010	371	415	44	355-415 (60)	5.0 ^c	413	5SQE-410

^a dedicated pump installed prior to June 2001 sampling event

^b schedule 40 PVC, outside diameter

^c schedule 80 PVC, outside diameter

^d dedicated pump installed prior to December 2017 sampling event

ft bmp - feet below measuring point

ft bgl - feet below ground level

2.0 PURGING AND WATER-LEVEL MEASUREMENTS

Due to low yield, excessive drawdown, and slow rate of recovery, selected monitor wells were purged about one week prior to sampling (Table 2). Additional purging of monitor wells was performed prior to sampling to the extent possible based on drawdown.

Water-level measurements were made prior to purging the wells in June and December 2017. Measurements were made to the nearest 0.01 ft with a wire-line sounder. Water-level measurements were referenced from the top of casing at a labeled measuring point. Water-level measurements for the year 2017 are summarized in Table 3, and past water-level measurements are presented in Appendix A.

Table 2. Pre-sampling event purging schedule for 2017 sampling events at monitor wells, Las Cruces Foothills Landfill, Las Cruces, New Mexico

monitor well	date purged	average discharge rate during purging, gpm	duration of purging, minutes	volume purged, gallons	average well volume, gallons
MW-1	6/21/17	1.1	56	64	47
	12/7/17	0.7	131	89 ^a	
	12/11/17	0.2	154	25 ^a	
MW-2	6/21/17	1.8	37	65	19
	12/12/17	2.1	33	70	
MW-3	12/11/17	(b)	16	(b)	21
MW-4	6/22/17	3.2	65	205	54
	12/6/17	2.3	47	110	
MW-5	6/21/17	1.8	43	79	37
	12/6/17	2.1	56	115	
MW-6	6/21/17	1.4	47	66	9
	12/6/17	1.5	75	115	
MW-7	6/21/17	1.4	25	36 ^a	41
	12/12/17	0.9	86	75 ^a	
	12/13/17	1.2	58	67	
MW-8	12/21/17	0.1 ^c	240	35	63
MW-9	6/22/17	0.4	61	24 ^a	42
	12/7/17	0.5	104	54 ^a	
	12/12/17	0.6	66	35 ^a	

^a pumped dry

(b) –discharge sporadic, sampled well immediately, pumped dry

^c discharge sporadic; estimated total 35 gallons purged over 4-hour period

gpm - gallons per minute

Table 3. Water-level measurements for 2017 sampling events at monitor wells MW-1 through MW-9, Las Cruces Foothills Landfill, Las Cruces, New Mexico

monitor well	date	top of casing elevation, ft amsl	depth to water, ft bmp	water-level elevation, ft amsl
MW-1	6/21/2017	4,261.61	394.54	3,867.07
	12/11/2017		396.13	3,865.48
MW-2	6/21/2017	4,265.36	406.08	3,859.28
	12/12/2017		407.58	3,857.78
MW-3	8/2/2017	4,356.06	312.93	4,043.13
	12/7/2017		312.91	4,043.15
MW-4	6/22/2017	4,313.20	381.46	3,931.74
	12/6/2017		381.66	3,931.54
MW-5	6/21/2017	4,235.55 ¹	398.10	3,837.45
	12/6/2017		399.35	3,836.20
MW-6	6/21/2017	4,258.32 ²	421.29	3,837.03
	12/6/2017		421.72	3,836.60
MW-7	6/21/2017	4,292.86 ³	384.17	3,908.69
	12/13/2017		384.40	3,908.46
MW-8	8/2/2017	4,286.00 ⁴	367.03	3,918.97
	12/21/2017		367.16	3,918.84
MW-9	6/22/2017	4,212.58 ⁴	374.68	3,837.90
	12/7/2017		375.34	3,837.24

¹ elevation is top of sounding tube (sounding tube is 0.42 ft below surveyed top of MW-5 well vault elevation)

² elevation is top of sounding tube (sounding tube is 0.35 ft below surveyed top of MW-6 well vault elevation)

³ elevation is top of sounding tube (sounding tube is 0.35 ft below surveyed top of MW-7 well vault elevation)

⁴ surveyed top of sounding tube

ft bmp - feet below measuring point

ft amsl - feet above mean sea level

3.0 GROUNDWATER SAMPLING

In June 2017, Las Cruces Foothills Landfill monitor wells MW-1, MW-2, MW-4, MW-5, MW-6, MW-7, and MW-9 were sampled by Las Cruces Water Quality Laboratory staff. In December 2017, all nine monitor wells, MW-1 through MW-9, were sampled by Las Cruces Water Quality Laboratory staff. During the 2017 semi-annual sampling events, groundwater samples were collected in bottles with appropriate preservatives provided by Hall Environmental Analysis Laboratories, Inc. (Hall) of Albuquerque, New Mexico. Samples were placed on ice, and chain-of-custody protocol was followed.

3.1 Well Purging

Dedicated submersible pumps were used to produce water from each well. Due to low yield, excessive drawdown, and slow rate of recovery, selected monitor wells were purged about one week prior to sampling. Additional purging of these wells was performed prior to sampling to the extent possible based on drawdown. For details on well purging, see Section 3.0 and Table 2.

3.2 Sampling of Monitor Wells

In June and December 2017, samples from monitor wells were submitted to Hall for analysis according to the reduced parameter list submitted by JSAI to NMED/SWB on March 11, 2015 (JSAI, 2015), including volatile organic compounds (VOCs; including primary constituents of concern tetrachloroethene (PCE), trichloroethene (TCE), methylene chloride, and trichlorofluoromethane), major ion chemistry, nitrate, total phenolics, total organic carbon, and metals. Monitor wells had been sampled and analyzed according to 20.9.9.20 NMAC Subsections A and C in December 2014, meeting the once-every-5-years requirement for analysis according to the Subsections A and C list. Copies of laboratory reports for 2017 sampling events are provided in Appendix C.

4.0 RESULTS

The City of Las Cruces has performed at least 32 sampling events at monitor wells MW-1 through MW-4 since January 1999, when the groundwater monitoring system was installed (MW-1 was also sampled five times between 1990 and 1996). These sampling events included analysis of parameters required for monitoring at municipal landfills (NMED/SWB regulations Section 1100, tables I and II; 20.9.9.20 NMAC Subsections A, B, and C). The City has performed at least 21 sampling events at monitor wells MW-5 through MW-7 since July 2003, including analysis according to NMED/SWB regulations Section 1100, tables I and II; and 20.9.9.20 NMAC Subsections A, B, and C. The City has performed at least 8 sampling events at assessment monitor wells MW-8 and MW-9 since December 2010, including analysis according to 20.9.9.20 NMAC Subsections A, B, and C. Review of the 2017 laboratory results did not reveal any anomalies in the dataset, except for elevated metals, total organic carbon, and total phenolics concentrations in upgradient monitor well MW-3 in December 2017 due to high sample turbidity; sampling protocol is being re-established for this well based on new pump equipment.

4.1 Direction of Groundwater Flow and Hydraulic Gradient

Based on the depth-to-water measurements collected in 2017, the direction of groundwater flow beneath the landfill remains west-southwest. This is similar to the direction of groundwater flow reported by JSAI during previous sampling events. Groundwater elevation contours and direction of groundwater flow in June 2017 are presented in Figure 1, and groundwater elevation contours and direction of groundwater flow in December 2017 are presented in Figure 2.

The hydraulic gradient beneath the landfill was about 0.044 ft/ft in June and December 2017, compared to the gradient of 0.047 ft/ft in 2016. Graphs showing the time-series trend in water levels for the monitor wells are presented in Figure 3. The average linear groundwater flow velocity calculated using a version of Darcy's Law (method defined in June 21, 2008, letter from James Dyer of NMED/SWB), assuming a hydraulic conductivity value of 0.2 ft/day for the alluvium over the Jornada Horst, and an effective porosity of 0.2, was 0.044 ft/day in December 2017. If a more conservative estimate of effective porosity of 0.05 is used, the average linear groundwater flow velocity would be 0.18 ft/day.

It should be noted that the groundwater elevation at MW-9 was higher than the groundwater elevations at MW-5 and MW-6 in June and December 2017 (Figs. 1 and 2; as it has been in all monitoring events except December 2014). Major ion geochemistry at MW-9 that has resembled that of geothermal wells at New Mexico State University suggests upwelling of geothermal groundwater near MW-9 (Fig. 13). It has also been observed that air discharges from the top of casing at MW-9.

Water levels in monitor wells showed a variety of trends during 2017 (Fig. 3). Water levels generally remained stable between 2015 and 2017 at landfill monitor wells, except for a decline at upgradient well MW-3 and a more complicated trend at downgradient assessment monitor well MW-9. Water levels at MW-3 and MW-4 are at the lowest levels observed since monitoring began in 1999. Water levels in MW-1, MW-2, and MW-5 appear to show seasonal fluctuations on the order of 1 to 2 ft in the past few years, with shallower water levels in the Summer (June).

Groundwater elevation contours have defined a groundwater mound between MW-1 and MW-5, which appears to have formed after water levels rose in these wells in 2010 (Fig. 3). The groundwater mound has been apparent in subsequent monitoring events, except for December 2014. The groundwater mound was apparent in 2017 (Figs. 1 and 2), and it appears to be associated with infiltration of storm water that has periodically collected in an unlined storm water containment pond near the northwest corner of the landfill and/or periodic discharge from the East Mesa water reclamation facility to an arroyo near the northwest corner of the landfill, between 2010 and 2017. The recharge signature is apparent in the historical chloride concentration data for MW-1 near the center of the groundwater mound: average chloride concentration was 16 mg/L (standard deviation (s.d.) of 2 mg/L) between 1990 and 2009, and average chloride concentration was 51 mg/L (s.d. of 11 mg/L) between 2010 and 2017.

4.2 Background and Baseline Concentrations

According to 20.9.9.9 NMAC, background concentrations shall be determined from a well that has not been affected by a release from the landfill. The average concentration for each parameter sampled from hydraulically upgradient monitor well MW-3 was used to establish background values. As specified in 20.9.9.10.E(3) NMAC, if the background concentration is

below the practical quantitation limit (PQL), the PQL may be used to establish background. The established background concentrations for each parameter sampled, and corresponding standard deviations, are provided in Appendix B on the spreadsheet for MW-3 (last two columns in spreadsheet). Baseline concentrations were determined for MW-1, MW-2, and MW-4 through MW-9 in the same manner that background concentrations were determined for upgradient monitor well MW-3.

According to 20.9.9.10.E(1) NMAC, background and baseline concentrations for each parameter sampled from each well must be established from the dataset listed in Appendix B using at least four sampling events during the first semi-annual event, and at least one additional sampling during the subsequent semi-annual event. For MW-1 through MW-4, JSAI determined background and baseline concentrations by using the data from the five detection sampling events in 1999 (four events for MW-1), and the May 2000 detection sampling event. For MW-5, MW-6, and MW-7, baseline concentrations were established using the six sampling events in 2003 and the sampling event in 2004. For MW-8 and MW-9, baseline concentrations were established using the December 2010 sampling event, and the four sampling events in 2011. The background and baseline concentrations for each monitor well, and corresponding standard deviations, are presented in Appendix B (last two columns in spreadsheets).

4.3 Summary of Parameters Exceeding the Assessment Monitoring Level (AML)

In June and December 2017, several inorganic and organic parameters exceeded the AML, as defined using the flowchart prepared by NMED/SWB (last revision 12/30/10), and direction by NMED/SWB Project Manager James Dyer, who indicated in a June 21, 2008 letter that “only Subsection A parameters need to have AMLs or CALs established.” A list of these parameters for each monitor well, and corresponding AMLs, is shown in Table 4.

4.3.1 Historical PCE Concentrations

PCE concentrations from each sampling event are presented in Figure 4. PCE concentrations have been at or above the AML of 0.0025 mg/L in MW-1, MW-4, MW-5, MW-6, and MW-7 in nearly every sampling event. The exceptions to this include MW-4 and MW-5 in December 2004 (indicating possible laboratory error in the December 2004 analysis).

PCE concentrations in MW-2 have had an overall decreasing trend and have been below the AML since 2014. PCE concentrations have been above the GWPS of 0.005 mg/L in MW-1, MW-4, MW-6, and MW-7 in nearly every sampling event. Historically, maximum PCE concentrations have been as follows:

- 0.015 mg/L in MW-1
- 0.012 mg/L in MW-2
- 0.011 mg/L in MW-4
- 0.0062 mg/L in MW-5
- 0.012 mg/L in MW-6
- 0.020 mg/L in MW-7

The PCE concentration in upgradient monitor well MW-3 was above the AML in the first sampling event in January 1999, but has been below laboratory detection limits in each subsequent sampling event (indicating possible laboratory error in the January 1999 analysis).

PCE has been detected at concentrations below the AML in MW-8 in each sampling event, except the first sampling event, when PCE was below laboratory detection limit. PCE concentrations have been below laboratory detection limit in MW-9 in each sampling event.

In summary, PCE concentrations in MW-1, MW-2, and MW-4 through MW-7 have exceeded the AML by less than 0.02 mg/L.

4.3.2 2017 PCE Concentrations

PCE concentrations ranged from a minimum of <0.0005 mg/L (below laboratory detection limit) in upgradient monitor well MW-3 and in MW-9, to a maximum of 0.018 mg/L in MW-7, in 2017. PCE concentrations remained above the GWPS of 0.005 mg/L in MW-1, MW-4, MW-5, MW-6, and MW-7 in 2017 (Figs. 4 through 6; Table 4). PCE concentration was above the AML of 0.0025 mg/L, but below the GWPS, in MW-8 in 2017. PCE concentrations remained below the AML in MW-2, and PCE concentrations remained below the laboratory detection limit of 0.0005 mg/L, in MW-3 and MW-9 in 2017. Concentration contours for PCE in groundwater at the site in June 2017 are presented in Figure 5, and PCE contours in December 2017 are presented in Figure 6.

Table 4. Summary of parameters that were detected above the AML in monitor wells at Las Cruces Foothills Landfill, 2017, Las Cruces, New Mexico

monitor well	sampling event	parameter	units	GWPS	CAL	AML	result
MW-1	6/27/17	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.015</i>
	6/27/17	trichloroethene (TCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.0026</i>
	12/19/17	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.012</i>
MW-3	12/11/17	antimony	mg/L	0.006	0.006	0.003	<i>0.0039</i>
	12/11/17	lead	mg/L	0.05	0.05	0.025	<i>0.039</i>
	12/11/17	total phenolics	mg/L	0.005	0.005	0.00375	<i>0.006</i>
MW-4	6/28/17	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.0097</i>
	6/28/17	trichloroethene (TCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.0031</i>
	6/28/17	methylene chloride ¹	mg/L	0.005	0.005	0.0025	<i>0.014</i>
	12/6/17	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.0093</i>
	12/6/17	trichloroethene (TCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.0030</i>
	12/6/17	methylene chloride ¹	mg/L	0.005	0.005	0.0025	<i>0.013</i>
MW-5	6/27/17	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.0061</i>
	12/6/17	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.0059</i>
MW-6	6/27/17	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.0065</i>
	12/6/17	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.0069</i>
MW-7	6/27/17	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.018</i>
	6/27/17	trichloroethene (TCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.0037</i>
	6/27/17	trichlorofluoromethane ¹	mg/L	na	na	0.00195 ^b	<i>0.0042</i>
	12/13/17	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.013</i>
	12/13/17	trichloroethene (TCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.0029</i>
	12/13/17	trichlorofluoromethane ¹	mg/L	na	na	0.00195 ^b	<i>0.0021</i>
MW-8	12/21/17	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	<i>0.0038</i>
MW-9	6/28/17	nickel ¹	mg/L	0.20	0.20	0.15	<i>0.17</i>
	12/19/17	total dissolved solids	mg/L	1,000	1,000	750	<i>1,680</i>
	12/19/17	chloride	mg/L	250	250	187.5	<i>710</i>
	12/19/17	chromium ¹	mg/L	0.05	0.05	0.025	<i>0.029</i>
	12/19/17	nickel ¹	mg/L	0.20	0.20	0.15	<i>0.21</i>

¹ hazardous

^b 95 percent increase over practical quantitation limit (PQL)

GWPS - groundwater protection standard

CAL - corrective action level, equal to GWPS (20.9.9.14.B NMAC)

AML - assessment monitoring level

bold text indicates concentrations that exceed the AML

bold italic text indicates concentrations that exceed the AML and GWPS

mg/L - milligrams per liter

na - no GWPS for this parameter

In summary, PCE concentrations in MW-1, and MW-4 through MW-8, exceeded the AML by less than 0.02 mg/L in 2017. Notable trends in PCE concentrations include apparent overall declining trends in MW-2, MW-6, and MW-7. PCE concentrations have remained relatively stable in MW-4 and MW-5 since December 2005. PCE concentrations in MW-1 had been on an overall increasing trend, but appear to have stabilized. PCE concentrations in MW-8 appear to be increasing (Fig. 4).

4.3.3 Historical and 2017 TCE Concentrations

TCE concentrations from each sampling event are presented in Figure 7. TCE concentrations have been below the AML of 0.0025 mg/L in MW-2, upgradient monitor well MW-3, MW-5, MW-6, MW-8, and MW-9 in each sampling event. TCE concentrations have been below laboratory detection limits in upgradient monitor well MW-3, and in MW-8 and MW-9, in each sampling event.

TCE concentrations have generally exceeded the AML of 0.0025 mg/L in MW-4 since December 2005, and in MW-7 since August 2003, except for December 2015. Historically, maximum TCE concentrations in MW-4 and MW-7 have been 0.0046 mg/L and 0.0037 mg/L, respectively. TCE concentrations exceeded the AML by less than 0.002 mg/L in MW-4 and MW-7 in 2017, and TCE concentrations have remained relatively stable in MW-4 and MW-7 since December 2005. TCE concentration increased above the AML in MW-1 for the first time in June 2017, but decreased below the AML in MW-1 in December 2017. Concentration contours for TCE in groundwater at the site in June 2017 are presented in Figure 8, and TCE contours in December 2017 are presented in Figure 9.

4.3.4 Historical and 2017 Methylene Chloride Concentrations

Methylene chloride concentrations from each sampling event are presented in Figure 10. Methylene chloride concentrations have been below the AML of 0.0025 mg/L in MW-1, MW-2, upgradient monitor well MW-3, and MW-5 through MW-9 in each sampling event. Methylene chloride concentrations have been below laboratory detection limits in upgradient monitor well MW-3, MW-5, MW-6, MW-8, and MW-9 in each sampling event.

Methylene chloride concentrations increased above the AML of 0.0025 mg/L and the GWPS of 0.005 mg/L in MW-4 in December 2005 and were on an overall increasing trend in MW-4 through 2013 (Fig. 10). Methylene chloride concentrations in MW-4 reached a maximum of 0.015 mg/L in June 2015, and decreased to 0.013 mg/L in December 2017, exceeding the AML by 0.0105 mg/L. Methylene chloride concentrations in MW-4 have remained relatively stable since December 2013.

4.3.5 Historical and 2017 Trichlorofluoromethane Concentrations

Trichlorofluoromethane concentrations for monitor wells in which trichlorofluoromethane has been detected (MW-1, MW-2, MW-4, and MW-7) are presented in Figure 11. Historically, trichlorofluoromethane concentrations have been below laboratory detection limits in upgradient monitor well MW-3, MW-5, MW-6, MW-8, and MW-9.

Trichlorofluoromethane concentrations were above the AML of 0.00195 mg/L (because there is no GWPS for trichlorofluoromethane, the AML is equal to $PQL + (0.95 * PQL)$) in MW-4 between September 1999 and July 2003, and intermittently between December 2008 and June 2013. Trichlorofluoromethane concentrations have been above the AML in MW-7 in July 2003, and between December 2008 and 2017, except for December 2015.

In summary, the trichlorofluoromethane concentration in MW-7 exceeded the AML by 0.002 mg/L or less in 2017. Trichlorofluoromethane concentrations have remained relatively stable in MW-7 since December 2008. Trichlorofluoromethane concentrations have been on an overall declining trend in MW-4 since 2002, and were below the AML in MW-4 in 2017.

4.3.6 Historical and 2017 Total Iron Concentrations

Total iron concentrations in each sampling event are presented in Figure 12. Total iron concentrations were detected above the GWPS of 1.0 mg/L in MW-1, MW-2, and upgradient monitor well MW-3 in 1999; in MW-1 in November 2000 and June 2001; and in MW-7 in July 2003. Elevated iron concentrations were likely due to slightly turbid water samples, and turbidity has been minimized by the installation of dedicated sampling pumps at MW-1, MW-2, MW-3, and MW-4 in June 2001, and at MW-5, MW-6, and MW-7 in June 2003. Total iron concentrations were below the AML in all monitor wells in 2017.

4.3.7 Historical and 2017 Total Phenolics Concentrations

Total phenolics concentrations were intermittently detected above the GWPS of 0.005 mg/L in monitor wells MW-1, MW-2, upgradient monitor well MW-3, and MW-4 between January 1999 and September 2002. The highest concentration was 0.070 mg/L, detected in MW-2 in January 1999. The potential for contamination of groundwater samples with phenols from cured cement used as annular sealant has been documented through laboratory investigations (Smith et al., 2014). Total phenolics concentrations have been below laboratory detection limits in MW-1, MW-2, MW-3, and MW-4 in each sampling event since December 2002. Total phenolics concentrations have been below laboratory detection limits in MW-5 through MW-9 in each sampling event, except MW-6 in July 2003 and MW-3 in December 2017. The total phenolics concentration was above the GWPS in upgradient monitor well MW-3 in December 2017. Total phenolics were below the laboratory detection limit of 0.0025 mg/L in MW-1, MW-2, and MW-4 through MW-9 in 2017.

4.3.8 Additional Parameters Detected in Upgradient Monitor Well MW-3

Antimony and lead concentrations exceeded AMLs of 0.003 mg/L and 0.025 mg/L, respectively, in 2017 (Table 4).

4.3.9 Additional Parameters Detected in Monitor Well MW-9

Total dissolved solids (TDS), chloride, nickel, and chromium concentrations exceeded AMLs of 750 mg/L, 187.5 mg/L, 0.15 mg/L, and 0.025 mg/L, respectively, in 2017 (Table 4).

5.0 NATURE AND EXTENT OF GROUNDWATER CONTAMINANTS

5.1 Sources of PCE, TCE, and Methylene Chloride

PCE has been detected in MW-1, MW-4, MW-5, MW-6, and MW-7 at concentrations that exceed the AML of 0.0025 mg/L in nearly every sampling event since January 1999 (Fig. 4). TCE has been detected at concentrations that exceed the AML of 0.0025 mg/L in MW-4 and MW-7 in nearly every sampling event since December 2005. Concentration contour maps for PCE and TCE presented in Figures 5, 6, 8, and 9 define the extent of groundwater contamination at the site in 2017.

In upgradient monitor well MW-3, PCE and TCE have been below the laboratory detection limit of 0.001 mg/L in 33 consecutive sampling events, suggesting that these contaminants are associated with the landfill materials.

Groundwater monitoring results provide evidence that PCE and TCE are present as dissolved phases in groundwater and no phase-separated sources have been detected. PCE and TCE are associated with solvents commonly used for dry cleaning, paint removal, and degreasing processes. Under anaerobic conditions, the chemical and biological transformation pathway indicates that hexachloroethane breaks down to PCE, which breaks down to TCE, which breaks down to trans-1,2-dichloroethylene, cis-1,2-dichloroethylene, 1,1-dichloroethylene, and vinyl chloride (Barbee, 1994). Historically, cis-1,2-dichloroethylene has also been detected at low concentrations at MW-1, MW-4, and MW-7.

Over time, PCE typically is biologically transformed to TCE in soils and groundwater under a range of anaerobic and aerobic conditions. The higher temperatures in MW-1 may be slowing the biological transformation of PCE to TCE relative to MW-4 and MW-7. Monitor wells MW-4 and MW-7 have cooler average groundwater temperatures among the monitor wells, except for upgradient monitor well MW-3, which has the coolest average groundwater temperature. MW-4 is also an end-member among the monitor wells in terms of major ion geochemistry (see Fig. 13). Monitor wells MW-4 and MW-7 have the highest TCE concentrations at the landfill, and appear to share the same structural setting, located in a graben east of the Jornada Horst (Figs. 15 and 16).

Methylene chloride has been detected in MW-4 above the GWPS of 0.005 mg/L since December 2005. Methylene chloride is commonly used as a solvent in paint strippers and removers, and as a metal cleaning and finishing solvent. It is also used as a propellant in aerosols for paints, automotive products, and insect sprays. Trichlorofluoromethane had been detected in MW-7 above the AML of 0.00195 mg/L since December 2008, except for December 2015. Trichlorofluoromethane was used as a refrigerant and a cleaning/rinsing agent, but U.S. production ended in 1996 due to ozone depletion potential.

The occurrences of PCE, TCE, methylene chloride, and trichlorofluoromethane in Las Cruces Foothills Landfill monitor wells are probably not due to other contamination plumes in the area (JSAI, 2003; JSAI, 2005). In order to identify potential alternative contamination sources, JSAI has contacted state and federal agencies including the EPA, U.S. Geological Survey (USGS), NMED/SWB, NMED Groundwater Quality Bureau (GWQB), and NMED Petroleum Storage Tank Bureau (PSTB).

According to the NMED/SWB, there are two closed landfill sites located approximately 1 mile from Las Cruces Foothills Landfill. The exact locations of the closed landfills are not known, but they are located to the southwest and downgradient of the existing landfill. Neither of these sites has monitor wells, and both are reported to be owned by the City of Las Cruces (Dan Fuqua, NMED/SWB, oral communication, February 26, 2004). The NMED/GWQB did not list any monitored discharges in the vicinity of Las Cruces Foothills Landfill that could be linked to the contaminants observed at the Foothills Landfill (2017 list of facilities with groundwater discharge permits). According to the NMED/PSTB, there are 29 active leaky underground storage tank sites and 101 sites requiring no further action in the City of Las Cruces area, as of February 14, 2017 (<https://www.env.nm.gov/ust/lists.html>). Contaminated sites identified by EPA and NMED, including the Griggs and Walnut PCE plume, are located at least 1 mile downgradient of Las Cruces Foothills Landfill, and there is no evidence to indicate that the contamination at the landfill is associated with any of these sites (JSAI, 2006a).

5.2 Source of antimony, lead, and total phenolics at Upgradient Monitor Well MW-3

Antimony, lead, and total phenolics were detected at concentrations above the AMLs in upgradient monitor well MW-3 in December 2017. These detections are considered anomalous results and likely related to the new pump equipment installed in the well, high sample turbidity, and issues associated with re-establishing sampling protocol for MW-3.

5.3 Source of PCE at Assessment Monitor Well MW-8

PCE concentrations have steadily increased at MW-8 between 2011 and 2017, and PCE was detected at a concentration above the AML in MW-8 in December 2017. PCE detections at MW-8 are likely associated with contaminants from Las Cruces Foothills Landfill. PCE and TCE detections at MW-4 and MW-7 provide evidence for contaminant migration southeastward. It appears that the direction of lateral and vertical leachate migration in the vadose zone has controlled the observed groundwater plume. The observed hydraulic gradient for groundwater at the site is east to west. Additional sampling at MW-8 would be required to determine whether the December 2017 sample is representative.

5.4 Source of TDS, chloride, nickel, and chromium at Assessment Monitor Well MW-9

TDS, chloride, nickel, and chromium concentrations exceeded AMLs in MW-9 in 2017 (Table 4). The major ion geochemistry of groundwater sampled at MW-9 is similar to that of geothermal wells at New Mexico State University (Fig. 13). The relatively high groundwater elevation at MW-9, combined with the major ion geochemistry, indicate geothermal upwelling. Thus, elevated TDS, chloride, nickel, and chromium concentrations are naturally-occurring and characteristic of geothermal groundwater. The major ion geochemistry at many of the landfill monitor wells appears to represent mixing between the cool calcium-bicarbonate type groundwater sampled at MW-4 (groundwater in the Santa Fe Group aquifer of the Jornada Basin), and the hot sodium-sulfate type groundwater sampled at MW-9 (geothermal upwelling; Fig. 13).

Elevated fluoride and manganese concentrations, and radium-226 and -228 activity in MW-9 in 2011 were also attributed to naturally-occurring variability in groundwater quality, and characteristic of geothermal groundwater in the area (JSAI, 2012).

The high temperature of the water and elevated chloride concentrations may also result in corrosion of metal components in the dedicated sample pump; this could also be a source of elevated metals in water sampled from MW-9.

6.0 CONTAMINANT TRANSPORT MECHANISMS

The driving force for contaminant transport in groundwater is the hydraulic gradient. Figure 14 presents groundwater elevation contours in the area, and shows that the hydraulic gradient west of Las Cruces Foothills Landfill is relatively flat, limiting downgradient contaminant migration. Historical PCE and TCE concentration trends in downgradient monitor wells MW-2, MW-5, MW-6, and assessment monitor well MW-9, do not indicate that the plume is moving (Figs. 4 and 7).

Groundwater elevation contours have defined a groundwater mound between MW-1 and MW-5, which appears to have formed after water levels rose in these wells in 2010 (Fig. 3). Chloride concentrations also increased in MW-1 during this period (see Appendix B). The groundwater mound was apparent in Summer and Winter 2017 (Figs. 1 and 2), and it appears to be associated with infiltration of storm water that has periodically collected in an unlined storm water containment pond near the northwest corner of the landfill and/or periodic

discharge from the East Mesa water reclamation facility to an arroyo near the northwest corner of the landfill, between 2010 and 2017. The recharge signature is apparent in the chloride concentration data for MW-1 near the center of the groundwater mound, which showed a significant increase between 2009 and 2010. Monitor well MW-1 showed an increasing trend for PCE between 2009 and 2011 (Fig. 4), which may have been a result of localized recharge mobilizing leachate in the vadose zone.

Contaminant transport mechanisms appear to have been active in the vadose zone, and controlled by clay-rich horizon(s) and the structural geology beneath Las Cruces Foothills Landfill. The geology and structure beneath Las Cruces Foothills Landfill are presented in Figures 15 and 16. PCE concentrations remain highest at monitor wells MW-1 and MW-7, and are increasing at MW-8, located across the groundwater gradient from the landfill, demonstrating the important role of contaminant transport in the vadose zone.

Concentration contour maps for PCE and TCE presented in Figures 5, 6, 8, and 9 define the extent of groundwater contamination at the site. PCE and TCE were below laboratory detection limits in MW-9 between December 2010 and 2017, helping constrain the extent of contamination to the west (downgradient) of Las Cruces Foothills Landfill. PCE has been detected at MW-8 between 2011 and 2017, providing evidence for contaminant migration southeastward, across the groundwater gradient, parallel to the graben containing MW-4, MW-7, and MW-8 (Figs. 5 and 15).

7.0 CONCLUSIONS

At Las Cruces Foothills Landfill, monitor wells MW-1 through MW-4 have been sampled at least 32 times since 1999, MW-5 through MW-7 have been sampled at least 21 times since 2003, and MW-8 and MW-9 have been sampled at least 8 times since 2010. The following conclusions are made from the data evaluation:

- Background and baseline conditions have been established.
- The primary constituents of concern are PCE, TCE, methylene chloride, and trichlorofluoromethane.

- The occurrences of PCE, TCE, methylene chloride, and trichlorofluoromethane in monitor wells are related to leachate derived from Las Cruces Foothills Landfill.
- The extent of groundwater contamination at the site based on AMLs for constituents of concern has been defined. Concentration contour maps for PCE and TCE presented in Figures 5, 6, 8, and 9 define the extent of groundwater contamination at the site in 2017.
- Contaminant transport mechanisms appear to have been active in the vadose zone, and controlled by clay-rich horizon(s) and structural geology beneath Las Cruces Foothills Landfill. The driving force for contaminant transport in groundwater is the hydraulic gradient.
- Downgradient contaminant migration in the groundwater is limited by a relatively flat hydraulic gradient west of the Jornada Horst, and historical PCE and TCE concentration trends in downgradient monitor wells MW-2, MW-5, MW-6, and assessment monitor well MW-9, do not indicate that the plume is moving downgradient.
- Historical PCE trends that show fluctuations and overall decreasing concentrations at MW-2, MW-6, and MW-7 suggest that PCE is naturally attenuating at these locations. As PCE concentrations have decreased below the AML at MW-2 since 2014, it appears that the PCE plume is becoming smaller and more localized in the vicinity of MW-1 and MW-7. These decreasing trends may be related to completion of the cap and re-routing of storm water in the Phase III Closure Plan.
- Increasing PCE concentration at MW-8, located southeast of MW-7, parallel to the graben containing the monitor wells, indicates that vadose zone contaminant transport continues to play an important role. Based on the groundwater sample collected from MW-8 in December 2017, PCE increased above the AML at MW-8, but remains below the GWPS. Additional sampling at MW-8 would be required to determine whether the December 2017 sample is representative.
- Groundwater elevation contours define a groundwater mound between MW-1 and MW-5, which appears to have formed after water levels rose in these wells in 2010. Chloride concentrations also increased in MW-1 during this period. The groundwater mound appears to be associated with infiltration of storm water that has periodically collected in an unlined storm water containment pond near the northwest corner of the landfill and/or periodic discharge from the East Mesa water reclamation facility to an arroyo near the northwest corner of the landfill, between 2010 and 2017.

8.0 RECOMMENDATIONS

It is recommended that water-level measurements continue to be collected at all monitor wells on a semi-annual basis, for complete monitoring of groundwater flow direction and gradient at and near the Foothills Landfill.

It is recommended that groundwater monitoring be continued at Las Cruces Foothills Landfill on a semi-annual basis according to the reduced parameter list presented in JSAI (2015), in order to track the extent and nature of the contaminant plume. In 2017, all nine monitor wells were sampled according to the workplan submitted to NMED/SWB in order to address concerns set forth by NMED/SWB in 2016 (JSAI, 2016c). In a letter dated January 24, 2018, NMED/SWB indicated that they would be requiring continued sampling at on-site and off-site monitoring wells at semi-annual frequency. MW-8 should continue to be sampled to determine whether the December 2017 sample is representative. Sampling protocol should be re-established for MW-3 and MW-8 based on the new pump equipment installed at these wells, to ensure that sample turbidity is minimized and samples are representative of groundwater near the wells.

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- [JSAI] John Shomaker & Associates, Inc., 2015a, Second semi-annual groundwater monitoring report for year 2014, Las Cruces Foothills Landfill, Las Cruces, New Mexico: consultant's report prepared by McCoy, A.M., and Finch, S.T., Jr., of John Shomaker & Associates, Inc. for the City of Las Cruces, New Mexico, March 11, 2015, 21 p. plus figures and appendices.
- [JSAI] John Shomaker & Associates, Inc., 2015b, First semi-annual groundwater monitoring event of the 2015 monitoring period for Las Cruces Foothills Landfill: consultant's letter report prepared by McCoy, A.M., of John Shomaker & Associates, Inc. to James Dyer, NMED/SWB, Permitting Section, on behalf of the City of Las Cruces, 3 p. plus figures and appendices.
- [JSAI] John Shomaker & Associates, Inc., 2016a, Second semi-annual groundwater monitoring report for year 2015, Las Cruces Foothills Landfill, Las Cruces, New Mexico: consultant's report prepared by McCoy, A.M., and Finch, S.T., Jr., of John Shomaker & Associates, Inc. for the City of Las Cruces, New Mexico, March 17, 2016, 20 p. plus figures and appendices.
- [JSAI] John Shomaker & Associates, Inc., 2016b, First semi-annual groundwater monitoring event of the 2016 monitoring period for Las Cruces Foothills Landfill: consultant's letter report prepared by McCoy, A.M., of John Shomaker & Associates, Inc. to James Dyer, NMED/SWB, Permitting Section, on behalf of the City of Las Cruces, 3 p. plus figures and appendices.
- [JSAI] John Shomaker & Associates, Inc., 2016c, Proposed workplan for Las Cruces Landfill groundwater monitoring: consultant's letter report prepared by Finch, S.T., Jr., of John Shomaker & Associates, Inc. to Josh Rosenblatt, Las Cruces Utilities, 3 p. plus figure.
- [JSAI] John Shomaker & Associates, Inc., 2017a, Second semi-annual groundwater monitoring report for year 2016, Las Cruces Foothills Landfill, Las Cruces, New Mexico: consultant's report prepared by McCoy, A.M., and Finch, S.T., Jr., of John Shomaker & Associates, Inc. for the City of Las Cruces, New Mexico, March 27, 2017, 21 p. plus figures and appendices.

- [JSAI] John Shomaker & Associates, Inc., 2017b, Site hydrogeologic conceptual model for Las Cruces Foothills Landfill: consultant's technical memorandum prepared by Finch, S.T., Jr., of John Shomaker & Associates, Inc. to Josh Rosenblatt, Las Cruces Utilities, 5 p. plus figures.
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- Smith, B., Siegel, D., Neslund, C., and Carter, C., 2014, Organic contaminants in Portland cements used in monitoring well construction: Groundwater monitoring and remediation, v. 34, No. 4, pp. 102-111.
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ILLUSTRATIONS

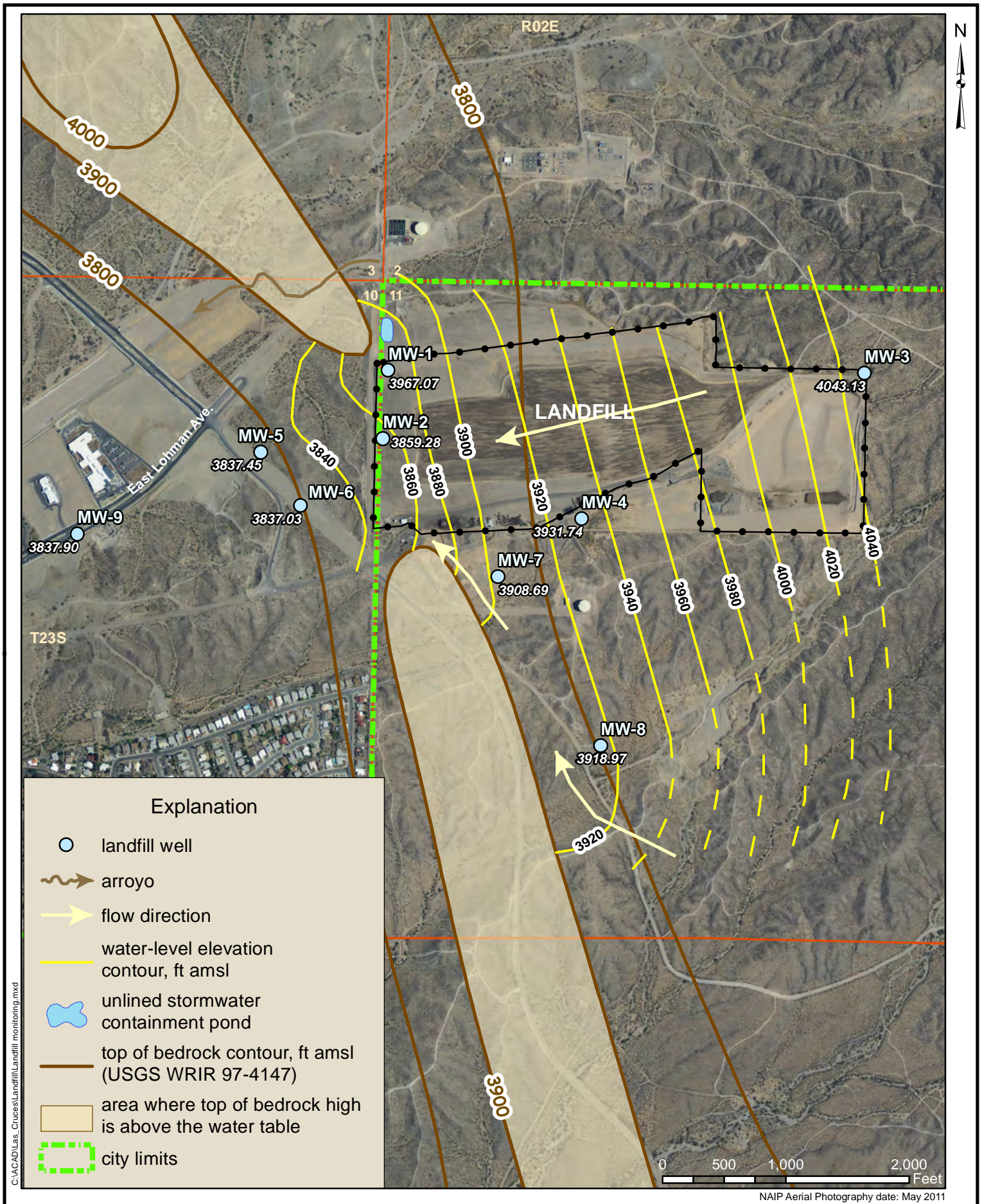


Figure 1. Aerial photograph showing locations of Las Cruces Foothills Landfill monitor wells, groundwater-elevation contours, and direction of groundwater flow in June 2017.

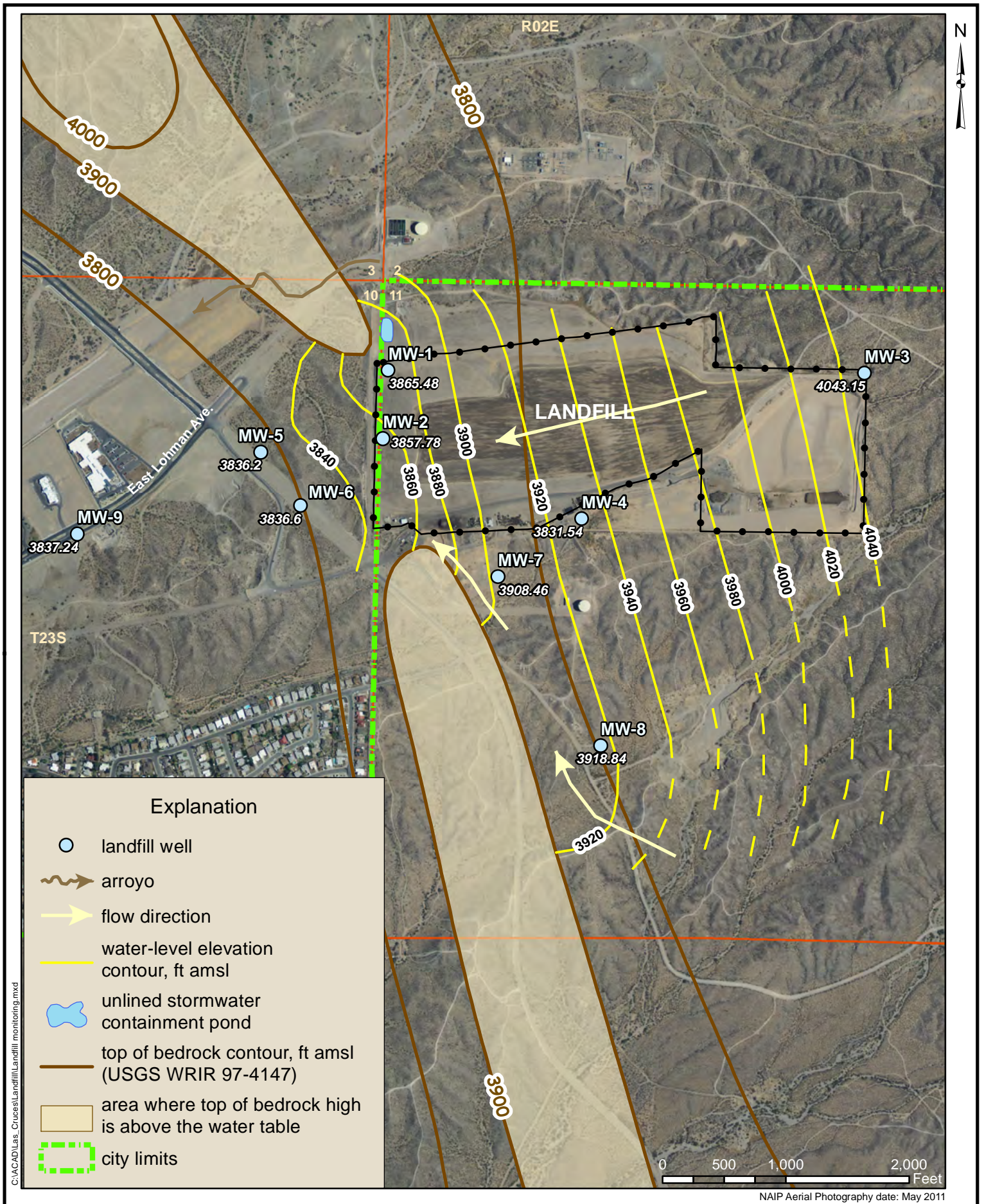


Figure 2. Aerial photograph showing locations of Las Cruces Foothills Landfill monitor wells, groundwater elevation contours, and direction of groundwater flow in December 2017.

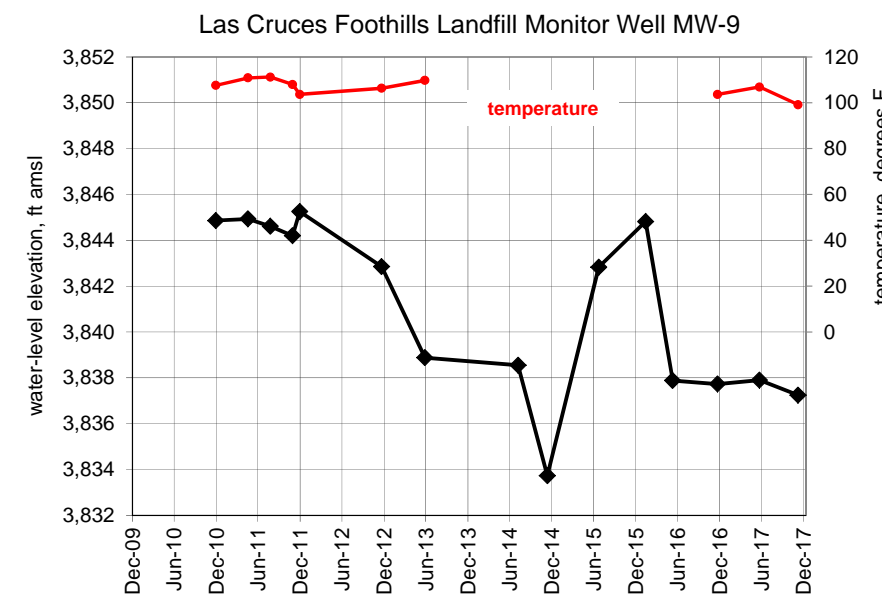
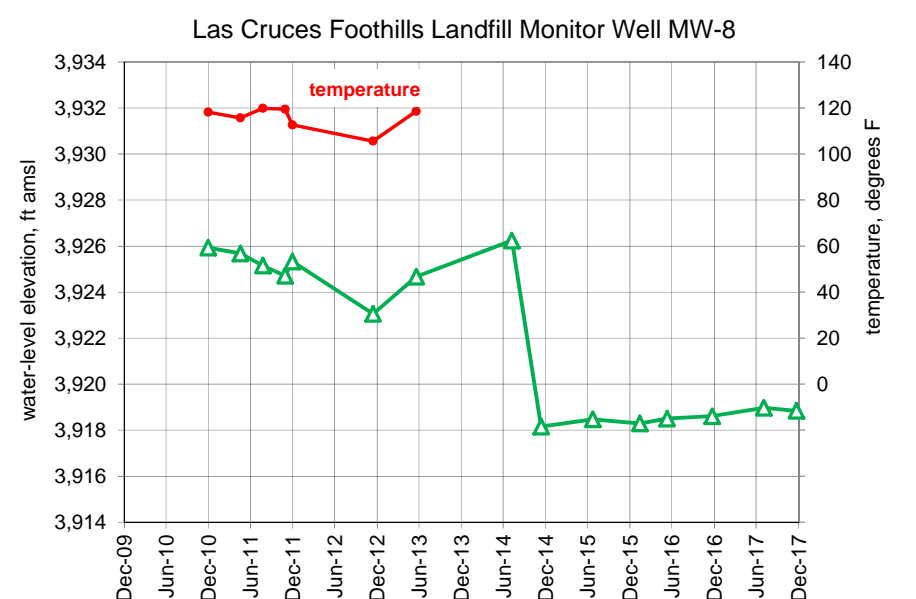
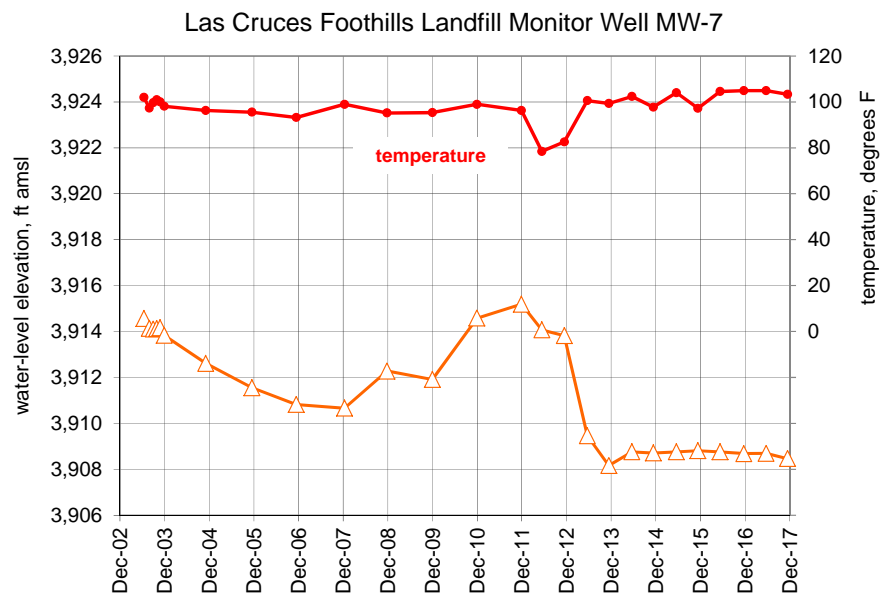
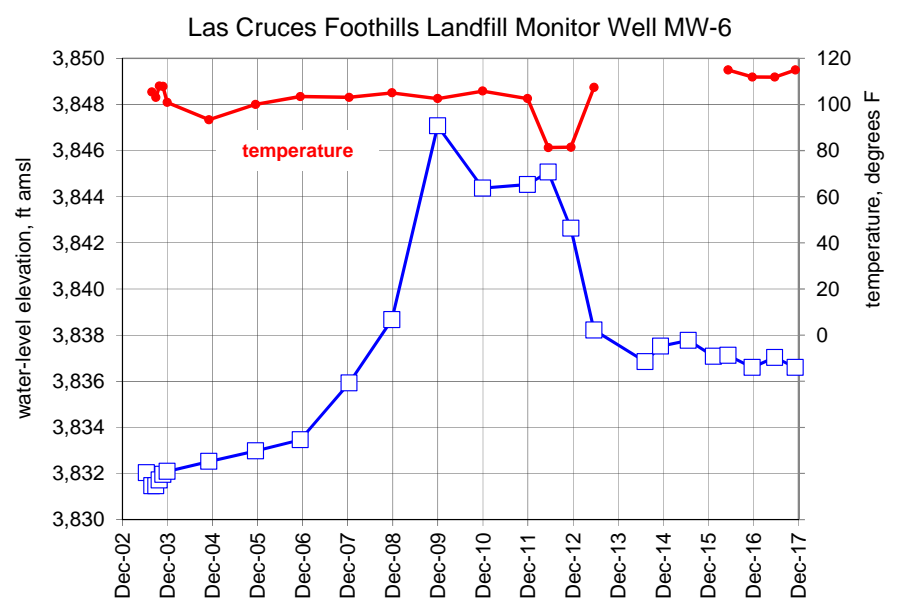
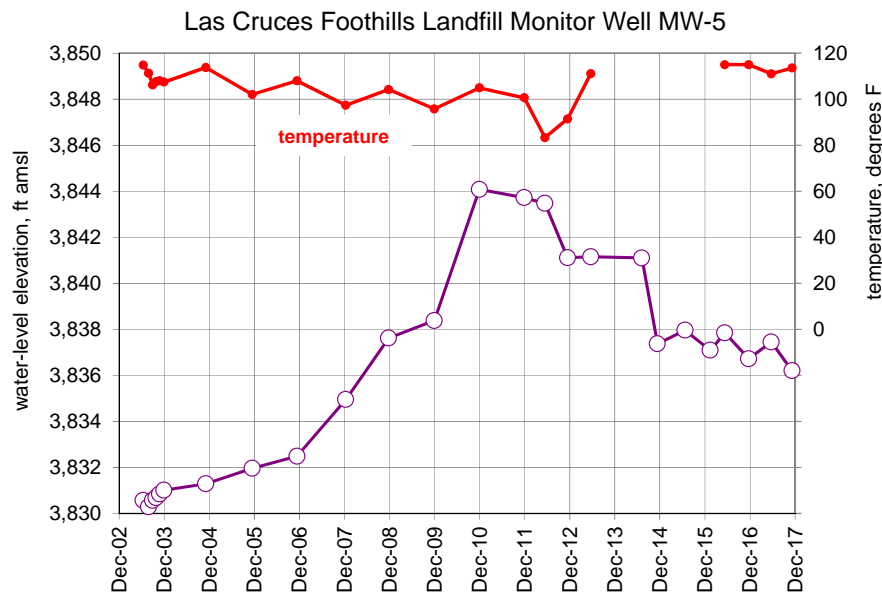
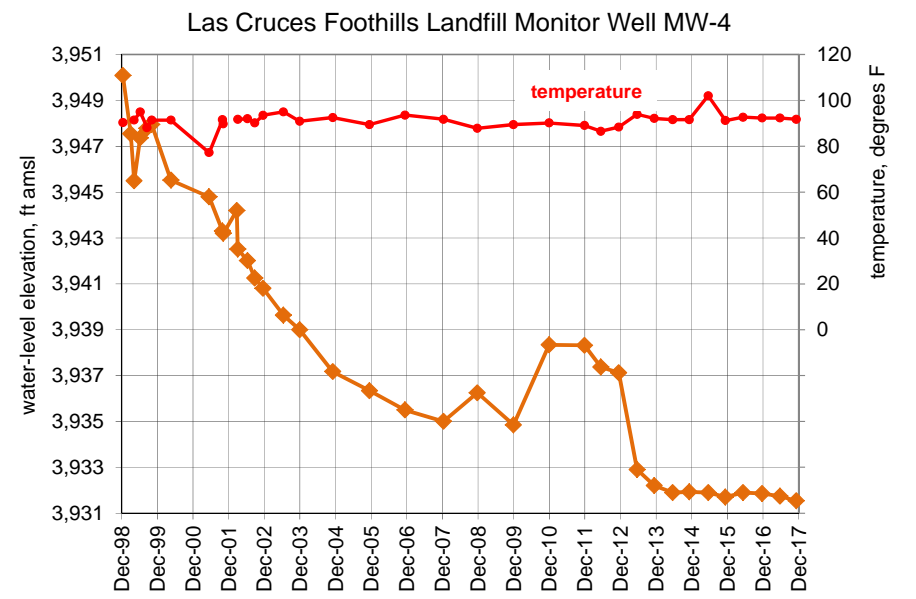
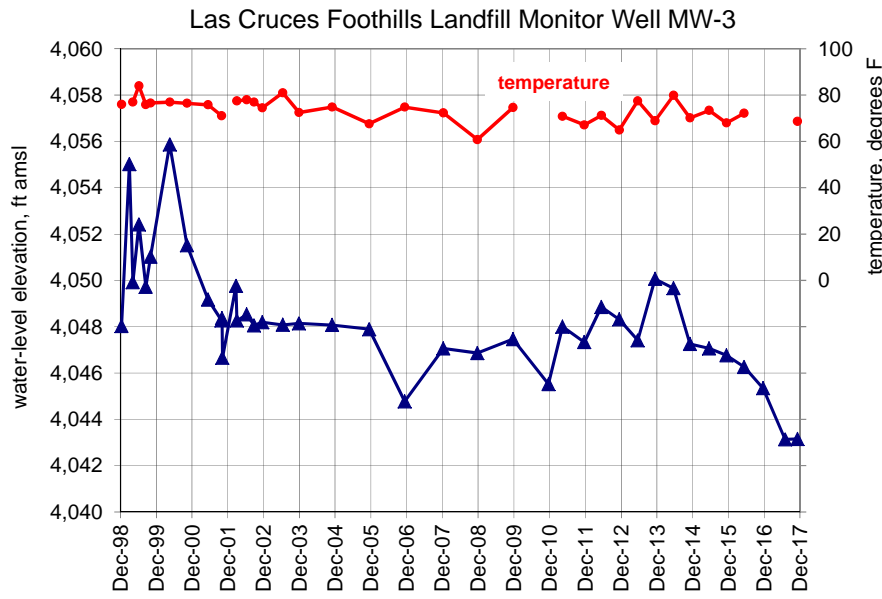
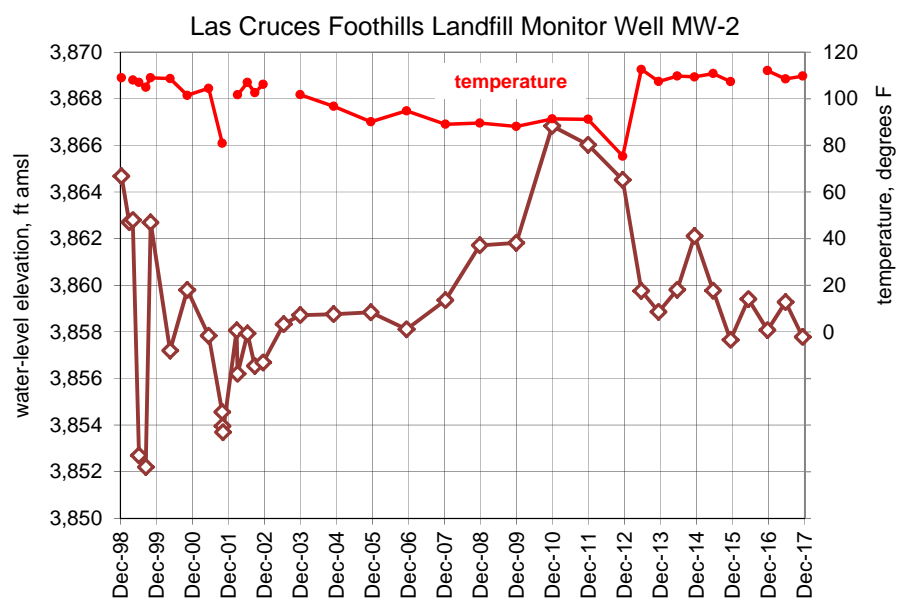
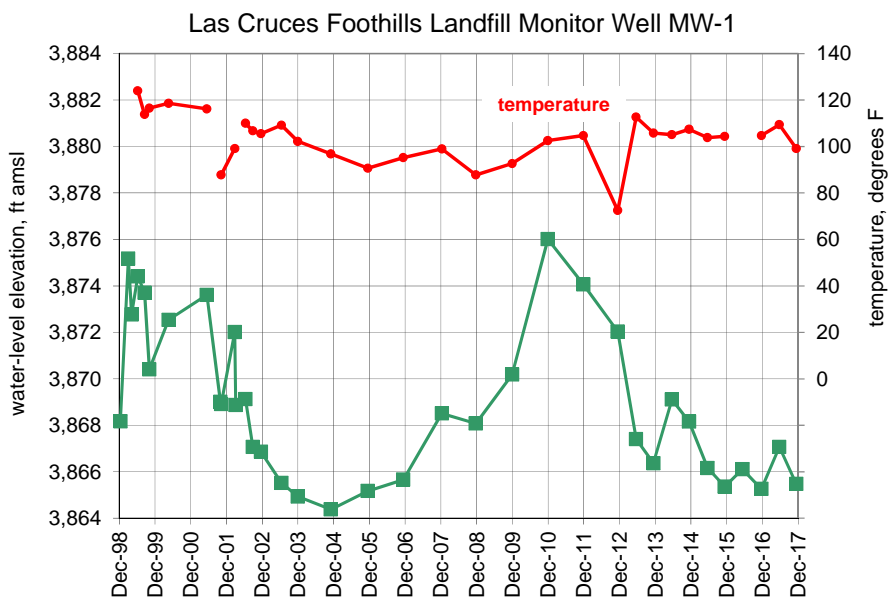


Figure 3. Graphs showing water-level elevations versus time for monitor wells MW-1 through MW-9, Las Cruces Foothills Landfill, New Mexico.

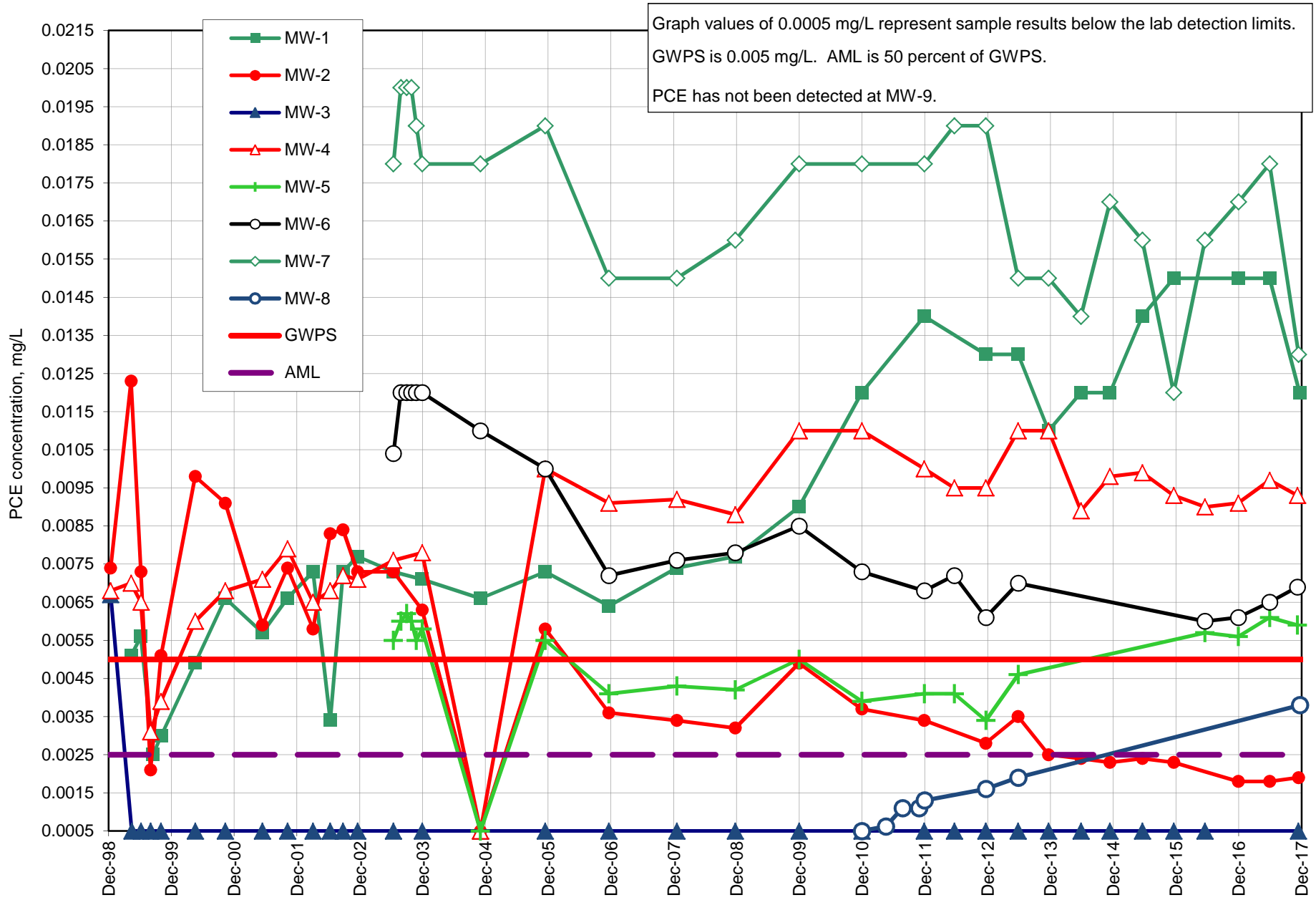


Figure 4. Graph showing tetrachloroethene (PCE) concentrations versus time for monitor wells at which PCE has been detected, Las Cruces Foothills Landfill, New Mexico.

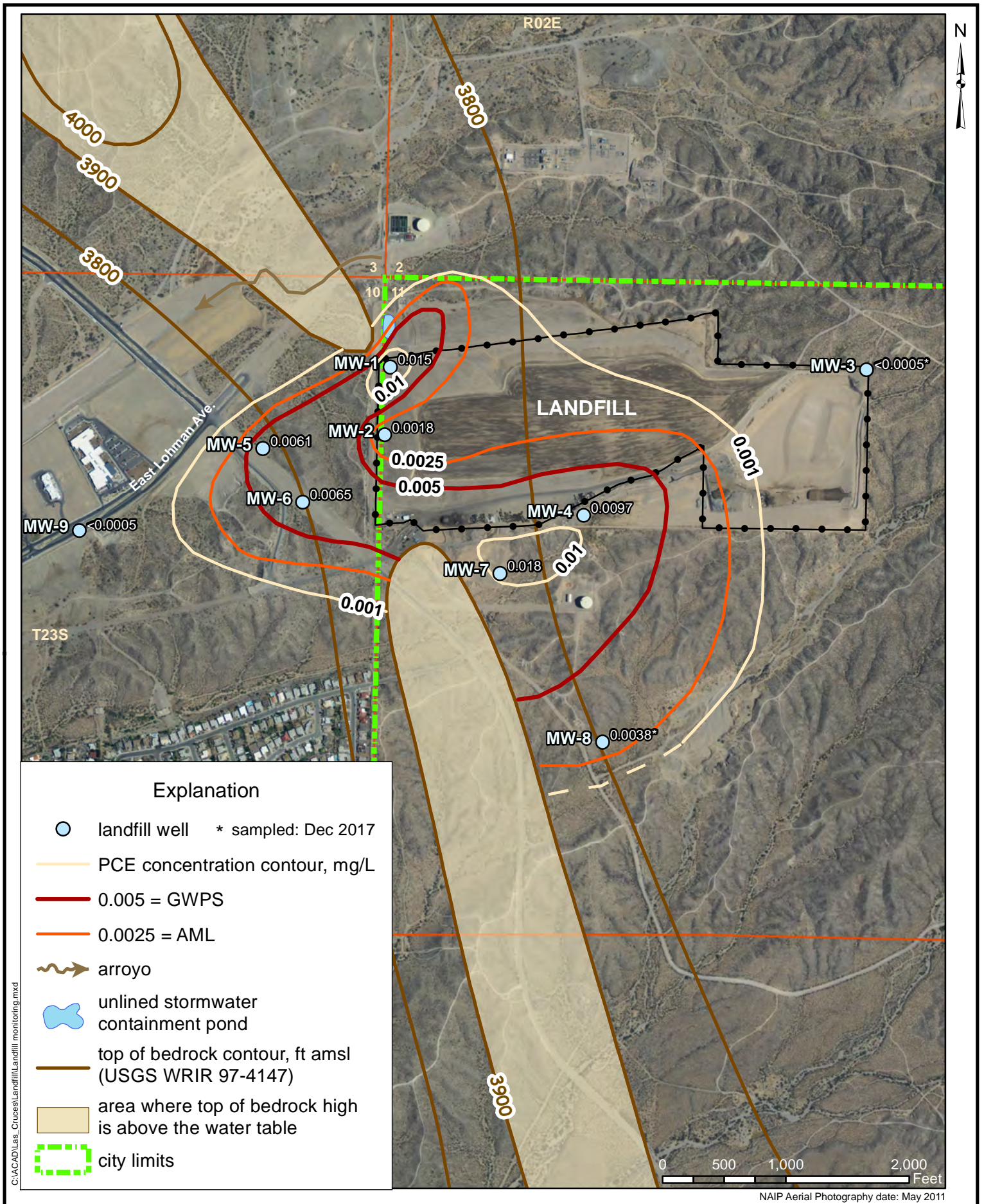


Figure 5. Aerial photograph showing concentration contours of PCE in groundwater, June 2017 unless otherwise noted, Las Cruces Foothills Landfill, New Mexico.

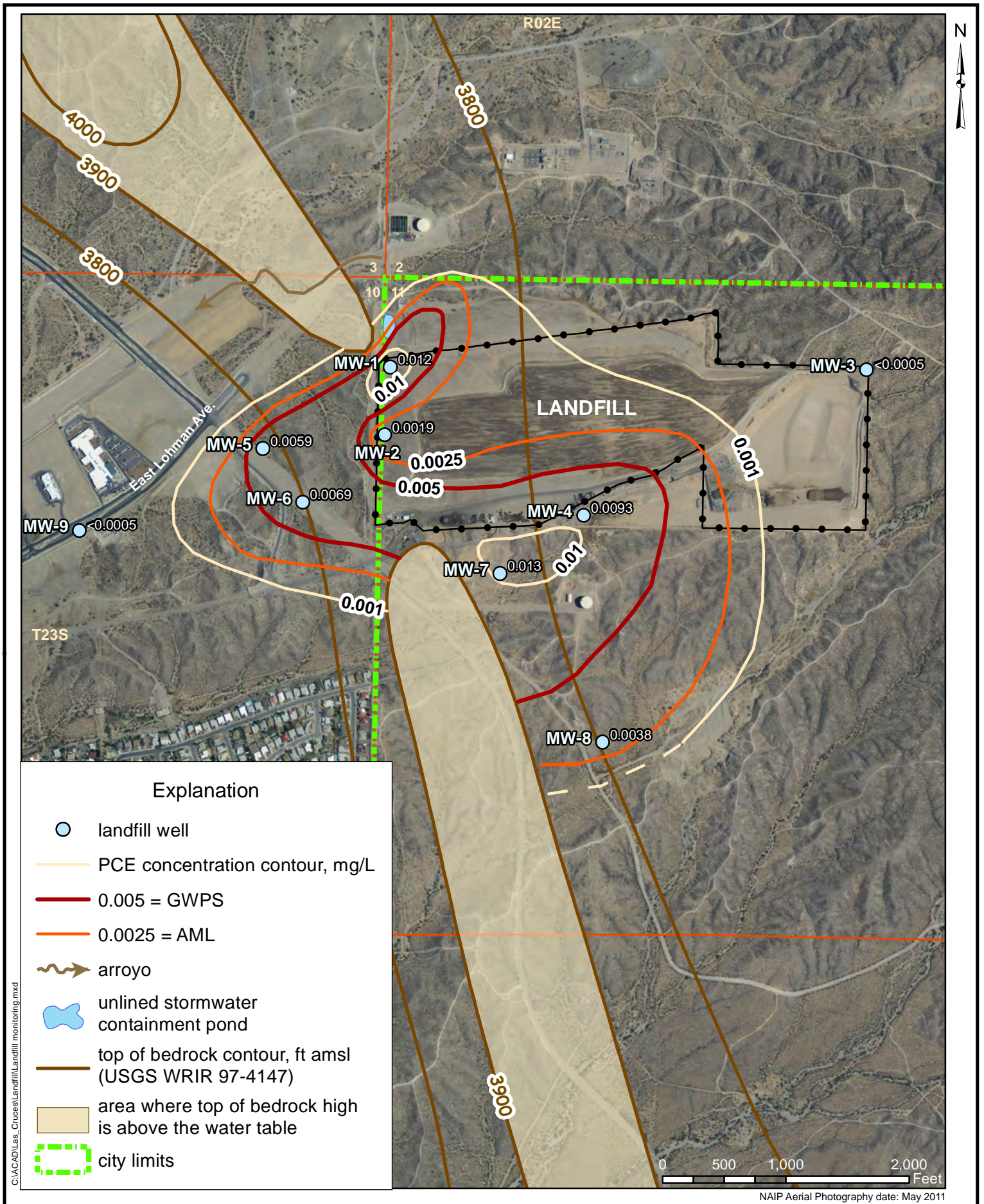


Figure 6. Aerial photograph showing concentration contours of PCE in groundwater, December 2017 unless otherwise noted, Las Cruces Foothills Landfill, New Mexico.

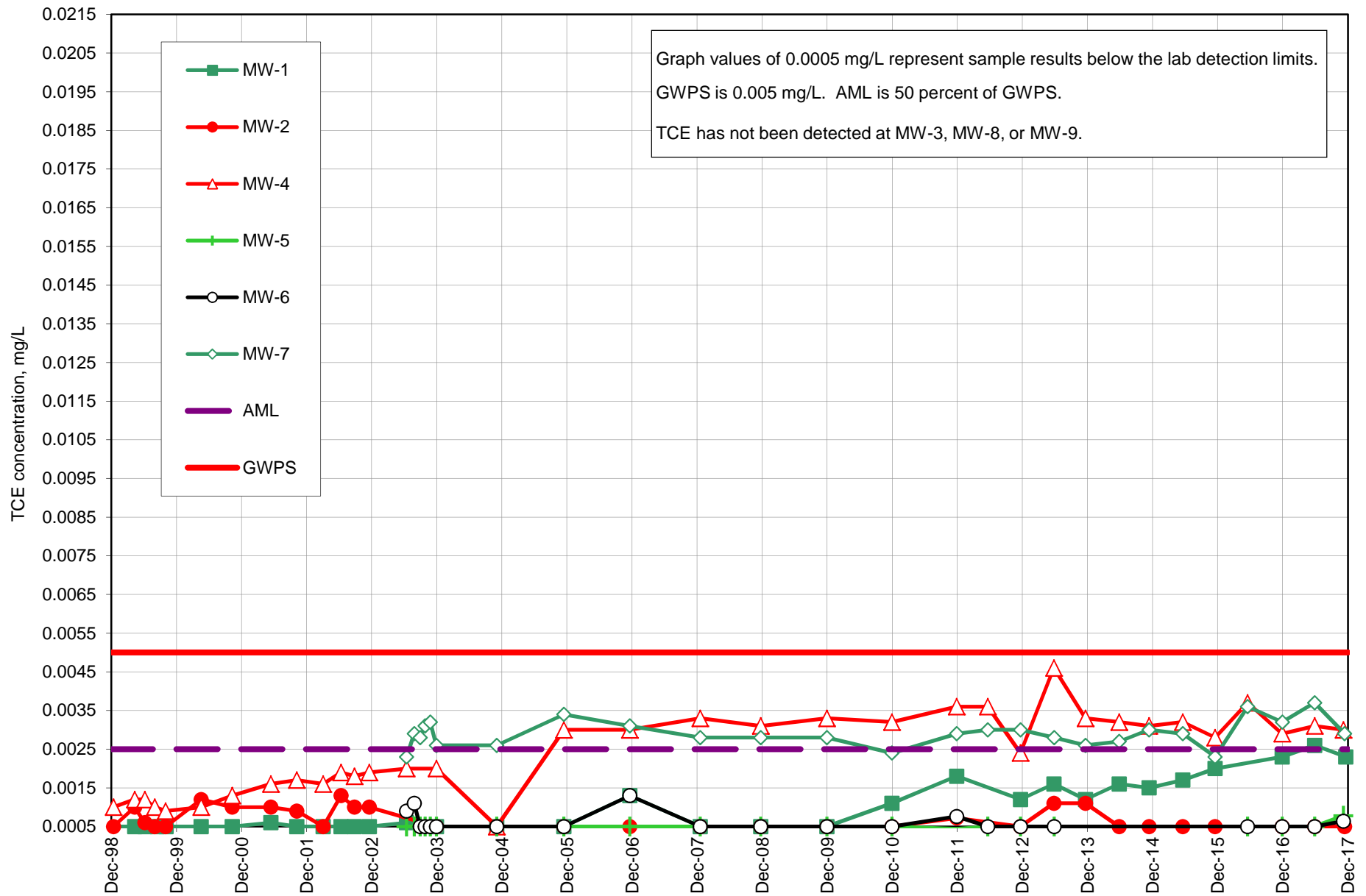


Figure 7. Graph showing trichloroethene (TCE) concentrations versus time for monitor wells at which TCE has been detected, Las Cruces Foothills Landfill, New Mexico.

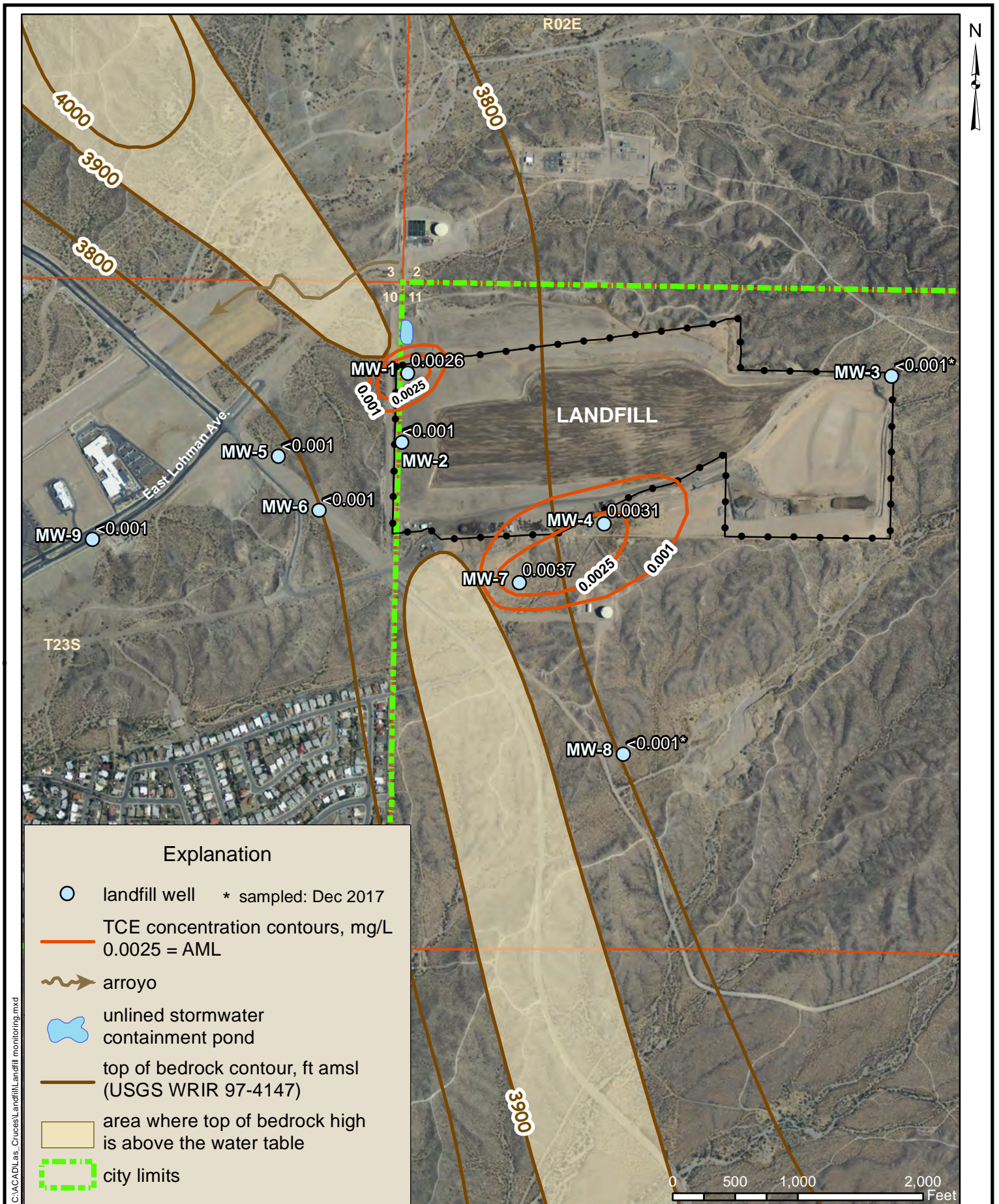


Figure 8. Aerial photograph showing concentration contours of TCE in groundwater, June 2017 unless otherwise noted, Las Cruces Foothills Landfill, New Mexico.

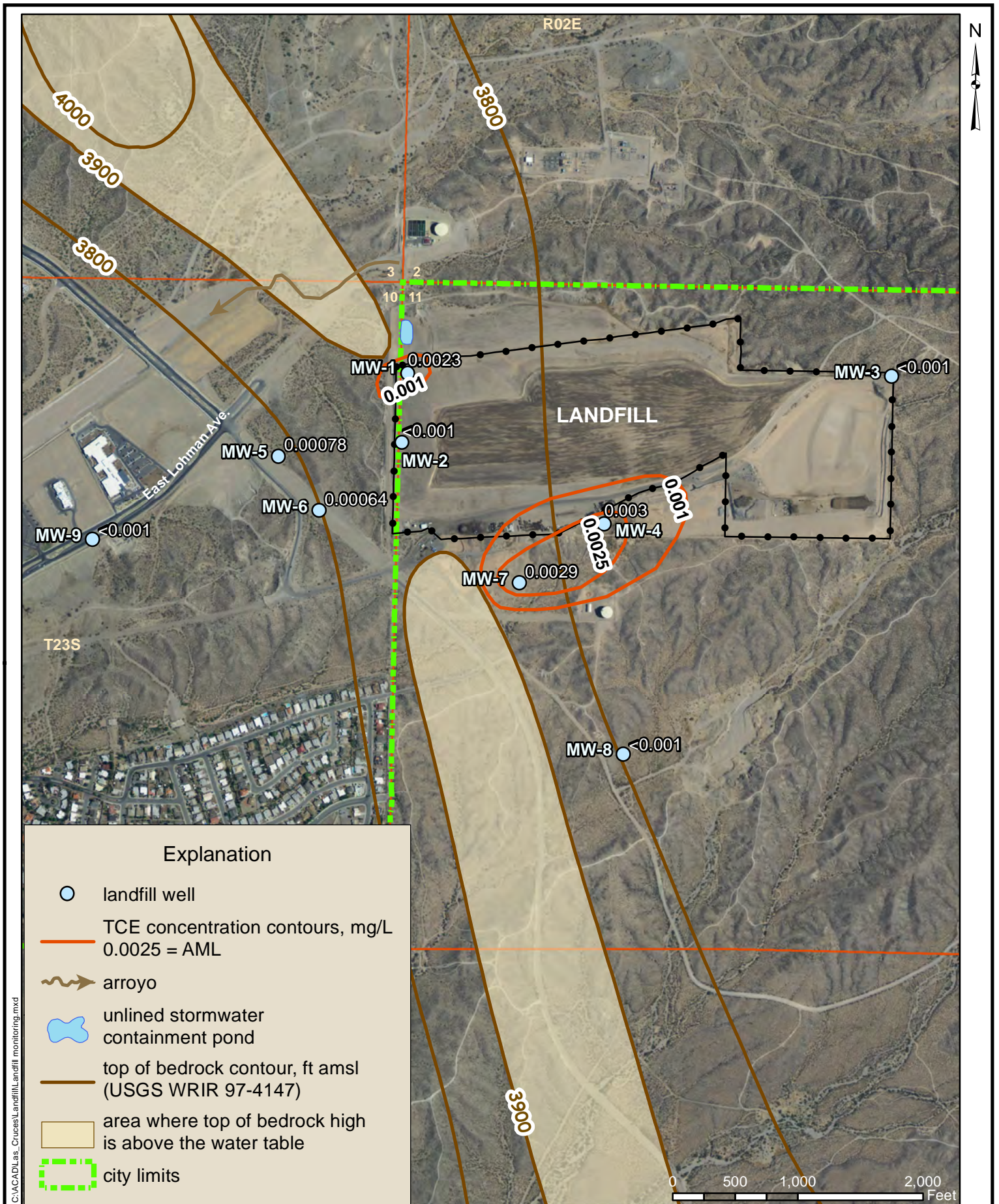


Figure 9. Aerial photograph showing concentration contours of TCE in groundwater, December 2017 unless otherwise noted, Las Cruces Foothills Landfill, New Mexico.

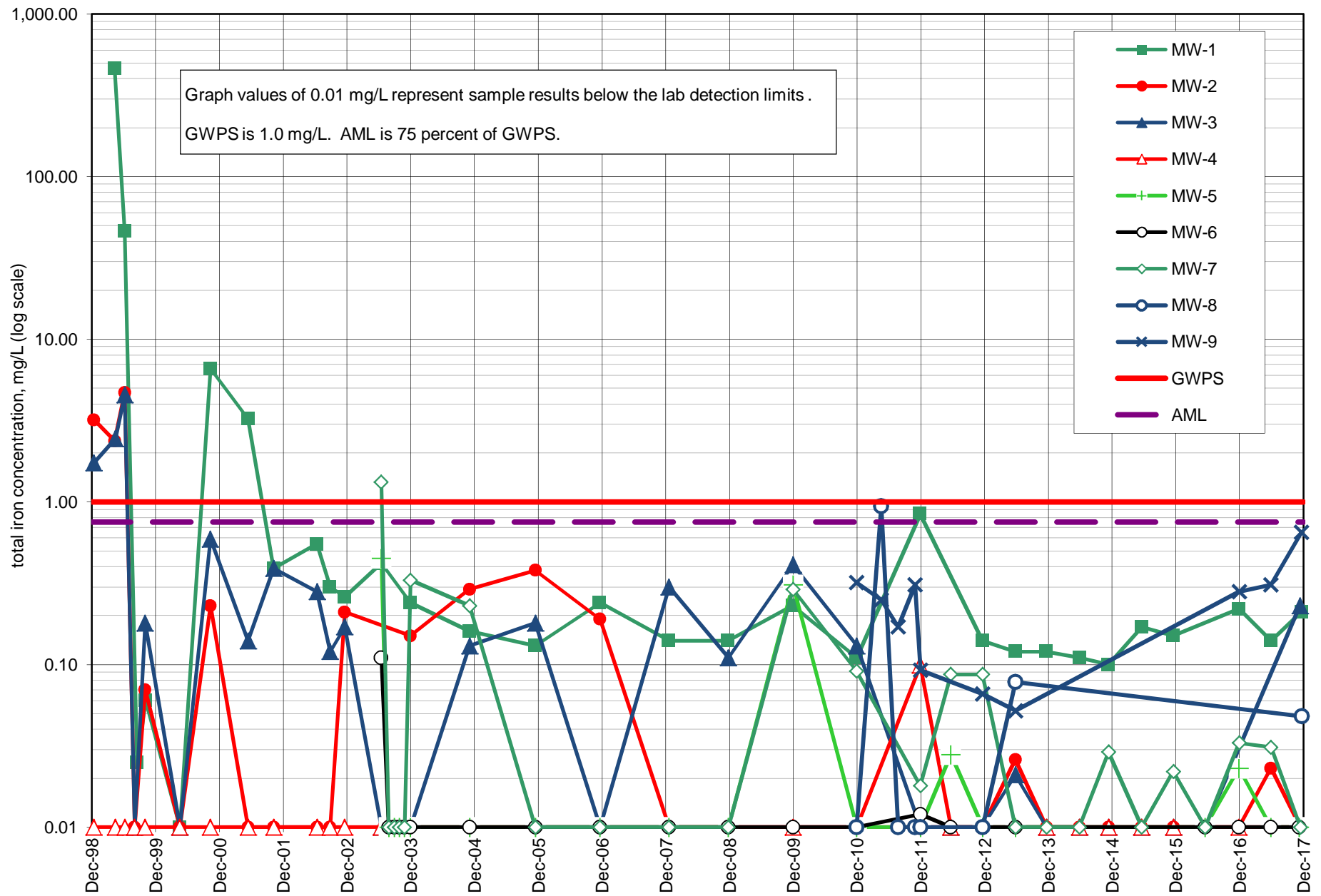


Figure 12. Graph showing total iron concentrations versus time for monitor wells MW-1 through MW-9, Las Cruces Foothills Landfill, Las Cruces, New Mexico.

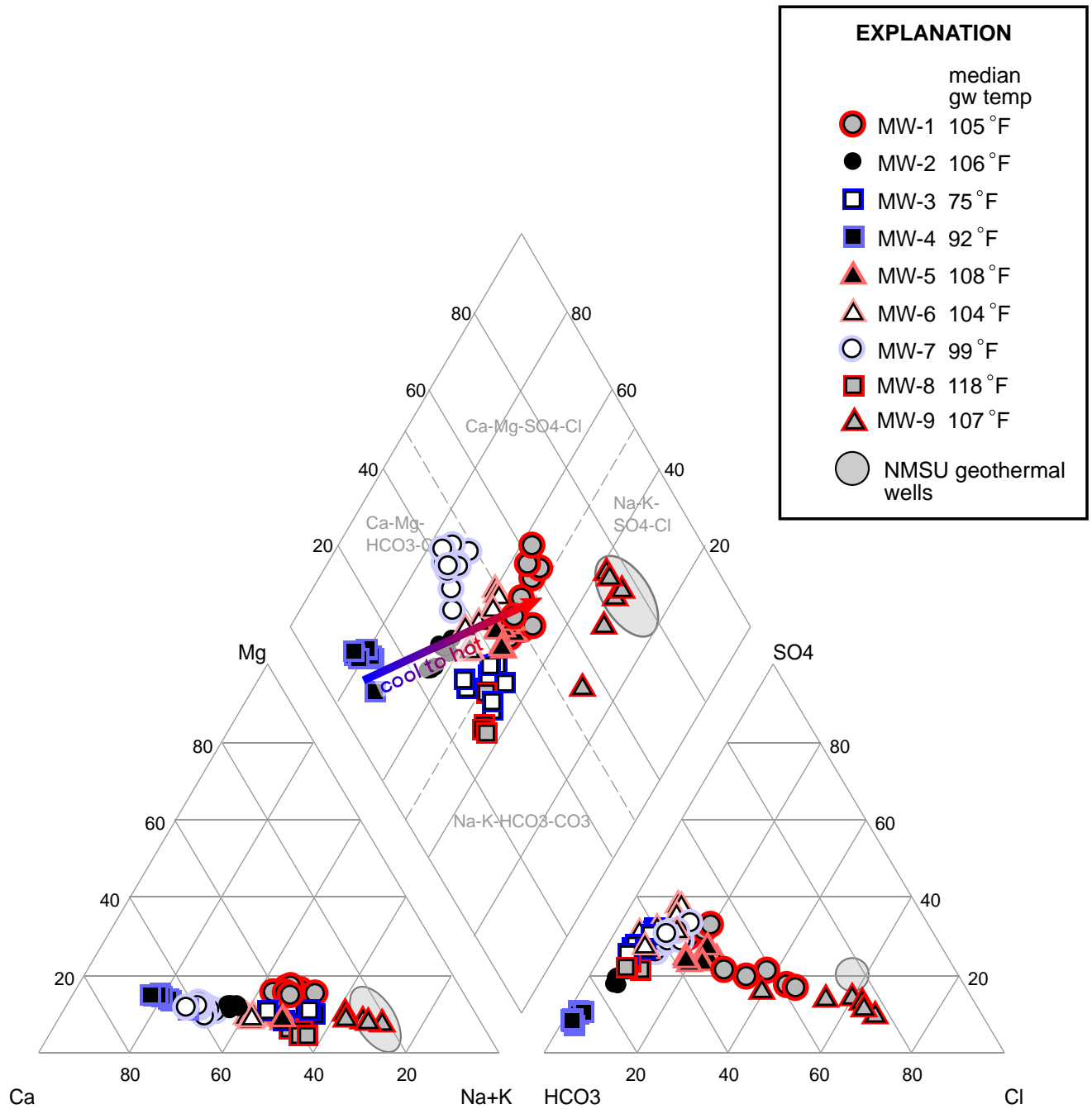


Figure 13. Piper diagram showing hydrogeochemical classification of groundwater sampled between December 2005 and 2017 at Las Cruces Foothills Landfill monitor wells, and geothermal groundwater in the area, Las Cruces, New Mexico.

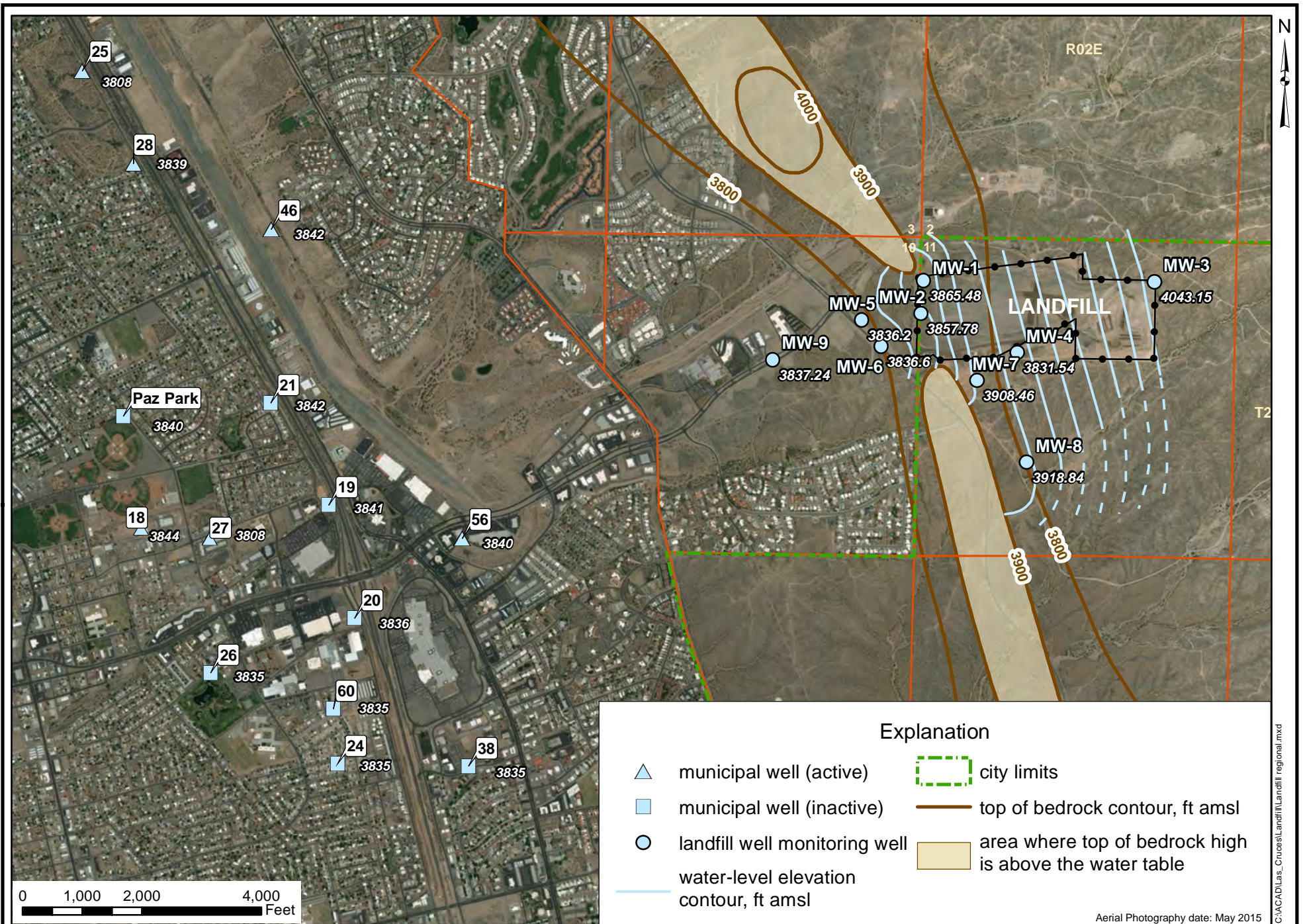


Figure 14. Aerial photograph showing Las Cruces Foothills Landfill monitor wells and groundwater elevation contours in December 2017.

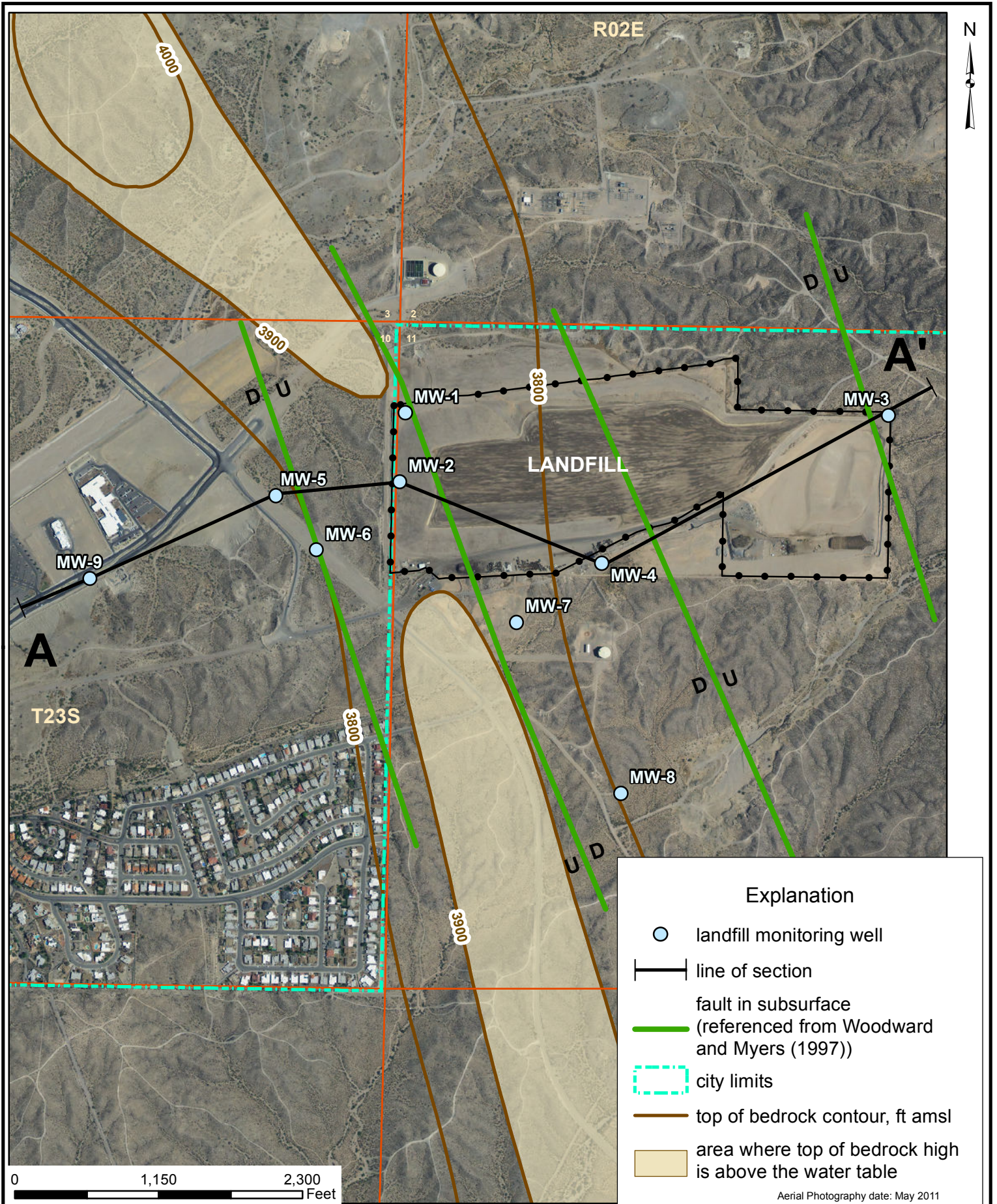


Figure 15. Aerial photograph showing locations of existing monitor wells, faults in the subsurface, line of schematic geologic cross-section A-A', and bedrock high, Las Cruces Foothills Landfill, New Mexico.

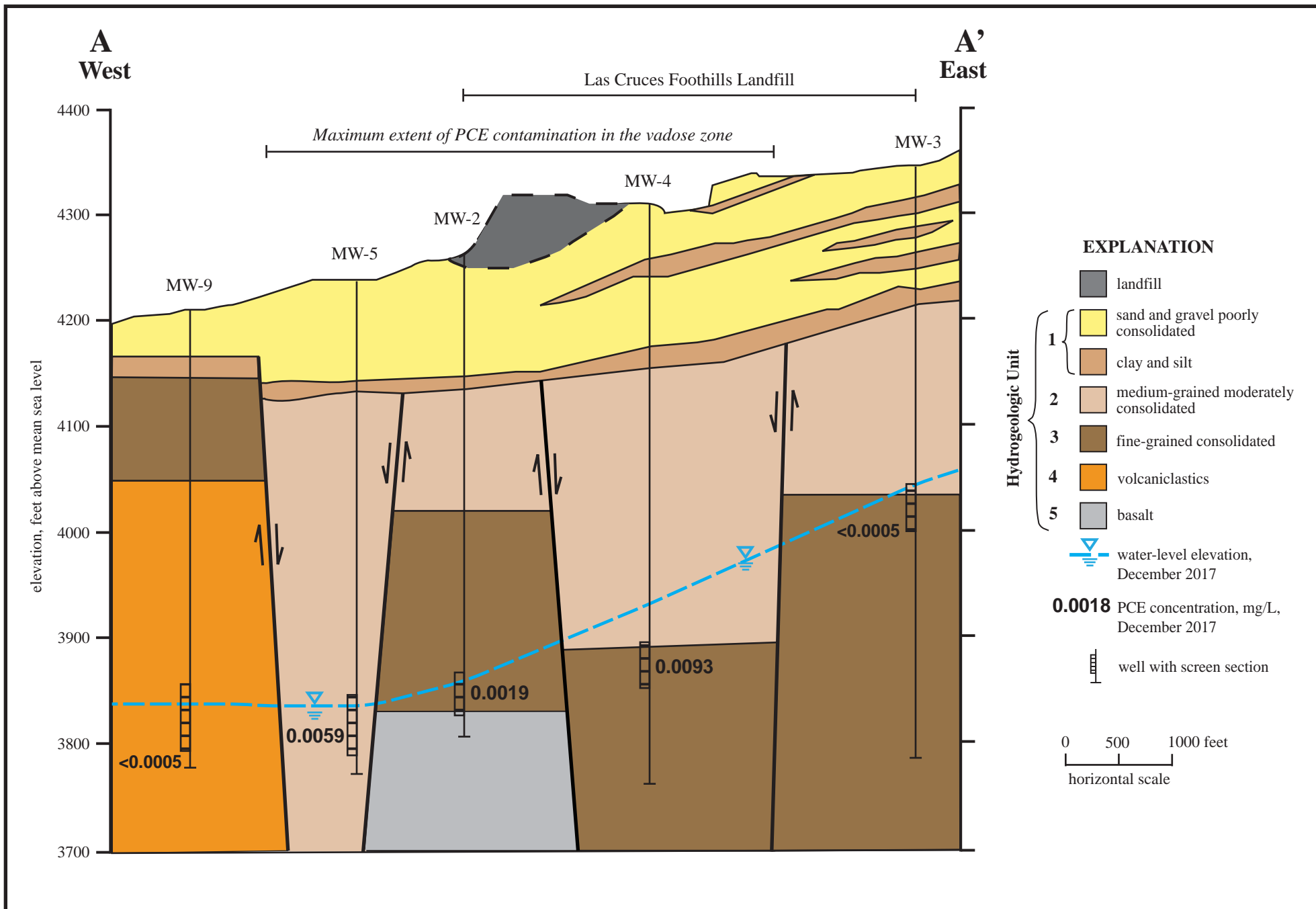


Figure 16. West to east hydrogeologic cross-section, Las Cruces Foothills Landfill, New Mexico.

APPENDICES

Appendix A.

**Summary of water-level measurements from monitor wells MW-1 through MW-9,
Las Cruces Foothills Landfill, Las Cruces, New Mexico**

**Summary of water-level measurements from monitor wells MW-1 through MW-9,
Las Cruces Foothills Landfill, Las Cruces, New Mexico**

well	date	top of casing elevation (ft amsl)	depth to water (ft bmp)	water-level elevation (ft amsl)
MW-1	01/11/99	4,262.17	394.00	3,868.17
MW-1	04/01/99	4,262.17	387.00	3,875.17
MW-1	05/06/99	4,262.17	389.40	3,872.77
MW-1	07/07/99	4,262.17	387.76	3,874.41
MW-1	09/15/99	4,262.17	388.46	3,873.71
MW-1	11/03/99	4,262.17	391.76	3,870.41
MW-1	05/18/00	4,262.17	389.63	3,872.54
MW-1	06/13/01	4,261.61	388.00	3,873.61
MW-1	10/29/01	4,261.61	392.60	3,869.01
MW-1	11/06/01	4,261.61	392.47	3,869.14
MW-1	03/25/02	4,261.61	389.60	3,872.01
MW-1	04/03/02	4,261.61	392.74	3,868.87
MW-1	07/12/02	4,261.61	392.48	3,869.13
MW-1	09/25/02	4,261.61	394.54	3,867.07
MW-1	12/18/02	4,261.61	394.75	3,866.86
MW-1	07/15/03	4,261.61	396.09	3,865.52
MW-1	12/29/03	4,261.61	396.68	3,864.93
MW-1	12/2/04	4,261.61	397.23	3,864.38
MW-1	12/14/05	4,261.61	396.44	3,865.17
MW-1	12/12/06	4,261.61	395.95	3,865.66
MW-1	01/11/08	4,261.61	393.1	3,868.51
MW-1	12/23/08	4,261.61	393.53	3,870.08
MW-1	12/29/09	4,261.61	391.43	3,870.18
MW-1	12/29/10	4,261.61	385.60	3,876.01
MW-1	12/27/11	4,261.61	387.54	3,874.07
MW-1	12/12/12	4,261.61	389.58	3,872.03
MW-1	6/18/13	4,261.61	394.20	3,867.41
MW-1	12/12/13	4,261.61	395.24	3,866.37
MW-1	6/19/14	4,261.61	392.50	3,869.11
MW-1	12/11/14	4,261.61	393.45	3,868.16
MW-1	6/18/15	4,261.61	395.45	3,866.16
MW-1	12/11/15	4,261.61	396.25	3,865.36
MW-1	6/9/16	4,261.61	395.50	3,866.11
MW-1	12/20/16	4,261.61	396.35	3,865.26
MW-1	6/21/17	4,261.61	394.54	3,867.07
MW-1	12/11/17	4,261.61	396.13	3,865.48
MW-2	01/11/99	4,265.70	401.02	3,864.68
MW-2	04/01/99	4,265.70	403.00	3,862.70
MW-2	05/06/99	4,265.70	402.90	3,862.80
MW-2	07/07/99	4,265.70	413.00	3,852.70

¹ measurement made from ground level
ft bmp - feet below measuring point

ft amsl - feet above mean sea level

**Summary of water-level measurements from monitor wells MW-1 through MW-9,
Las Cruces Foothills Landfill, Las Cruces, New Mexico (continued)**

well	date	top of casing elevation (ft amsl)	depth to water (ft bmp)	water-level elevation (ft amsl)
MW-2	09/15/99	4,265.70	413.50	3,852.20
MW-2	11/03/99	4,263.70 ¹	401.01	3,862.69 ¹
MW-2	05/18/00	4,263.70 ¹	406.50	3,857.20 ¹
MW-2	11/09/00	4,263.70 ¹	403.90	3,859.80 ¹
MW-2	06/13/01	4,265.36	407.52	3,857.84
MW-2	10/29/01	4,265.36	410.80	3,854.56
MW-2	11/02/01	4,265.36	411.40	3,853.96
MW-2	11/06/01	4,265.36	411.66	3,853.70
MW-2	03/25/02	4,265.36	407.3	3,858.06
MW-2	04/03/02	4,265.36	409.16	3,856.20
MW-2	07/12/02	4,265.36	407.43	3,857.93
MW-2	09/25/02	4,265.36	408.82	3,856.54
MW-2	12/18/02	4,265.36	408.67	3,856.69
MW-2	07/15/03	4,265.36	407.03	3,858.33
MW-2	12/29/03	4,265.36	406.64	3,858.72
MW-2	12/2/04	4,265.36	406.60	3,858.76
MW-2	12/14/05	4,265.36	406.52	3,858.84
MW-2	12/12/06	4,265.36	407.25	3,858.11
MW-2	01/11/08	4,265.36	406.0	3,859.36
MW-2	12/23/08	4,265.36	403.65	3,861.71
MW-2	12/29/09	4,265.36	403.54	3,861.82
MW-2	12/29/10	4,265.36	398.53	3,866.83
MW-2	12/27/11	4,265.36	399.33	3,866.03
MW-2	12/12/12	4,265.36	400.84	3,864.52
MW-2	6/19/13	4,265.36	405.60	3,859.76
MW-2	12/12/13	4,265.36	406.50	3,858.86
MW-2	6/19/14	4,265.36	405.55	3,859.81
MW-2	12/11/14	4,265.36	403.25	3,862.11
MW-2	6/18/15	4,265.36	405.58	3,859.78
MW-2	12/11/15	4,265.36	407.70	3,857.66
MW-2	6/9/16	4,265.36	405.95	3,859.41
MW-2	12/20/16	4,265.36	407.28	3,858.08
MW-2	6/21/17	4,265.36	406.08	3,859.28
MW-2	12/12/17	4,265.36	407.58	3,857.78
MW-3	01/11/99	4,356.52	308.50	4,048.02
MW-3	04/01/99	4,356.52	301.50	4,055.02
MW-3	05/06/99	4,356.52	306.60	4,049.92
MW-3	07/07/99	4,356.52	304.10	4,052.42
MW-3	09/15/99	4,356.52	306.80	4,049.72

ft amsl - feet above mean sea level

ft bmp - feet below measuring point

**Summary of water-level measurements from monitor wells MW-1 through MW-9,
Las Cruces Foothills Landfill, Las Cruces, New Mexico (continued)**

well	date	top of casing elevation (ft amsl)	depth to water (ft bmp)	water-level elevation (ft amsl)
MW-3	11/03/99	4,356.52	305.50	4,051.02
MW-3	05/18/00	4,356.52	300.65	4,055.87
MW-3	11/09/00	4,356.52	305.00	4,051.52
MW-3	06/13/01	4,356.06	306.90	4,049.16
MW-3	10/29/01	4,356.06	307.80	4,048.26
MW-3	11/02/01	4,356.06	307.70	4,048.36
MW-3	11/06/01	4,356.06	309.40	4,046.66
MW-3	03/25/02	4,356.06	306.30	4,049.76
MW-3	04/03/02	4,356.06	307.80	4,048.26
MW-3	07/12/02	4,356.06	307.53	4,048.53
MW-3	09/25/02	4,356.06	308.00	4,048.06
MW-3	12/18/02	4,356.06	307.87	4,048.19
MW-3	07/15/03	4,356.06	307.98	4,048.08
MW-3	12/29/03	4,356.06	307.92	4,048.14
MW-3	12/2/04	4,356.06	307.99	4,048.07
MW-3	12/14/05	4,356.06	308.17	4,047.89
MW-3	12/12/06	4,356.06	311.29	4,044.77
MW-3	01/11/08	4,356.06	309.0	4,047.06
MW-3	12/23/08	4,356.06	309.20	4,046.86
MW-3	12/29/09	4,356.06	308.60	4,047.46
MW-3	12/29/10	4,356.06	310.54	4,045.52
MW-3	05/12/11	4,356.06	308.06	4,048.00
MW-3	12/20/11	4,356.06	308.73	4,047.33
MW-3	6/12/12	4,356.06	307.21	4,048.85
MW-3	12/12/12	4,356.06	307.75	4,048.31
MW-3	6/18/13	4,356.06	308.65	4,047.41
MW-3	12/12/13	4,356.06	306.00	4,050.06
MW-3	6/19/14	4,356.06	306.40	4,049.66
MW-3	12/4/14	4,356.06	308.81	4,047.25
MW-3	6/18/15	4,356.06	309.00	4,047.06
MW-3	12/11/15	4,356.06	309.30	4,046.76
MW-3	6/9/16	4,356.06	309.80	4,046.26
MW-3	12/20/16	4,356.06	310.72	4,045.34
MW-3	8/2/17	4,356.06	312.93	4,043.13
MW-3	12/7/17	4,356.06	312.91	4,043.15
MW-4	01/11/99	4,313.54	363.45	3,950.09
MW-4	04/01/99	4,313.54	366.00	3,947.54
MW-4	05/06/99	4,313.54	368.05	3,945.49
MW-4	07/07/99	4,313.54	366.18	3,947.36

ft amsl - feet above mean sea level

ft bmp - feet below measuring point

**Summary of water-level measurements from monitor wells MW-1 through MW-9,
Las Cruces Foothills Landfill, Las Cruces, New Mexico (continued)**

well	date	top of casing elevation (ft amsl)	depth to water (ft bmp)	water-level elevation (ft amsl)
MW-4	09/15/99	4,313.54	365.76	3,947.78
MW-4	11/03/99	4,313.54	365.59	3,947.95
MW-4	05/18/00	4,313.54	368.02	3,945.52
MW-4	11/09/00	4,313.54	388.56	3,924.98
MW-4	06/13/01	4,313.20	368.41	3,944.79
MW-4	10/29/01	4,313.20	369.90	3,943.30
MW-4	11/06/01	4,313.20	370.00	3,943.20
MW-4	03/25/02	4,313.20	369.00	3,944.20
MW-4	04/03/02	4,313.20	370.68	3,942.52
MW-4	07/12/02	4,313.20	371.19	3,942.01
MW-4	09/25/02	4,313.20	371.95	3,941.25
MW-4	12/18/02	4,313.20	372.40	3,940.80
MW-4	07/15/03	4,313.20	373.57	3,939.63
MW-4	12/29/03	4,313.20	374.20	3,939.00
MW-4	12/2/04	4,313.20	376.03	3,937.17
MW-4	12/14/05	4,313.20	376.86	3,936.34
MW-4	12/12/06	4,313.20	377.7	3,935.50
MW-4	01/11/08	4,313.20	378.2	3,935.00
MW-4	12/23/08	4,313.20	376.95	3,936.25
MW-4	12/29/09	4,313.20	378.35	3,934.85
MW-4	12/29/10	4,313.20	374.86	3,938.34
MW-4	12/27/11	4,313.20	374.88	3,938.32
MW-4	6/12/12	4,313.20	375.83	3,937.37
MW-4	12/12/12	4,313.20	376.08	3,937.12
MW-4	6/19/13	4,313.20	380.30	3,932.90
MW-4	12/12/13	4,313.20	381.00	3,932.20
MW-4	6/19/14	4,313.20	381.30	3,931.90
MW-4	12/4/14	4,313.20	381.27	3,931.93
MW-4	6/18/15	4,313.20	381.30	3,931.90
MW-4	12/11/15	4,313.20	381.50	3,931.70
MW-4	6/9/16	4,313.20	381.30	3,931.90
MW-4	12/20/16	4,313.20	381.34	3,931.86
MW-4	6/22/17	4,313.20	381.46	3,931.74
MW-4	12/6/17	4,313.20	381.66	3,931.54
MW-5	07/15/03	4,235.55	404.98	3,830.57
MW-5	08/27/03	4,235.55	405.26	3,830.29
MW-5	09/29/03	4,235.55	404.98	3,830.57
MW-5	10/27/03	4,235.55	404.86	3,830.69
MW-5	11/25/03	4,235.55	404.71	3,830.84

ft amsl - feet above mean sea level

ft bmp - feet below measuring point

**Summary of water-level measurements from monitor wells MW-1 through MW-9,
Las Cruces Foothills Landfill, Las Cruces, New Mexico (continued)**

well	date	top of casing elevation (ft amsl)	depth to water (ft bmp)	water-level elevation (ft amsl)
MW-5	12/29/03	4,235.55	404.54	3,831.01
MW-5	12/2/04	4,235.55	404.26	3,831.29
MW-5	12/14/05	4,235.55	403.59	3,831.96
MW-5	12/12/06	4,235.55	403.06	3,832.49
MW-5	01/11/08	4,235.55	400.6	3,835.0
MW-5	12/23/08	4,235.55	397.93	3,837.62
MW-5	12/29/09	4,235.55	397.17	3,838.38
MW-5	12/29/10	4,235.55	391.47	3,844.08
MW-5	12/28/11	4,235.55	391.83	3,843.72
MW-5	6/12/12	4,235.55	392.08	3,843.47
MW-5	12/13/12	4,235.55	394.44	3,841.11
MW-5	6/19/13	4,235.55	394.40	3,841.15
MW-5	8/6/14	4,235.55	394.45	3,841.10
MW-5	12/11/14	4,235.55	398.18	3,837.37
MW-5	7/23/15	4,235.55	397.59	3,837.96
MW-5	2/12/16	4,235.55	398.46	3,837.09
MW-5	6/9/16	4,235.55	397.70	3,837.85
MW-5	12/20/16	4,235.55	398.83	3,836.72
MW-5	6/21/17	4,235.55	398.10	3,837.45
MW-5	12/6/17	4,235.55	399.35	3,836.20
MW-6	07/15/03	4,258.32	426.29	3,832.03
MW-6	08/27/03	4,258.32	426.85	3,831.47
MW-6	09/29/03	4,258.32	426.85	3,831.47
MW-6	10/27/03	4,258.32	426.60	3,831.72
MW-6	11/25/03	4,258.32	426.36	3,831.96
MW-6	12/29/03	4,258.32	426.23	3,832.09
MW-6	12/2/04	4,258.32	425.80	3,832.52
MW-6	12/14/05	4,258.32	425.34	3,832.98
MW-6	12/12/06	4,258.32	424.86	3,833.46
MW-6	01/11/08	4,258.32	422.40	3,835.90
MW-6	12/23/08	4,258.32	419.65	3,838.67
MW-6	12/29/09	4,258.32	411.25	3,847.07
MW-6	12/29/10	4,258.32	413.95	3,844.37
MW-6	12/28/11	4,258.32	413.79	3,844.53
MW-6	6/12/12	4,258.32	413.25	3,845.07
MW-6	12/13/12	4,258.32	415.69	3,842.63
MW-6	6/18/13	4,258.32	420.10	3,838.22
MW-6	8/6/14	4,258.32	421.47	3,836.85
MW-6	12/11/14	4,258.32	420.80	3,837.52

ft amsl - feet above mean sea level

ft bmp - feet below measuring point

**Summary of water-level measurements from monitor wells MW-1 through MW-9,
Las Cruces Foothills Landfill, Las Cruces, New Mexico (concluded)**

well	date	top of casing elevation (ft amsl)	depth to water (ft bmp)	water-level elevation (ft amsl)
MW-6	7/23/15	4,258.32	420.55	3,837.77
MW-6	2/12/16	4,258.32	421.24	3,837.08
MW-6	6/9/16	4,258.32	421.20	3,837.12
MW-6	12/21/16	4,258.32	421.72	3,836.60
MW-6	6/21/17	4,258.32	421.29	3,837.03
MW-6	12/6/17	4,258.32	421.72	3,836.60
MW-7	7/15/03	4,292.86	378.29	3,914.57
MW-7	8/27/03	4,292.86	378.72	3,914.14
MW-7	9/29/03	4,292.86	378.76	3,914.10
MW-7	10/27/03	4,292.86	378.73	3,914.13
MW-7	11/25/03	4,292.86	378.70	3,914.16
MW-7	12/29/03	4,292.86	379.03	3,913.83
MW-7	12/2/04	4,292.86	380.25	3,912.61
MW-7	12/14/05	4,292.86	381.31	3,911.55
MW-7	12/12/06	4,292.86	382.04	3,910.82
MW-7	1/11/08	4,292.86	382.2	3,910.7
MW-7	12/23/08	4,292.86	380.58	3,912.28
MW-7	12/29/09	4,292.86	380.95	3,911.91
MW-7	12/29/10	4,292.86	378.28	3,914.58
MW-7	12/28/11	4,292.86	377.67	3,915.19
MW-7	6/12/12	4,292.86	378.79	3,914.07
MW-7	12/13/12	4,292.86	379.04	3,913.82
MW-7	6/19/13	4,292.86	383.40	3,909.46
MW-7	12/12/13	4,292.86	384.70	3,908.16
MW-7	6/19/14	4,292.86	384.10	3,908.76
MW-7	12/11/14	4,292.86	384.15	3,908.71
MW-7	6/18/15	4,292.86	384.10	3,908.76
MW-7	12/11/15	4,292.86	384.05	3,908.81
MW-7	6/9/16	4,292.86	384.10	3,908.76
MW-7	12/21/16	4,292.86	384.18	3,908.68
MW-7	6/21/17	4,292.86	384.17	3,908.69
MW-7	12/13/17	4,292.86	384.40	3,908.46
MW-8	12/29/10	4,286.00	360.07	3,925.93
MW-8	05/18/11	4,286.00	360.32	3,925.68
MW-8	08/23/11	4,286.00	360.85	3,925.15
MW-8	11/28/11	4,286.00	361.29	3,924.71
MW-8	12/29/11	4,286.00	360.67	3,925.33
MW-8	12/13/12	4,286.00	362.95	3,923.05
MW-8	6/18/13	4,286.00	361.33	3,924.67

ft amsl - feet above mean sea level

ft bmp - feet below measuring point

**Summary of water-level measurements from monitor wells MW-1 through MW-9,
Las Cruces Foothills Landfill, Las Cruces, New Mexico (concluded)**

well	date	top of casing elevation (ft amsl)	depth to water (ft bmp)	water-level elevation (ft amsl)
MW-8	8/6/14	4,286.00	359.76	3,926.24
MW-8	12/11/14	4,286.00	367.85	3,918.15
MW-8	7/23/15	4,286.00	367.53	3,918.47
MW-8	2/12/16	4,286.00	367.71	3,918.29
MW-8	6/9/16	4,286.00	367.50	3,918.50
MW-8	12/21/16	4,286.00	367.39	3,918.61
MW-8	8/2/17	4,286.00	367.03	3,918.97
MW-8	12/21/17	4,286.00	367.16	3,918.84
MW-9	12/29/10	4,212.58	367.72	3,844.86
MW-9	05/18/11	4,212.58	367.65	3,844.93
MW-9	08/23/11	4,212.58	367.97	3,844.61
MW-9	11/28/11	4,212.58	368.38	3,844.20
MW-9	12/29/11	4,212.58	367.33	3,845.25
MW-9	12/20/12	4,212.58	369.73	3,842.85
MW-9	6/26/13	4,212.58	373.70	3,838.88
MW-9	8/6/14	4,212.58	374.03	3,838.55
MW-9	12/11/14	4,212.58	378.85	3,833.73
MW-9	7/23/15	4,212.58	369.75	3,842.83
MW-9	2/12/16	4,212.58	367.76	3,844.82
MW-9	6/9/16	4,212.58	374.70	3,837.88
MW-9	12/21/16	4,212.58	374.85	3,837.73
MW-9	6/22/17	4,212.58	374.68	3,837.90
MW-9	12/7/17	4,212.58	375.34	3,837.24

ft amsl - feet above mean sea level

ft bmp - feet below measuring point

Appendix B.

**Baseline and background monitoring data for monitor wells MW-1 through MW-9
Las Cruces Foothills Landfill, Las Cruces, New Mexico**

MW-1

APPENDIX B

Las Cruces Foothills Landfill MW-1

Las Cruces Foothills Landfill monitoring well MW-1

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-1											
				3/1/90	5/19/92	7/20/92	12/7/93	6/7/96	5/11/99	7/7/99	9/15/99	11/3/99	5/18/00	11/9/00	6/13/01
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	x	x	<0.01	<0.01	x	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	x	x	<0.01	<0.01	x	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics							x								
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	108-39-4/106-44-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	x	x	x	x	x
Radium 226 and 228	-	pCi/L	5			6.16	2.7	0.33	16.9	3.52	1.02	1.53	2.08	0.7	0.38
Ra-226, total	13982-63-3	pCi/L	-	x	x	3.76	1.2	0.33	7.1	0.92	0.26	0.45	1.04	0.27	0.16
Ra-228 ¹ , total	15262-20-1	pCi/L	-	x	x	2.4	1.5	0.00	9.8	2.6	0.76	1.08	1.04	0.43	0.22
Chlorinated Pesticides															
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹				mg/L	0.001										
Arochlor-1016	12674-11-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Other Pesticides and Herbicides¹															
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Silvex ¹	93-72-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x

¹ hazardous

x parameter not analyzed

(*) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics concentrations.

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(*) This concentration attributed to laboratory contamination of method blank and not the presence of antimony in the ground water sampled.

(#) Scanned for and not detected, breaks down almost immediately in water.

APPENDIX B

Las Cruces Foothills Landfill MW-1

Las Cruces Foothills Landfill monitoring well MW-1

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-1										
				11/6/01	4/3/02	7/12/02	9/25/02	12/18/02	7/15/03	12/29/03	12/2/04	12/14/05	12/12/06	1/18/08
Field Parameters														
water level elevation	-	ft amsl	-	3869.14	3868.87	3869.13	3867.07	3866.86	3,865.52	3,864.93	3,864.38	3,865.17	3,865.66	3,868.51
conductivity	-	µS/cm	-	349	360	358	387	394	380	360	306	325	300	310
pH	-	pH units	6-9	7.57	7.19	7.28	7.20	7.35	8.05	8.10	7.93	8.10	8.20	8.21
temperature	-	deg F	-	87.8	99.1	110.0	106.8	105.5	109.2	102.2	96.8	90.7	95.2	99.0
Major Ions														
calcium	7440-70-2	mg/L	-	35.3	x	31	30	30	26.1	27	23	25	21	22
chloride	16887-00-6	mg/L	250	15.1	x	17	17	19	16	16	15	15	16	17
fluoride ¹	16984-48-8	mg/L	1.6	0.64	x	0.58	0.72	0.66	0.5	0.6	x	x	x	x
magnesium	7439-95-4	mg/L	-	7.6	x	5.9	5.7	5.7	5.54	5.4	5.5	6	5.6	5.8
potassium	7440-09-7	mg/L	-	3.1	x	2.3	2.2	2.2	2.4	2	2.2	2.8	1.7	2.4
sodium	82115-62-6	mg/L	-	23	x	31	31	33	30.8	30	30	35	32	32
sulfate	18785-72-3	mg/L	600	41	x	50	33	66	43	42	40	38	40	39
alkalinity	-	mg/L	-	113.0	x	97	92	110	97	100	84	86	80	77
bicarbonate alkalinity	71-52-3	mg/L	-	137.9	x	97	92	110	96	100	84	86	80	77
carbonate alkalinity	3812-32-6	mg/L	-	0.0	x	<1.0	<2.0	<2.0	<2.0	<2.0	<4.0	<2.0	<2.0	<2.0
total dissolved solids	-	mg/L	1,000	218	x	220	250	230	200	190	190	230	200	190
Nitrogen Species														
ammonia as N	1331-21-6	mg/L	-	<0.01	x	x	0.061	<0.05	0.7	<0.5	0.56	0.7	0.7	0.56
Kjeldahl nitrogen	7727-37-9	mg/L	-	0.2	x	0.09	0.52	0.52	2	<1.0	x	x	1.1	x
nitrate as N	14797-55-8	mg/L	10	<0.05	x	2.3	0.74	1.2	1.1	<1.0	0.4	<1.0	<1.0	1.4
nitrite	14797-65-0	mg/L	-	<0.05	x	<0.10	2	<0.10	<0.1	<1.0	x	x	x	x
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Metals														
aluminum	7429-90-5	mg/L	5.0	0.18	x	<0.10	<0.03	<0.03	<0.03	<3.0	<3.0	x	x	x
antimony ¹	7440-36-0	mg/L	0.006	<0.0004	<0.05	<0.050	0.006 ("	<0.004	<0.0004	<0.003	x	x	x	x
arsenic ¹	7440-38-2	mg/L	0.01	0.0028	<0.005	<0.0050	<0.0050	<0.004	0.0013	<0.01	x	x	x	x
barium ¹	7440-39-3	mg/L	1.0	0.0233	0.091	0.078	0.069	0.07	0.0928	0.07	x	x	x	x
beryllium ¹	7440-41-7	mg/L	0.004	<0.0002	<0.003	<0.0030	<0.001	<0.001	<0.0002	<0.002	x	x	x	x
boron	7440-42-8	mg/L	0.75	<0.01	x	<0.010	0.027	0.028	<0.1	<0.5	x	x	x	x
cadmium ¹	7440-43-9	mg/L	0.005	0.0005	<0.005	<0.0010	<0.001	<0.001	<0.0001	<0.002	x	x	x	x
chromium ¹	7440-47-3	mg/L	0.05	0.0107	<0.005	<0.0050	<0.002	<0.002	0.0027	<0.01	x	x	x	x
cobalt ¹	7440-48-4	mg/L	0.05	<0.01	<0.01	<0.010	<0.001	<0.001	0.00008	<0.03	x	x	x	x
copper ¹	7440-50-8	mg/L	1.0	0.0523	<0.01	<0.010	0.001	<0.001	0.002	<0.06	x	x	x	x
iron	7439-89-6	mg/L	1.0	0.39	x	0.55	0.3	0.26	0.42	0.24	0.16	0.13	0.24	0.14
lead ¹	7439-92-1	mg/L	0.05	0.015	<0.005	<0.0050	<0.002	<0.002	0.0005	<0.01	x	x	x	x
manganese	7439-96-5	mg/L	0.2	<0.005	x	0.028	0.02	0.017	0.02	<0.03	<0.03	<0.03	<0.03	<0.03
mercury ¹	7439-97-6	mg/L	0.002	0.0006	<0.0002	<0.00020	<0.07	<0.20	<0.0002	<0.001	x	x	x	x
molybdenum	7439-98-7	mg/L	1.0	0.0045	x	<0.010	0.002	0.0030	<0.010	<0.75	x	x	x	x
nickel ¹	7440-02-0	mg/L	0.2	0.04482	<0.005	<0.0050	<0.002	0.007	0.00104	<0.05	x	x	x	x
selenium ¹	7782-49-2	mg/L	0.05	0.0013	<0.01	<0.010	0.003	<0.003	0.002	<0.005	x	x	x	x
silver ¹	7440-22-4	mg/L	0.05	<0.02	<0.005	<0.0050	<0.002	<0.002	<0.010	<0.01	x	x	x	x
thallium ¹	7440-28-0	mg/L	0.002	0.00049	<0.01	<0.010	<0.003	<0.003	0.00004	<0.001	x	x	x	x
tin ¹	7440-31-5	mg/L	-	x	<0.01	x	x	x	x	x	x	x	x	x
uranium ¹	7440-61-1	mg/L	0.03	0.00327	x	<0.02	0.00056	0.000561	<0.002	<2.5	x	x	x	x
vanadium ¹	7440-62-2	mg/L	-	<0.05	<0.01	<0.010	0.0020	0.0010	<0.050	<0.08	x	x	x	x
zinc ¹	7440-66-6	mg/L	10.0	1.81	<0.02	<0.020	<0.008	<0.008	<0.020	<0.05	x	x	x	x
total organic carbon	-	mg/L	-	2.8	x	2.4	2.1	1.3	1	0.56	0.7	0.8	<1.0	<1.0
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
sulfide ¹	18496-25-8	mg/L	-	x	<1.0	x	x	x	x	x	x	x	x	x
cyanide ¹	57-12-5	mg/L	0.2	<0.02	0.0094	<0.0050	<0.0050	<0.005	<0.01	<0.1	x	x	x	x
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	0.035	(^)	<0.0030	0.012	0.0034	<0.005	<0.003	<0.003	<0.003	<0.003	<0.0025
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	<0.0005	(^^)	(^^)	(^^)	(^^)	(^^)	(^^)	(^^)	x	x	x
Volatile Organic Compounds														
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.002	<0.002	<0.002	<0.002	<0.002
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	<0.001	<0.001	<0.001	x	<0.0005	x	x	x	x	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.0005	<0.00001	<0.001	<0.00001	<0.00001	<0.00001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	<0.0005	x	<0.001	x	<0.001	<0.0005	x	x	x	x	x
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	<0.0005	<0.02	<0.001	x	<0.001	<0.0005	x	x	x	x	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	x	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.002	<0.001	<0.002	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	x	x	x	x	x
1,3-Dichloropropane ¹	142-28-9	mg/L	-	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	x	x	x	x	x
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.015	<0.015	<0.015	<0.015	<0.015
2,2-Dichloropropane ¹	78-87-5	mg/L	-	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	x	x	x	x	x
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.002	<0.01	<0.01	<0.01	<0.01	<0.025	<0.01	<0.01	<0.01	<0.01	<0.01
2-Chlorotoluene ¹	95-49-8	mg/L	-	<0.0005	x	<0.001	x	<0.001	<0.0005	x	x	x	x	x
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	-	<0.002	<0.01	<0.01	<0.01	<0.01	<0.025	<0.05	<0.05	<0.05	<0.05	<0.05
4-Chlorotoluene ¹	106-43-4	mg/L	-	<0.0005	x	<0.001	x	<0.001	<0.0005	x	x	x	x	x
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.002	<0.01	<0.01	<0.01	<0.001	<0.025	<0.015	<0.015	<0.015	<0.015	

APPENDIX B

Las Cruces Foothills Landfill MW-1

Las Cruces Foothills Landfill monitoring well MW-1

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-1										
				11/6/01	4/3/02	7/12/02	9/25/02	12/18/02	7/15/03	12/29/03	12/2/04	12/14/05	12/12/06	1/18/08
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	<0.0001	<0.02	<0.0001	<0.0001	<0.0001	<0.005	x	x	x	x	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	<0.00025	<0.02	<0.0001	<0.0001	<0.0001	<0.005	x	x	x	x	x
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics														
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	<0.1	x	x	x	x	x	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	<0.1	x	x	x	x	x	x	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	108-39-4/106-44-5	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	<0.1	x	x	x	x	x	x	x	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	<0.1	x	x	x	x	x	x	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	<0.1	x	x	x	x	x	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	<0.00078	x	x	x	x	x	x	x	x	x
Radium 226 and 228	-	pCi/L	5	0.69		1.33	0.247	0.564	0.8	<2.5				
Ra-226, total	13982-63-3	pCi/L	-	0.15	x	-0.17	0.0	0.564	0.6	<2.5	x	x	x	x
Ra-228 ¹ , total	15262-20-1	pCi/L	-	0.54	x	1.5	0.247	0.0	0.2	<2.5	x	x	x	x
Chlorinated Pesticides														
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
aldrin ¹	309-00-2	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
alpha-BHC ¹	319-84-6	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
Endrin ketone	53494-70-5	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	<0.003	<0.000050	x	x	x	x	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹														
Arochlor-1016	12674-11-2	mg/L	-	x	<0.0005	<0.00050	<0.0005	<0.0005	<0.0025	<0.0005	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	x	<0.0005	<0.00050	<0.0005	<0.0005	<0.0025	<0.0005	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	x	<0.0005	<0.00050	<0.0005	<0.0005	<0.0025	<0.0005	x	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	x	<0.0005	<0.00050	<0.0005	<0.0005	<0.0025	<0.0005	x	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	x	<0.0005	<0.00050	<0.0005	<0.0005	<0.0025	<0.0005	x	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	x	<0.0005	<0.00050	<0.0005	<0.0005	<0.0025	<0.0005	x	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	x	<0.0005	<0.00050	<0.0005	<0.0005	<0.0025	<0.0005	x	x	x	x
Other Pesticides and Herbicides¹														
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	<0.002	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	<0.002	x	x	x	x	x	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	<0.002	x	x	x	x	x	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	<0.002	x	x	x	x	x	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	<0.002	x	x	x	x	x	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	<0.002	x	x	x	x	x	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	<0.002	x	x	x	x	x	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	<0.003	x	x	x	x	x	x	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	<0.002	x	x	x	x	x	x	x	x	x
Phorate ¹	298-02-2	mg/L	-	x	<0.002	x	x	x	x	x	x	x	x	x
Silvex ¹	93-72-1	mg/L	-	x	<0.002	x	x	x	x	x	x	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x

¹ hazardous

x parameter not analyzed

(*) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics concn

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(*) This concentration attributed to laboratory contamination of method blank and not the presence of an

(#) Scanned for and not detected, breaks down almost immediately in water.

APPENDIX B

Las Cruces Foothills Landfill MW-1

Las Cruces Foothills Landfill monitoring well MW-1

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-1									
				12/23/08	12/29/09	12/29/10	12/27/11	12/19/12	6/25/13	12/19/13	6/26/14	12/11/14	6/18/15
Field Parameters													
water level elevation	-	ft amsl	-	3,870.08	3,870.18	3,876.01	3,874.07	3,872.03	3,867.41	3,866.37	3,869.11	3,868.16	3,866.16
conductivity	-	µS/cm	-	280	357	390	457	380	390	384	400	403	398
pH	-	pH units	6-9	8.26	7.34	7.93	7.81	6.83	7.02	7.20	7.32	7.42	7.57
temperature	-	deg F	-	87.8	92.7	102.6	104.7	72.5	112.6	105.8	105.1	107.4	103.8
Major Ions													
calcium	7440-70-2	mg/L	-	17	18	26	27	26	25	26	28	28	31
chloride	16887-00-6	mg/L	250	16	18	46	59	40	34	34	46	46	55
fluoride ¹	16984-48-8	mg/L	1.6	0.54	x	0.52	x	x	x	x	x	0.45	x
magnesium	7439-95-4	mg/L	-	4.8	5.4	7.2	7.5	6.7	6.1	6.1	6.8	6.4	7.1
potassium	7440-09-7	mg/L	-	2	2.2	2.6	2.8	2.6	2.7	2.8	2.4	2.7	2.5
sodium	82115-62-6	mg/L	-	29	32	36	37	36	36	34	36	34	38
sulfate	18785-72-3	mg/L	600	37	41	34	30	33	35	36	33	32	33
alkalinity	-	mg/L	-	73	74	69	73	78	84	84	83	86	78.48
bicarbonate alkalinity	71-52-3	mg/L	-	73	74	69	73	78	84	84	83	86	78.48
carbonate alkalinity	3812-32-6	mg/L	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
total dissolved solids	-	mg/L	1,000	190	189	237	238	233	231	233	248	232	252
Nitrogen Species													
ammonia as N	1331-21-6	mg/L	-	<0.50	<1.0	<1.0	0.56	0.56	<1.0	<1.0	<1.0	<1.0	<1.0
Kjeldahl nitrogen	7727-37-9	mg/L	-	<1.0	x	x	x	x	x	x	x	<1.0	x
nitrate as N	14797-55-8	mg/L	10	0.14	<0.1	<0.1	0.03	0.029	<0.10	0.14	0.10	<0.1	<0.1
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x
total nitrogen	-	mg/L	-	<1.0	x	x	x	x	x	x	x	<1.0	x
Metals													
aluminum	7429-90-5	mg/L	5.0	<0.02	x	<0.02	x	x	x	x	x	<0.02	x
antimony ¹	7440-36-0	mg/L	0.006	<0.001	<0.001	<0.001	<0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
arsenic ¹	7440-38-2	mg/L	0.01	<0.006	<0.002	<0.001	<0.0025	<0.001	0.0013	<0.001	<0.001	0.0011	<0.001
barium ¹	7440-39-3	mg/L	1.0	0.073	0.092	0.13	0.13	0.11	0.12	0.11	0.12	0.12	0.12
beryllium ¹	7440-41-7	mg/L	0.004	<0.003	x	<0.001	0.00053	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003
boron	7440-42-8	mg/L	0.75	<0.04	x	<0.04	x	x	x	x	x	<0.04	x
cadmium ¹	7440-43-9	mg/L	0.005	<0.002	<0.002	<0.002	<0.00015	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
chromium ¹	7440-47-3	mg/L	0.05	<0.006	<0.006	<0.006	0.00082	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
cobalt ¹	7440-48-4	mg/L	0.05	<0.006	<0.006	<0.006	0.00061	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
copper ¹	7440-50-8	mg/L	1.0	<0.006	<0.006	<0.006	0.0014	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
iron	7439-89-6	mg/L	1.0	0.14	0.23	0.11	0.84	0.14	0.12	0.12	0.11	0.10	0.17
lead ¹	7439-92-1	mg/L	0.05	<0.005	<0.005	<0.005	0.0024	0.0018	<0.001	<0.001	<0.005	<0.001	<0.005
manganese	7439-96-5	mg/L	0.2	0.004	0.0042	0.017	0.0086	0.0059	0.0061	0.0077	0.0082	0.0093	0.0081
mercury ¹	7439-97-6	mg/L	0.002	<0.0002	x	<0.0002	x	x	x	x	x	<0.0002	x
molybdenum	7439-98-7	mg/L	1.0	<0.008	x	x	x	x	x	x	x	<0.008	x
nickel ¹	7440-02-0	mg/L	0.2	<0.01	<0.01	<0.01	0.0007	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
selenium ¹	7782-49-2	mg/L	0.05	0.001	<0.001	<0.001	<0.0025	<0.001	0.0033	0.0014	0.0017	<0.01	<0.005
silver ¹	7440-22-4	mg/L	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
thallium ¹	7440-28-0	mg/L	0.002	<0.001	<0.001	<0.001	<0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005
tin ¹	7440-31-5	mg/L	-	<0.1	x	x	x	x	x	x	x	x	x
uranium ¹	7440-61-1	mg/L	0.03	<0.001	x	x	x	x	x	x	x	<0.001	x
vanadium ¹	7440-62-2	mg/L	-	<0.05	<0.05	<0.05	0.0026	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
zinc ¹	7440-66-6	mg/L	10.0	<0.02	<0.02	<0.02	0.0071	<0.01	<0.01	<0.01	<0.02	<0.01	<0.02
total organic carbon	-	mg/L	-	<1.0	1.1	<1.0	3.0	1.9	2.8	3.0	1.7	1.0	<1.0
phosphate	14265-44-2	mg/L	-	<0.50	x	<0.5	x	x	x	x	x	<0.50	x
sulfide ¹	18496-25-8	mg/L	-	<1	x	x	x	x	x	x	x	x	x
cyanide ¹	57-12-5	mg/L	0.2	<0.005	x	x	x	x	x	x	x	<0.01	x
perchlorate ¹	14797-73-0	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	<0.0025	<0.0025	<0.0025	0.0023	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	(^^)	x	x	x	x	x	x	x	(^^)	x
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloropropene ¹	563-58-6	mg/L	-	<0.005	x	x	x	x	x	x	x	x	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	x	x	x	x	x	x	x	x	x	x
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	<0.01	<0.001	x	x	x	x	x	x	x	x
1,3-Dichloropropane ¹	142-28-9	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.015	<0.001	<0.001	0.00039	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2,2-Dichloropropane ¹	78-87-5	mg/L	-	<0.015	x	x	x	x	x	x	x	x	x
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-Chlorotoluene ¹	95-49-8	mg/L	-	x	x	x	x	x	x	x	x	x	x
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	-	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4-Chlorotoluene ¹	106-43-4	mg/L	-	x	x	x	x	x	x	x	x	x	x
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acetone ¹	67-64-1	mg/L	-	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acrolein ¹	107-02-8	mg/L	-	<0.1	x	x	x	x	x	x	x	x	x
Acrylonitrile ¹	107-13-1	mg/L	-	<0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Benzene ¹	71-43-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bis(chloromethyl) ether ¹	542												

APPENDIX B

Las Cruces Foothills Landfill MW-1

Las Cruces Foothills Landfill monitoring well MW-1

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-1									
				12/23/08	12/29/09	12/29/10	12/27/11	12/19/12	6/25/13	12/19/13	6/26/14	12/11/14	6/18/15
Methacrylonitrile ¹	126-98-7	mg/L	-	<0.005	x	x	x	x	x	x	x	x	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl methacrylate ¹	80-62-6	mg/L	-	<0.03	x	x	x	x	x	x	x	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	0.00038	<0.001	<0.001	<0.001	<0.0025	<0.0025
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	x	x	x	x	x	x	x	x
Propionitrile ¹	107-12-0	mg/L	-	<0.06	x	x	x	x	x	x	x	x	x
Propylbenzene ¹	103-65-1	mg/L	-	x	x	x	x	x	x	x	x	x	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	x	x	x	x	x	x	x	x	x
Styrene ¹	100-42-5	mg/L	0.1	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	<0.001	x	x	x	x	x	x	x	x	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	x	x	x	x	x	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0077	0.009	0.012	0.014	0.013	0.013	0.011	0.012	0.012	0.014
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	x	x	x	x	x	x	x	x
Toluene ¹	108-88-3	mg/L	0.75	<0.005	<0.001	<0.001	0.00023	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes (m&p and o) ¹	-	mg/L	0.62	<0.005	<0.002	<0.002	0.00034	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.002	<0.001	<0.001	0.00026	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Trichloroethene (TCE) ¹	79-01-6	mg/L	0.005	<0.001	<0.001	0.0011	0.0018	0.0012	0.0016	0.0012	0.0016	0.0015	0.0017
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.01	<0.001	<0.001	0.00084	0.00073	<0.001	<0.001	<0.001	<0.001	<0.001
Vinyl acetate ¹	108-05-4	mg/L	-	<0.05	0.026	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Vinyl Chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0005	<0.0005	<0.0004
Trihalomethanes (THM)													
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromoform ¹	75-25-2	mg/L	-	<0.015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroform ¹	67-66-3	mg/L	0.1	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Semi Volatile Organic Compounds													
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
1-Chloronaphthalene	-	mg/L	-	x	x	x	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	<0.001	x	x	x	x	x	x	x	<0.002	x
1-Naphthylamine ¹	134-32-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	<0.0002	x	x	x	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	<0.001	x	x	x	x	x	x	x	<0.002	x
2-Naphthylamine ¹	91-59-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2-Picoline	109-06-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Acenaphthene ¹	83-32-9	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Acenaphthylene ¹	208-96-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Acetophenone ¹	98-86-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
alpha, alpha-Dimethylphenethylamine	122-09-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Benzidine ¹	92-87-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	<0.00005	x	x	x	x	x	x	x	x	x
Benzo (b) fluoranthene ¹	205-99-2	mg/L	-	<0.00005	x	x	x	x	x	x	x	x	x
Benzo (g,h,i) perylene ¹	191-24-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Benzo (k) fluoranthene ¹	207-08-9	mg/L	-	<0.00005	x	x	x	x	x	x	x	x	x
Benzo[a]pyrene ¹	50-32-8	mg/L	0.0002	<0.00005	x	x	x	x	x	x	x	<0.00007	x
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
bis (2-Chloroisopropyl) ether	-	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
(bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Carbazole	86-74-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Chlorobenzilate ¹	510-15-6	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Chrysene ¹	218-01-9	mg/L	-	<0.00005	x	x	x	x	x	x	x	x	x
Diallate ¹	2303-16-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Dibenz (a,i) acridine	224-42-0	mg/L	-	x	x	x	x	x	x	x	x	x	x
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	<0.00005	x	x	x	x	x	x	x	x	x
Dibenzofuran ¹	132-64-9	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x	x	x	x
Diethylphthalate ¹	84-66-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Dimethylphthalate ¹	131-11-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Diphenylamine ¹	122-39-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Fluoranthene ¹	206-44-0	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Fluorene ¹	86-73-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Hexachloroethane ¹	67-72-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Hexachloropropene ¹	1888-71-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
HMX ¹	2691-41-0	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	<0.00005	x	x	x	x	x	x	x	x	x
Isophorone ¹	78-59-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Isosafrole ¹	120-58-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x
Methapyrene ¹	91-80-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	<0.001	x	x	x	x	x	x	x	<0.002	x
Nitrobenzene ¹	98-95-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x

APPENDIX B

Las Cruces Foothills Landfill MW-1

Las Cruces Foothills Landfill monitoring well MW-1

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-1									
				12/23/08	12/29/09	12/29/10	12/27/11	12/19/12	6/25/13	12/19/13	6/26/14	12/11/14	6/18/15
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Pyridine	110-86-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics													
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	108-39-4/106-44-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	<0.001	x	x	x	x	x	x	x	x	x
Radium 226 and 228	-	pCi/L	5	-0.47								0.600	
Ra-226, total	13982-63-3	pCi/L	-	-0.07	x	x	x	x	x	x	x	0.532	x
Ra-228 ¹ , total	15262-20-1	pCi/L	-	-0.4	x	x	x	x	x	x	x	0.0681	x
Chlorinated Pesticides													
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
aldrin ¹	309-00-2	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
alpha-BHC ¹	319-84-6	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	<0.0002	x	x	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	<0.00004	x	x	x	x	x	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹													
Arochlor-1016	12674-11-2	mg/L	-	<0.00025	x	x	x	x	x	x	x	<0.00025	x
Arochlor-1221	11104-28-2	mg/L	-	<0.00025	x	x	x	x	x	x	x	<0.00025	x
Arochlor-1232	11141-16-5	mg/L	-	<0.00025	x	x	x	x	x	x	x	<0.00025	x
Arochlor-1242	53469-21-9	mg/L	-	<0.00025	x	x	x	x	x	x	x	<0.00025	x
Arochlor-1248	12672-29-6	mg/L	-	<0.00025	x	x	x	x	x	x	x	<0.00025	x
Arochlor-1254	11097-69-1	mg/L	-	<0.00025	x	x	x	x	x	x	x	<0.00025	x
Arochlor-1260	11096-82-5	mg/L	-	<0.00025	x	x	x	x	x	x	x	<0.00025	x
Other Pesticides and Herbicides¹													
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	<0.000768	x	x	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	<0.00005	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	<0.00005	x	x	x	x	x	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	<0.00005	x	x	x	x	x	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Phorate ¹	298-02-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x
Silvex ¹	93-72-1	mg/L	-	<0.00005	x	x	x	x	x	x	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x

¹ hazardous

x parameter not analyzed

(*) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics concern

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(*) This concentration attributed to laboratory contamination of method blank and not the presence of an

(#) Scanned for and not detected, breaks down almost immediately in water.

APPENDIX B

Las Cruces Foothills Landfill MW-1

Las Cruces Foothills Landfill monitoring well MW-1								baseline	standard
constituent	CAS Number	unit	GWPS	12/17/15	12/27/16	6/27/17	12/19/17	average	deviation
date								5/11/99 to	5/11/99 to
								5/18/00	5/18/00
Field Parameters									
water level elevation	-	ft amsl	-	3,865.36	3,865.26	3,867.07	3,865.48	3872.77	1.52
conductivity	-	µS/cm	-	439	453	478	475	403.80	41.88
pH	-	pH units	6-9	7.78	7.80	8.07	7.90	7.16	0.58
temperature	-	deg F	-	104.4	104.7	109.4	99.1	117.98	3.78
Major Ions									
calcium	7440-70-2	mg/L	-	31	33	36	31	34.58	1.58
chloride	16887-00-6	mg/L	250	61	60	66	62	16.28	1.25
fluoride ¹	16984-48-8	mg/L	1.6	x	x	x	x	0.66	0.03
magnesium	7439-95-4	mg/L	-	7.2	7.4	8.2	7.6	6.54	0.58
potassium	7440-09-7	mg/L	-	2.6	2.7	2.9	2.8	2.30	0.54
sodium	82115-62-6	mg/L	-	38	38	42	40	30.38	1.46
sulfate	18785-72-3	mg/L	600	31	29	30	32	46.40	6.91
alkalinity	-	mg/L	-	79.8	79.24	72.28	70.24	106.30	5.77
bicarbonate alkalinity	71-52-3	mg/L	-	79.8	79.24	72.28	70.24	125.32	15.04
carbonate alkalinity	3812-32-6	mg/L	-	<2.0	<2.0	<2.0	<2.0	<1.0	x
total dissolved solids	-	mg/L	1,000	273	280	268	270	231.80	24.23
Nitrogen Species									
ammonia as N	1331-21-6	mg/L	-	<1.0	<1.0	<1.0	<1.0	0.52	0.19
Kjeldahl nitrogen	7727-37-9	mg/L	-	x	x	x	x	0.74	0.45
nitrate as N	14797-55-8	mg/L	10	<0.1	0.11	0.96	0.81	4.40	0.51
nitrite	14797-65-0	mg/L	-	x	x	x	x	1.32	1.98
total nitrogen	-	mg/L	-	x	x	x	x	x	x
Metals									
aluminum	7429-90-5	mg/L	5.0	x	x	x	x	1.22	1.24
antimony ¹	7440-36-0	mg/L	0.006	<0.001	<0.001	<0.001	<0.001	0.00	x
arsenic ¹	7440-38-2	mg/L	0.01	<0.005	<0.005	<0.001	<0.001	0.00	0.01
barium ¹	7440-39-3	mg/L	1.0	0.12	0.12	0.13	0.12	0.30	0.47
beryllium ¹	7440-41-7	mg/L	0.004	<0.002	<0.002	<0.002	<0.002	<0.0002	x
boron	7440-42-8	mg/L	0.75	x	x	x	x	0.06	0.03
cadmium ¹	7440-43-9	mg/L	0.005	<0.002	<0.002	<0.002	<0.002	0.0002	0.0000
chromium ¹	7440-47-3	mg/L	0.05	<0.006	<0.006	<0.006	<0.006	0.0068	0.0040
cobalt ¹	7440-48-4	mg/L	0.05	<0.006	<0.006	<0.006	<0.006	0.1	x
copper ¹	7440-50-8	mg/L	1.0	<0.006	<0.006	<0.006	0.0011	0.60	0.95
iron	7439-89-6	mg/L	1.0	0.15	0.22	0.14	0.21	126.43	223.04
lead ¹	7439-92-1	mg/L	0.05	<0.0005	<0.0005	<0.0005	<0.0005	0.08	0.14
manganese	7439-96-5	mg/L	0.2	0.0074	0.010	0.0086	0.044	0.84	1.56
mercury ¹	7439-97-6	mg/L	0.002	x	x	x	x	0.00	0.00
molybdenum	7439-98-7	mg/L	1.0	x	x	x	x	0.00	x
nickel ¹	7440-02-0	mg/L	0.2	<0.01	<0.01	<0.01	<0.01	0.02	0.03
selenium ¹	7782-49-2	mg/L	0.05	<0.005	<0.005	0.0020	0.0011	0.00	0.00
silver ¹	7440-22-4	mg/L	0.05	<0.005	<0.005	<0.005	0.0054	<0.02	x
thallium ¹	7440-28-0	mg/L	0.002	<0.0005	<0.0005	<0.0005	<0.0005	0.00	0.00
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	x
uranium ¹	7440-61-1	mg/L	0.03	x	x	x	x	0.003	0.003
vanadium ¹	7440-62-2	mg/L	-	<0.05	<0.05	<0.05	<0.05	0.08	x
zinc ¹	7440-66-6	mg/L	10.0	<0.01	<0.01	<0.01	<0.01	3.66	6.22
total organic carbon	-	mg/L	-	<1.0	<1.0	<1.0	<1.0	0.78	0.46
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x
sulfide ¹	18496-25-8	mg/L	-	x	x	x	x	x	x
cyanide ¹	57-12-5	mg/L	0.2	x	x	x	x	x	x
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	<0.0025	<0.0025	<0.0025	<0.0025	0.02	x
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	x	x	x	x	<0.0005	x
Volatile Organic Compounds									
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.0005	x
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.001	<0.001	<0.001	<0.001	<0.0005	x
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.001	<0.001	<0.001	<0.001	<0.0005	x
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.0005	x
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.001	<0.001	<0.001	<0.001	<0.0005	x
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.0005	x
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	x	x	x	x	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.00002	<0.00002	<0.000019	<0.000094	<0.0001	x
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	x	x	x	x	<0.0005	x
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.0005	x
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	x	x	x	x	<0.0005	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.001	<0.001	<0.001	<0.001	x	x
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.0005	x
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	x	x	x	x	<0.0005	x
1,3-Dichloropropane ¹	142-28-9	mg/L	-	x	x	x	x	<0.0005	x
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.001	<0.001	<0.001	<0.001	<0.0005	x
2,2-Dichloropropane ¹	78-87-5	mg/L	-	x	x	x	x	<0.0005	x
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.002	x
2-Chlorotoluene ¹	95-49-8	mg/L	-	x	x	x	x	<0.0005	x
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.002	x
4-Chlorotoluene ¹	106-43-4	mg/L	-	x	x	x	x	<0.0005	x
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.002	x
Acetone ¹	67-64-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	x
Acrolein ¹	107-02-8	mg/L	-	x	x	x	x	x	x
Acrylonitrile ¹	107-13-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.002	x
Benzene ¹	71-43-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.0005	x
Bis(chloromethyl) ether ¹	542-88-1	mg/L	-	x	x	x	x	x	x
Bromochloromethane ¹	74-97-5	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.0005	x
Bromomethane (methyl bromide) ¹	74-83-9	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	x
Carbon Disulfide ¹	75-15-00	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.002	x
Carbon Tetrachloride ¹	56-23-5	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.0005	x
Chlorobenzene ¹	108-90-7	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.0005	x
Chloroethane ¹	75-03-3	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.0005	x
Chloromethane (methyl chloride) ¹	74-87-3	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.0005	x
Chloroprene (2-Chloro-1,3-butadiene) ¹	126-99-8	mg/L	-	x	x	x	x	x	x
cis-1,2-Dichloroethylene (cis-1,2-Dichloroethene) ¹	156-59-2	mg/L	0.07	0.0041	0.0055	0.0056	0.0052	<0.0005	x
cis-1,3-Dichloropropene ¹	542-75-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.0005	x
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.0005	x
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	0.0025	0.0036	0.0037	0.0021	0.0015	x
Ethyl methacrylate ¹	97-63-2	mg/L	-	x	x	x	x	x	x
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.001	<0.001	<0.001	<0.001	<0.0005	x
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	5E-05	<0.00001	<0.00001	<0.0000095	<0.0000094	<0.0001	x
Hexachlorobutadiene ¹	87-68-3	mg/L	-	x	x	x	x	<0.0005	x
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	x	x	x	x
Isopropylbenzene ¹	98-82-8	mg/L	-	x	x	x	x	<0.0005	x

APPENDIX B

Las Cruces Foothills Landfill MW-1

Las Cruces Foothills Landfill monitoring well MW-1								baseline	standard
constituent	CAS Number	unit	GWPS	12/17/15	12/27/16	6/27/17	12/19/17	average	deviation
date								5/11/99 to	5/11/99 to
								5/18/00	5/18/00
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	x
Methyl iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.002	x
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0005	x
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	x	x	<0.0005	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	x	x	x
Propylbenzene ¹	103-65-1	mg/L	-	x	x	x	x	<0.0005	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	x	x	x	<0.0005	x
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.0005	x
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	x	x	x	x	<0.002	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	<0.0005	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.015	0.015	0.015	0.012	0.0042	0.0014
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	x	x	<0.002	x
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.001	<0.001	<0.001	<0.0005	x
Total Xylenes (m&p and o) ¹	-	mg/L	0.62	<0.002	<0.002	<0.002	<0.002	<0.0005	x
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.0005	x
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.0005	x
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.002	x
Trichloroethene (TCE) ¹	79-01-6	mg/L	0.005	0.0020	0.0023	0.0026	0.0023	<0.0005	x
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	0.0012	0.0011	a	<0.001	x
Vinyl acetate ¹	108-05-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.002	x
Vinyl Chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0004	<0.0004	<0.0004	<0.0005	x
Trihalomethanes (THM)									
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.0005	x
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.0005	x
Chloroform ¹	67-66-3	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.0005	x
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.0005	x
Semi Volatile Organic Compounds									
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	x	x	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	x
1-Chloronaphthalene	-	mg/L	-	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	x	x	x	x	x	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	x	x	x	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	x	x	x	x	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	x	x
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	x	x	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	x	x	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	x	x	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	x	x	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	x	x	x	x
Acenaphthene ¹	83-32-9	mg/L	-	x	x	x	x	x	x
Acenaphthylene ¹	208-96-8	mg/L	-	x	x	x	x	x	x
Acetophenone ¹	98-86-2	mg/L	-	x	x	x	x	x	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	x	x	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	x	x	x	x	x	x
Benzidine ¹	92-87-5	mg/L	-	x	x	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	x	x	x	x	x	x
Benzo (b) fluoranthene ¹	205-99-2	mg/L	-	x	x	x	x	x	x
Benzo (g,h,i) perylene ¹	191-24-2	mg/L	-	x	x	x	x	x	x
Benzo (k) fluoranthene ¹	207-08-9	mg/L	-	x	x	x	x	x	x
Benzo[a]pyrene ¹	50-32-8	mg/L	0.0002	x	x	x	x	<0.0001	x
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	x	x	x	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	x	x	x	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	x	x	x	x	x
bis (2-Chloroisopropyl) ether									
(bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	x	x	x	x	x	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	x	x	x	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	x	x	x	x
Carbazole	86-74-8	mg/L	-	x	x	x	x	x	x
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x	x	x	x	x
Chrysene ¹	218-01-9	mg/L	-	x	x	x	x	x	x
Diallate ¹	2303-16-4	mg/L	-	x	x	x	x	x	x
Dibenz (a,i) acridine	224-42-0	mg/L	-	x	x	x	x	x	x
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	x	x	x	x	x	x
Dibenzofuran ¹	132-64-9	mg/L	-	x	x	x	x	x	x
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x
Diethylphthalate ¹	84-66-2	mg/L	-	x	x	x	x	x	x
Dimethylphthalate ¹	131-11-3	mg/L	-	x	x	x	x	x	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	x	x	x	x	x	x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	x	x	x	x	x	x
Diphenylamine ¹	122-39-4	mg/L	-	x	x	x	x	x	x
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	x	x	x	x
Fluoranthene ¹	206-44-0	mg/L	-	x	x	x	x	x	x
Fluorene ¹	86-73-7	mg/L	-	x	x	x	x	x	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	x	x	x	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	x	x	x	x
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	x	x	x	x
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	x	x	x	x
HMX ¹	2691-41-0	mg/L	-	x	x	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	x	x	x	x	x
Isophorone ¹	78-59-1	mg/L	-	x	x	x	x	x	x
Isosafrole ¹	120-58-1	mg/L	-	x	x	x	x	x	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	x	x	x
Methapyrene ¹	91-80-5	mg/L	-	x	x	x	x	x	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	x	x	x	x	<0.0005	x
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	x	x	x

APPENDIX B

Las Cruces Foothills Landfill MW-1

Las Cruces Foothills Landfill monitoring well MW-1								baseline	standard
constituent	CAS Number	unit	GWPS	12/17/15	12/27/16	6/27/17	12/19/17	average	deviation
date								5/11/99 to	5/11/99 to
								5/18/00	5/18/00
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	x	x	x	x	<0.0001	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	x	x	x	x	<0.00025	x
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics									
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	108-39-4/106-44-5	mg/L	-	x	x	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x
Radium 226 and 228	-	pCi/L	5					5.01	6.71
Ra-226, total	13982-63-3	pCi/L	-	x	x	x	x	1.95	2.89
Ra-228 ¹ , total	15262-20-1	pCi/L	-	x	x	x	x	3.06	3.84
Chlorinated Pesticides									
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹									
Arochlor-1016	12674-11-2	mg/L	-	x	x	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	x	x	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	x	x	x	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	x	x	x	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	x	x	x	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	x	x	x	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	x	x	x	x	x	x
Other Pesticides and Herbicides¹									
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x
Silvex ¹	93-72-1	mg/L	-	x	x	x	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x

¹ hazardous
x parameter not analyzed
(*) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics concen
(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.
(*) This concentration attributed to laboratory contamination of method blank and not the presence of an
(#) Scanned for and not detected , breaks down almost immediately in water.

MW-2

APPENDIX B
Las Cruces Foothills Landfill MW-2

Las Cruces Foothills Landfill monitoring well MW-2

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-2										
				1/12/99	5/11/99	7/7/99	9/1/99	11/1/99	5/18/00	11/9/00	6/13/01	11/6/01	4/3/02	7/12/02
Field Parameters														
water level elevation	NA	ft amsl	-	3864.68	3862.80	3852.70	3852.20	3862.69	3857.2	3859.8	3857.84	3853.7	3856.2	3857.93
conductivity	NA	µS/cm	-	398	345	381	431	392	366	364	364	358	375	363
pH	NA	pH units	6-9	7.78	7.81	7.50	6.87	6.82	7.02	7.25	7.79	7.13	6.97	6.58
temperature	NA	deg F	-	109	108	107	105.0	109.0	108.7	101.5	104.5	81.0	101.7	107.0
Major Ions														
calcium	7440-70-2	mg/L	-	38.4	35.1	40.5	37.5	36.2	40.4	38.0	33.8	41.8	x	37
chloride	16887-00-6	mg/L	250	19.5	10.1	9	9	9.8	9.2	9.2	15.2	9.5	x	12
fluoride ¹	16984-48-8	mg/L	1.6	0.83	0.75	0.69	0.7	0.66	0.65	0.67	0.67	0.66	x	0.6
magnesium	7439-95-4	mg/L	-	6.7	5.3	5.3	5.1	7.9	5.5	5.5	6.0	6.6	x	5.4
potassium	7440-09-7	mg/L	-	14.0	1.7	1.7	1.9	2.6	2.2	2.0	2.1	2.3	x	1.8
sodium	82115-62-6	mg/L	-	46.4	29.9	29.5	27.3	28.5	30.1	34.0	32.1	16.9	x	29
sulfate	18785-72-3	mg/L	600	44	30	38	32	31	29	31	39	31	x	35
alkalinity	NA	mg/L	-	165.0	130.0	125.4	130	128.5	133	131.9	98.0	129.0	x	130
bicarbonate alkalinity	71-52-3	mg/L	-	201.3	130.0	153.1	158.6	156.8	162.3	161.0	119.6	157.4	x	130
carbonate alkalinity	3812-32-6	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	x	x	x	x	x	<1.0
total dissolved solids	NA	mg/L	1,000	268	222	251	233	237	231	217	196	229	x	230
Nitrogen Species														
ammonia as N	1331-21-6	mg/L	-	0.03	0.03	<0.01	<0.01	0.02	<0.01	<0.01	0.60	<0.01	x	x
Kjeldahl nitrogen	7727-37-9	mg/L	-	0.4	0.3	0.1	0.2	<0.5	2.4	0.1	0.8	<0.01	x	0.89
nitrate as N	14797-55-8	mg/L	10	2.2	2.28	2.2	2.3	2.2	2.0	2.0	2.11	2.11	x	1.9
nitrite	14797-65-0	mg/L	-	2.2	2.28	<0.05	<0.05	<0.05	<0.05	<0.05	2.11	<0.05	x	<0.10
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Metals														
aluminum	7429-90-5	mg/L	5.0	3.75	2.80	1.26	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	<0.10
antimony ¹	7440-36-0	mg/L	0.006	0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.05	<0.050
arsenic ¹	7440-38-2	mg/L	0.01	0.0019	0.0027	0.0027	0.0019	0.002	0.0015	0.0022	0.0022	0.0022	<0.005	<0.0050
barium ¹	7440-39-3	mg/L	1.0	0.1636	0.084	0.0994	0.0334	0.0321	0.0324	0.0313	0.0339	0.0323	0.033	0.03
beryllium ¹	7440-41-7	mg/L	0.004	<0.0002	<0.0002	0.0006	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.003	<0.0030
boron	7440-42-8	mg/L	0.75	<0.01	0.03	0.17	0.04	0.05	0.03	0.02	0.01	<0.01	x	<0.10
cadmium ¹	7440-43-9	mg/L	0.005	<0.0001	<0.0001	0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.005	<0.0010
chromium ¹	7440-47-3	mg/L	0.05	<0.0001	0.005	0.0065	0.0011	<0.0001	<0.0001	0.002	0.0018	0.0073	<0.005	<0.0050
cobalt ¹	7440-48-4	mg/L	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010
copper ¹	7440-50-8	mg/L	1.0	0.0115	0.025	0.0271	0.0027	0.0012	<0.04	0.0048	0.0031	0.0015	<0.01	<0.010
iron	7439-89-6	mg/L	1.0	3.19	2.37	4.71	<0.05	0.07	<0.01	0.23	0.01	<0.01	x	<0.10
lead ¹	7439-92-1	mg/L	0.05	0.0052	0.001	0.0092	0.0001	0.0003	<0.0001	0.0009	0.0003	0.0042	<0.005	<0.0050
manganese	7439-96-5	mg/L	0.2	0.18	0.09	0.17	<0.02	0.03	<0.005	0.013	<0.005	<0.005	x	<0.010
mercury ¹	7439-97-6	mg/L	0.002	<0.0002	<0.0002	0.00012	0.0011	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.00020
molybdenum	7439-98-7	mg/L	1.0	<0.05	<0.05	<0.05	<0.05	<0.05	0.002	0.002	0.0021	0.002	x	<0.010
nickel ¹	7440-02-0	mg/L	0.2	0.0217	0.006	0.01896	0.0027	0.0027	0.0026	0.00252	0.00211	0.00206	<0.005	<0.0050
selenium ¹	7782-49-2	mg/L	0.05	0.001	0.0012	0.0013	0.001	0.0016	0.0016	0.0014	0.0019	0.0011	<0.01	<0.010
silver ¹	7440-22-4	mg/L	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.06	<0.02	<0.005	<0.0050
thallium ¹	7440-28-0	mg/L	0.002	0.00008	0.0001	0.00003	0.00004	<0.00003	<0.00003	<0.00003	<0.00003	0.00019	<0.01	<0.010
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.01	x
uranium ¹	7440-61-1	mg/L	0.03	0.0044	0.003	0.00341	0.00251	0.00251	0.00235	0.00187	0.00298	0.00248	x	<0.02
vanadium ¹	7440-62-2	mg/L	-	<0.05	<0.05	0.08	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.01	<0.010
zinc	7440-66-6	mg/L	10.0	0.04	0.04	0.33	0.02	<0.01	-	0.04	<0.01	<0.01	0.036	<0.020
total organic carbon	-	mg/L	-	5.6	0.56	<0.5	<0.5	<0.5	0.7	0.9	4.5	2.3	x	1.1
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
sulfide ¹	18496-25-8	mg/L	-	x	x	x	x	x	x	x	x	x	<1.0	x
cyanide ¹	57-12-5	mg/L	0.2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.005	<0.0050
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	0.07	<0.005	<0.02	0.004	<0.003	0.003	<0.003	0.005	0.005	(^)	<0.0030
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	(^^)	(^^)
Volatile Organic Compounds														
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.001	<0.001	<0.0005	<0.0005	<0.0005	0.0006	<0.0005	0.0005	0.0006	<0.001	<0.001
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE)	75-35-4	mg/L	0.005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	x	x	x	x	x	x	x	x	<0.001	<0.001
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.01	<0.01	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.001
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.02	<0.001
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	x	x	x	x	x	x	x	x	x	<0.001	<0.001
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.001
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,3-Dichloropropane ¹	142-28-9	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
2,2-Dichloropropane ¹	78-87-5	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L												

APPENDIX B
Las Cruces Foothills Landfill MW-2

Las Cruces Foothills Landfill monitoring well MW-2

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-2											
				1/12/99	5/11/99	7/7/99	9/1/99	11/1/99	5/18/00	11/9/00	6/13/01	11/6/01	4/3/02	7/12/02	
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	0.0027	0.0025	0.002	0.0024	0.0002	0.003	0.0020	0.0020	0.0009	0.0015	0.0043	
Ethyl methacrylate ¹	97-63-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	0.00005	<0.001	<0.001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.0005	<0.00001	<0.001	
Hexachlorobutadiene ¹	87-68-3	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
Isopropylbenzene ¹	98-82-8	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	x	x	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.001	
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.002	<0.002	<0.0005	<0.0005	<0.0005	0.0005	0.0009	0.0008	0.0007	<0.001	<0.001	
n-Butylbenzene ¹	104-51-8	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
Propylbenzene ¹	103-65-1	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	
sec-Butylbenzene ¹	113-98-8	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0021	x	<0.001	
tert-Butylbenzene ¹	98-06-6	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0074	0.0123	0.0073	0.0021	0.0051	0.0098	0.0091	0.0059	0.0074	0.0058	0.0083	
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x	
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.001	0.0012	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.001	<0.001	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	x	x	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	
Trichloroethene (TCE)	79-01-6	mg/L	0.005	<0.001	0.001	0.0006	<0.0005	<0.0005	0.0012	0.001	0.001	0.0009	<0.001	0.0013	
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	0.0006	0.001	0.0007	0.0005	<0.0005	<0.001	<0.001	
Vinyl acetate ¹	108-05-4	mg/L	-	x	x	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	
Vinyl Chloride ¹	75-01-4	mg/L	0.001	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0004	<0.001	
Trihalomethanes (THM)															
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
Chloroform ¹	67-66-3	mg/L	0.1	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
Semi Volatile Organic Compounds															
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
1-Methylnaphthalene	86-52-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
Acenaphthene ¹	83-32-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	
Acenaphthylene ¹	208-96-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	
Acetophenone ¹	98-86-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
Aniline ¹	62-53-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
Anthracene ¹	120-12-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	
Benzidine ¹	92-87-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
Benzo (a) anthracene ¹	56-55-3	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	
Benzo (b) fluoranthene ¹	50-32-8	mg/L	0.0002	<0.1	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.02	<0.0001	
Benzo (g,h,i) perylene ¹	205-99-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	
Benzo (k) fluoranthene ¹	191-24-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	
Benzo[a]pyrene ¹	207-08-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	
Benzoic acid ¹	65-85-0	mg/L	-					x	x	x	x	x	<0.1	x	
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
bis (2-Chloroisopropyl) ether															
(bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
Carbazole	86-74-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
Chrysene ¹	218-01-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	
Diallate ¹	2303-16-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
Dibenz(a,j)acridine	224-42-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	
Dibenzofuran ¹	132-64-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
Diethylphthalate ¹	84-66-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
Dimethylphthalate ¹	131-11-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
Di-n-butylphthalate ¹	84-74-2	mg/L	-	x	x	x	x								

APPENDIX B
Las Cruces Foothills Landfill MW-2

Las Cruces Foothills Landfill monitoring well MW-2

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-2										
				1/12/99	5/11/99	7/7/99	9/1/99	11/1/99	5/18/00	11/9/00	6/13/01	11/6/01	4/3/02	7/12/02
date														
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Fluoranthene ¹	206-44-0	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001
Fluorene ¹	86-73-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
HMX ¹	2691-41-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001
Isophorone ¹	78-59-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Isosafrole ¹	120-58-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Methapyrilene ¹	91-80-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	<1.0	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.02	<0.0001
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	<0.1	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.02	<0.0001
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	<0.25	<0.001	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.02	<0.0001
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics														
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	x	x	<0.1	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.1	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x	x	x	x	<0.1	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.1	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.1	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	x	x	<0.00078	x
Radium 226 and 228	NA	pCi/L	5	44.2	2.20	3.43	2.18	1.21	1.67	1.25	0.9	0.69		1.084
Ra-226, total	NA	pCi/L	-	17.20	0.44	0.93	0.43	0.29	0.6	0.26	0.22	0.15	x	0.121
Ra-228 ¹ , total	NA	pCi/L	-	27.00	1.76	2.5	1.75	0.92	1.07	0.99	0.68	0.54	x	0.963
Chlorinated Pesticides														
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.003	<0.00005
Polychlorinated Biphenyls (PCBs)¹		mg/L	0.001											
Arochlor-1016	12674-11-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005
Arochlor-1221	11104-28-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005
Arochlor-1232	11141-16-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005
Arochlor-1242	53469-21-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005
Arochlor-1248	12672-29-6	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005
Arochlor-1254	11097-69-1	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005
Arochlor-1260	11096-82-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005
Other Pesticides and Herbicides¹														
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x	x	x	x	x

APPENDIX B

Las Cruces Foothills Landfill MW-2

Las Cruces Foothills Landfill monitoring well MW-2

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-2										
				1/12/99	5/11/99	7/7/99	9/1/99	11/1/99	5/18/00	11/9/00	6/13/01	11/6/01	4/3/02	7/12/02
date														
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	x	x	x	x	<0.003	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x
Silvex ¹	93-72-1	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x

¹ hazardous

x parameter not analyzed

(*) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics concentrations.

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(*) This concentration attributed to laboratory contamination of method blank and not the presence of antimony in the ground water sampled.

#) Scanned for and not detected , breaks down almost immediately in water.

APPENDIX B

Las Cruces Foothills Landfill MW-2

*no sampling of MW-2 on 7/15/03 because pump was not working

Las Cruces Foothills Landfill monitoring well MW-2

constituent	CAS Number	unit	GWPS	RESU											
				9/25/02	12/18/02	12/29/03	12/2/04	12/14/05	12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/27/11	12/19/12
Field Parameters															
water level elevation	NA	ft amsl	-	3856.54	3856.69	3,858.72	3858.76	3858.84	3858.11	3859.36	3861.71	3861.82	3866.83	3866.03	3864.52
conductivity	NA	µS/cm	-	393	414	377	345	387	380	370	350	414	380	390	384
pH	NA	pH units	6-9	6.63	6.46	7.40	7.68	7.60	7.70	7.05	7.63	6.72	7.22	7.03	7.62
temperature	NA	deg F	-	102.6	106.2	101.8	96.8	90.1	94.8	89.1	89.6	88.2	91.4	91.2	75.4
Major Ions															
calcium	7440-70-2	mg/L	-	38	37	35	36	40	38	40	34	38	38	39	37
chloride	16887-00-6	mg/L	250	11	15	11	9.6	9	9.6	9.3	8.1	8.9	8.0	8.1	8.1
fluoride ¹	16984-48-8	mg/L	1.6	0.73	0.67	0.58	x	x	x	x	0.57	x	0.57	x	x
magnesium	7439-95-4	mg/L	-	5.5	5.5	5.1	5.5	5.8	5.6	5.8	5	5.6	5.7	5.8	5.5
potassium	7440-09-7	mg/L	-	1.8	1.9	1.4	1.7	2.2	1.2	1.8	1.4	1.6	1.9	1.9	1.6
sodium	82115-62-6	mg/L	-	30	30	25	28	32	29	29	26	29	30	31	29
sulfate	18785-72-3	mg/L	600	34	40	35	38	33	35	33	31	34	32	32	31
alkalinity	NA	mg/L	-	120	130	140	130	130	120	130	130	130	130	130	130
bicarbonate alkalinity	71-52-3	mg/L	-	120	130	140	130	130	120	130	130	130	130	130	130
carbonate alkalinity	3812-32-6	mg/L	-	<2.0	<2.0	<2.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
total dissolved solids	NA	mg/L	1,000	260	230	200	230	250	240	230	240	235	242	231	237
Nitrogen Species															
ammonia as N	1331-21-6	mg/L	-	<0.05	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	0.42
Kjeldahl nitrogen	7727-37-9	mg/L	-	<0.5	0.57	<1.0	x	x	x	x	<1.0	x	x	x	x
nitrate as N	14797-55-8	mg/L	10	2.2	2.2	<1.0	0.12	<1.0	1.4	1.1	1.7	1.8	1.2	1.3	1.5
nitrite	14797-65-0	mg/L	-	<0.1	<0.10	<1.0	x	x	x	x	x	x	x	x	x
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	1.7	x	x	x	x
Metals															
aluminum	7429-90-5	mg/L	5.0	<0.03	0.04	<3.0	<3.0	x	x	x	<0.02	x	<0.02	x	x
antimony ¹	7440-36-0	mg/L	0.006	0.005 (")	<0.004	<0.003	x	x	x	x	<0.001	<0.001	<0.001	<0.001	<0.001
arsenic ¹	7440-38-2	mg/L	0.01	<0.004	<0.004	<0.01	x	x	x	x	0.007	0.003	0.00143	0.0015	0.0017
barium ¹	7440-39-3	mg/L	1.0	0.031	0.03	0.03	x	x	x	x	0.027	0.033	0.034	0.033	0.032
beryllium ¹	7440-41-7	mg/L	0.004	<0.001	<0.001	<0.002	x	x	x	x	<0.003	x	<0.001	0.00029	<0.002
boron	7440-42-8	mg/L	0.75	0.036	0.034	<0.5	x	x	x	x	<0.04	x	<0.04	x	x
cadmium ¹	7440-43-9	mg/L	0.005	<0.001	<0.001	<0.002	x	x	x	x	<0.002	<0.002	<0.002	<0.002	<0.002
chromium ¹	7440-47-3	mg/L	0.05	<0.002	0.02	<0.01	x	x	x	x	<0.006	<0.006	<0.006	<0.006	<0.006
cobalt ¹	7440-48-4	mg/L	0.05	<0.001	<0.001	<0.03	x	x	x	x	<0.006	<0.006	<0.006	0.00059	<0.006
copper ¹	7440-50-8	mg/L	1.0	<0.001	0.007	<0.06	x	x	x	x	<0.006	<0.006	<0.006	<0.006	<0.006
iron	7439-89-6	mg/L	1.0	0.009	0.2	0.15	0.29	0.38	0.19	<0.10	<0.05	<0.05	<0.05	<0.02	<0.02
lead ¹	7439-92-1	mg/L	0.05	<0.002	0.002	<0.01	x	x	x	x	<0.005	<0.005	<0.005	<0.005	0.0022
manganese	7439-96-5	mg/L	0.2	<0.001	0.0030	<0.03	<0.03	<0.03	<0.03	<0.03	<0.002	<0.002	<0.002	0.0007	<0.002
mercury ¹	7439-97-6	mg/L	0.002	<0.07	<0.20	<0.001	x	x	x	x	<0.0002	x	<0.0002	x	x
molybdenum	7439-98-7	mg/L	1.0	0.003	0.003	<0.75	x	x	x	x	<0.008	x	<0.008	x	x
nickel ¹	7440-02-0	mg/L	0.2	<0.002	0.012	<0.05	x	x	x	x	<0.01	<0.01	<0.01	0.00036	0.001
selenium ¹	7782-49-2	mg/L	0.05	0.004	<0.003	<0.005	x	x	x	x	0.001	<0.001	<0.001	<0.001	<0.001
silver ¹	7440-22-4	mg/L	0.05	<0.002	<0.002	<0.01	x	x	x	x	<0.005	<0.005	<0.005	<0.005	<0.005
thallium ¹	7440-28-0	mg/L	0.002	<0.003	<0.003	<0.001	x	x	x	x	<0.001	<0.001	<0.001	<0.001	<0.001
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	x	x	<0.1	x	x	x	x
uranium ¹	7440-61-1	mg/L	0.03	0.00219	0.00237	<2.5	x	x	x	x	0.002	x	x	x	x
vanadium ¹	7440-62-2	mg/L	-	0.01	0.003	<0.08	x	x	x	x	<0.05	<0.05	<0.05	0.0078	0.0062
zinc	7440-66-6	mg/L	10.0	<0.008	0.018	<0.05	x	x	x	x	<0.02	<0.02	<0.02	0.0054	0.0024
total organic carbon	-	mg/L	-	2.7	<1.0	0.65	1	0.7	<1.0	2.6	<1.0	<1.0	<1.0	0.26	<1.0
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	<0.50	x	<0.50	x	x
sulfide ¹	18496-25-8	mg/L	-	x	x	x	x	x	x	x	3	x	x	x	x
cyanide ¹	57-12-5	mg/L	0.2	<0.005	<0.005	<0.1	x	x	x	x	<0.005	x	x	x	x
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
total phenolics ¹	-	mg/L	0.005	0.0074	<0.003	<0.003	<0.003	<0.003	<0.003	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	(^^)	(^^)	(^^)	x	x	x	x	(^^)	x	x	x	x
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	0.00043	0.00034
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE)	75-35-4	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00031	<0.001
1,1-Dichloropropene ¹	563-58-6	mg/L	-	<0.001	x	x	x	x	x	x	<0.005	x	x	x	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	x	<0.00001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x	x
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	x	<0.001	x	x	x	x	x	<0.001	x	x	x	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.001	x	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0002	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	<0.001	<0.001	x	x	x	x	x	<0.01	<0.001	x	x	x
1,3-Dichloropropane ¹	142-28-9	mg/L	-	<0.001	<0.001	x	x	x	x	x	<0.01	x	x	x	x
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.001	<0.001	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001
2,2-Dichloropropane ¹	78-87-5	mg/L	-	<0.001	<0.001	x	x	x	x	x	<0.015	x	x	x	x
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-Chlorotoluene ¹	95-49-8	mg/L	-	x	<0										

APPENDIX B

Las Cruces Foothills Landfill MW-2

*no sampling of MW-2 on 7/15/03 because pump was not working

Las Cruces Foothills Landfill monitoring well MW-2

constituent	CAS Number	unit	GWPS	RESU												
				9/25/02	12/18/02	12/29/03	12/2/04	12/14/05	12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/27/11	12/19/12	
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.001	<0.001	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	0.0029	0.0028	x	x	x	x	<0.005	0.0016	0.0035	<0.001	0.0013	<0.001	<0.001
Ethyl methacrylate ¹	97-63-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x	x	x	x	x
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	0.00005	x	<0.00001	<0.000025	<0.000025	<0.000025	<0.000025	<0.000025	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Hexachlorobutadiene ¹	87-68-3	mg/L	-	<0.001	<0.001	x	x	x	x	x	<0.001	x	x	x	x	x
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	x	x	x	x	x	<0.05	x	x	x	x	x
Isopropylbenzene ¹	98-82-8	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x	x	x
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	x	x	<0.005	x	x	x	x	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.005	<0.005	<0.001	<0.04	<0.04	<0.04	<0.04	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	x	x	<0.03	x	x	x	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.0001	<0.001	<0.015	<0.001	<0.001	<0.001	<0.001	<0.015	0.0014	<0.001	<0.001	<0.001	<0.001
n-Butylbenzene ¹	104-51-8	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x	x	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	x	x	x	x	<0.06	x	x	x	x	x
Propylbenzene ¹	103-65-1	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x	x	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x	x	x
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	x	<0.001	x	x	x	x	x	<0.001	x	x	x	x	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x	x	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0084	0.0073	0.0063	<0.0005	0.0058	0.0036	0.0034	0.0032	0.0049	0.0037	0.0034	0.0028	0.0028
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	0.0002	<0.001	<0.001
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	0.00032	<0.002	<0.002
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.001	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.001	<0.001	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00072	<0.001	<0.001
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	0.00059	<0.001	<0.001
Vinyl acetate ¹	108-05-4	mg/L	-	<0.001	<0.001	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01
Vinyl Chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Trihalomethanes (THM)																
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroform ¹	67-66-3	mg/L	0.1	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001
Semi Volatile Organic Compounds																
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	<0.0001	<0.0001	<0.01	x	x	x	x	<0.001	x	x	x	x	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x	<0.0002	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	<0.0001	<0.0001	<0.01	x	x	x	x	<0.001	x	x	x	x	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
Acenaphthene ¹	83-32-9	mg/L	-	<0.0001	<0.0001	<0.0001	x	x	x	x	<0.00005	x	x	x	x	x
Acenaphthylene ¹	208-96-8	mg/L	-	<0.0001	<0.0001	x	x	x	x	x	<0.001	x	x	x	x	x
Acetophenone ¹	98-86-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
alpha, alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	<0.0001	<0.0001	x	x	x	x	x	<0.001	x	x	x	x	x
Benzidine ¹	92-87-5	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	<0.0001	<0.0001	x	x	x	x	x	<0.001	x	x	x	x	x
Benzo (b) fluoranthene ¹	50-32-8	mg/L	0.0002	<0.0001	<0.0001	x	x	x	x	x	<0.001	x	x	x	x	x
Benzo (g,h,l) perylene ¹	205-99-2	mg/L	-	<0.0001	<0.0001	x	x	x	x	x	<0.00005	x	x	x	x	x
Benzo (k) fluoranthene ¹	191-24-2	mg/L	-	<0.0001	<0.0001	x	x	x	x	x	<0.00005	x	x	x	x	x
Benzo[a]pyrene ¹	207-08-9	mg/L	-	<0.0001	<0.0001	x	x	x	x	x	<0.00005	x	x	x	x	x
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	x	x	x	x	x	<0.001					

APPENDIX B

Las Cruces Foothills Landfill MW-2

*no sampling of MW-2 on 7/15/03 because pump was not working

Las Cruces Foothills Landfill monitoring well MW-2

constituent	CAS Number	unit	GWPS	RESU											
				9/25/02	12/18/02	12/29/03	12/2/04	12/14/05	12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/27/11	12/19/12
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Fluoranthene ¹	206-44-0	mg/L	-	<0.0001	<0.0001	x	x	x	x	x	<0.001	x	x	x	x
Fluorene ¹	86-73-7	mg/L	-	<0.0001	<0.0001	x	x	x	x	x	<0.001	x	x	x	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	x	x	x	x	x	<0.0001	x	x	x	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
HMX ¹	2691-41-0	mg/L	-	x	x	x	x	x	x	x	<0.0001	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	<0.0001	<0.0001	x	x	x	x	x	<0.00005	x	x	x	x
Isophorone ¹	78-59-1	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Isosafrole ¹	120-58-1	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	x	x	x	x	<0.0001	x	x	x	x
Methapyrilene ¹	91-80-5	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	<0.0001	<0.0001	<0.01	x	x	x	x	<0.001	x	x	x	x
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	<0.0001	<0.0001	x	x	x	x	x	<0.001	x	x	x	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	<0.0001	<0.0001	x	x	x	x	x	<0.001	x	x	x	x
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	<0.0001	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	<0.0001	x	x	x	x
Semi Volatile Organic Compounds - Phenolics															
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	8-39-4/106-44	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	<0.001	x	x	x	x
Radium 226 and 228	NA	pCi/L	5	1.651	1.737	<2.5					0.24				
Ra-226, total	NA	pCi/L	-	0.698	0.367	<2.5	x	x	x	x	0.2	x	x	x	x
Ra-228 ¹ , total	NA	pCi/L	-	0.953	1.37	<2.5	x	x	x	x	0.04	x	x	x	x
Chlorinated Pesticides															
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	x	x	<0.00004	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	x	x	<0.00004	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	x	<0.00004	x	x	x	x
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x	<0.00004	x	x	x	x
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x	<0.00004	x	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	<0.0002	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	x	<0.00004	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	<0.00004	x	x	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹															
Arochlor-1016	12674-11-2	mg/L	-	<0.0005	<0.0005	<0.0005	x	x	x	x	<0.00025	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	<0.0005	<0.0005	<0.0005	x	x	x	x	<0.00025	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	<0.0005	<0.0005	<0.0005	x	x	x	x	<0.00025	x	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	<0.0005	<0.0005	<0.0005	x	x	x	x	<0.00025	x	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	<0.0005	<0.0005	<0.0005	x	x	x	x	<0.00025	x	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	<0.0005	<0.0005	<0.0005	x	x	x	x	<0.00025	x	x	x	x

APPENDIX B

Las Cruces Foothills Landfill MW-2

*no sampling of MW-2 on 7/15/03 because pump was not working

Las Cruces Foothills Landfill monitoring well MW-2

constituent	CAS Number	unit	GWPS	RESU												
				9/25/02	12/18/02	12/29/03	12/2/04	12/14/05	12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/27/11	12/19/12	
date																
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	x	x	x	<0.00005	x	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	x	x	x	<0.00005	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	x	x	x	<0.00005	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Silvex ¹	93-72-1	mg/L	-	x	x	x	x	x	x	x	x	<0.00005	x	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x

¹ hazardous
x parameter not analyzed
(^) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics concent
(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.
(*) This concentration attributed to laboratory contamination of method blank and not the presence of ant
(#) Scanned for and not detected , breaks down almost immediately in water.

APPENDIX B

Las Cruces Foothills Landfill MW-2

Las Cruces Foothills Landfill monitoring well MW-2

constituent	CAS Number	unit	GWPS	LTS FOR MW-2										baseline	standard
				6/25/13	12/19/13	6/26/14	12/11/14	6/18/15	12/17/15	12/27/16	6/27/17	12/12/17	average	deviation	
date													1/12/99 to	1/12/99 to	
													5/18/00	5/18/00	
Field Parameters															
water level elevation	NA	ft amsl	-	3859.76	3858.86	3859.81	3862.11	3859.78	3857.66	3858.08	3859.28	3857.78	3858.71	5.46	
conductivity	NA	µS/cm	-	380	386	369	373	358	382	381	386	398	385.50	29.36	
pH	NA	pH units	6-9	6.40	6.98	6.61	6.64	6.82	7.26	7.34	7.39	6.73	7.30	0.45	
temperature	NA	deg F	-	112.6	107.4	109.8	109.4	110.8	107.4	112.1	108.5	109.8	107.78	1.57	
Major Ions															
calcium	7440-70-2	mg/L	-	37	38	38	36	38	37	42	42	39	38.02	2.19	
chloride	16887-00-6	mg/L	250	8.4	8.7	8.7	9.0	9.4	9.3	8.9	10	9.0	11.10	4.14	
fluoride ¹	16984-48-8	mg/L	1.6	x	x	x	0.51	x	x	x	x	x	0.71	0.07	
magnesium	7439-95-4	mg/L	-	5.5	5.4	5.5	5.1	5.4	5.8	6.0	5.9	5.8	5.97	1.11	
potassium	7440-09-7	mg/L	-	2.0	1.9	1.6	1.7	1.5	1.7	1.9	1.8	1.7	4.02	4.90	
sodium	82115-62-6	mg/L	-	29	28	29	26	28	30	31	30	29	31.95	7.15	
sulfate	18785-72-3	mg/L	600	32	32	32	32	34	33	32	32	33	34.00	5.83	
alkalinity	NA	mg/L	-	140	130	130	140	130.8	134.6	132.2	130.9	134.8	135.32	14.75	
bicarbonate alkalinity	71-52-3	mg/L	-	140	130	130	140	130.8	134.6	132.2	130.9	134.8	160.35	23.11	
carbonate alkalinity	3812-32-6	mg/L	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<1.0	x	
total dissolved solids	NA	mg/L	1,000	238	239	245	229	242	258	251	243	248	240.33	16.54	
Nitrogen Species															
ammonia as N	1331-21-6	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.03	0.01	
Kjeldahl nitrogen	7727-37-9	mg/L	-	x	x	x	<1.0	x	x	x	x	x	0.68	0.97	
nitrate as N	14797-55-8	mg/L	10	1.7	1.8	1.7	1.8	2.0	2.1	2.3	2.5	3.3	2.20	0.11	
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	2.24	0.06	
total nitrogen	-	mg/L	-	x	x	x	1.8	x	x	x	x	x	x	x	
Metals															
aluminum	7429-90-5	mg/L	5.0	x	x	x	0.027	x	x	x	x	x	2.60	1.26	
antimony ¹	7440-36-0	mg/L	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0004	x	
arsenic ¹	7440-38-2	mg/L	0.01	0.0019	0.0017	0.0019	0.0015	0.0017	0.0016	0.0018	0.0014	0.0018	0.0021	0.0005	
barium ¹	7440-39-3	mg/L	1.0	0.036	0.031	0.029	0.031	0.028	0.030	0.037	0.036	0.033	0.0741	0.0527	
beryllium ¹	7440-41-7	mg/L	0.004	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	0.0006	x	
boron	7440-42-8	mg/L	0.75	x	x	x	<0.04	x	x	x	x	x	0.06	0.06	
cadmium ¹	7440-43-9	mg/L	0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0001	0	
chromium ¹	7440-47-3	mg/L	0.05	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0042	0.0028	
cobalt ¹	7440-48-4	mg/L	0.05	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.01	x	
copper ¹	7440-50-8	mg/L	1.0	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.013	0.0121	
iron	7439-89-6	mg/L	1.0	0.026	<0.02	<0.05	<0.02	<0.05	<0.02	<0.02	0.023	<0.02	2.585	1.9368	
lead ¹	7439-92-1	mg/L	0.05	<0.001	<0.001	<0.005	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.003	0.0040	
manganese	7439-96-5	mg/L	0.2	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0032	<0.002	0.118	0.0709	
mercury ¹	7439-97-6	mg/L	0.002	x	x	x	<0.0002	x	x	x	x	x	0.001	0.0005	
molybdenum	7439-98-7	mg/L	1.0	x	x	x	<0.008	x	x	x	x	x	<0.05	x	
nickel ¹	7440-02-0	mg/L	0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.0088	
selenium ¹	7782-49-2	mg/L	0.05	0.0013	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.0003	
silver ¹	7440-22-4	mg/L	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.02	x	
thallium ¹	7440-28-0	mg/L	0.002	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.00006	0.00003	
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
uranium ¹	7440-61-1	mg/L	0.03	x	x	x	0.0021	x	x	x	x	x	0.0030	0.0008	
vanadium ¹	7440-62-2	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	x	
zinc	7440-66-6	mg/L	10.0	<0.01	<0.01	<0.02	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	0.11	0.15	
total organic carbon	-	mg/L	-	<1.0	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.29	2.87	
phosphate	14265-44-2	mg/L	-	x	x	x	<0.50	x	x	x	x	x	x	x	
sulfide ¹	18496-25-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
cyanide ¹	57-12-5	mg/L	0.2	x	x	x	<0.01	x	x	x	x	x	<0.02	x	
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
total phenolics ¹	-	mg/L	0.005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.03	0.038	
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	x	x	x	(*)	x	x	x	x	x	<0.0005	x	
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE)	75-35-4	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.00002	<0.00002	<0.00002	<0.000019	<0.000019	<0.01	x	
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	x	x	x	x	x	x	x	x	x	<0.001	x	
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	x	x	x	x	x	x	x	x	x	<0.001	x	
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	x	
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	x	x	x	x	x	x	x	x	x	<0.001	x	
1,3-Dichloropropane ¹	142-28-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.001	x	
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
2,2-Dichloropropane ¹	78-87-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.001	x	
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	
2-Chlorotoluene ¹	95-49-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.001	x	
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	
4-Chlorotoluene ¹	106-43-4	mg/L	-	x	x	x	x	x	x	x	x	x	<0.001	x	
4-Methyl-2-pentanone ¹	10														

APPENDIX B
Las Cruces Foothills Landfill MW-2

Las Cruces Foothills Landfill monitoring well MW-2

constituent	CAS Number	unit	GWPS	LTS FOR MW-2									baseline	standard
													average	deviation
				6/25/13	12/19/13	6/26/14	12/11/14	6/18/15	12/17/15	12/27/16	6/27/17	12/12/17	1/12/99 to 5/18/00	1/12/99 to 5/18/00
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	0.0013	0.0013	<0.001	0.0011	0.0012	<0.001	<0.001	<0.001	<0.001	0.0025	x
Ethyl methacrylate ¹	97-63-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	0.00005	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	x
Hexachlorobutadiene ¹	87-68-3	mg/L	-	x	x	x	x	x	x	x	x	x	<0.001	x
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Isopropylbenzene ¹	98-82-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.001	x
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	x
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.001	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Propylbenzene ¹	103-65-1	mg/L	-	x	x	x	x	x	x	x	x	x	<0.001	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.001	x
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	x	x	x	x	x	x	x	x	x	<0.01	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	x	x	x	x	x	<0.001	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0035	0.0025	0.0024	0.0023	0.0024	0.0023	0.0018	0.0018	0.0018	0.0073	0.0036
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.01	x
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.0011	0.0011	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.0003
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
Vinyl acetate ¹	108-05-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Vinyl Chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0004	<0.0005	<0.0005	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.001	x
Trihalomethanes (THM)														
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
Chloroform ¹	67-66-3	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
Semi Volatile Organic Compounds														
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	x	x	x	<0.002	x	x	x	x	x	x	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	x	x	<0.002	x	x	x	x	x	x	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Acenaphthene ¹	83-32-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Acenaphthylene ¹	208-96-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Acetophenone ¹	98-86-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Benzidine ¹	92-87-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Benzo (b) fluoranthene ¹	50-32-8	mg/L	0.0002	x	x	x	x	x	x	x	x	x	<0.1	x
Benzo (g,h,l) perylene ¹	205-99-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Benzo (k) fluoranthene ¹	191-24-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Benzo[a]pyrene ¹	207-08-9	mg/L	-	x	x	x	<0.00007	x	x	x	x	x	x	x
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
bis (2-Chloroisopropyl) ether														
(bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Carbazole	86-74-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Chrysene ¹	218-01-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Diallate ¹	2303-16-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Dibenz(a,j)acridine	224-42-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Dibenzofuran ¹	132-64-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Diethylphthalate ¹	84-66-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Dimethylphthalate ¹	131-11-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Diphenylamine ¹	122-39-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x

APPENDIX B

Las Cruces Foothills Landfill MW-2

constituent	CAS Number	unit	GWPS	LTS FOR MW-2									baseline	standard
													average	deviation
				6/25/13	12/19/13	6/26/14	12/11/14	6/18/15	12/17/15	12/27/16	6/27/17	12/12/17	1/12/99 to 5/18/00	1/12/99 to 5/18/00
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Fluoranthene ¹	206-44-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Fluorene ¹	86-73-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
HMX ¹	2691-41-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Isophorone ¹	78-59-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Isosafrole ¹	120-58-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Methapyrilene ¹	91-80-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	x	x	x	<0.002	x	x	x	x	x	<1.0	x
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.1	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	x	x	x	x	x	x	x	x	x	<0.25	x
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics														
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	x	x	x	x
Radium 226 and 228	NA	pCi/L	5				1.26						9.15	17.19
Ra-226, total	NA	pCi/L	-	x	x	x	0.532	x	x	x	x	x	3.32	6.81
Ra-228, total	NA	pCi/L	-	x	x	x	0.729	x	x	x	x	x	5.83	10.38
Chlorinated Pesticides														
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹														
Arochlor-1016	12674-11-2	mg/L	-	x	x	x	<0.00025	x	x	x	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	x	x	x	<0.00025	x	x	x	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	x	x	x	<0.00025	x	x	x	x	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	x	x	x	<0.00025	x	x	x	x	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	x	x	x	<0.00025	x	x	x	x	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	x	x	x	<0.00025	x	x	x	x	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	x	x	x	<0.00025	x	x	x	x	x	x	x
Other Pesticides and Herbicides¹														
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x	x	x	x	x

APPENDIX B

Las Cruces Foothills Landfill MW-2

Las Cruces Foothills Landfill monitoring well MW-2

constituent	CAS Number	unit	GWPS	LTS FOR MW-2									baseline	standard
				6/25/13	12/19/13	6/26/14	12/11/14	6/18/15	12/17/15	12/27/16	6/27/17	12/12/17	average	deviation
date														
													1/12/99 to 5/18/00	1/12/99 to 5/18/00
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Silvex ¹	93-72-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x

¹ hazardous

x parameter not analyzed

(*) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics concent

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(#) This concentration attributed to laboratory contamination of method blank and not the presence of ant

(#) Scanned for and not detected , breaks down almost immediately in water.

MW-3

APPENDIX B
Las Cruces Foothills Landfill MW-3

Las Cruces Foothills Landfill monitoring well MW-3

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-3											
				1/12/99	5/15/99	7/7/99	9/1/99	11/1/99	5/18/00	11/9/00	6/13/01	11/6/01	4/3/02	7/12/02	9/25/02
Field Parameters															
water level elevation		ft amsl	-	4048.02	4049.92	4052.42	4049.72	4051.02	4055.87	4051.52	4049.16	4046.66	4048.26	4048.53	4048.06
conductivity		µS/cm	-	1040	433	421	385	396	355	351	341	325	331	312	339
pH		pH units	6-9	7.85	8.15	7.35	7.29	6.60	8.10	8.22	8.39	8.23	6.86	7.49	6.83
temperature		deg F	-	76.0	77.0	84.0	75.9	76.6	77.0	76.5	75.8	71.1	77.5	78	77
Major Ions															
calcium	7440-70-2	mg/L	-	42.8	35.2	35.9	34.8	33.3	34.3	33.0	27.1	31.1	x	27	23
chloride	16887-00-6	mg/L	250	94.5	17.2	15.7	8.3	8.1	7.6	7.0	6.0	6.2	x	6.7	7.4
fluoride ¹	16984-48-8	mg/L	1.6	1.17	0.96	0.99	0.98	0.93	0.92	0.94	0.87	0.92	x	0.82	0.95
magnesium	7439-95-4	mg/L	-	5.1	4.2	4.1	4.0	5.0	3.9	4.1	3.4	4.8	x	3.9	3.5
potassium	7440-09-7	mg/L	-	4.0	1.5	2.8	1.7	1.4	2.1	1.9	1.6	2.2	x	1.8	1.7
sodium	82115-62-6	mg/L	-	179.0	53.2	51.4	35.3	38.5	38.1	39.0	40.2	25.6	x	35	38
sulfate	18785-72-3	mg/L	600	215	60	67	43	39	35	48	36	41	x	38	44
alkalinity	NA	mg/L	-	148.5	141.0	140.9	132.5	130.4	128.5	128.5	111.0	117.5	x	110	100
bicarbonate alkalinity	71-52-3	mg/L	-	181.2	141.0	172.0	161.7	147.0	156.8	156.8	113.5	122.6	x	110	99
carbonate alkalinity	3812-32-6	mg/L	-	<1.0	<1.0	<1.0	<1.0	6	0.0	0.0	10.8	10.2	x	1	x
total dissolved solids	NA	mg/L	1,000	706	279	289	235	233	232	207	193	181	x	200	210
Nitrogen Species															
ammonia as N	1331-21-6	mg/L	-	<0.01	0.02	0.35	0	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	<0.05
Kjeldahl nitrogen	7727-37-9	mg/L	-	0.2	0.1	1.2	0.2	<0.1	0.4	<0.1	<0.1	0.1	x	<0.050	<0.5
nitrate as N	14797-55-8	mg/L	10	0.06	0.33	0.52	0.79	0.9	0.83	1.07	0.88	1.00	x	1.1	1.2
nitrite	14797-65-0	mg/L	-	x	0.33	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	<0.10	<0.1
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Metals															
aluminum	7429-90-5	mg/L	5.0	1.85	2.92	2.81	<0.05	0.14	<0.05	0.25	<0.05	0.19	x	0.27	0.11
antimony ¹	7440-36-0	mg/L	0.006	0.0009	0.0005	0.0028	0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.05	<0.050	0.004 (")
arsenic ¹	7440-38-2	mg/L	0.01	0.002	0.0027	0.0029	0.0014	0.0018	0.0019	0.0022	0.0025	0.0027	<0.005	<0.0050	<0.004
barium ¹	7440-39-3	mg/L	1.0	0.0756	0.067	0.1497	0.0309	0.0422	0.0289	0.0381	0.0257	0.0232	0.03	0.023	0.019
beryllium ¹	7440-41-7	mg/L	0.004	<0.0002	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.003	<0.0030	<0.001
boron	7440-42-8	mg/L	0.75	0.14	0.09	0.29	0.07	0.06	<0.01	0.03	0.02	<0.01	x	<0.10	0.042
cadmium ¹	7440-43-9	mg/L	0.005	0.0002	<0.0001	0.0002	<0.0001	<0.0001	<0.0001	0.0001	<0.0001	0.0005	<0.005	<0.0010	<0.001
chromium ¹	7440-47-3	mg/L	0.05	0.004	0.014	0.0172	0.0004	0.0051	0.0005	0.0083	0.0058	0.0098	0.007	0.009	0.013
cobalt ¹	7440-48-4	mg/L	0.05	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010	<0.001
copper ¹	7440-50-8	mg/L	1.0	0.0083	0.037	0.0732	0.0022	0.0043	<0.04	0.0038	0.0128	0.0508	0.062	0.025	0.019
iron	7439-89-6	mg/L	1.0	1.74	2.45	4.54	<0.05	0.18	<0.01	0.59	0.14	0.39	x	0.28	0.12
lead ¹	7439-92-1	mg/L	0.05	0.001	0.008	0.0133	<0.0001	0.0015	<0.0001	0.0015	0.0061	0.0138	0.016	<0.0050	0.004
manganese	7439-96-5	mg/L	0.2	0.07	0.14	0.52	<0.02	0.04	<0.005	0.027	<0.005	<0.005	x	<0.010	0.004
mercury ¹	7439-97-6	mg/L	0.002	0.0002	<0.0002	<0.0002	0.0006	<0.0002	0.0003	<0.0002	<0.0002	0.0005	<0.0002	<0.00020	<0.07
molybdenum	7439-98-7	mg/L	1.0	<0.05	<0.05	<0.05	<0.05	<0.05	0.006	0.005	0.005	0.0045	x	<0.010	0.003
nickel ¹	7440-02-0	mg/L	0.2	0.067	0.028	0.06525	0.0042	0.00505	0.00309	0.00534	0.01105	0.03707	0.028	0.032	0.028
selenium ¹	7782-49-2	mg/L	0.05	0.0028	0.001	0.0001	0.001	0.0011	0.0017	0.0011	0.0017	0.0011	<0.01	<0.01	<0.003
silver ¹	7440-22-4	mg/L	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.05	<0.02	<0.005	<0.0050	<0.002
thallium ¹	7440-28-0	mg/L	0.002	0.000007	0.0001	0.00006	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	0.00041	<0.01	<0.010	<0.003
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.01	x	x
uranium ¹	7440-61-1	mg/L	0.03	0.0225	0.013	0.01517	0.00555	0.00547	0.00272	0.00359	0.00399	0.00341	x	<0.02	0.00259
vanadium ¹	7440-62-2	mg/L	-	<0.05	<0.05	0.08	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.01	<0.010	0.01
zinc	7440-66-6	mg/L	10.0	0.26	0.11	0.22	<0.01	0.03	-	0.02	0.57	2.08	1.3	1	0.47
total organic carbon	-	mg/L	-	4.4	1.31	1.1	1.5	0.6	1.1	0.7	0.7	0.9	x	1	1.3
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
sulfide ¹	18496-25-8	mg/L	-	x	x	x	x	x	x	x	x	x	<1.0	x	x
cyanide ¹	57-12-5	mg/L	0.2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.005	<0.0050	<0.005
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	0.04	<0.005	<0.02	<0.003	<0.003	<0.003	0.006	0.02	0.004	(^)	0.004	0.0088
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	(^^)	(^^)	x
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane ¹	67-64-1	mg/L	-	x	x	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.005	<0.01	<0.01
1,1,1-Trichloroethane ¹	630-20-6	mg/L	0.02	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,1,2,2-Tetrachloroethane ¹	71-56-6	mg/L	0.06	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001
1,1,2-Trichloroethane ¹	79-34-5	mg/L	0.01	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
1,1-Dichloroethane ¹	79-00-5	mg/L	0.005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-34-3	mg/L	0.025	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
1,1-Dichloropropene ¹	75-35-4	mg/L	0.005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
1,2-Dibromo-3-chloropropane (DBCP) ¹	563-58-6	mg/L	-	x	x	x	x	x	x	x	x	x	<0.001	<0.001	<0.001
1,2,3-Trichlorobenzene	96-12-8	mg/L	0.0002	<0.01	<0.01	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00001	<0.001	<0.00001
1,2,3-Trichloropropane ¹	87-61-6	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	x
1,2,4-Trichlorobenzene ¹	96-18-4	mg/L	0.01	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	120-82-1	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.02	<0.001	x
1,2-Dichloroethane (EDC) ¹	95-50-1	mg/L	0.6	x	x	x	x	x	x	x	x	x	<0.001	<0.001	<0.001
1,2-Dichloropropane ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	78-87-5	mg/L	0.005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.001	<0.0002
1,3-Dichloropropane ¹	541-73-1														

APPENDIX B
Las Cruces Foothills Landfill MW-3

Las Cruces Foothills Landfill monitoring well MW-3

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-3												
				1/12/99	5/15/99	7/7/99	9/1/99	11/1/99	5/18/00	11/9/00	6/13/01	11/6/01	4/3/02	7/12/02	9/25/02	
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	0.0021	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Ethyl methacrylate ¹	97-63-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.001
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	5E-05	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.00001	<0.001	<0.00001
Hexachlorobutadiene ¹	87-68-3	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Isopropylbenzene ¹	98-82-8	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	x
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Methyl iodide (Iodomethane) ¹	74-88-4	mg/L	-	x	x	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.002	<0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
n-Butylbenzene ¹	104-51-8	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Propylbenzene ¹	103-65-1	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	x
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	<0.001	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0067	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.0005
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x	x
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.002
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	x	x	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001
Trichloroethene (TCE)	79-01-6	mg/L	0.005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Vinyl acetate ¹	108-05-4	mg/L	-	x	x	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001
Vinyl Chloride ¹	75-01-4	mg/L	0.001	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0004	<0.001	<0.0004
Trihalomethanes (THM)																
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Chloroform ¹	67-66-3	mg/L	0.1	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Semi Volatile Organic Compounds																
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.0001
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.0001
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Acenaphthene ¹	83-32-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001
Acenaphthylene ¹	208-96-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001
Acetophenone ¹	98-86-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001
Benzidine ¹	92-87-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001
Benzo (b) fluoranthene ¹	205-99-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001
Benzo (g,h,l) perylene ¹	191-24-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001
Benzo (k) fluoranthene ¹	207-08-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001
Benzo[a]pyrene ¹	50-32-8	mg/L	0.0002	0.0001	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.02	<0.0001	<0.0001
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
bis (2-Chloroisopropyl) ether																
(bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Carbazole	86-74-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x	x										

APPENDIX B
Las Cruces Foothills Landfill MW-3

Las Cruces Foothills Landfill monitoring well MW-3

Constituent	CAS Number	unit	GWPS	RESULTS FOR MW-3													
				1/12/99	5/15/99	7/7/99	9/1/99	11/1/99	5/18/00	11/9/00	6/13/01	11/6/01	4/3/02	7/12/02	9/25/02		
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
Fluoranthene ¹	206-44-0	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001		
Fluorene ¹	86-73-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001		
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
HMX ¹	2691-41-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001		
Isophorone ¹	78-59-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
Isosafrole ¹	120-58-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
Methapyrilene ¹	91-80-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
Naphthalene ¹	91-20-3	mg/L	0.03	0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.02	<0.0001	<0.0001		
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
Phenanthrene ¹	85-01-8	mg/L	-	0.0001	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.02	<0.0001	<0.0001		
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
Pyrene ¹	129-00-0	mg/L	-	0.00025	<0.001	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.02	<0.0001	<0.0001		
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
Semi Volatile Organic Compounds - Phenolics				x													
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x	x		
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	x	x	<0.1	x	x		
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x	x		
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x	x		
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x	x		
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.1	x	x		
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x	x		
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x	x		
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x	x		
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x	x		
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44-1	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x	x		
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x	x	x	x	<0.1	x	x		
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x	x		
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.1	x	x		
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.1	x	x		
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	x	x	<0.00078	x	x		
Radium 226 and 228				NA	pCi/L	5	5.72	2.77	12.00	1.22	0.90	0.66	0.61	0.26	0.33	1.057	1.936
Ra-226, total	NA	pCi/L	-	2.12	0.13	3.70	0.18	0.16	0.04	0.10	0.03	0.04	x	0.121	1.19		
Ra-228 ¹ , total	NA	pCi/L	-	3.60	2.54	8.30	1.04	0.74	0.62	0.51	0.23	0.29	x	0.936	0.746		
Chlorinated Pesticides																	
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x		
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x		
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x		
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x		
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x		
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x		
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x		
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x	x	x	x		
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x		
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x		
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x		
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x		
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x		
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x		
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x		
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x		
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x		
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x		
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x		
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x		
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x		
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050	x		
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.003	<0.000050	x		
Polychlorinated Biphenyls (PCBs)¹				mg/L	0.001												
Arochlor-1016	12674-11-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005		
Arochlor-1221	11104-28-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005		
Arochlor-1232	11141-16-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005		
Arochlor-1242	53469-21-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005		
Arochlor-1248	12672-29-6	mg/L	-	x	x	x	x	x	x	x	x	x	<0.				

APPENDIX B

Las Cruces Foothills Landfill MW-3

Las Cruces Foothills Landfill monitoring well MW-3

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-3												
				1/12/99	5/15/99	7/7/99	9/1/99	11/1/99	5/18/00	11/9/00	6/13/01	11/6/01	4/3/02	7/12/02	9/25/02	
date																
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.003	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x
Silvex ¹	93-72-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x
o,o-Diethyl o-pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x

¹ hazardous

x parameter not analyzed

(^*) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics concentrations.

(^^) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(*) This concentration attributed to laboratory contamination of method blank and not the presence of antimony in the ground water sampled.

(#) Scanned for and not detected , breaks down almost immediately in water.

APPENDIX B
Las Cruces Foothills Landfill MW-3

Las Cruces Foothills Landfill monitoring well MW-3

Constituent	CAS Number	unit	GWPS	RESULTS FOR MW-3											
				12/18/02	7/15/03	12/29/03	12/2/04	12/14/05	12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	5/18/11	12/27/11
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.001	<0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.001	<0.001	x	<0.001
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	<0.001	<0.0005	<0.005	x	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	x	<0.001
Ethyl methacrylate ¹	97-63-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x	x	x	x
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	x	<0.001
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	5E-05	<0.00001	<0.0005	<0.000025	<0.000025	<0.000025	<0.000025	<0.000025	<0.00001	<0.00001	<0.00001	x	<0.00001
Hexachlorobutadiene ¹	87-68-3	mg/L	-	<0.001	<0.0005	x	x	x	x	x	<0.001	x	x	x	x
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	x	x	x	x	x	<0.05	x	x	x	x
Isopropylbenzene ¹	98-82-8	mg/L	-	<0.001	<0.0005	x	x	x	x	x	x	x	x	x	x
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	x	x	<0.005	x	x	x	x
Methyl iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.005	<0.005	<0.001	<0.04	<0.04	<0.04	<0.04	<0.001	<0.01	<0.01	x	<0.01
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	x	x	<0.03	x	x	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.001	<0.0005	<0.015	<0.001	<0.001	<0.001	<0.001	<0.015	<0.001	<0.001	x	<0.001
n-Butylbenzene ¹	104-51-8	mg/L	-	<0.001	<0.0005	x	x	x	x	x	x	x	x	x	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	x	x	x	x	<0.06	x	x	x	x
Propylbenzene ¹	103-65-1	mg/L	-	<0.001	<0.0005	x	x	x	x	x	x	x	x	x	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	<0.001	<0.0005	x	x	x	x	x	x	x	x	x	x
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	x	<0.001
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	<0.001	<0.005	x	x	x	x	x	<0.001	x	x	x	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	<0.001	<0.0005	x	x	x	x	x	x	x	x	x	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.0005
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	<0.010	x	x	x	x	x	x	x	x	x	x
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	x	<0.001
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.002	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	x	<0.002
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.0005	<0.005					<0.002	<0.001	<0.001	x	<0.001
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	x	<0.001
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.001	<0.010	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.001	<0.001	x	<0.001
Trichloroethene (TCE)	79-01-6	mg/L	0.005	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	<0.001
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	x	<0.001
Vinyl acetate ¹	108-05-4	mg/L	-	<0.001	<0.025	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	x	<0.01
Vinyl Chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0005	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	x	<0.0004
Trihalomethanes (THM)															
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	x	<0.001
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.001	<0.001	x	<0.001
Chloroform ¹	67-66-3	mg/L	0.1	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	x	<0.001
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	x	<0.001
Semi Volatile Organic Compounds															
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	<0.0001	<0.005	<0.01	x	x	x	x	<0.001	x	x	x	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x	<0.0002	x	x	<0.0002	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	<0.0001	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	<0.0002	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	<0.0001	<0.010	<0.01	x	x	x	x	<0.001	x	x	x	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Acenaphthene ¹	83-32-9	mg/L	-	<0.0001	<0.005	<0.0001	x	x	x	x	<0.00005	x	x	x	x
Acenaphthylene ¹	208-96-8	mg/L	-	<0.0001	<0.005	x	x	x	x	x	<0.001	x	x	x	x
Acetophenone ¹	98-86-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	<0.0001	<0.005	x	x	x	x	x	<0.001	x	x	x	x
Benidine ¹	92-87-5	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	<0.0001	<0.005	x	x	x	x	x	<0.001	x	x	x	x
Benzo (b) fluoranthene ¹	205-99-2	mg/L	-	<0.0001	<0.005	x	x	x	x	x	<0.00005	x	x	x	x
Benzo (g,h,l) perylene ¹	191-24-2	mg/L	-	<0.0001	<0.005	x	x	x	x	x	<0.00005	x	x	x	x
Benzo (k) fluoranthene ¹	207-08-9	mg/L	-	<0.0001	<0.005	x	x	x	x	x	<0.00005	x	x	x	x
Benzo[a]pyrene ¹	50-32-8	mg/L	0.0002	<0.0001	<0.005	x	x	x	x	x	<0.001	x	x	x	x
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
bis (2-Chloroisopropyl) ether															
(bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Carbazole	86-74-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Chrysene ¹	218-01-9	mg/L	-	<0.0001	<0.005	x	x	x	x	x	<0.00005	x	x	x	x
Diallate ¹	2303-16-4	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Dibenz(a,j)acridine	224-42-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	<0.0001	<0.005	x	x	x	x	x	<0.00005	x	x	x	x
Dibenzofuran ¹	132-64-9	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Diethylphthalate ¹	84-66-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Dimethylphthalate ¹	131-11-3	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x
Di-n-octylphthalate ¹															

APPENDIX B
Las Cruces Foothills Landfill MW-3

Las Cruces Foothills Landfill monitoring well MW-3

Constituent	CAS Number	unit	GWPS	RESULTS FOR MW-3												
				12/18/02	7/15/03	12/29/03	12/2/04	12/14/05	12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	5/18/11	12/27/11	
date																
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Fluoranthene ¹	206-44-0	mg/L	-	<0.0001	<0.005	x	x	x	x	x	x	<0.001	x	x	x	x
Fluorene ¹	86-73-7	mg/L	-	<0.0001	<0.005	x	x	x	x	x	x	<0.001	x	x	x	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	x	x	x	x	x	x	<0.0001	x	x	x	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
HMX ¹	2691-41-0	mg/L	-	x	x	x	x	x	x	x	x	<0.0001	x	x	<0.0001	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	<0.0001	<0.005	x	x	x	x	x	x	<0.00005	x	x	x	x
Isophorone ¹	78-59-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Isosafrole ¹	120-58-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	x	x	x	x	x	<0.0001	x	x	<0.0001	x
Methapyrilene ¹	91-80-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	<0.0001	<0.0005	<0.01	x	x	x	x	x	<0.001	x	x	x	x
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	<0.0001	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	<0.0001	<0.005	x	x	x	x	x	x	<0.001	x	x	x	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	<0.0001	<0.005	x	x	x	x	x	x	<0.001	x	x	x	x
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	<0.0001	x	x	<0.0001	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	<0.0001	x	x	<0.0001	x
Semi Volatile Organic Compounds - Phenolics																
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Radium 226 and 228	NA	pCi/L	5	0.0	0.6	<2.5						0.35				
Ra-226, total	NA	pCi/L	-	0.0	0.5	<2.5	x	x	x	x	x	0.03	x	x	x	x
Ra-228 ¹ , total	NA	pCi/L	-	0.0	0.1	<2.5	x	x	x	x	x	0.32	x	x	x	x
Chlorinated Pesticides																
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	<0.0002	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹																
Arochlor-1016	12674-11-2	mg/L	-	<0.0005	<0.0005	<0.0005	x	x	x	x	x	<0.00025	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	<0.0005	<0.0005	<0.0005	x	x	x	x	x	<0.00025	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	<0.0005	<0.0005	<0.0005	x	x	x	x	x	<0.00025	x	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	<0.0005	<0.0005	<0.0005	x	x	x	x	x	<0.00025	x	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	<0.0005	<0.0005	<0.0005	x	x	x	x	x	<0.00025	x	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	<0.0005	<0.0005	<0.0005	x	x	x	x	x	<0.00025	x	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	<0.0005	<0.0005	<0.0005	x	x	x	x	x	<0.00025	x	x	x	x
Other Pesticides and Herbicides¹																
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x	x	<0.00101	x	x	x	x

APPENDIX B

Las Cruces Foothills Landfill MW-3

Las Cruces Foothills Landfill monitoring well MW-3

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-3											
				12/18/02	7/15/03	12/29/03	12/2/04	12/14/05	12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	5/18/11	12/27/11
date															
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	x	x	x	<0.00005	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	x	x	x	<0.00005	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	x	x	x	<0.00005	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
Silvex ¹	93-72-1	mg/L	-	x	x	x	x	x	x	x	x	<0.00005	x	x	x
o,o-Diethyl o-pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x

¹ hazardous

x parameter not analyzed

(^*) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics con

(^^) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(*) This concentration attributed to laboratory contamination of method blank and not the presence of

(#) Scanned for and not detected , breaks down almost immediately in water.

APPENDIX B
Las Cruces Foothills Landfill MW-3

Las Cruces Foothills Landfill monitoring well MW-3

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-3										baseline	standard
														average	deviation
				6/19/12	12/19/12	6/25/13	12/19/13	6/26/14	12/11/14	6/18/15	12/17/15	6/16/16	12/11/17	1/12/99 to 5/18/00	1/12/99 to 5/18/00
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Fluoranthene ¹	206-44-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Fluorene ¹	86-73-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
HMX ¹	2691-41-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Isophorone ¹	78-59-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Isosafrole ¹	120-58-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Methapyrilene ¹	91-80-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	x	x	x	x	x	<0.002	x	x	x	x	0.001	x
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	0.0001	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	0.00025	x
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics															
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	x	x	x	x	x
Radium 226 and 228	NA	pCi/L	5						0.641					3.88	3.88
Ra-226, total	NA	pCi/L	-	x	x	x	x	x	0.283	x	x	x	x	1.06	1.06
Ra-228 ¹ , total	NA	pCi/L	-	x	x	x	x	x	0.358	x	x	x	x	2.81	2.81
Chlorinated Pesticides															
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹		mg/L	0.001												
Arochlor-1016	12674-11-2	mg/L	-	x	x	x	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	x	x	x	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	x	x	x	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	x	x	x	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	x	x	x	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	x	x	x	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	x	x	x	x	x	<0.00025	x	x	x	x	x	x
Other Pesticides and Herbicides¹															
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x	x	x	x	x	x

APPENDIX B

Las Cruces Foothills Landfill MW-3

Las Cruces Foothills Landfill monitoring well MW-3

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-3										baseline	standard
														average	deviation
				6/19/12	12/19/12	6/25/13	12/19/13	6/26/14	12/11/14	6/18/15	12/17/15	6/16/16	12/11/17	1/12/99 to 5/18/00	1/12/99 to 5/18/00
date															
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Silvex ¹	93-72-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x

¹ hazardous
x parameter not analyzed
(*) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics con
(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.
(*) This concentration attributed to laboratory contamination of method blank and not the presence of
(#) Scanned for and not detected , breaks down almost immediately in water.

MW-4

APPENDIX B
Las Cruces Foothills Landfill MW-4

Las Cruces Foothills Landfill monitoring well MW-4

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-4											
				1/12/99	5/11/99	7/7/99	9/1/99	11/1/99	5/18/00	11/9/00	6/13/01	11/6/01	4/3/02	7/12/02	9/25/02
Field Parameters															
water level elevation		ft amsl	-	3950.09	3945.49	3947.36	3947.78	3947.95	3945.52	3924.98	3944.79	3943.20	3942.52	3942.01	3941.25
conductivity		µS/cm	-	414	415	434	486	478	445	461	501	491	522	500	551
pH		pH units	6-9	7.46	7.26	7.07	6.98	7.25	7.30	7.41	7.37	7.32	7.18	7.28	7.15
temperature		deg F	-	90.3	91.4	95	88.1	91.4	91.4	77.2	91.6	89.8	91.7	92.0	90.2
Major Ions															
calcium	7440-70-2	mg/L	-	54.5	51.9	53.5	54.2	57.2	61.0	61	68.1	71.3	x	69	70
chloride	16887-00-6	mg/L	250	6.3	6.4	5.9	5.6	6.2	6.1	5.9	6.0	6.3	x	7.2	7.7
fluoride ¹	16984-48-8	mg/L	1.6	0.68	0.68	0.62	0.65	0.61	0.60	0.58	0.52	0.55	x	0.47	0.52
magnesium	7439-95-4	mg/L	-	7.1	6.5	6.8	6.5	7	7.3	7.6	7.7	10.2	x	8.9	9
potassium	7440-09-7	mg/L	-	2.9	1.6	2.7	2.1	1.8	2.6	1.9	2.2	3.2	x	2.5	2.5
sodium	82115-62-6	mg/L	-	31.8	26.9	26.2	24.3	27.1	26.2	32	30.6	18.7	x	30	30
sulfate	18785-72-3	mg/L	600	31	32	35	31	31	33	32	32	33	x	35	41
alkalinity	NA	mg/L	-	175.4	178.5	179	183	182.5	189.4	196.4	207.5	218.0	x	230	240
bicarbonate alkalinity	71-52-3	mg/L	-	214.1	178.5	218.4	223.3	222.7	231.2	239.7	253.2	266.0	x	230	240
carbonate alkalinity	3812-32-6	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	0.0	0.0	0.0	0.0	x	1	
total dissolved solids	NA	mg/L	1,000	267	276	264	261	274	281	276	289	286	x	320	350
Nitrogen Species															
ammonia as N	1331-21-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	<0.05
Kjeldahl nitrogen	7727-37-9	mg/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	x	<0.050	<0.5
nitrate as N	14797-55-8	mg/L	10	0.91	1.02	0.98	0.99	1	0.92	0.99	0.86	1.01	x	1.1	1.2
nitrite	14797-65-0	mg/L	-	0.91	1.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	<0.10	<0.1
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Metals															
aluminum	7429-90-5	mg/L	5.0	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	<0.05	<0.05	<0.05	x	<0.10	<0.03
antimony ¹	7440-36-0	mg/L	0.006	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.05	<0.050	0.007 (")
arsenic ¹	7440-38-2	mg/L	0.01	0.0008	0.0008	0.0008	0.0007	0.0009	0.001	0.0008	0.0008	0.0009	<0.005	<0.0050	<0.004
barium ¹	7440-39-3	mg/L	1.0	0.045	0.049	0.0457	0.0451	0.0454	0.0468	0.0487	0.0576	0.0544	0.058	0.061	0.06
beryllium ¹	7440-41-7	mg/L	0.004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.003	<0.0030	<0.001
boron	7440-42-8	mg/L	0.75	<0.01	0.03	0.06	0.06	0.06	<0.01	0.02	0.01	<0.01	x	<0.10	0.045
cadmium ¹	7440-43-9	mg/L	0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.005	<0.0010	<0.001
chromium ¹	7440-47-3	mg/L	0.05	<0.0001	0.00014	0.0023	<0.0001	0.0032	<0.0001	0.0019	0.0015	0.0107	<0.005	<0.0050	<0.002
cobalt ¹	7440-48-4	mg/L	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010	<0.001
copper ¹	7440-50-8	mg/L	1.0	0.0006	<0.0004	<0.0004	0.0008	<0.0004	<0.0004	<0.0004	0.0005	0.0007	<0.01	<0.010	0.001
iron	7439-89-6	mg/L	1.0	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	x	<0.10	<0.007
lead ¹	7439-92-1	mg/L	0.05	0.0001	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	0.0011	0.0004	<0.005	<0.0050	<0.002
manganese	7439-96-5	mg/L	0.2	<0.02	0.03	<0.02	<0.02	0.03	<0.005	0.009	<0.005	<0.005	x	<0.010	0.005
mercury ¹	7439-97-6	mg/L	0.002	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.00020	<0.07
molybdenum	7439-98-7	mg/L	1.0	<0.05	<0.05	<0.05	<0.05	<0.05	0.002	0.001	0.0011	x	<0.010	<0.002	
nickel ¹	7440-02-0	mg/L	0.2	0.0046	0.0028	0.0024	0.0027	0.00275	0.00216	0.00255	0.00238	0.00332	<0.005	<0.0050	<0.002
selenium ¹	7782-49-2	mg/L	0.05	0.001	0.001	0.001	0.001	0.0011	0.0015	<0.001	0.0016	<0.001	<0.01	<0.010	<0.003
silver ¹	7440-22-4	mg/L	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	<0.02	<0.005	<0.0050	<0.002
thallium ¹	7440-28-0	mg/L	0.002	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	0.00013	<0.01	<0.02	<0.003
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.01	x	x
uranium ¹	7440-61-1	mg/L	0.03	0.0049	0.0052	0.00495	0.00505	0.00524	0.00571	0.00512	0.00728	0.00748	x	<0.02	0.00759
vanadium ¹	7440-62-2	mg/L	-	<0.05	<0.05	0.08	<0.05	<0.05	-	<0.05	<0.05	<0.05	<0.01	<0.010	0.004
zinc	7440-66-6	mg/L	10.0	<0.01	<0.01	<0.01	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.02	<0.020	0.008
total organic carbon	-	mg/L	-	<0.5	0.53	<0.5	0.6	<0.5	0.6	0.6	0.5	0.8	x	1.1	1
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
sulfide ¹	18496-25-8	mg/L	-	x	x	x	x	x	x	x	x	x	<1.0	x	x
cyanide ¹	57-12-5	mg/L	0.2	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.005	<0.0050	<0.005
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	0.01	<0.005	<0.02	<0.003	<0.003	0.010	<0.003	0.003	0.001	(^)	0.0044	<0.003
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	(^^)	(^^)	(^^)
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	0.001	0.0013	0.0012	0.001	0.001	0.0011	0.0013	0.0021	0.0022	0.004	0.0023	0.0021
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE)	75-35-4	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	x	x	x	x	x	x	x	x	<0.001	<0.001	<0.001
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.01	<0.01	<0.0005	<0.0005	<0.0005	<0.00001	<0.00001	<0.0005	<0.0005	x	<0.001	<0.00001
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	x
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.02	<0.001	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	x	x	x	x	x	x	x	x	x	<0.001	<0.001	<0.001
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0002	<0.001	<0.0002
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.							

APPENDIX B

Las Cruces Foothills Landfill MW-4

Las Cruces Foothills Landfill monitoring well MW-4

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-4												
				1/12/99	5/11/99	7/7/99	9/1/99	11/1/99	5/18/00	11/9/00	6/13/01	11/6/01	4/3/02	7/12/02	9/25/02	
date																
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	5E-05	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	<0.00001
Hexachlorobutadiene ¹	87-68-3	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Isopropylbenzene ¹	98-82-8	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	x
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	x	x	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.005
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.002	<0.002	<0.0005	<0.0005	<0.0005	<0.0005	0.0008	0.0008	0.001	0.0011	0.0013	0.0011	0.0011
n-Butylbenzene ¹	104-51-8	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Propylbenzene ¹	103-65-1	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	x
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	<0.001	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	<0.001	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0068	0.007	0.0065	0.0031	0.0039	0.006	0.0068	0.0071	0.0079	0.0065	0.0068	0.0068	0.0072
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x	x
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	0.0013	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.002
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	x	x	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.001	0.0012	0.0012	0.001	0.0009	0.001	0.0013	0.0016	0.0017	0.0016	0.0016	0.0019	0.0018
Trichlorofluoromethane ¹	75-69-4	mg/L	-	0.0012	<0.001	0.0017	0.0023	0.0023	0.0032	0.0042	0.0039	0.0054	0.0055	0.0068	0.0068	0.0067
Vinyl acetate ¹	108-05-4	mg/L	-	x	x	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001
Vinyl Chloride ¹	75-01-4	mg/L	0.001	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0004	<0.001	<0.0004

Trihalomethanes (THM)

Bromodichloromethane ¹	75-27-4	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Chloroform ¹	67-66-3	mg/L	0.1	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001

Semi Volatile Organic Compounds

1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.0001
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.0001
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Acenaphthene ¹	83-32-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001
Acenaphthylene ¹	208-96-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001
Acetophenone ¹	98-86-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001
Benzidine ¹	92-87-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001
Benzo (b) fluoranthene ¹	205-99-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001
Benzo (g,h,i) perylene ¹	191-24-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001
Benzo (k) fluoranthene ¹	207-08-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001
Benzo[a]pyrene ¹	50-32-8	mg/L	0.0002	<0.1	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.02	<0.0001	<0.0001
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x</											

APPENDIX B
Las Cruces Foothills Landfill MW-4

Las Cruces Foothills Landfill monitoring well MW-4

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-4											
				1/12/99	5/11/99	7/7/99	9/1/99	11/1/99	5/18/00	11/9/00	6/13/01	11/6/01	4/3/02	7/12/02	9/25/02
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
HMX ¹	2691-41-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	<0.0001	<0.0001
Isophorone ¹	78-59-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Isosafrole ¹	120-58-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Methapyrilene ¹	91-80-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	<1.0	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.0005	0.001	0.0008	<0.02	<0.0001	<0.0001
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	<0.1	<0.001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.02	<0.0001	<0.0001
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	<0.25	<0.001	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.02	<0.0001	<0.0001
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics															
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	x	x	<0.1	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.1	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x	x	x	x	<0.1	x	x
4-Chloro-3-methylphenol (p-Chloro-m-cresol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.02	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.1	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.1	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	x	x	<0.00078	x	x
Radium 226 and 228															
Ra-226, total	NA	pCi/L	5	1.15	1.43	1.74	1.79	1.34	0.72	1.64	0.89	1.14	x	3.114	1.648
Ra-228 ¹ , total	NA	pCi/L	-	1.00	1.27	1.2	1.62	1.18	0.56	1.52	0.75	0.97	x	2.86	1.38
Chlorinated Pesticides															
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.00005	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.003	<0.00005	x
Polychlorinated Biphenyls (PCBs)¹															
Arochlor-1016	12674-11-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005
Arochlor-1221	11104-28-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005
Arochlor-1232	11141-16-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005
Arochlor-1242	53469-21-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005
Arochlor-1248	12672-29-6	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005
Arochlor-1254	11097-69-1	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005
Arochlor-1260	11096-82-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.0005	<0.0005	<0.0005
Other Pesticides and Herbicides¹															
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	x	x	x	x	<0.003	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x	x

APPENDIX B

Las Cruces Foothills Landfill MW-4

Las Cruces Foothills Landfill monitoring well MW-4

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-4												
				1/12/99	5/11/99	7/7/99	9/1/99	11/1/99	5/18/00	11/9/00	6/13/01	11/6/01	4/3/02	7/12/02	9/25/02	
date																
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x
Silvex ¹	93-72-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.002	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x

* baseline averages and standard deviations are based on 1999 and 2000 data only as per requirements in Environmental Protection, subpart 803. Ground Water Sampling and Analysis, 1995.

¹ hazardous

x parameter not analyzed

(*) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics concentrations.

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(#) This concentration attributed to laboratory contamination of method blank and not the presence of antimony in the ground water sampled.

(#) Scanned for and not detected , breaks down almost immediately in water.

APPENDIX B

Las Cruces Foothills Landfill MW-4

Las Cruces Foothills Landfill monitoring well MW-4

*no sampling of MW-4 on 12/12/06 because pump was not working

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-4												
				12/18/02	7/15/03	12/29/03	12/2/04	12/14/05	6/21/07	1/18/08	12/23/08	12/29/09	12/29/10	12/27/11	6/19/12	12/19/12
Field Parameters																
water level elevation		ft amsl	-	3940.80	3939.63	3939.00	3937.17	3936.34	3935.21	3935.00	3936.25	3934.85	3938.34	3938.32	3937.37	3937.12
conductivity		µS/cm	-	578	625	540	601	676	690	720	690	869	790	827	750	790
pH		pH units	6-9	7.14	7.26	7.30	7.39	8.20	6.82	6.82	7.23	6.70	7.40	6.71	6.73	6.45
temperature		deg F	-	93.5	95.0	90.9	92.5	89.4	93.6	91.8	87.8	89.4	90.1	89.1	86.5	88.3
Major Ions																
calcium	7440-70-2	mg/L	-	72	78.9	79	87	100	92	100	96	110	120	120	95	110
chloride	16887-00-6	mg/L	250	10	7	7.3	6.9	6.3	6.7	6.6	6.3	7.8	6.1	6.3	6.4	6.3
fluoride ¹	16984-48-8	mg/L	1.6	0.49	0.3	<0.4	x	x	x	x	0.31	x	0.29	x	x	x
magnesium	7439-95-4	mg/L	-	9.5	10.1	9.7	12	13	12	14	13	15	16	15	12	13
potassium	7440-09-7	mg/L	-	2.7	2.8	2.3	2.4	3.1	2.4	2.9	2.5	2.6	2.9	3.0	3.0	2.9
sodium	82115-62-6	mg/L	-	31	32.1	28	31	36	33	38	31	35	35	37	62	54
sulfate	18785-72-3	mg/L	600	35	33	33	32	31	32	32	31	34	33	33	35	34
alkalinity	NA	mg/L	-	240	263	280	300	320	330	340	350	350	370	380	390	390
bicarbonate alkalinity	71-52-3	mg/L	-	240	262	280	300	320	330	340	350	350	370	380	390	390
carbonate alkalinity	3812-32-6	mg/L	-	x	<20	<2.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
total dissolved solids	NA	mg/L	1,000	320	350	340	370	430	440	440	450	454	472	468	490	484
Nitrogen Species																
ammonia as N	1331-21-6	mg/L	-	<0.05	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0
Kjeldahl nitrogen	7727-37-9	mg/L	-	0.52	<1	<1.0	x	x	x	x	<1.0	x	x	x	x	x
nitrate as N	14797-55-8	mg/L	10	1.3	0.8	<1.0	1	<1.0	0.85	0.88	0.84	0.92	0.96	0.95	0.28	0.49
nitrite	14797-65-0	mg/L	-	<0.1	<0.1	<1.0	x	x	x	x	x	x	x	x	x	x
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	<1.0	x	x	x	x	x
Metals																
aluminum	7429-90-5	mg/L	5.0	<0.03	<0.03	<3.0	<3.0	x	x	x	<0.02	x	<0.02	x	x	x
antimony ¹	7440-36-0	mg/L	0.006	<0.004	<0.0004	<0.003	x	x	x	x	<0.001	<0.001	<0.001	<0.0025	<0.001	<0.001
arsenic ¹	7440-38-2	mg/L	0.01	<0.004	0.0008	<0.01	x	x	x	x	0.004	0.002	<0.001	<0.0025	<0.001	<0.001
barium ¹	7440-39-3	mg/L	1.0	0.063	0.0683	0.06	x	x	x	x	0.079	0.085	0.094	0.093	0.077	0.075
beryllium ¹	7440-41-7	mg/L	0.004	<0.001	<0.0002	<0.002	x	x	x	x	<0.003	x	<0.001	0.00041	<0.002	<0.002
boron	7440-42-8	mg/L	0.75	0.048	<0.1	<0.5	x	x	x	x	0.05	x	0.053	x	x	x
cadmium ¹	7440-43-9	mg/L	0.005	<0.001	<0.0001	<0.002	x	x	x	x	<0.002	<0.0020	<0.002	<0.002	<0.002	<0.002
chromium ¹	7440-47-3	mg/L	0.05	<0.002	0.0043	<0.01	x	x	x	x	<0.006	<0.0060	<0.006	0.0028	<0.006	<0.006
cobalt ¹	7440-48-4	mg/L	0.05	<0.001	0.00011	<0.03	x	x	x	x	<0.006	<0.0060	<0.006	0.0011	<0.006	<0.006
copper ¹	7440-50-8	mg/L	1.0	0.001	0.001	<0.06	x	x	x	x	<0.006	<0.0060	<0.006	0.0035	0.015	0.023
iron	7439-89-6	mg/L	1.0	<0.007	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.050	<0.05	0.099	<0.02	<0.02
lead ¹	7439-92-1	mg/L	0.05	<0.002	0.0007	<0.01	x	x	x	x	<0.005	<0.0050	<0.005	0.0068	0.015	0.012
manganese	7439-96-5	mg/L	0.2	0.005	<0.010	<0.03	<0.030	<0.03	<0.03	<0.03	0.003	0.006	0.002	0.0057	0.022	0.016
mercury ¹	7439-97-6	mg/L	0.002	<0.2	<0.0002	<0.001	x	x	x	x	<0.0002	x	<0.0002	x	x	x
molybdenum	7439-98-7	mg/L	1.0	<0.002	<0.010	<0.75	x	x	x	x	<0.008	x	<0.008	x	x	x
nickel ¹	7440-02-0	mg/L	0.2	<0.002	0.00273	<0.05	x	x	x	x	<0.01	<0.010	<0.01	<0.0003	<0.01	0.0042
selenium ¹	7782-49-2	mg/L	0.05	<0.003	0.0011	<0.005	x	x	x	x	0.002	<0.001	<0.001	<0.0025	<0.001	<0.001
silver ¹	7440-22-4	mg/L	0.05	<0.002	<0.010	<0.01	x	x	x	x	<0.005	<0.0050	<0.005	<0.005	<0.005	<0.005
thallium ¹	7440-28-0	mg/L	0.002	<0.003	0.00005	<0.001	x	x	x	x	<0.001	<0.001	<0.001	<0.0025	<0.001	<0.001
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	x	x	<0.1	x	x	x	x	x
uranium ¹	7440-61-1	mg/L	0.03	0.00766	0.009	<2.5	x	x	x	x	0.012	x	x	x	x	x
vanadium ¹	7440-62-2	mg/L	-	0.003	<0.050	<0.08	x	x	x	x	<0.05	<0.050	<0.05	0.0046	<0.05	<0.05
zinc	7440-66-6	mg/L	10.0	<0.008	<0.020	<0.05	x	x	x	x	<0.02	<0.020	<0.02	0.026	0.17	0.16
total organic carbon	-	mg/L	-	<1.0	<0.5	0.59	0.6	<0.5	<1.0	<1.0	1.5	1.3	<1.0	0.85	<1.0	0.72
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	<0.50	x	<0.50	x	x	x
sulfide ¹	18496-25-8	mg/L	-	x	x	x	x	x	x	x	3	x	x	x	x	x
cyanide ¹	57-12-5	mg/L	0.2	<0.005	<0.01	<0.1	x	x	x	x	<0.005	x	x	x	x	x
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	<0.003	<0.005	<0.003	<0.003	<0.003	<0.003	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	(^^)	(^^)	(^^)	x	x	x	x	(^^)	x	x	x	x	x
Volatile Organic Compounds																
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.001	<0.0005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	0.0027	0.003	<0.005	<0.005	<0.005	<0.005	<0.005	0.003	0.0037	0.0041	0.004	0.0039	0.0046
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE)	75-35-4	mg/L	0.005	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00043	<0.001	<0.001
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	<0.0005	x	x	x	x	x	<0.005	x	x	x	x	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.00001	<0.00001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	<0.001	<0.0005	x	x	x	x	x	x	x	x	x	x	x
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.001	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	<0.001	<0.0005	x	x	x	x	x	<0.001	x	x	x	x	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	x	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	<0.001	<0.0005	x	x	x	x	x	<0.01	<0.001	x	x	x	x
1,3-Dichloropropane ¹	142-28-9	mg/L	-	<0.001	<0.0005	x	x	x	x	x	<0.01	x	x			

APPENDIX B

Las Cruces Foothills Landfill MW-4

*no sampling of MW-4 on 12/12/06 because pump was not working

Las Cruces Foothills Landfill monitoring well MW-4

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-4													
				12/18/02	7/15/03	12/29/03	12/2/04	12/14/05	6/21/07	1/18/08	12/23/08	12/29/09	12/29/10	12/27/11	6/19/12	12/19/12	
date																	
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	5E-05	<0.00001	<0.00001	<0.000025	<0.000025	<0.000025	<0.000025	<0.000025	<0.000025	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Hexachlorobutadiene ¹	87-68-3	mg/L	-	<0.001	<0.0005	x	x	x	x	x	x	<0.001	x	x	x	x	x
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	x	x	x	x	x	x	<0.05	x	x	x	x	x
Isopropylbenzene ¹	98-82-8	mg/L	-	<0.001	<0.0005	x	x	x	x	x	x	x	x	x	x	x	x
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	x	x	x	<0.005	x	x	x	x	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.005	<0.005	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	x	x	x	<0.03	x	x	x	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	0.0018	0.0025	0.002	<0.001	0.0051	0.0063	0.0068	0.007	0.0084	0.010	0.012	0.0063	0.010	
n-Butylbenzene ¹	104-51-8	mg/L	-	<0.001	<0.0005	x	x	x	x	x	x	x	x	x	x	x	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	x	x	x	x	x	<0.06	<0.01	x	x	x	x
Propylbenzene ¹	103-65-1	mg/L	-	<0.001	<0.0005	x	x	x	x	x	x	x	x	x	x	x	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	<0.001	<0.0005	x	x	x	x	x	x	x	x	x	x	x	x
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	<0.001	<0.005	x	x	x	x	x	x	<0.001	x	x	x	x	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	<0.001	<0.0005	x	x	x	x	x	x	x	x	x	x	x	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0071	0.0076	0.0078	<0.0005	0.01	0.0091	0.0092	0.0088	0.011	0.011	0.010	0.0095	0.0095	
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	<0.010	x	x	x	x	x	x	x	x	x	x	x	x
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	0.00018	<0.001	<0.001	
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.002	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	0.00085	<0.002	<0.002	
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.0005	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	0.00039	<0.001	<0.001	
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.001	<0.010	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.0019	0.002	0.002	<0.001	0.003	0.003	0.0033	0.0031	0.0033	0.0032	0.0036	0.0036	0.0024	
Trichlorofluoromethane ¹	75-69-4	mg/L	-	0.0062	0.0065	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0033	<0.001	0.0023	0.0013	0.0013	0.0016
Vinyl acetate ¹	108-05-4	mg/L	-	<0.001	<0.025	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Vinyl Chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0005	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	0.00045	<0.0004	0.00064	<0.0004	<0.0004	
Trihalomethanes (THM)																	
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroform ¹	67-66-3	mg/L	0.1	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Semi Volatile Organic Compounds																	
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	<0.0001	<0.005	<0.01	x	x	x	x	x	<0.001	x	x	x	x	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x	x	<0.0002	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	<0.0001	<0.010	<0.01	x	x	x	x	x	<0.001	x	x	x	x	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
Acenaphthene ¹	83-32-9	mg/L	-	<0.0001	<0.005	<0.0001	x	x	x	x	x	<0.00005	x	x	x	x	x
Acenaphthylene ¹	208-96-8	mg/L	-	<0.0001	<0.005	x	x	x	x	x	x	<0.001	x	x	x	x	x
Acetophenone ¹	98-86-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
alpha, alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	<0.0001	<0.005	x	x	x	x	x	x	<0.001	x	x	x	x	x
Benidine ¹	92-87-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	<0.0001	<0.005	x	x	x	x	x	x	<0.001	x	x	x	x	x
Benzo (b) fluoranthene ¹	205-99-2	mg/L	-	<0.0001	<0.005	x	x	x	x	x	x	<0.00005	x	x	x	x	x
Benzo (g,h,i) perylene ¹	191-24-2	mg/L	-	<0.0001	<0.005	x	x	x	x	x	x	<0.00005	x	x	x	x	x
Benzo (k) fluoranthene ¹	207-08-9	mg/L	-	<0.0001	<0.005	x	x	x	x	x	x	<0.00005	x	x	x	x	x
Benzo[a]pyrene ¹	50-32-8	mg/L	0.0002	<0.0001	<0.005	x	x	x	x	x	x	<0.001	x	x	x	x	x
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L															

APPENDIX B

Las Cruces Foothills Landfill MW-4

*no sampling of MW-4 on 12/12/06 because pump was not working

Las Cruces Foothills Landfill monitoring well MW-4

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-4												
				12/18/02	7/15/03	12/29/03	12/2/04	12/14/05	6/21/07	1/18/08	12/23/08	12/29/09	12/29/10	12/27/11	6/19/12	12/19/12
Hexachlorocyclopentadiene¹																
Hexachlorocyclopentadiene ¹	1888-71-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
HMX¹																
HMX ¹	2691-41-0	mg/L	-	x	x	x	x	x	x	x	x	<0.0001	x	x	x	x
Indeno (1,2,3-cd) pyrene¹																
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	<0.0001	<0.005	x	x	x	x	x	x	<0.00005	x	x	x	x
Isophorone¹																
Isophorone ¹	78-59-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Isosafrole¹																
Isosafrole ¹	120-58-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
m-Dinitrobenzene (1,3-DNB)																
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	x	x	x	x	x	<0.0001	x	x	x	x
Methapyrilene¹																
Methapyrilene ¹	91-80-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Methyl methanesulfonate¹																
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Naphthalene¹																
Naphthalene ¹	91-20-3	mg/L	0.03	<0.0001	<0.005	<0.01	x	x	x	x	x	<0.001	x	x	x	x
Nitrobenzene¹																
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosodiethylamine¹																
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosodimethylamine¹																
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosodi-n-butylamine¹																
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosodipropylamine¹																
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosodiphenylamine¹																
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosomethylethylamine¹																
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosopiperidine¹																
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
n-Nitrosopyrrolidine¹																
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
o-Toluidine¹																
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
p-(Dimethylamino) azobenzene¹																
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Pentachlorobenzene¹																
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Pentachloronitrobenzene¹																
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Phenacetin¹																
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Phenanthrene¹																
Phenanthrene ¹	85-01-8	mg/L	-	<0.0001	<0.005	x	x	x	x	x	x	<0.001	x	x	x	x
p-Phenylenediamine¹																
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Pronamide¹																
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Pyrene¹																
Pyrene ¹	129-00-0	mg/L	-	<0.0001	<0.005	x	x	x	x	x	x	<0.001	x	x	x	x
Pyridine¹																
Pyridine ¹	110-86-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
RDX¹																
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	<0.0001	x	x	x	x
Safrole¹																
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
sym-Trinitrobenzene¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)																
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	<0.0001	x	x	x	x
Semi Volatile Organic Compounds - Phenolics																
2,3,4,6-Tetrachlorophenol¹																
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,4,5-Trichlorophenol¹																
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,4,6-Trichlorophenol¹																
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,4-Dichlorophenol¹																
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,4-Dimethylphenol¹																
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,4-Dinitrophenol¹																
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2,6-Dichlorophenol¹																
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2-Chlorophenol¹																
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2-Methylphenol (o-Cresol)¹																
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
2-Nitrophenol (o-Nitrophenol)¹																
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol)¹																
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44-0	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)¹																
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
4-Chloro-3-methylphenol (p-Chloro-m-cresol)¹																
4-Chloro-3-methylphenol (p-Chloro-m-cresol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
4-Nitrophenol (p-Nitrophenol)¹																
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
5-Nitro-o-toluidine¹																
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Pentachlorophenol¹																
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Phenol¹ (a)																
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Radium 226 and 228																
Radium 226 and 228	NA	pCi/L	5	2.564	0.8	<2.5	x	x	x	x	x	1.53				
Ra-226, total																
Ra-226, total	NA	pCi/L	-	0.844	0.7	<2.5	x	x	x	x	x	0.13	x	x	x	x
Ra-228¹, total																
Ra-228 ¹ , total	NA	pCi/L	-	1.72	0.1	<2.5	x	x	x	x	x	1.4	x	x	x	x
Chlorinated Pesticides																
4,4'-DDD (p,p'-DDD)¹																
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
4,4'-DDE (p,p'-DDE)¹																
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
4,4'-DDT (p,p'-DDT)¹																
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
aldrin¹																
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
alpha-BHC¹																
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
alpha-Chlordane¹																
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
beta-BHC¹																
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Chlordane¹																
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	<0.0002	x	x	x	x
delta-BHC¹																
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Dieldrin¹																
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Endosulfan I (alpha-Endosulfan)¹																
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Endosulfan II (beta-Endosulfan)¹																
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Endosulfan sulfate¹																
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Endrin aldehyde¹																
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Endrin ketone¹																
Endrin ketone ¹	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
Endrin¹																
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x	x
gamma-BHC¹																
gamma																

APPENDIX B

Las Cruces Foothills Landfill MW-4

*no sampling of MW-4 on 12/12/06 because pump was not working

Las Cruces Foothills Landfill monitoring well MW-4

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-4												
				12/18/02	7/15/03	12/29/03	12/2/04	12/14/05	6/21/07	1/18/08	12/23/08	12/29/09	12/29/10	12/27/11	6/19/12	12/19/12
date																
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x
Silvex ¹	93-72-1	mg/L	-	x	x	x	x	x	x	x	x	<0.00005	x	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x	x

* baseline averages and standard deviations are based on 1999 and 2000 data only as per requiremer

¹ hazardous

x parameter not analyzed

(^*) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics conce

(^^) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(") This concentration attributed to laboratory contamination of method blank and not the presence of a

(#) Scanned for and not detected , breaks down almost immediately in water.

APPENDIX B

Las Cruces Foothills Landfill MW-4

Las Cruces Foothills Landfill monitoring well MW-4													baseline	standard		
constituent	CAS Number	unit	GWPS	RESULTS FOR MW-4										average	deviation	
				6/25/13	12/19/13	6/26/14	12/11/14	6/18/15	12/17/15	6/16/16	12/27/16	6/28/17	12/6/17	1/12/99 to 5/18/00	1/12/99 to 5/18/00	
date																
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	5E-05	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	x	
Hexachlorobutadiene ¹	87-68-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Isopropylbenzene ¹	98-82-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.001	x	
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Methylene Chloride ¹	75-09-2	mg/L	0.005	0.012	0.014	0.014	0.014	0.015	0.012	0.014	0.014	0.014	0.013	<0.002	x	
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.001	x	
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Propylbenzene ¹	103-65-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.001	x	
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.001	x	
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	x	x	x	x	x	x	x	x	x	x	<0.01	x	
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.001	x	
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.011	0.011	0.0089	0.0098	0.0099	0.0093	0.0090	0.0091	0.0097	0.0093	0.0056	0.0016	
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.001	x	
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.00059	<0.001	x
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.0046	0.0033	0.0032	0.0031	0.0032	0.0028	0.0037	0.0029	0.0031	0.0030	0.0011	0.0001	
Trichlorofluoromethane ¹	75-69-4	mg/L	-	0.0023	0.0019	0.0014	0.0015	0.0016	0.0013	0.0014	0.0015	0.0013	0.0015	0.0021	0.0008	
Vinyl acetate ¹	108-05-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Vinyl Chloride ¹	75-01-4	mg/L	0.001	0.00048	<0.0004	<0.0005	<0.0005	<0.0004	<0.0004	0.00043	<0.0004	<0.0004	0.0002	<0.001	x	
Trihalomethanes (THM)																
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Chloroform ¹	67-66-3	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Semi Volatile Organic Compounds																
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
1-Methylnaphthalene	86-52-2	mg/L	-	x	x	x	<0.002	x	x	x	x	x	x	x	x	
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	x	x	<0.002	x	x	x	x	x	x	x	x	
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Acenaphthene ¹	83-32-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Acenaphthylene ¹	208-96-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Acetophenone ¹	98-86-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Aniline ¹	62-53-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Anthracene ¹	120-12-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Benzidine ¹	92-87-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Benzo (a) anthracene ¹	56-55-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Benzo (b) fluoranthene ¹	205-99-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Benzo (g,h,i) perylene ¹	191-24-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Benzo (k) fluoranthene ¹	207-08-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Benzo[a]pyrene ¹	50-32-8	mg/L	0.0002	x	x	x	<0.00007	x	x	x	x	x	x	<0.1	x	
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
bis (2-Chloroisopropyl) ether																
bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Carbazole	86-74-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Chrysene ¹	218-01-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Diallate ¹	2303-16-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Dibenz(a,i)acridine	224-42-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Dibenzofuran ¹	132-64-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Diethylphthalate ¹	84-66-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Dimethylphthalate ¹	131-11-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Di-n-butylphthalate ¹	84-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Di-n-octylphthalate ¹	117-84-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Diphenylamine ¹	122-39-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Fluoranthene ¹	206-44-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Fluorene ¹	86-73-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	

APPENDIX B Las Cruces Foothills Landfill MW-4

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-4										baseline	standard	
				date	6/25/13	12/19/13	6/26/14	12/11/14	6/18/15	12/17/15	6/16/16	12/27/16	6/28/17	12/6/17	1/12/99 to average	1/12/99 to deviation
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
HMX ¹	2691-41-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Isophorone ¹	78-59-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Isosafrole ¹	120-58-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Methapyrilene ¹	91-80-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	x	x	x	<0.002	x	x	x	x	x	x	<1.0	x	x
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodinpropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.1	x	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.25	x	x
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-trinitrobenzene, 1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics																
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4-Chloro-3-methylphenol (p-Chloro-m-cresol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	x	x	x	x	x	x
Radium 226 and 228	NA	pCi/L	5				1.73							1.36	0.397	
Ra-226, total	NA	pCi/L	-	x	x	x	0.548	x	x	x	x	x	x	0.223	0.155	
Ra-228, total	NA	pCi/L	-	x	x	x	1.18	x	x	x	x	x	x	1.138	0.349	
Chlorinated Pesticides																
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹																
Arochlor-1016	12674-11-2	mg/L	-	x	x	x	<0.00025	x	x	x	x	x	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	x	x	x	<0.00025	x	x	x	x	x	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	x	x	x	<0.00025	x	x	x	x	x	x	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	x	x	x	<0.00025	x	x	x	x	x	x	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	x	x	x	<0.00025	x	x	x	x	x	x	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	x	x	x	<0.00025	x	x	x	x	x	x	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	x	x	x	<0.00025	x	x	x	x	x	x	x	x	x
Other Pesticides and Herbicides¹																
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x									

APPENDIX B

Las Cruces Foothills Landfill MW-4

Las Cruces Foothills Landfill monitoring well MW-4														baseline	standard	
constituent	CAS Number	unit	GWPS	RESULTS FOR MW-4											average	deviation
				6/25/13	12/19/13	6/26/14	12/11/14	6/18/15	12/17/15	6/16/16	12/27/16	6/28/17	12/6/17	1/12/99 to 5/18/00	1/12/99 to 5/18/00	
date																
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Silvex ¹	93-72-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x

* baseline averages and standard deviations are based on 1999 and 2000 data only as per requiremer

¹ hazardous

x parameter not analyzed

(*) See section entitled 'Semi volatile organic compounds - phenolics' for break-out of phenolics conce

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(#) This concentration attributed to laboratory contamination of method blank and not the presence of a

(#) Scanned for and not detected , breaks down almost immediately in water.

MW-5

APPENDIX B
Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-5							
				7/15/03	8/27/03	9/29/03	10/29/03	11/25/03	12/29/03	12/2/04	12/14/05
Field Parameters											
water level elevation		ft amsl	-	3830.57	3830.29	3830.57	3830.69	3830.84	3831.01	3831.29	3831.96
conductivity		µS/cm	-	552	370	410	420	410	400	419	472
pH		pH units	6-9	7.83	7.90	7.60	7.80	7.80	7.60	8.19	7.90
temperature		deg F	-	114.8	111.2	106.2	107.6	108.0	107.4	113.7	102.0
Major Ions											
calcium	7440-70-2	mg/L	-	34.1	34	33	34	35	35	34	39
chloride	16887-00-6	mg/L	250	30	34	36	37	35	35	28	32
fluoride ¹	16984-48-8	mg/L	1.6	0.5	0.6	0.6	0.6	0.6	0.6	x	x
magnesium	7439-95-4	mg/L	-	4.72	4.3	4.4	4.3	4.4	4.7	4.6	5.2
potassium	7440-09-7	mg/L	-	2.9	2.2	2.4	2.4	2.4	2.2	2.2	2.8
sodium	82115-62-6	mg/L	-	47.3	45	42	45	45	42	42	50
sulfate	18785-72-3	mg/L	600	42	42	44	46	43	44	43	41
alkalinity	NA	mg/L	-	116	120	130	120	120	120	120	120
bicarbonate alkalinity	71-52-3	mg/L	-	115	120	130	120	120	120	120	120
carbonate alkalinity	3812-32-6	mg/L	-	<20	<2	<2.0	<2.0	<2.0	<2.0	<4.0	<2.0
total dissolved solids	NA	mg/L	1,000	270	280	270	280	300	260	270	300
Nitrogen Species											
ammonia as N	1331-21-6	mg/L	-	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Kjeldahl nitrogen	7727-37-9	mg/L	-	<1	<1.0	<1.0	<1.0	<1.0	<1.0	x	x
nitrate as N	14797-55-8	mg/L	10	2.3	2	2.1	2.1	2.0	2.2	2.4	2.3
nitrite	14797-65-0	mg/L	-	<0.1	2	2.1	2.1	2.0	2.2	x	x
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	x
Metals											
aluminum	7429-90-5	mg/L	5.0	0.54	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	x
antimony ¹	7440-36-0	mg/L	0.006	<0.0004	<0.003	<0.003	<0.003	<0.003	<0.003	x	x
arsenic ¹	7440-38-2	mg/L	0.01	0.0026	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
barium ¹	7440-39-3	mg/L	1.0	0.0649	0.06	0.06	0.05	0.06	0.06	x	x
beryllium ¹	7440-41-7	mg/L	0.004	<0.0002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x
boron	7440-42-8	mg/L	0.75	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	x	x
cadmium ¹	7440-43-9	mg/L	0.005	<0.0001	<0.002	<0.002	<0.002	<0.002	<0.002	x	x
chromium ¹	7440-47-3	mg/L	0.05	0.0037	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
cobalt ¹	7440-48-4	mg/L	0.05	0.00012	<0.03	<0.03	<0.03	<0.03	<0.03	x	x
copper ¹	7440-50-8	mg/L	1.0	0.0009	<0.06	<0.06	<0.06	<0.06	<0.06	x	x
iron	7439-89-6	mg/L	1.0	0.45	<0.1	<0.1	<0.1	<0.1	<0.1	x	<0.1
lead ¹	7439-92-1	mg/L	0.05	0.0004	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
manganese	7439-96-5	mg/L	0.2	<0.010	<0.03	<0.03	<0.03	<0.03	<0.03	x	<0.03
mercury ¹	7439-97-6	mg/L	0.002	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
molybdenum	7439-98-7	mg/L	1.0	<0.010	<0.75	<0.75	<0.75	<0.75	<0.75	x	x
nickel ¹	7440-02-0	mg/L	0.2	0.00171	<0.05	<0.05	<0.05	<0.05	<0.05	x	x
selenium ¹	7782-49-2	mg/L	0.05	0.0021	<0.005	<0.005	<0.005	<0.005	<0.005	x	x
silver ¹	7440-22-4	mg/L	0.05	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
thallium ¹	7440-28-0	mg/L	0.002	0.00005	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
tin ¹	7440-31-5	mg/L	-	<0.10	x	x	x	x	<0.4	x	x
uranium ¹	7440-61-1	mg/L	0.03	<0.002	<2.5	<2.5	<2.5	<2.5	<2.5	x	x
vanadium ¹	7440-62-2	mg/L	-	<0.050	<0.08	<0.08	<0.08	<0.08	<0.08	x	x
zinc	7440-66-6	mg/L	10.0	0.024	<0.05	<0.05	<0.05	<0.05	<0.05	x	x
total organic carbon	-	mg/L	-	1	<1.0	<1.0	<1.0	<0.5	0.51	<0.5	<0.5
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	x
sulfide ¹	18496-25-8	mg/L	-	<0.1	x	x	x	x	<4.0	x	x
cyanide ¹	57-12-5	mg/L	0.2	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	x	x
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	(^^)	(^^)	(^^)	(^^)	(^^)	(^^)	x	x
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.0005	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.0005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
1,1-Dichloropropene ¹	563-58-6	mg/L	-	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	x	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.01	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	<0.0005	x	x	x	x	x	x	x
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	<0.0005	x	x	x	x	x	x	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
1,3-Dichloropropane ¹	142-28-9	mg/L	-	<0.0005	<0.005	<0.01	<0.01	<0.01	<0.01	x	x
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.0005	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
2,2-Dichloropropane ¹	78-87-5	mg/L	-	<0.0005	<0.0151	<0.015	<0.015	<0.015	<0.015	x	x
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.025	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-Chlorotoluene ¹	95-49-8	mg/L	-	<0.0005	x	x	x	x	x	x	x
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	0.02	<0.025	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
4-Chlorotoluene ¹	106-43-4	mg/L	-	<0.0005	x	x	x	x	x	x	x
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.025	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
Acetone ¹	67-64-1	mg/L	-	<0.025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acetonitrile ¹	75-05-8	mg/L	-	<0.100	<0.100	<0.1	<0.1	<0.1	<0.1	x	x
Acrolein ¹	107-02-8	mg/L	-	<0.025	<0.1	<0.1	<0.1	<0.1	<0.1	x	x
Acrylonitrile ¹	107-13-1	mg/L	-	<0.025	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Allyl chloride ¹	107-05-1	mg/L	-	x	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Benzene ¹	71-43-2	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bis(chloromethyl) ether ¹	542-88-1	mg/L	-	x	x	x	x	x	x	x	x
Bromochloromethane ¹	74-97-5	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

APPENDIX B
Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-5							
				7/15/03	8/27/03	9/29/03	10/29/03	11/25/03	12/29/03	12/2/04	12/14/05
date											
Bromomethane (methyl bromide) ¹	74-83-9	mg/L	-	<0.001	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Carbon Disulfide ¹	75-15-00	mg/L	-	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbon Tetrachloride ¹	56-23-5	mg/L	0.005	<0.0005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chlorobenzene ¹	108-90-7	mg/L	0.1	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane ¹	75-03-3	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chloromethane (methyl chloride) ¹	74-87-3	mg/L	-	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroprene (2-Chloro-1,3-butadiene) ¹	126-99-8	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	x
cis-1,2-Dichloroethylene (cis-1,2-Dichloroethene) ¹	156-59-2	mg/L	0.07	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis-1,3-Dichloropropene ¹	542-75-6	mg/L	-	<0.0005	<0.001	<0.02	<0.02	<0.02	<0.02	x	x
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	0.0027	<0.005	<0.005	<0.005	<0.005	<0.005	x	x
Ethyl methacrylate ¹	97-63-2	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	0.00005	<0.00001	<0.000025	<0.000025	<0.000025	<0.000025	<0.000025	<0.000025	<0.000025
Hexachlorobutadiene ¹	87-68-3	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Isobutyl alcohol ¹	78-83-1	mg/L	-	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	x	x
Isopropylbenzene ¹	98-82-8	mg/L	-	<0.0005	x	x	x	x	x	x	x
Methacrylonitrile ¹	126-98-7	mg/L	-	<0.025	<0.005	<0.005	<0.005	<0.005	<0.005	x	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.005	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Methyl methacrylate ¹	80-62-6	mg/L	-	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
n-Butylbenzene ¹	104-51-8	mg/L	-	<0.0005	x	x	x	x	x	x	x
Propionitrile ¹	107-12-0	mg/L	-	<0.01	<0.06	<0.06	<0.06	<0.06	<0.06	x	x
Propylbenzene ¹	103-65-1	mg/L	-	<0.0005	x	x	x	x	x	x	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	<0.0005	x	x	x	x	x	x	x
Styrene ¹	100-42-5	mg/L	0.1	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	<0.005	x	x	x	x	x	x	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	<0.0005	x	x	x	x	x	x	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0055	0.006	0.0062	0.006	0.0055	0.0058	<0.005	0.0055
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	<0.01	x	x	x	x	x	x	x
Toluene ¹	108-88-3	mg/L	0.75	0.019	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.0005	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.010	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Trichloroethene (TCE)	79-01-6	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Vinyl acetate ¹	108-05-4	mg/L	-	<0.025	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Vinyl chloride ¹	75-01-4	mg/L	0.001	<0.0005	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Trihalomethanes (THM)											
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
Chloroform ¹	67-66-3	mg/L	0.1	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Semi Volatile Organic Compounds											
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	<0.005	x	x	x	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
1-Chloronaphthalene	NA	mg/L	-	<0.005	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
1-Naphthylamine ¹	134-32-7	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	x	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	x	x
2-Acetylaminofluorene ¹	53-96-3	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
2-Naphthylamine ¹	91-59-8	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
2-Picoline	109-06-8	mg/L	-	<0.01	x	x	x	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Acenaphthene ¹	83-32-9	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Acenaphthylene ¹	208-96-8	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Acetophenone ¹	98-86-2	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
alpha, alpha-Dimethylphenethylamine	122-09-8	mg/L	-	<0.01	x	x	x	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	<0.01	x	x	x	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Benzidine ¹	92-87-5	mg/L	-	<0.05	x	x	x	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Benzo (a) pyrene ¹	205-99-2	mg/L	-	<0.005	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Benzo (b) fluoranthene ¹	191-24-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Benzo (g,h,i) perylene ¹	207-08-9	mg/L	-	<0.005	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Benzo (k) fluoranthene ¹	50-32-8	mg/L	0.0002	<0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x
Benzoic acid ¹	65-85-0	mg/L	-	<0.05	x	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x

APPENDIX B

Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-5								
				7/15/03	8/27/03	9/29/03	10/29/03	11/25/03	12/29/03	12/2/04	12/14/05	
date												
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
bis (2-Chloroisopropyl) ether (bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	<0.005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Carbazole	86-74-8	mg/L	-	<0.005	x	x	x	x	x	x	x	x
Chlorobenzilate ¹	510-15-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Chrysene ¹	218-01-9	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Diallate ¹	2303-16-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Dibenz (a,j) acridine	224-42-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Dibenzofuran ¹	132-64-9	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x	x	x
Diethylphthalate ¹	84-66-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Dimethylphthalate ¹	131-11-3	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Diphenylamine ¹	122-39-4	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Fluoranthene ¹	206-44-0	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Fluorene ¹	86-73-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Hexachloroethane ¹	67-72-1	mg/L	-	<0.005	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	x
Hexachloropropene ¹	1888-71-7	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
HMX ¹	2691-41-0	mg/L	-	x	x	x	x	x	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Isophorone ¹	78-59-1	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Isosafrole ¹	120-58-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Methapyrilene ¹	91-80-5	mg/L	-	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Nitrobenzene ¹	98-95-3	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	<0.02	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	x	x
o-Toluidine ¹	95-53-4	mg/L	-	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Phenacetin ¹	62-44-2	mg/L	-	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Phenanthrene ¹	85-01-8	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Pronamide ¹	23950-58-5	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Pyrene ¹	129-00-0	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Pyridine	110-86-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
sym-Trinitrobenzene ¹ (1,3,5-TNB)	99-35-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Semi Volatile Organic Compounds - Phenolics												
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	<0.005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	<0.02	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Radium 226 and 228												
Ra-226, total	NA	pCi/L	5	1.0								
Ra-228 ¹ , total	NA	pCi/L	-	0.6	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	x	x
Chlorinated Pesticides												
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
aldrin ¹	309-00-2	mg/L	-	<0.0001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
alpha-BHC ¹	319-84-6	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	<0.0001	alpha +	alpha +	alpha +	alpha +	alpha +	alpha +	x	x
beta-BHC ¹	319-85-7	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x
Dieldrin ¹	60-57-1	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x

APPENDIX B

Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-5								
				7/15/03	8/27/03	9/29/03	10/29/03	11/25/03	12/29/03	12/2/04	12/14/05	
date												
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Endrin ketone	53494-70-5	mg/L	-	<0.00002	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
gamma-BHC ¹	319-86-8	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	<0.0001	see above	see above	see above	see above	see above	see above	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Heptachlor ¹	76-44-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Isodrin ¹	465-73-6	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Kepone ¹	143-50-0	mg/L	-	<0.025	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Methoxychlor ¹	72-43-5	mg/L	-	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Toxaphene ¹	8001-35-2	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Polychlorinated Biphenyls (PCBs)¹			0.001									
Arochlor-1016	12674-11-2	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Arochlor-1221	11104-28-2	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Arochlor-1232	11141-16-5	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Arochlor-1242	53469-21-9	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Arochlor-1248	12672-29-6	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Arochlor-1254	11097-69-1	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Arochlor-1260	11096-82-5	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Other Pesticides and Herbicides¹												
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Dimethoate ¹	60-51-5	mg/L	-	<0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Dinoseb ¹	88-85-7	mg/L	-	<0.005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Disulfoton ¹	298-04-4	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Famphur ¹	52-58-7	mg/L	-	<0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Methyl parathion ¹	298-00-0	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Phorate ¹	298-02-2	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x

* baseline averages and standard deviations are based on 1999 and 2000 data only as per requirements in Environmental Protection, subpart 803. Ground Water Sampling and Analysis, 1995.

¹ hazardous

x parameter not analyzed

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(#) Scanned for and not detected, breaks down almost immediately in water.

APPENDIX B

Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-5									
				12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/20/12	6/26/13	
Field Parameters													
water level elevation		ft amsl	-	3832.49	3834.95	3837.62	3838.38	3844.08	3843.72	3843.47	3841.11	3841.15	
conductivity		µS/cm	-	430	430	410	539	500	468	420	440	440	
pH		pH units	6-9	7.70	7.46	7.82	7.40	7.67	7.28	7.43	7.23	6.92	
temperature		deg F	-	108.0	97.3	104.2	95.7	104.9	100.6	83.3	91.4	111.0	
Major Ions													
calcium	7440-70-2	mg/L	-	37	37	31	36	41	37	34	36	34	
chloride	16887-00-6	mg/L	250	32	29	28	27	35	28	26	26	26	
fluoride ¹	16984-48-8	mg/L	1.6	x	x	0.59	x	0.58	x	x	x	x	
magnesium	7439-95-4	mg/L	-	5	5	4.3	4.8	5.6	4.9	4.8	4.8	4.4	
potassium	7440-09-7	mg/L	-	2.8	2.5	2.1	2.4	2.6	2.5	2.6	2.5	2.5	
sodium	82115-62-6	mg/L	-	48	46	41	44	51	46	47	48	45	
sulfate	18785-72-3	mg/L	600	43	43	41	46	48	47	47	45	46	
alkalinity	NA	mg/L	-	110	110	120	110	120	120	120	110	110	
bicarbonate alkalinity	71-52-3	mg/L	-	110	110	120	110	120	120	120	110	110	
carbonate alkalinity	3812-32-6	mg/L	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
total dissolved solids	NA	mg/L	1,000	290	280	280	272	310	289	288	274	289	
Nitrogen Species													
ammonia as N	1331-21-6	mg/L	-	<0.5	<0.5	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Kjeldahl nitrogen	7727-37-9	mg/L	-	x	x	<1.0	x	x	x	x	x	x	
nitrate as N	14797-55-8	mg/L	10	3	2.8	2.7	3.3	2.8	3.4	3.4	3.4	3.6	
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	
total nitrogen	-	mg/L	-	x	x	2.7	x	x	x	x	x	x	
Metals													
aluminum	7429-90-5	mg/L	5.0	x	x	<0.02	x	0.02	x	x	x	x	
antimony ¹	7440-36-0	mg/L	0.006	x	x	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
arsenic ¹	7440-38-2	mg/L	0.01	x	x	0.008	0.004	0.00187	0.002	0.0021	0.0019	0.0027	
barium ¹	7440-39-3	mg/L	1.0	x	x	0.054	0.057	0.067	0.059	0.061	0.057	0.059	
beryllium ¹	7440-41-7	mg/L	0.004	x	x	<0.003	x	<0.001	0.0003	<0.002	<0.002	<0.002	
boron	7440-42-8	mg/L	0.75	x	x	0.041	x	0.047	x	x	x	x	
cadmium ¹	7440-43-9	mg/L	0.005	x	x	<0.002	<0.0020	<0.002	<0.002	<0.002	<0.002	<0.002	
chromium ¹	7440-47-3	mg/L	0.05	x	x	<0.006	0.026	<0.006	0.00062	<0.006	<0.006	<0.006	
cobalt ¹	7440-48-4	mg/L	0.05	x	x	<0.006	<0.0060	<0.006	0.00081	<0.006	<0.006	<0.006	
copper ¹	7440-50-8	mg/L	1.0	x	x	<0.006	<0.0060	<0.006	<0.006	<0.006	<0.006	<0.006	
iron	7439-89-6	mg/L	1.0	<0.1	<0.1	<0.05	0.31	<0.05	<0.02	0.028	<0.02	<0.02	
lead ¹	7439-92-1	mg/L	0.05	x	x	<0.005	<0.0050	<0.005	<0.005	<0.005	<0.005	<0.001	
manganese	7439-96-5	mg/L	0.2	<0.03	<0.03	<0.002	0.0045	<0.002	0.00035	<0.002	<0.002	<0.002	
mercury ¹	7439-97-6	mg/L	0.002	x	x	<0.0002	x	<0.0002	x	x	x	x	
molybdenum	7439-98-7	mg/L	1.0	x	x	<0.008	x	<0.008	x	x	x	x	
nickel ¹	7440-02-0	mg/L	0.2	x	x	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	
selenium ¹	7782-49-2	mg/L	0.05	x	x	0.001	<0.001	<0.001	0.0012	0.0015	<0.001	0.0022	
silver ¹	7440-22-4	mg/L	0.05	x	x	<0.005	<0.0050	<0.005	<0.005	<0.005	<0.005	<0.005	
thallium ¹	7440-28-0	mg/L	0.002	x	x	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
tin ¹	7440-31-5	mg/L	-	x	x	<0.1	x	x	x	x	x	x	
uranium ¹	7440-61-1	mg/L	0.03	x	x	0.002	x	x	x	x	x	x	
vanadium ¹	7440-62-2	mg/L	-	x	x	<0.05	<0.050	<0.05	0.0088	<0.05	<0.05	<0.05	
zinc	7440-66-6	mg/L	10.0	x	x	<0.02	<0.020	<0.02	0.00064	<0.01	<0.01	<0.01	
total organic carbon	-	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.1	
phosphate	14265-44-2	mg/L	-	x	x	<0.50	x	<0.50	x	x	x	x	
sulfide ¹	18496-25-8	mg/L	-	x	x	2	x	x	x	x	x	x	
cyanide ¹	57-12-5	mg/L	0.2	x	x	<0.005	x	x	x	x	x	x	
perchlorate ¹	14797-73-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x	
total phenolics ¹	-	mg/L	0.005	<0.003	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	x	x	(**)	x	x	x	x	x	x	
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	x	x	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	x	<0.005	x	x	x	x	x	x	
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	x	x	x	x	x	x	x	x	x	
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x	
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	x	x	<0.001	<0.001	x	x	x	x	x	
1,3-Dichloropropane ¹	142-28-9	mg/L	-	x	x	<0.01	x	x	x	x	x	x	
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
2,2-Dichloropropane ¹	78-87-5	mg/L	-	x	x	<0.015	x	x	x	x	x	x	
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
2-Chlorotoluene ¹	95-49-8	mg/L	-	x	x	x	x	x	x	x	x	x	
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	0.02	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
4-Chlorotoluene ¹	106-43-4	mg/L	-	x	x	x	x	x	x	x	x	x	
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.015	<0.015	<0.015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Acetone ¹	67-64-1	mg/L	-	<0.1	<0.1	<0.1	<0.01	<0.01	0.0021	<0.01	<0.01	<0.01	
Acetonitrile ¹	75-05-8	mg/L	-	x	x	<0.1	x	x	x	x	x	x	
Acrolein ¹	107-02-8	mg/L	-	x	x	<0.1	x	x	x	x	x	x	
Acrylonitrile ¹	107-13-1	mg/L	-	<0.2	<0.2	<0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Allyl chloride ¹	107-05-1	mg/L	-	x	x	<0.01	x	x	x	x	x	x	
Benzene ¹	71-43-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Bis(chloromethyl) ether ¹	542-88-1	mg/L	-	x	x	(#)	x	x	x	x	x	x	
Bromochloromethane ¹	74-97-5	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	

APPENDIX B
Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-5								
				12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/20/12	6/26/13
date												
Bromomethane (methyl bromide) ¹	74-83-9	mg/L	-	<0.02	<0.02	<0.02	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Carbon Disulfide ¹	75-15-00	mg/L	-	<0.1	<0.1	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Carbon Tetrachloride ¹	56-23-5	mg/L	0.005	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chlorobenzene ¹	108-90-7	mg/L	0.1	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroethane ¹	75-03-3	mg/L	-	<0.01	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chloromethane (methyl chloride) ¹	74-87-3	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroprene (2-Chloro-1,3-butadiene) ¹	126-99-8	mg/L	-	x	x	x	x	x	x	x	x	x
cis-1,2-Dichloroethylene (cis-1,2-Dichloroethene) ¹	156-59-2	mg/L	0.07	<0.005	<0.005	<0.005	<0.001	<0.001	0.00028	<0.001	<0.001	<0.001
cis-1,3-Dichloropropene ¹	542-75-6	mg/L	-	x	x	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.02	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	x	<0.005	0.0024	0.002	<0.001	0.0016	0.0016	0.0018	0.0018
Ethyl methacrylate ¹	97-63-2	mg/L	-	x	x	<0.01	x	x	x	x	x	x
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	0.00005	<0.000025	<0.000025	<0.00001	<0.00001	<0.00001	0.000005	<0.00001	<0.00001	<0.00001
Hexachlorobutadiene ¹	87-68-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	<0.05	x	x	x	x	x	x
Isopropylbenzene ¹	98-82-8	mg/L	-	x	x	x	x	x	x	x	x	x
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	<0.005	x	x	x	x	x	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.04	<0.04	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	<0.03	x	x	x	x	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	x	x	x	x	x	x	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	<0.06	x	x	x	x	x	x
Propylbenzene ¹	103-65-1	mg/L	-	x	x	x	x	x	x	x	x	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	x	x	x	x	x	x	x	x
Styrene ¹	100-42-5	mg/L	0.1	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	x	x	<0.001	x	x	x	x	x	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	x	x	x	x	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0041	0.0043	0.0042	0.005	0.0039	0.0041	0.0041	0.0034	0.0046
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	x	x	x	x	x	x	x
Toluene ¹	108-88-3	mg/L	0.75	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.1	<0.1	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Trichloroethene (TCE)	79-01-6	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	0.00044	<0.001	<0.001	<0.001
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.01	<0.01	<0.01	<0.001	<0.001	0.00034	<0.001	<0.001	<0.001
Vinyl acetate ¹	108-05-4	mg/L	-	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Vinyl chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Trihalomethanes (THM)												
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromoform ¹	75-25-2	mg/L	-	<0.015	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroform ¹	67-66-3	mg/L	0.1	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Semi Volatile Organic Compounds												
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	<0.0002	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Acetylaminofluorene ¹	53-96-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Picoline	109-06-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Acenaphthene ¹	83-32-9	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Acenaphthylene ¹	208-96-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Acetophenone ¹	98-86-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
alpha, alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Benzidine ¹	92-87-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Benzo (a) pyrene ¹	205-99-2	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Benzo (b) fluoranthene ¹	191-24-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Benzo (g,h,i) perylene ¹	207-08-9	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Benzo (k) fluoranthene ¹	50-32-8	mg/L	0.0002	x	x	<0.00005	x	x	x	x	x	x
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x

APPENDIX B
Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-5								
				12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/20/12	6/26/13
date												
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
bis (2-Chloroisopropyl) ether (bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Carbazole	86-74-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Chrysene ¹	218-01-9	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Diallate ¹	2303-16-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Dibenz (a,i) acridine	224-42-0	mg/L	-	x	x	x	x	x	x	x	x	x
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Dibenzofuran ¹	132-64-9	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x	x	x
Diethylphthalate ¹	84-66-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Dimethylphthalate ¹	131-11-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Diphenylamine ¹	122-39-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Fluoranthene ¹	206-44-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Fluorene ¹	86-73-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	<0.0001	x	x	x	x	x	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
HMX ¹	2691-41-0	mg/L	-	x	x	<0.0001	x	x	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Isophorone ¹	78-59-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Isosafrole ¹	120-58-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	<0.0001	x	x	x	x	x	x
Methapyrilene ¹	91-80-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	x	x	<0.001	x	x	x	x	x	x
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	<0.001	x	x	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
n-Nitrosodinpropylamine ¹	621-64-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Pyridine	110-86-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	<0.0001	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics												
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	<0.001	x	x	x	x	x	x
Radium 226 and 228	NA	pCi/L	5	0.3								
Ra-226, total	NA	pCi/L	-	x	x	0.14	x	x	x	x	x	x
Ra-228, total	NA	pCi/L	-	x	x	0.16	x	x	x	x	x	x
Chlorinated Pesticides												
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
aldrin ¹	309-00-2	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
alpha-BHC ¹	319-84-6	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	<0.0002	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	<0.00004	x	x	x	x	x	x

APPENDIX B
Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-5								
				12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/20/12	6/26/13
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹			0.001									
Arochlor-1016	12674-11-2	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Other Pesticides and Herbicides¹												
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	<0.000934	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Phorate ¹	298-02-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x

* baseline averages and standard deviations are based on 1999 and 2000 data only as per requirements in E

¹ hazardous

x parameter not analyzed

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(#) Scanned for and not detected , breaks down almost immediately in water.

APPENDIX B

Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5								baseline	standard
constituent	CAS Number	unit	GWPS	6/16/16	12/27/16	6/27/17	12/6/17	average	deviation
date								7/15/03 to	7/15/03 to
								12/2/04	12/2/04
Field Parameters									
water level elevation		ft amsl	-	3837.85	3836.72	3837.45	3836.20	3,830.75	0.33
conductivity		µS/cm	-	418	449	459	468	425.86	58.14
pH		pH units	6-9	7.37	7.45	7.56	7.58	7.82	0.20
temperature		deg F	-	115.0	115.0	111.0	113.5	109.85	3.39
Major Ions									
calcium	7440-70-2	mg/L	-	37	39	39	37	34.16	0.69
chloride	16887-00-6	mg/L	250	24	25	26	29	33.57	3.31
fluoride ¹	16984-48-8	mg/L	1.6	x	x	x	x	0.58	0.04
magnesium	7439-95-4	mg/L	-	4.7	5.1	4.9	4.6	4.49	0.18
potassium	7440-09-7	mg/L	-	2.4	2.6	2.4	2.4	2.39	0.25
sodium	82115-62-6	mg/L	-	47	48	47	44	44.04	2.08
sulfate	18785-72-3	mg/L	600	47	50	44	46	43.43	1.40
alkalinity	NA	mg/L	-	108.9	106.6	107.7	106.0	120.86	4.30
bicarbonate alkalinity	71-52-3	mg/L	-	108.9	106.6	107.7	106.0	120.71	4.50
carbonate alkalinity	3812-32-6	mg/L	-	<2.0	<2.0	<2.0	<2.0	<2.0	x
total dissolved solids	NA	mg/L	1,000	265	301	289	302	275.71	12.72
Nitrogen Species									
ammonia as N	1331-21-6	mg/L	-	<1.0	<1.0	<1.0	<1.0	<0.5	x
Kjeldahl nitrogen	7727-37-9	mg/L	-	x	x	x	x	<1.0	x
nitrate as N	14797-55-8	mg/L	10	4.7	4.9	5.1	5.0	2.16	0.151
nitrite	14797-65-0	mg/L	-	x	x	x	x	2.08	0.084
total nitrogen	-	mg/L	-	x	x	x	x	x	x
Metals									
aluminum	7429-90-5	mg/L	5.0	x	x	x	x	<3.0	x
antimony ¹	7440-36-0	mg/L	0.006	<0.001	<0.001	<0.001	<0.001	<0.003	x
arsenic ¹	7440-38-2	mg/L	0.01	0.0022	0.0025	0.0021	0.0016	0.0026	x
barium ¹	7440-39-3	mg/L	1.0	0.060	0.064	0.062	0.062	0.06	0.005
beryllium ¹	7440-41-7	mg/L	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	x
boron	7440-42-8	mg/L	0.75	x	x	x	x	<0.5	x
cadmium ¹	7440-43-9	mg/L	0.005	<0.002	<0.002	<0.002	<0.002	<0.002	x
chromium ¹	7440-47-3	mg/L	0.05	<0.006	<0.006	<0.006	<0.006	0.0037	x
cobalt ¹	7440-48-4	mg/L	0.05	<0.006	<0.006	<0.006	<0.006	0.0001	x
copper ¹	7440-50-8	mg/L	1.0	<0.006	<0.006	<0.006	<0.006	0.0009	x
iron	7439-89-6	mg/L	1.0	<0.02	0.023	<0.02	<0.02	0.45	x
lead ¹	7439-92-1	mg/L	0.05	<0.0005	<0.0005	<0.0005	<0.0005	0.0004	x
manganese	7439-96-5	mg/L	0.2	<0.002	<0.002	<0.002	<0.002	<0.03	x
mercury ¹	7439-97-6	mg/L	0.002	x	x	x	x	<0.001	x
molybdenum	7439-98-7	mg/L	1.0	x	x	x	x	<0.75	x
nickel ¹	7440-02-0	mg/L	0.2	<0.01	<0.01	<0.01	<0.01	0.0017	x
selenium ¹	7782-49-2	mg/L	0.05	<0.005	<0.005	0.0013	0.0010	0.0021	x
silver ¹	7440-22-4	mg/L	0.05	<0.005	<0.005	<0.005	<0.005	<0.01	x
thallium ¹	7440-28-0	mg/L	0.002	<0.0005	<0.0005	<0.0005	<0.0005	0.0001	x
tin ¹	7440-31-5	mg/L	-	x	x	x	x	<0.4	x
uranium ¹	7440-61-1	mg/L	0.03	x	x	x	x	<2.5	x
vanadium ¹	7440-62-2	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.08	x
zinc	7440-66-6	mg/L	10.0	<0.01	<0.01	<0.01	<0.01	0.02	x
total organic carbon	-	mg/L	-	<1.0	<1.0	<1.0	0.20	0.76	0.346
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x
sulfide ¹	18496-25-8	mg/L	-	x	x	x	x	<4.0	x
cyanide ¹	57-12-5	mg/L	0.2	x	x	x	x	<0.1	x
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	<0.0025	<0.0025	<0.0025	<0.0025	<0.003	x
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	x	x	x	x	(^^)	(^^)
Volatile Organic Compounds									
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.005	x
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.001	<0.001	<0.001	<0.001	<0.005	x
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.001	<0.001	<0.001	<0.001	<0.005	x
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.002	x
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.001	<0.001	<0.001	<0.001	<0.005	x
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	x
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	x	x	x	<0.005	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.00002	<0.00002	<0.000019	<0.000095	<0.0001	x
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	x	x	x	x	<0.0005	x
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.01	x
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	x	x	x	x	<0.0005	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.001	<0.001	<0.001	<0.001	<0.01	x
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	x
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	x	x	x	x	<0.01	x
1,3-Dichloropropane ¹	142-28-9	mg/L	-	x	x	x	x	<0.01	x
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.001	<0.001	<0.001	<0.001	<0.015	x
2,2-Dichloropropane ¹	78-87-5	mg/L	-	x	x	x	x	<0.015	x
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	x
2-Chlorotoluene ¹	95-49-8	mg/L	-	x	x	x	x	<0.0005	x
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	0.02	<0.01	<0.01	<0.01	<0.01	<0.05	x
4-Chlorotoluene ¹	106-43-4	mg/L	-	x	x	x	x	<0.0005	x
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.01	<0.01	<0.01	0.0017	<0.015	x
Acetone ¹	67-64-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.1	x
Acetonitrile ¹	75-05-8	mg/L	-	x	x	x	x	<0.1	x
Acrolein ¹	107-02-8	mg/L	-	x	x	x	x	<0.1	x
Acrylonitrile ¹	107-13-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.2	x
Allyl chloride ¹	107-05-1	mg/L	-	x	x	x	x	<0.01	x
Benzene ¹	71-43-2	mg/L	0.005	<0.001	<0.001	<0.001	0.000096	<0.001	x
Bis(chloromethyl) ether ¹	542-88-1	mg/L	-	x	x	x	x	x	x
Bromochloromethane ¹	74-97-5	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	x

APPENDIX B

Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5

constituent	CAS Number	unit	GWPS					baseline	standard
				6/16/16	12/27/16	6/27/17	12/6/17	average	deviation
date									
				6/16/16	12/27/16	6/27/17	12/6/17	7/15/03 to 12/2/04	7/15/03 to 12/2/04
Bromomethane (methyl bromide) ¹	74-83-9	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.02	x
Carbon Disulfide ¹	75-15-00	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.1	x
Carbon Tetrachloride ¹	56-23-5	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.002	x
Chlorobenzene ¹	108-90-7	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.005	x
Chloroethane ¹	75-03-3	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.01	x
Chloromethane (methyl chloride) ¹	74-87-3	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	x
Chloroprene (2-Chloro-1,3-butadiene) ¹	126-99-8	mg/L	-	x	x	x	x	<0.05	x
cis-1,2-Dichloroethylene (cis-1,2-Dichloroethene) ¹	156-59-2	mg/L	0.07	<0.001	<0.001	<0.001	0.0005	<0.005	x
cis-1,3-Dichloropropene ¹	542-75-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.02	x
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.02	x
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	0.0025	0.0021	0.0022	0.0016	<0.005	x
Ethyl methacrylate ¹	97-63-2	mg/L	-	x	x	x	x	<0.01	x
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.001	<0.001	<0.001	<0.001	<0.005	x
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	0.00005	<0.00001	<0.00001	<0.0000095	<0.0000095	<0.000025	x
Hexachlorobutadiene ¹	87-68-3	mg/L	-	x	x	x	x	<0.01	x
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	x	x	<0.05	x
Isopropylbenzene ¹	98-82-8	mg/L	-	x	x	x	x	<0.0005	x
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	<0.005	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.04	x
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	<0.03	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.0025	<0.0025	<0.0025	<0.0025	<0.001	x
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	x	x	<0.0005	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	x	<0.06	x
Propylbenzene ¹	103-65-1	mg/L	-	x	x	x	x	<0.0005	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	x	x	x	<0.0005	x
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.01	x
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	x	x	x	x	<0.005	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	<0.0005	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0057	0.0056	0.0061	0.0059	0.0058	0.0003
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	x	x	<0.01	x
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.001	<0.001	<0.001	0.019	x
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.002	<0.002	<0.002	<0.002	<0.005	x
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.002	x
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.01	x
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.1	x
Trichloroethene (TCE)	79-01-6	mg/L	0.005	<0.001	<0.001	<0.001	0.00078	<0.001	x
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	<0.001	<0.001	0.00097	<0.01	x
Vinyl acetate ¹	108-05-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.05	x
Vinyl chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	x

Trihalomethanes (THM)

Bromodichloromethane ¹	75-27-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.005	x
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.015	x
Chloroform ¹	67-66-3	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.005	x
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.005	x

Semi Volatile Organic Compounds

1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	x	x	<0.01	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	<0.005	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	<0.01	x
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	<0.005	x
1-Methylnaphthalene	86-52-2	mg/L	-	x	x	x	x	<0.01	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	<0.01	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	x	x	<0.005	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	<0.005	x
2-Acetylaminofluorene ¹	53-96-3	mg/L	-	x	x	x	x	<0.02	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	<0.01	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	x	x	x	<0.01	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	<0.01	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	<0.01	x
2-Picoline	109-06-8	mg/L	-	x	x	x	x	<0.01	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	<0.01	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	<0.01	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	<0.01	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	<0.05	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	x	x	<0.02	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	x	x	<0.01	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	x	x	<0.02	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	x	x	<0.01	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	x	x	<0.02	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	x	x	<0.01	x
Acenaphthene ¹	83-32-9	mg/L	-	x	x	x	x	<0.01	x
Acenaphthylene ¹	208-96-8	mg/L	-	x	x	x	x	<0.01	x
Acetophenone ¹	98-86-2	mg/L	-	x	x	x	x	<0.01	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	x	x	<0.01	x
Aniline ¹	62-53-3	mg/L	-	x	x	x	x	<0.01	x
Anthracene ¹	120-12-7	mg/L	-	x	x	x	x	<0.01	x
Benzidine ¹	92-87-5	mg/L	-	x	x	x	x	<0.05	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	x	x	x	x	<0.01	x
Benzo (a) pyrene ¹	205-99-2	mg/L	-	x	x	x	x	<0.02	x
Benzo (b) fluoranthene ¹	191-24-2	mg/L	-	x	x	x	x	<0.01	x
Benzo (g,h,i) perylene ¹	207-08-9	mg/L	-	x	x	x	x	<0.02	x
Benzo (k) fluoranthene ¹	50-32-8	mg/L	0.0002	x	x	x	x	<0.0001	x
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	<0.05	x
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	x	x	<0.01	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	x	x	<0.01	x

APPENDIX B

Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5								baseline	standard
constituent	CAS Number	unit	GWPS					average	deviation
date				6/16/16	12/27/16	6/27/17	12/6/17	7/15/03 to 12/2/04	7/15/03 to 12/2/04
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	x	x	x	<0.01	x
bis (2-Chloroisopropyl) ether (bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	x	x	x	x	<0.01	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	x	x	<0.02	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	x	x	<0.01	x
Carbazole	86-74-8	mg/L	-	x	x	x	x	<0.005	x
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x	x	x	<0.01	x
Chrysene ¹	218-01-9	mg/L	-	x	x	x	x	<0.01	x
Diallate ¹	2303-16-4	mg/L	-	x	x	x	x	<0.01	x
Dibenz (a,j) acridine	224-42-0	mg/L	-	x	x	x	x	<0.01	x
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	x	x	x	x	<0.01	x
Dibenzofuran ¹	132-64-9	mg/L	-	x	x	x	x	<0.01	x
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x
Diethylphthalate ¹	84-66-2	mg/L	-	x	x	x	x	<0.01	x
Dimethylphthalate ¹	131-11-3	mg/L	-	x	x	x	x	<0.01	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	x	x	x	x	<0.01	x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	x	x	x	x	<0.01	x
Diphenylamine ¹	122-39-4	mg/L	-	x	x	x	x	<0.01	x
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	x	x	<0.02	x
Fluoranthene ¹	206-44-0	mg/L	-	x	x	x	x	<0.01	x
Fluorene ¹	86-73-7	mg/L	-	x	x	x	x	<0.01	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	x	x	<0.001	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	x	x	<0.01	x
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	x	x	<0.05	x
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	x	x	<0.01	x
HMX ¹	2691-41-0	mg/L	-	x	x	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	x	x	x	<0.01	x
Isophorone ¹	78-59-1	mg/L	-	x	x	x	x	<0.01	x
Isosafrole ¹	120-58-1	mg/L	-	x	x	x	x	<0.01	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	x	<0.02	x
Methapyrilene ¹	91-80-5	mg/L	-	x	x	x	x	<0.02	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	<0.01	x
Naphthalene ¹	91-20-3	mg/L	0.03	x	x	x	x	<0.01	x
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	x	<0.01	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	<0.02	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	<0.002	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	<0.01	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	<0.01	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	<0.005	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	<0.01	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	<0.02	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	<0.04	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	<0.002	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	<0.01	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	<0.01	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	<0.02	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	<0.01	x
Phenanthrene ¹	85-01-8	mg/L	-	x	x	x	x	<0.001	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	<0.01	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	<0.01	x
Pyrene ¹	129-00-0	mg/L	-	x	x	x	x	<0.01	x
Pyridine	110-86-1	mg/L	-	x	x	x	x	<0.01	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	<0.01	x
sym-Trinitrobenzene ¹ (1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	<0.01	x
Semi Volatile Organic Compounds - Phenolics									
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	<0.01	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	<0.01	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	<0.01	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	<0.01	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	<0.01	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	<0.05	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	<0.01	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	<0.01	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	<0.01	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	<0.01	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	x	x	x	x	<0.02	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	<0.05	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	x	x	<0.005	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	<0.05	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	<0.02	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	<0.01	x
Radium 226 and 228									
Ra-226, total	NA	pCi/L	5	x	x	x	x	<2.5	x
Ra-228, total	NA	pCi/L	-	x	x	x	x	<2.5	x
Chlorinated Pesticides									
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	<0.001	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	<0.001	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	<0.001	x
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	<0.01	x
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	<0.0001	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	alpha +	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	<0.0001	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	<0.0001	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	<0.001	x

APPENDIX B

Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5

constituent	CAS Number	unit	GWPS					baseline	standard
				6/16/16	12/27/16	6/27/17	12/6/17	average	deviation
date									
							7/15/03 to 12/2/04	7/15/03 to 12/2/04	
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	<0.001	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	<0.001	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	<0.001	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	<0.001	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	<0.00002	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	<0.001	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	<0.0001	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	see above	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	<0.001	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	<0.001	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	<0.02	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	<0.02	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	<0.01	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	<0.001	x
Polychlorinated Biphenyls (PCBs)¹			0.001						
Arochlor-1016	12674-11-2	mg/L	-	x	x	x	x	<0.0005	x
Arochlor-1221	11104-28-2	mg/L	-	x	x	x	x	<0.0005	x
Arochlor-1232	11141-16-5	mg/L	-	x	x	x	x	<0.0005	x
Arochlor-1242	53469-21-9	mg/L	-	x	x	x	x	<0.0005	x
Arochlor-1248	12672-29-6	mg/L	-	x	x	x	x	<0.0005	x
Arochlor-1254	11097-69-1	mg/L	-	x	x	x	x	<0.0005	x
Arochlor-1260	11096-82-5	mg/L	-	x	x	x	x	<0.0005	x
Other Pesticides and Herbicides¹									
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	<0.002	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	<0.01	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	<0.02	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	<0.02	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	<0.01	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	<0.02	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	<0.01	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	<0.01	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	<0.01	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	<0.01	x
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	x	x	x	x	<0.002	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	<0.02	x

* baseline averages and standard deviations are based on 1999 and 2000 data only as per requirements in E

¹ hazardous

x parameter not analyzed

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(#) Scanned for and not detected, breaks down almost immediately in water.

MW-6

APPENDIX B

Las Cruces Foothills Landfill MW-6

Las Cruces Foothills Landfill monitoring well MW-6

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-6							
				7/15/03	8/27/03	9/29/03	10/27/03	11/25/03	12/29/03	12/2/04	12/14/05
Field Parameters											
water level elevation		ft amsl	-	3832.03	3831.47	3831.47	3831.72	3831.96	3832.09	3832.52	3832.98
conductivity		µS/cm	-	bumped dry	410	440	530	440	430	438	481
pH		pH units	6-9	7.59	7.80	7.80	7.21	7.70	7.50	8.00	7.60
temperature		deg F	-	bumped dry	105.4	103.1	108.0	107.8	100.9	93.38	100.0
Major Ions											
calcium	7440-70-2	mg/L	-	46.5	44	46	50	43	47	45	47
chloride	16887-00-6	mg/L	250	19.0	17	18	18	17	18	15	15
fluoride ¹	16984-48-8	mg/L	1.6	0.6	0.5	0.5	0.6	0.5	0.48	x	x
magnesium	7439-95-4	mg/L	-	5.48	4.9	5.3	5.2	4.6	5	5.3	5.3
potassium	7440-09-7	mg/L	-	3.2	2.3	2.5	2.8	2.3	2.4	2.3	2.7
sodium	82115-62-6	mg/L	-	45.6	34	37	44	37	39	39	41
sulfate	18785-72-3	mg/L	600	87	94	88	88	76	85	77	68
alkalinity	NA	mg/L	-	110	120	110	110	110	110	110	110
bicarbonate alkalinity	71-52-3	mg/L	-	110	120	110	110	110	110	110	110
carbonate alkalinity	3812-32-6	mg/L	-	<20	<2.0	<2.0	<2.0	<2.0	<2.0	<4.0	<2.0
total dissolved solids	NA	mg/L	1,000	330	330	310	330	320	310	300	320
Nitrogen Species											
ammonia as N	1331-21-6	mg/L	-	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Kjeldahl nitrogen	7727-37-9	mg/L	-	2	<1.0	<1.0	<1.0	<1.0	<1.0	x	x
nitrate as N	14797-55-8	mg/L	10	3.6	3.4	3.8	3.8	3.8	3.8	3.5	3
nitrite	14797-65-0	mg/L	-	<0.1	3.4	3.8	3.8	3.8	3.8	x	x
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	x
Metals											
aluminum	7429-90-5	mg/L	5.0	0.09	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	x
antimony ¹	7440-36-0	mg/L	0.006	<0.0004	<0.003	<0.003	<0.003	<0.003	<0.003	x	x
arsenic ¹	7440-38-2	mg/L	0.01	0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
barium ¹	7440-39-3	mg/L	1.0	0.0361	0.07	0.08	0.06	0.06	0.06	x	x
beryllium ¹	7440-41-7	mg/L	0.004	<0.0002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x
boron	7440-42-8	mg/L	0.75	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	x	x
cadmium ¹	7440-43-9	mg/L	0.005	<0.0001	<0.002	<0.002	<0.002	<0.002	<0.002	x	x
chromium ¹	7440-47-3	mg/L	0.05	0.0004	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
cobalt ¹	7440-48-4	mg/L	0.05	0.00009	<0.03	<0.03	<0.03	<0.03	<0.03	x	x
copper ¹	7440-50-8	mg/L	1.0	0.0005	<0.06	<0.06	<0.06	<0.06	<0.06	x	x
iron	7439-89-6	mg/L	1.0	0.11	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
lead ¹	7439-92-1	mg/L	0.05	<0.0001	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
manganese	7439-96-5	mg/L	0.2	0.032	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
mercury ¹	7439-97-6	mg/L	0.002	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
molybdenum	7439-98-7	mg/L	1.0	<0.010	<0.75	<0.75	<0.75	<0.75	<0.75	x	x
nickel ¹	7440-02-0	mg/L	0.2	0.00162	<0.05	<0.05	<0.05	<0.05	<0.05	x	x
selenium ¹	7782-49-2	mg/L	0.05	0.0013	<0.005	<0.005	<0.005	<0.005	<0.005	x	x
silver ¹	7440-22-4	mg/L	0.05	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
thallium ¹	7440-28-0	mg/L	0.002	<0.00003	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
tin ¹	7440-31-5	mg/L	-	<0.10	x	x	x	x	<0.4	x	x
uranium ¹	7440-61-1	mg/L	0.03	<0.002	<2.5	<2.5	<2.5	<2.5	<2.5	x	x
vanadium ¹	7440-62-2	mg/L	-	<0.050	<0.08	<0.08	<0.08	<0.08	<0.08	x	x
zinc	7440-66-6	mg/L	10.0	0.024	<0.05	<0.05	<0.05	<0.05	<0.05	x	x
total organic carbon	-	mg/L	-	<0.5	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	<0.5
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	x
sulfide ¹	18496-25-8	mg/L	-	<0.1	x	x	x	x	<4.0	x	x
cyanide ¹	57-12-5	mg/L	0.2	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	x	x
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	0.030	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	(^^)	(^^)	(^^)	(^^)	(^^)	(^^)	x	x
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.0005	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.0005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloropropene ¹	563-58-6	mg/L	-	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	x	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.010	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	<0.0005	x	x	x	x	x	x	x
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
1,3-Dichloropropane ¹	142-28-9	mg/L	-	<0.0005	<0.005	<0.01	<0.01	<0.01	<0.01	x	x
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.0005	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
2,2-Dichloropropane ¹	78-87-5	mg/L	-	<0.0005	<0.0151	<0.015	<0.015	<0.015	<0.015	x	x
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.025	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-Chlorotoluene ¹	95-49-8	mg/L	-	<0.0005	x	x	x	x	x	x	x
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	-	<0.025	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
4-Chlorotoluene ¹	106-43-4	mg/L	-	<0.0005	x	x	x	x	x	x	x
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.025	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
Acetone ¹	67-64-1	mg/L	-	<0.025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acetonitrile ¹	75-05-8	mg/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	x	x
Acrolein ¹	107-02-8	mg/L	-	<0.025	<0.1	<0.1	<0.1	<0.1	<0.1	x	x
Acrylonitrile ¹	107-13-1	mg/L	-	<0.025	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Allyl chloride ¹	107-05-1	mg/L	-	x	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Benzene ¹	71-43-2	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bis(chloromethyl) ether ¹	542-88-1	mg/L	-	x	x	x	x	x	x	x	x
Bromochloromethane ¹	74-97-5	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

APPENDIX B

Las Cruces Foothills Landfill MW-6

Las Cruces Foothills Landfill monitoring well MW-6

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-6							
				7/15/03	8/27/03	9/29/03	10/27/03	11/25/03	12/29/03	12/2/04	12/14/05
date											
Bromomethane (methyl bromide) ¹	74-83-9	mg/L	-	<0.001	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Carbon Disulfide ¹	75-15-00	mg/L	-	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbon Tetrachloride ¹	56-23-5	mg/L	0.005	<0.0005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chlorobenzene ¹	108-90-7	mg/L	0.1	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane ¹	75-03-3	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chloromethane (methyl chloride) ¹	74-87-3	mg/L	-	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroprene (2-Chloro-1,3-butadiene) ¹	126-99-8	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	x
cis-1,2-Dichloroethylene (cis-1,2-Dichloroethene) ¹	156-59-2	mg/L	0.07	0.0006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis-1,3-Dichloropropene ¹	542-75-6	mg/L	-	<0.0005	<0.001	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	0.0052	0.0068	<0.005	0.0079	0.0074	0.0068	x	0.005
Ethyl methacrylate ¹	97-63-2	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	0.00005	<0.0005	<0.000025	<0.000025	<0.000025	<0.000025	<0.000025	<0.000025	<0.000025
Hexachlorobutadiene ¹	87-68-3	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Isobutyl alcohol ¹	78-83-1	mg/L	-	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	x	x
Isopropylbenzene ¹	98-82-8	mg/L	-	<0.0005	x	x	x	x	x	x	x
Methacrylonitrile ¹	126-98-7	mg/L	-	<0.025	<0.005	<0.005	<0.005	<0.005	<0.005	x	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.005	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Methyl methacrylate ¹	80-62-6	mg/L	-	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
n-Butylbenzene ¹	104-51-8	mg/L	-	<0.0005	x	x	x	x	x	x	x
Propionitrile ¹	107-12-0	mg/L	-	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	x	x
Propylbenzene ¹	103-65-1	mg/L	-	<0.0005	x	x	x	x	x	x	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	<0.0005	x	x	x	x	x	x	x
Styrene ¹	100-42-5	mg/L	0.1	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	<0.005	x	x	x	x	x	x	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	<0.0005	x	x	x	x	x	x	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0104	0.012	0.012	0.012	0.012	0.012	0.011	0.01
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	<0.010	x	x	x	x	x	x	x
Toluene ¹	108-88-3	mg/L	0.75	0.0047	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.0005	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.010	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Trichloroethene (TCE) ¹	79-01-6	mg/L	0.005	0.0009	0.0011	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Vinyl acetate ¹	108-05-4	mg/L	-	<0.025	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Vinyl chloride ¹	75-01-4	mg/L	0.001	<0.0005	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Trihalomethanes (THM)											
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
Chloroform ¹	67-66-3	mg/L	0.1	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Semi Volatile Organic Compounds											
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	<0.005	x	x	x	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
1-Chloronaphthalene	NA	mg/L	-	<0.005	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
1-Naphthylamine ¹	134-32-7	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	x	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	x	x
2-Acetylaminofluorene ¹	53-96-3	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
2-Naphthylamine ¹	91-59-8	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	<0.050	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
2-Picoline	109-06-8	mg/L	-	<0.010	x	x	x	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	<0.050	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	<0.050	<0.05	<0.05	<0.05	<0.05	<0.05	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	<0.020	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	<0.020	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	<0.050	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Acenaphthene ¹	83-32-9	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Acenaphthylene ¹	208-96-8	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Acetophenone ¹	98-86-2	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	<0.010	x	x	x	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	<0.010	x	x	x	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Benzidine ¹	92-87-5	mg/L	-	<0.050	x	x	x	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Benzo (a) pyrene ¹	205-99-2	mg/L	-	<0.005	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Benzo (b) fluoranthene ¹	191-24-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Benzo (g,h,i) perylene ¹	207-08-9	mg/L	-	<0.005	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Benzo (k) fluoranthene ¹	50-32-8	mg/L	0.0002	<0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x
Benzoic acid ¹	65-85-0	mg/L	-	<0.050	x	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	<0.020	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x

APPENDIX B

Las Cruces Foothills Landfill MW-6

Las Cruces Foothills Landfill monitoring well MW-6

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-6										
				7/15/03	8/27/03	9/29/03	10/27/03	11/25/03	12/29/03	12/2/04	12/14/05			
date														
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
bis (2-Chloroisopropyl) ether (bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	<0.005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x		
Butylbenzylphthalate ¹	85-68-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Carbazole	86-74-8	mg/L	-	<0.005	x	x	x	x	x	x	x	x		
Chlorobenzilate ¹	510-15-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Chrysene ¹	218-01-9	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Diallate ¹	2303-16-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Dibenz (a,j) acridine	224-42-0	mg/L	-	<0.010	x	x	x	x	x	x	x	x		
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Dibenzofuran ¹	132-64-9	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x	x	x		
Diethylphthalate ¹	84-66-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Dimethylphthalate ¹	131-11-3	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Di-n-butylphthalate ¹	84-74-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Di-n-octylphthalate ¹	117-84-0	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Diphenylamine ¹	122-39-4	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	<0.020	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x		
Fluoranthene ¹	206-44-0	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Fluorene ¹	86-73-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Hexachlorobenzene ¹	118-74-1	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x		
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Hexachloroethane ¹	67-72-1	mg/L	-	<0.005	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	x		
Hexachloropropene ¹	1888-71-7	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
HMX ¹	2691-41-0	mg/L	-	x	x	x	x	x	x	x	x	x		
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Isophorone ¹	78-59-1	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Isosafrole ¹	120-58-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x		
Methapyrilene ¹	91-80-5	mg/L	-	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x		
Methyl methanesulfonate ¹	66-27-3	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Naphthalene ¹	91-20-3	mg/L	0.03	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Nitrobenzene ¹	98-95-3	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x		
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	<0.010	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x		
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	x	x		
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	<0.020	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x		
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	<0.02	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	x	x		
o-Toluidine ¹	95-53-4	mg/L	-	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x		
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Pentachlorobenzene ¹	608-93-5	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	<0.020	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x		
Phenacetin ¹	62-44-2	mg/L	-	<0.020	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Phenanthrene ¹	85-01-8	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x		
p-Phenylenediamine ¹	106-50-3	mg/L	-	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Pronamide ¹	23950-58-5	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Pyrene ¹	129-00-0	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Pyridine	110-86-1	mg/L	-	<0.010	x	x	x	x	x	x	x	x		
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	x		
Safrole ¹	94-59-7	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
sym-Trinitrobenzene ¹ (1,3,5-TNB)	99-35-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x		
Semi Volatile Organic Compounds - Phenolics														
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x		
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x		
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x		
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x		
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x		
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	x	x		
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x		
2-Chlorophenol ¹	95-57-8	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x		
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x		
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x		
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	08-39-4/106-44	mg/L	-	x	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x		
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	x	x		
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	<0.020	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	x	x		
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	x	x		
Pentachlorophenol ¹	87-86-5	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x		
Phenol ¹ (a)	108-95-2	mg/L	0.005	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x		
Radium 226 and 228				NA	pCi/L	5	0.9							
Ra-226, total				NA	pCi/L	-	0.9	<2.5	<2.5	<2.5	<2.5	<2.5	x	x
Ra-228, total				NA	pCi/L	-	<0.5	<2.5	<2.5	<2.5	<2.5	<2.5	x	x
Chlorinated Pesticides														
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x		
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x		
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x		
aldrin ¹	309-00-2	mg/L	-	<0.0001	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	x	x		
alpha-BHC ¹	319-84-6	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x		
alpha-Chlordane ¹	5103-71-9	mg/L	-	<0.0001	alpha +	alpha +	alpha +	alpha +	alpha +	alpha +	x	x		
beta-BHC ¹	319-85-7	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x		
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x		
delta-BHC ¹	319-86-8	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x		
Dieldrin ¹	60-57-1	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x		
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x		

APPENDIX B

Las Cruces Foothills Landfill MW-6

Las Cruces Foothills Landfill monitoring well MW-6

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-6								
				7/15/03	8/27/03	9/29/03	10/27/03	11/25/03	12/29/03	12/2/04	12/14/05	
date												
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Endrin ketone	53494-70-5	mg/L	-	<0.00002	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
gamma-BHC ¹	319-86-8	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	<0.0001	see above	see above	see above	see above	see above	see above	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Heptachlor ¹	76-44-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Isodrin ¹	465-73-6	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Kepone ¹	143-50-0	mg/L	-	<0.025	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Methoxychlor ¹	72-43-5	mg/L	-	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Toxaphene ¹	8001-35-2	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x
Polychlorinated Biphenyls (PCBs)¹			0.001									
Arochlor-1016	12674-11-2	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Arochlor-1221	11104-28-2	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Arochlor-1232	11141-16-5	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Arochlor-1242	53469-21-9	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Arochlor-1248	12672-29-6	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Arochlor-1254	11097-69-1	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Arochlor-1260	11096-82-5	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x
Other Pesticides and Herbicides¹												
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x	<1.30	x
2,4,5-T ¹	93-76-5	mg/L	-	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Dimethoate ¹	60-51-5	mg/L	-	<0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Dinoseb ¹	88-85-7	mg/L	-	<0.005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Disulfoton ¹	298-04-4	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Famphur ¹	52-58-7	mg/L	-	<0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x
Methyl parathion ¹	298-00-0	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Phorate ¹	298-02-2	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x

* baseline averages and standard deviations are based on 1999 and 2000 data only as per requirements in Environmental Protection, subpart 803. Ground Water Sampling and Analysis, 1995.

¹ hazardous

x parameter not analyzed

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(#) Scanned for and not detected, breaks down almost immediately in water.

APPENDIX B

Las Cruces Foothills Landfill MW-6

Las Cruces Foothills Landfill monitoring well MW-6

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-6							
				12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/20/12
Field Parameters											
water level elevation		ft amsl	-	3833.46	3835.92	3838.67	3847.07	3844.37	3844.53	3845.07	3842.63
conductivity		µS/cm	-	440	420	390	532	420	403	380	400
pH		pH units	6-9	7.60	7.41	7.69	7.28	7.68	7.33	7.29	6.99
temperature		deg F	-	103.5	103.1	105.1	102.6	105.8	102.6	81.3	81.5
Major Ions											
calcium	7440-70-2	mg/L	-	41	40	36	40	40	40	37	39
chloride	16887-00-6	mg/L	250	13	13	11	13	11	12	11	11
fluoride ¹	16984-48-8	mg/L	1.6	x	x	0.56	x	0.55	x	x	x
magnesium	7439-95-4	mg/L	-	4.9	4.7	4.2	4.7	4.7	4.6	4.5	4.5
potassium	7440-09-7	mg/L	-	2.2	2.3	2	2.3	2.3	2.4	2.2	2.4
sodium	82115-62-6	mg/L	-	38	36	34	37	37	37	36	37
sulfate	18785-72-3	mg/L	600	64	62	52	57	48	45	50	49
alkalinity	NA	mg/L	-	110	110	120	110	120	120	120	120
bicarbonate alkalinity	71-52-3	mg/L	-	110	110	120	110	120	120	120	120
carbonate alkalinity	3812-32-6	mg/L	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
total dissolved solids	NA	mg/L	1,000	290	280	280	276	277	269	261	257
Nitrogen Species											
ammonia as N	1331-21-6	mg/L	-	<0.5	<0.5	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0
Kjeldahl nitrogen	7727-37-9	mg/L	-	x	x	<1.0	x	x	x	x	x
nitrate as N	14797-55-8	mg/L	10	3	3	2.5	2.7	2.7	2.9	2.9	3.2
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	x	x	x
total nitrogen	-	mg/L	-	x	x	2.5	x	x	x	x	x
Metals											
aluminum	7429-90-5	mg/L	5.0	x	x	<0.02	x	<0.020	x	x	x
antimony ¹	7440-36-0	mg/L	0.006	x	x	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
arsenic ¹	7440-38-2	mg/L	0.01	x	x	0.007	0.003	0.00164	0.0016	0.0016	0.0015
barium ¹	7440-39-3	mg/L	1.0	x	x	0.055	0.055	0.057	0.058	0.057	0.055
beryllium ¹	7440-41-7	mg/L	0.004	x	x	<0.003	x	<0.001	0.00038	<0.002	<0.002
boron	7440-42-8	mg/L	0.75	x	x	<0.04	x	<0.04	x	x	x
cadmium ¹	7440-43-9	mg/L	0.005	x	x	<0.002	<0.0020	<0.002	<0.002	<0.002	<0.002
chromium ¹	7440-47-3	mg/L	0.05	x	x	<0.006	<0.0060	<0.006	<0.006	<0.006	<0.006
cobalt ¹	7440-48-4	mg/L	0.05	x	x	<0.006	<0.0060	<0.006	0.00079	<0.006	<0.006
copper ¹	7440-50-8	mg/L	1.0	x	x	0.0084	<0.0060	<0.006	<0.006	<0.006	<0.006
iron	7439-89-6	mg/L	1.0	<0.1	<0.1	<0.05	<0.05	<0.05	0.012	<0.02	<0.02
lead ¹	7439-92-1	mg/L	0.05	x	x	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
manganese	7439-96-5	mg/L	0.2	<0.03	<0.03	0.0059	0.0057	0.0057	0.0064	0.0059	0.0054
mercury ¹	7439-97-6	mg/L	0.002	x	x	<0.0002	x	<0.0002	x	x	x
molybdenum	7439-98-7	mg/L	1.0	x	x	<0.008	x	<0.008	x	x	x
nickel ¹	7440-02-0	mg/L	0.2	x	x	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
selenium ¹	7782-49-2	mg/L	0.05	x	x	0.001	<0.001	<0.001	0.0011	0.0011	<0.001
silver ¹	7440-22-4	mg/L	0.05	x	x	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
thallium ¹	7440-28-0	mg/L	0.002	x	x	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
tin ¹	7440-31-5	mg/L	-	x	x	<0.1	x	x	x	x	x
uranium ¹	7440-61-1	mg/L	0.03	x	x	0.002	x	x	x	x	x
vanadium ¹	7440-62-2	mg/L	-	x	x	<0.05	<0.05	<0.05	0.0087	<0.05	<0.05
zinc	7440-66-6	mg/L	10.0	x	x	<0.02	<0.02	<0.02	0.012	<0.01	<0.01
total organic carbon	-	mg/L	-	2.6	<1.0	3.5	1.2	1.0	1.1	<1.0	<1.0
phosphate	14265-44-2	mg/L	-	x	x	<0.50	x	<0.50	x	x	x
sulfide ¹	18496-25-8	mg/L	-	x	x	3	x	x	x	x	x
cyanide ¹	57-12-5	mg/L	0.2	x	x	<0.005	x	x	x	x	x
perchlorate ¹	14797-73-0	mg/L	-	x	x	<0.001	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	<0.003	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	x	x	(**)	x	x	x	x	x
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	x	<0.005	x	x	x	x	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	x	x	x	x	x	x	x	x
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	x	x	<0.001	x	x	x	x	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	x	x	<0.001	<0.001	x	x	x	x
1,3-Dichloropropane ¹	142-28-9	mg/L	-	x	x	<0.01	x	x	x	x	x
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2,2-Dichloropropane ¹	78-87-5	mg/L	-	x	x	<0.015	x	x	x	x	x
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-Chlorotoluene ¹	95-49-8	mg/L	-	x	x	x	x	x	x	x	x
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	-	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01
4-Chlorotoluene ¹	106-43-4	mg/L	-	x	x	x	x	x	x	x	x
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.015	<0.015	<0.015	<0.01	<0.01	<0.01	<0.01	<0.01
Acetone ¹	67-64-1	mg/L	-	<0.1	<0.1	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01
Acetonitrile ¹	75-05-8	mg/L	-	x	x	<0.1	x	x	x	x	x
Acrolein ¹	107-02-8	mg/L	-	x	x	<0.1	x	x	x	x	x
Acrylonitrile ¹	107-13-1	mg/L	-	<0.2	<0.2	<0.2	<0.01	<0.01	<0.01	<0.01	<0.01
Allyl chloride ¹	107-05-1	mg/L	-	x	x	<0.01	x	x	x	x	x
Benzene ¹	71-43-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bis(chloromethyl) ether ¹	542-88-1	mg/L	-	x	x	(#)	x	x	x	x	x
Bromochloromethane ¹	74-97-5	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	0.001	<0.002	<0.002

APPENDIX B

Las Cruces Foothills Landfill MW-6

Las Cruces Foothills Landfill monitoring well MW-6

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-6								
				12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/20/12	
date												
Bromomethane (methyl bromide) ¹	74-83-9	mg/L	-	<0.02	<0.02	<0.02	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Carbon Disulfide ¹	75-15-00	mg/L	-	<0.1	<0.1	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Carbon Tetrachloride ¹	56-23-5	mg/L	0.005	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chlorobenzene ¹	108-90-7	mg/L	0.1	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroethane ¹	75-03-3	mg/L	-	<0.01	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chloromethane (methyl chloride) ¹	74-87-3	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroprene (2-Chloro-1,3-butadiene) ¹	126-99-8	mg/L	-	x	x	x	x	x	x	x	x	x
cis-1,2-Dichloroethylene (cis-1,2-Dichloroethene) ¹	156-59-2	mg/L	0.07	<0.005	<0.005	<0.005	<0.001	<0.001	0.00045	<0.001	<0.001	<0.001
cis-1,3-Dichloropropene ¹	542-75-6	mg/L	-	<0.02	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.02	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	<0.005	<0.005	0.0045	0.0043	0.0037	0.0031	0.0030	0.0036	0.0036
Ethyl methacrylate ¹	97-63-2	mg/L	-	x	x	<0.01	x	x	x	x	x	x
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	0.00005	<0.000025	<0.000025	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Hexachlorobutadiene ¹	87-68-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	<0.05	x	x	x	x	x	x
Isopropylbenzene ¹	98-82-8	mg/L	-	x	x	x	x	x	x	x	x	x
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	<0.005	x	x	x	x	x	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.04	<0.04	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	<0.03	x	x	x	x	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	x	x	x	x	x	x	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	<0.06	x	x	x	x	x	x
Propylbenzene ¹	103-65-1	mg/L	-	x	x	x	x	x	x	x	x	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	x	x	x	x	x	x	x	x
Styrene ¹	100-42-5	mg/L	0.1	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	x	x	<0.001	x	x	x	x	x	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	x	x	x	x	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0072	0.0076	0.0078	0.0085	0.0073	0.0068	0.0072	0.0061	0.0061
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	x	x	x	x	x	x	x
Toluene ¹	108-88-3	mg/L	0.75	<0.005	<0.005	<0.005	<0.001	<0.001	0.00016	<0.001	<0.001	<0.001
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.005	<0.005	<0.005	<0.002	<0.002	0.0003	<0.002	<0.002	<0.002
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.1	<0.1	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.0013	<0.001	<0.001	<0.001	<0.001	0.00076	<0.001	<0.001	<0.001
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.01	<0.01	<0.01	<0.001	<0.001	0.00074	<0.001	<0.001	<0.001
Vinyl acetate ¹	108-05-4	mg/L	-	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Vinyl chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Trihalomethanes (THM)												
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bromoform ¹	75-25-2	mg/L	-	<0.015	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroform ¹	67-66-3	mg/L	0.1	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Semi Volatile Organic Compounds												
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	<0.0002	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Acetylaminofluorene ¹	53-96-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Picoline	109-06-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Acenaphthene ¹	83-32-9	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Acenaphthylene ¹	208-96-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Acetophenone ¹	98-86-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Benzidine ¹	92-87-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Benzo (a) pyrene ¹	205-99-2	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Benzo (b) fluoranthene ¹	191-24-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Benzo (g,h,i) perylene ¹	207-08-9	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Benzo (k) fluoranthene ¹	50-32-8	mg/L	0.0002	x	x	<0.00005	x	x	x	x	x	x
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x

APPENDIX B

Las Cruces Foothills Landfill MW-6

Las Cruces Foothills Landfill monitoring well MW-6

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-6								
				12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/20/12	
date												
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
bis (2-Chloroisopropyl) ether (bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Carbazole	86-74-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Chrysene ¹	218-01-9	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Diallate ¹	2303-16-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Dibenz (a,j) acridine	224-42-0	mg/L	-	x	x	x	x	x	x	x	x	x
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Dibenzofuran ¹	132-64-9	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x	x	x
Diethylphthalate ¹	84-66-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Dimethylphthalate ¹	131-11-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Diphenylamine ¹	122-39-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Fluoranthene ¹	206-44-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Fluorene ¹	86-73-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	<0.0001	x	x	x	x	x	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
HMX ¹	2691-41-0	mg/L	-	x	x	<0.0001	x	x	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Isophorone ¹	78-59-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Isosafrole ¹	120-58-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	x	x	x	x	x	x
Methapyrilene ¹	91-80-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	x	x	<0.001	x	x	x	x	x	x
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	<0.001	x	x	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Pyridine	110-86-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	<0.0001	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics												
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	<0.001	x	x	x	x	x	x
Radium 226 and 228	NA	pCi/L	5	0.45								
Ra-226, total	NA	pCi/L	-	x	x	0.2	x	x	x	x	x	x
Ra-228¹, total	NA	pCi/L	-	x	x	0.25	x	x	x	x	x	x
Chlorinated Pesticides												
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
aldrin ¹	309-00-2	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
alpha-BHC ¹	319-84-6	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	<0.0002	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x

APPENDIX B

Las Cruces Foothills Landfill MW-6

Las Cruces Foothills Landfill monitoring well MW-6

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-6								
				12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/20/12	
date												
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	<0.00004	x	x	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹			0.001									
Arochlor-1016	12674-11-2	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	x	x	<0.00025	x	x	x	x	x	x
Other Pesticides and Herbicides¹												
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	<0.000717	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	<0.001	x	x	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Phorate ¹	298-02-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	x	x	<0.00005	x	x	x	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	<0.001	x	x	x	x	x	x

* baseline averages and standard deviations are based on 1999 and 2000 data only as per requirements in Enviro

¹ hazardous

x parameter not analyzed

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(#) Scanned for and not detected, breaks down almost immediately in water.

APPENDIX B

Las Cruces Foothills Landfill MW-6

Las Cruces Foothills Landfill monitoring well MW-6									baseline	standard
constituent	CAS Number	unit	GWPS						average	deviation
				6/26/13	6/16/16	12/27/16	6/27/17	12/6/17	7/15/03 to 12/2/04	7/15/03 to 12/2/04
Field Parameters										
water level elevation		ft amsl	-	3838.22	3837.12	3836.60	3837.03	3836.60	3,831.89	0.37
conductivity		µS/cm	-	400	385	393	404	404	448.00	41.76
pH		pH units	6-9	7.56	7.15	7.34	7.42	7.38	7.66	0.25
temperature		deg F	-	107.4	115.0	111.9	111.9	115.0	103.10	5.49
Major Ions										
calcium	7440-70-2	mg/L	-	38	40	40	41	38	45.93	2.28
chloride	16887-00-6	mg/L	250	11	12	11	12	12	17.43	1.27
fluoride ¹	16984-48-8	mg/L	1.6	x	x	x	x	x	0.53	0.05
magnesium	7439-95-4	mg/L	-	4.3	4.6	4.5	4.6	4.2	5.11	0.30
potassium	7440-09-7	mg/L	-	2.3	2.3	2.3	2.2	2.3	2.54	0.34
sodium	82115-62-6	mg/L	-	35	37	36	36	35	39.37	4.09
sulfate	18785-72-3	mg/L	600	49	45	44	44	47	85.00	6.43
alkalinity	NA	mg/L	-	120	120.8	120.8	124.8	119.5	111.43	3.78
bicarbonate alkalinity	71-52-3	mg/L	-	120	120.8	120.8	124.8	119.5	111.43	3.78
carbonate alkalinity	3812-32-6	mg/L	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	x
total dissolved solids	NA	mg/L	1,000	266	256	268	265	273	318.57	12.15
Nitrogen Species										
ammonia as N	1331-21-6	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	x
Kjeldahl nitrogen	7727-37-9	mg/L	-	x	x	x	x	x	2.00	x
nitrate as N	14797-55-8	mg/L	10	3.3	3.5	3.5	3.0	3.6	3.67	0.17
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	3.72	0.18
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x
Metals										
aluminum	7429-90-5	mg/L	5.0	x	x	x	x	x	0.09	x
antimony ¹	7440-36-0	mg/L	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003	x
arsenic ¹	7440-38-2	mg/L	0.01	0.002	0.0016	0.0017	0.0014	0.0012	0.0005	x
barium ¹	7440-39-3	mg/L	1.0	0.061	0.057	0.058	0.058	0.056	0.06	0.01
beryllium ¹	7440-41-7	mg/L	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x
boron	7440-42-8	mg/L	0.75	x	x	x	x	x	<0.5	x
cadmium ¹	7440-43-9	mg/L	0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x
chromium ¹	7440-47-3	mg/L	0.05	<0.006	<0.006	<0.006	<0.006	<0.006	0.0004	x
cobalt ¹	7440-48-4	mg/L	0.05	<0.006	<0.006	<0.006	<0.006	<0.006	0.0001	x
copper ¹	7440-50-8	mg/L	1.0	<0.006	<0.006	<0.006	<0.006	<0.006	0.0005	x
iron	7439-89-6	mg/L	1.0	<0.02	<0.02	<0.02	<0.02	<0.02	0.11	x
lead ¹	7439-92-1	mg/L	0.05	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.01	x
manganese	7439-96-5	mg/L	0.2	0.0081	0.0035	0.0038	0.0040	0.0026	0.03	x
mercury ¹	7439-97-6	mg/L	0.002	x	x	x	x	x	<0.001	x
molybdenum	7439-98-7	mg/L	1.0	x	x	x	x	x	<0.75	x
nickel ¹	7440-02-0	mg/L	0.2	<0.01	<0.01	<0.01	<0.01	<0.01	0.0016	x
selenium ¹	7782-49-2	mg/L	0.05	0.0018	<0.001	<0.001	<0.001	<0.001	0.0013	x
silver ¹	7440-22-4	mg/L	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	x
thallium ¹	7440-28-0	mg/L	0.002	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	x
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	<0.4	x
uranium ¹	7440-61-1	mg/L	0.03	x	x	x	x	x	<2.5	x
vanadium ¹	7440-62-2	mg/L	-	<0.05	<0.05	<0.05	<0.05	0.0070	<0.08	x
zinc	7440-66-6	mg/L	10.0	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	x
total organic carbon	-	mg/L	-	1.6	<1.0	<1.0	1.1	<1.0	<0.5	x
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x
sulfide ¹	18496-25-8	mg/L	-	x	x	x	x	x	<4.0	x
cyanide ¹	57-12-5	mg/L	0.2	x	x	x	x	x	<0.1	x
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.03	x
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	x	x	x	x	x	(^^)	x
Volatile Organic Compounds										
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	x
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	x	x	x	x	<0.005	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.0001	<0.00002	<0.00002	<0.000019	<0.000095	<0.0001	x
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	x	x	x	x	x	<0.0005	x
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	x
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	x	x	x	x	x	<0.01	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	x
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	x	x	x	x	x	<0.01	x
1,3-Dichloropropane ¹	142-28-9	mg/L	-	x	x	x	x	x	<0.01	x
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.001	<0.001	<0.001	<0.001	<0.001	<0.015	x
2,2-Dichloropropane ¹	78-87-5	mg/L	-	x	x	x	x	x	<0.015	x
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x
2-Chlorotoluene ¹	95-49-8	mg/L	-	x	x	x	x	x	<0.0005	x
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	x
4-Chlorotoluene ¹	106-43-4	mg/L	-	x	x	x	x	x	<0.0005	x
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	0.0017	<0.015	x
Acetone ¹	67-64-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	x
Acetonitrile ¹	75-05-8	mg/L	-	x	x	x	x	x	<0.1	x
Acrolein ¹	107-02-8	mg/L	-	x	x	x	x	x	<0.1	x
Acrylonitrile ¹	107-13-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.2	x
Allyl chloride ¹	107-05-1	mg/L	-	x	x	x	x	x	<0.01	x
Benzene ¹	71-43-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	0.00013	<0.001	x
Bis(chloromethyl) ether ¹	542-88-1	mg/L	-	x	x	x	x	x	x	x
Bromochloromethane ¹	74-97-5	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x

APPENDIX B

Las Cruces Foothills Landfill MW-6

Las Cruces Foothills Landfill monitoring well MW-6									baseline	standard
constituent	CAS Number	unit	GWPS						average	deviation
				6/26/13	6/16/16	12/27/16	6/27/17	12/6/17	7/15/03 to 12/2/04	7/15/03 to 12/2/04
Bromomethane (methyl bromide) ¹	74-83-9	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.02	x
Carbon Disulfide ¹	75-15-00	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	x
Carbon Tetrachloride ¹	56-23-5	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	x
Chlorobenzene ¹	108-90-7	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
Chloroethane ¹	75-03-3	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	x
Chloromethane (methyl chloride) ¹	74-87-3	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
Chloroprene (2-Chloro-1,3-butadiene) ¹	126-99-8	mg/L	-	x	x	x	x	x	<0.05	x
cis-1,2-Dichloroethylene (cis-1,2-Dichloroethene) ¹	156-59-2	mg/L	0.07	<0.001	<0.001	<0.001	<0.001	0.00057	<0.005	x
cis-1,3-Dichloropropene ¹	542-75-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	x
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	x
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	0.0042	0.0041	0.0029	0.0031	0.0022	0.0068	0.001
Ethyl methacrylate ¹	97-63-2	mg/L	-	x	x	x	x	x	<0.01	x
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	0.00005	<0.00001	<0.00001	<0.00001	<0.0000095	<0.0000095	<0.000025	x
Hexachlorobutadiene ¹	87-68-3	mg/L	-	x	x	x	x	x	<0.01	x
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	x	x	x	<0.05	x
Isopropylbenzene ¹	98-82-8	mg/L	-	x	x	x	x	x	<0.0005	x
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	<0.005	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.04	x
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	<0.03	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.001	<0.0025	<0.0025	<0.0025	<0.0025	<0.001	x
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	x	x	x	<0.0005	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	x	x	<0.06	x
Propylbenzene ¹	103-65-1	mg/L	-	x	x	x	x	x	<0.0005	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	x	x	x	x	<0.0005	x
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	x
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	x	x	x	x	x	<0.005	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	x	<0.0005	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0070	0.0060	0.0061	0.0065	0.0069	0.012	0.0007
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	x	x	x	<0.010	x
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	x
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	x
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	x
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	x
Trichloroethene (TCE) ¹	79-01-6	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	0.00064	<0.001	x
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	0.00069	<0.01	x
Vinyl acetate ¹	108-05-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	x
Vinyl chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	x
Trihalomethanes (THM)										
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.015	x
Chloroform ¹	67-66-3	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
Semi Volatile Organic Compounds										
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	x	x	x	<0.01	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	<0.005	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	<0.01	x
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	<0.005	x
1-Methylnaphthalene	86-52-2	mg/L	-	x	x	x	x	x	<0.01	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	<0.01	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	x	x	x	<0.005	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	x	<0.005	x
2-Acetylaminofluorene ¹	53-96-3	mg/L	-	x	x	x	x	x	<0.02	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	<0.01	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	x	x	x	x	<0.01	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	<0.01	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	x	<0.01	x
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	<0.01	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	x	<0.01	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	<0.01	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	<0.01	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	x	<0.05	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	x	x	x	<0.02	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	x	x	x	<0.01	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	x	x	x	<0.02	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	x	x	x	<0.01	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	x	x	x	<0.02	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	x	x	x	<0.01	x
Acenaphthene ¹	83-32-9	mg/L	-	x	x	x	x	x	<0.01	x
Acenaphthylene ¹	208-96-8	mg/L	-	x	x	x	x	x	<0.01	x
Acetophenone ¹	98-86-2	mg/L	-	x	x	x	x	x	<0.01	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	x	x	x	<0.01	x
Aniline ¹	62-53-3	mg/L	-	x	x	x	x	x	<0.01	x
Anthracene ¹	120-12-7	mg/L	-	x	x	x	x	x	<0.01	x
Benzidine ¹	92-87-5	mg/L	-	x	x	x	x	x	<0.05	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	x	x	x	x	x	<0.01	x
Benzo (a) pyrene ¹	205-99-2	mg/L	-	x	x	x	x	x	<0.02	x
Benzo (b) fluoranthene ¹	191-24-2	mg/L	-	x	x	x	x	x	<0.01	x
Benzo (g,h,i) perylene ¹	207-08-9	mg/L	-	x	x	x	x	x	<0.02	x
Benzo (k) fluoranthene ¹	50-32-8	mg/L	0.0002	x	x	x	x	x	<0.0001	x
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	<0.05	x
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	x	x	x	<0.01	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	x	x	x	<0.01	x

APPENDIX B

Las Cruces Foothills Landfill MW-6

Las Cruces Foothills Landfill monitoring well MW-6										baseline	standard
constituent	CAS Number	unit	GWPS							average	deviation
date				6/26/13	6/16/16	12/27/16	6/27/17	12/6/17	7/15/03 to 12/2/04	7/15/03 to 12/2/04	
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	x	x	x	x	<0.01	x	
bis (2-Chloroisopropyl) ether (bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	x	x	x	x	x	<0.01	x	
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	x	x	x	<0.02	x	
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	x	x	x	<0.01	x	
Carbazole	86-74-8	mg/L	-	x	x	x	x	x	<0.005	x	
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x	x	x	x	<0.01	x	
Chrysene ¹	218-01-9	mg/L	-	x	x	x	x	x	<0.01	x	
Diallate ¹	2303-16-4	mg/L	-	x	x	x	x	x	<0.01	x	
Dibenz (a,j) acridine	224-42-0	mg/L	-	x	x	x	x	x	<0.01	x	
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	x	x	x	x	x	<0.01	x	
Dibenzofuran ¹	132-64-9	mg/L	-	x	x	x	x	x	<0.01	x	
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x	
Diethylphthalate ¹	84-66-2	mg/L	-	x	x	x	x	x	<0.01	x	
Dimethylphthalate ¹	131-11-3	mg/L	-	x	x	x	x	x	<0.01	x	
Di-n-butylphthalate ¹	84-74-2	mg/L	-	x	x	x	x	x	<0.01	x	
Di-n-octylphthalate ¹	117-84-0	mg/L	-	x	x	x	x	x	<0.01	x	
Diphenylamine ¹	122-39-4	mg/L	-	x	x	x	x	x	<0.01	x	
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	x	x	x	<0.02	x	
Fluoranthene ¹	206-44-0	mg/L	-	x	x	x	x	x	<0.01	x	
Fluorene ¹	86-73-7	mg/L	-	x	x	x	x	x	<0.01	x	
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	x	x	x	<0.001	x	
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	x	x	x	<0.01	x	
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	x	x	x	<0.05	x	
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	x	x	x	<0.01	x	
HMX ¹	2691-41-0	mg/L	-	x	x	x	x	x	x	x	
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	x	x	x	x	<0.01	x	
Isophorone ¹	78-59-1	mg/L	-	x	x	x	x	x	<0.01	x	
Isosafrole ¹	120-58-1	mg/L	-	x	x	x	x	x	<0.01	x	
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	x	x	<0.02	x	
Methapyrilene ¹	91-80-5	mg/L	-	x	x	x	x	x	<0.02	x	
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	x	<0.01	x	
Naphthalene ¹	91-20-3	mg/L	0.03	x	x	x	x	x	<0.01	x	
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	x	x	<0.01	x	
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	<0.02	x	
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	<0.002	x	
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	<0.01	x	
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	<0.01	x	
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	<0.005	x	
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	<0.01	x	
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	<0.02	x	
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	<0.04	x	
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	<0.002	x	
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	<0.01	x	
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	<0.01	x	
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	<0.02	x	
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	<0.01	x	
Phenanthrene ¹	85-01-8	mg/L	-	x	x	x	x	x	<0.001	x	
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	<0.01	x	
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	<0.01	x	
Pyrene ¹	129-00-0	mg/L	-	x	x	x	x	x	<0.01	x	
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	<0.01	x	
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	<0.01	x	
sym-Trinitrobenzene ¹ (1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	<0.01	x	
Semi Volatile Organic Compounds - Phenolics											
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	<0.01	x	
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	<0.01	x	
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	<0.01	x	
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	<0.01	x	
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	<0.01	x	
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	<0.05	x	
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	<0.01	x	
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	<0.01	x	
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	<0.01	x	
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	<0.01	x	
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	x	x	x	x	x	<0.02	x	
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	<0.05	x	
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	x	x	x	<0.005	x	
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	<0.05	x	
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	<0.02	x	
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	<0.01	x	
Radium 226 and 228											
Ra-226, total	NA	pCi/L	-	x	x	x	x	x	<2.5	x	
Ra-228 ¹ , total	NA	pCi/L	-	x	x	x	x	x	<2.5	x	
Chlorinated Pesticides											
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	x	x	<0.001	x	
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	x	x	<0.001	x	
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	<0.001	x	
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	<0.01	x	
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	<0.0001	x	
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	alpha +	x	
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	<0.0001	x	
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	<0.0001	x	
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	<0.001	x	
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	<0.001	x	

APPENDIX B

Las Cruces Foothills Landfill MW-6

Las Cruces Foothills Landfill monitoring well MW-6									baseline	standard
constituent	CAS Number	unit	GWPS						average	deviation
date				6/26/13	6/16/16	12/27/16	6/27/17	12/6/17	7/15/03 to 12/2/04	7/15/03 to 12/2/04
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	<0.001	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	<0.001	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	<0.001	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	<0.00002	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	<0.001	x
gamma-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	<0.0001	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	see above	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	x	x	<0.001	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	x	x	<0.001	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	<0.02	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	<0.02	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	<0.01	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	<0.001	x
Polychlorinated Biphenyls (PCBs)¹			0.001							
Arochlor-1016	12674-11-2	mg/L	-	x	x	x	x	x	<0.0005	x
Arochlor-1221	11104-28-2	mg/L	-	x	x	x	x	x	<0.0005	x
Arochlor-1232	11141-16-5	mg/L	-	x	x	x	x	x	<0.0005	x
Arochlor-1242	53469-21-9	mg/L	-	x	x	x	x	x	<0.0005	x
Arochlor-1248	12672-29-6	mg/L	-	x	x	x	x	x	<0.0005	x
Arochlor-1254	11097-69-1	mg/L	-	x	x	x	x	x	<0.0005	x
Arochlor-1260	11096-82-5	mg/L	-	x	x	x	x	x	<0.0005	x
Other Pesticides and Herbicides¹										
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	<0.002	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	<0.01	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	<0.02	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	<0.02	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	<0.01	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	<0.02	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	<0.01	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	<0.01	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	<0.01	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	<0.01	x
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	x	x	x	x	x	<0.002	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	<0.02	x

* baseline averages and standard deviations are based on 1999 and 2000 data only as per requirements in Enviro

¹ hazardous

x parameter not analyzed

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(#) Scanned for and not detected, breaks down almost immediately in water.

MW-7

APPENDIX B

Las Cruces Foothills Landfill MW-7

Las Cruces Foothills Landfill monitoring well MW-7

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-7								
				7/15/03	8/27/03	9/29/03	10/27/03	11/25/03	12/29/03	12/2/04	12/14/05	12/12/06
Field Parameters												
water level elevation		ft amsl	-	3914.57	3914.14	3914.10	3914.13	3914.16	3913.83	3912.61	3911.55	3910.82
conductivity		µS/cm	-	402	300	330	330	320	320	341	382	370
pH		pH units	6-9	7.80	7.80	7.90	7.70	7.80	7.70	7.83	7.90	7.50
temperature		deg F	-	102.0	97.3	99.7	100.9	100.0	98.1	96.3	95.5	93.2
Major Ions												
calcium	7440-70-2	mg/L	-	35.2	34	36	37	36	39	41	45	45
chloride	16887-00-6	mg/L	250	11	10	10	11	10	10	11	12	14
fluoride ¹	16984-48-8	mg/L	1.6	0.7	0.8	0.8	0.8	0.7	0.74	x	x	x
magnesium	7439-95-4	mg/L	-	4.64	4	4.4	4.4	4.2	4.8	5.2	5.4	5.5
potassium	7440-09-7	mg/L	-	2.8	1.8	1.9	1.8	1.8	1.9	1.9	2.2	1.8
sodium	82115-62-6	mg/L	-	38.4	24	26	27	25	25	26	28	26
sulfate	18785-72-3	mg/L	600	40	39	40	41	39	39	40	39	44
alkalinity	NA	mg/L	-	123	130	120	120	120	120	130	120	120
bicarbonate alkalinity	71-52-3	mg/L	-	122	130	120	120	120	120	130	120	120
carbonate alkalinity	3812-32-6	mg/L	-	<20	<2.0	<2.0	<2.0	<2.0	<2.0	<4.0	<2.0	<2.0
total dissolved solids	NA	mg/L	1,000	230	250	230	240	240	210	210	250	260
Nitrogen Species												
ammonia as N	1331-21-6	mg/L	-	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Kjeldahl nitrogen	7727-37-9	mg/L	-	<1	<1.0	<1.0	<1.0	<1.0	<1.0	x	x	x
nitrate as N	14797-55-8	mg/L	10	0.6	<1.0	<1.0	<1.0	<1.0	<1.0	0.54	<1.0	1
nitrite	14797-65-0	mg/L	-	<0.1	<1.0	<1.0	<1.0	<1.0	<1.0	x	x	x
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	x	x
Metals												
aluminum	7429-90-5	mg/L	5.0	1.56	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	x	x
antimony ¹	7440-36-0	mg/L	0.006	<0.0004	<0.003	<0.003	<0.003	<0.003	<0.003	x	x	x
arsenic ¹	7440-38-2	mg/L	0.01	0.0016	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
barium ¹	7440-39-3	mg/L	1.0	0.0286	<0.02	0.04	0.03	0.04	0.04	x	x	x
beryllium ¹	7440-41-7	mg/L	0.004	0.0002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x	x
boron	7440-42-8	mg/L	0.75	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	x	x	x
cadmium ¹	7440-43-9	mg/L	0.005	<0.0001	<0.002	<0.002	<0.002	<0.002	<0.002	x	x	x
chromium ¹	7440-47-3	mg/L	0.05	0.007	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
cobalt ¹	7440-48-4	mg/L	0.05	0.00052	<0.03	<0.03	<0.03	<0.03	<0.03	x	x	x
copper ¹	7440-50-8	mg/L	1.0	0.0012	<0.06	<0.06	<0.06	<0.06	<0.06	x	x	x
iron	7439-89-6	mg/L	1.0	1.32	<0.1	<0.1	<0.1	<0.1	0.33	0.23	<0.1	<0.1
lead ¹	7439-92-1	mg/L	0.05	<0.0001	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
manganese	7439-96-5	mg/L	0.2	0.086	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
mercury ¹	7439-97-6	mg/L	0.002	0.0003	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x
molybdenum	7439-98-7	mg/L	1.0	<0.010	<0.75	<0.75	<0.75	<0.75	<0.75	x	x	x
nickel ¹	7440-02-0	mg/L	0.2	0.00686	<0.05	<0.05	<0.05	<0.05	<0.05	x	x	x
selenium ¹	7782-49-2	mg/L	0.05	0.0013	<0.005	<0.005	<0.005	<0.005	<0.005	x	x	x
silver ¹	7440-22-4	mg/L	0.05	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
thallium ¹	7440-28-0	mg/L	0.002	<0.00003	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x
tin ¹	7440-31-5	mg/L	-	<0.10	x	x	x	x	<0.4	x	x	x
uranium ¹	7440-61-1	mg/L	0.03	0.003	<2.5	<2.5	<2.5	<2.5	<2.5	x	x	x
vanadium ¹	7440-62-2	mg/L	-	<0.050	<0.08	<0.08	<0.08	<0.08	<0.08	x	x	x
zinc	7440-66-6	mg/L	10.0	0.088	<0.05	<0.05	<0.05	<0.05	<0.05	x	x	x
total organic carbon	-	mg/L	-	4.6	<1.0	<1.0	<1.0	2.4	<0.5	0.5	<0.5	<0.5
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	x	x
sulfide ¹	18496-25-8	mg/L	-	<0.1	x	x	x	x	<4.0	x	x	x
cyanide ¹	57-12-5	mg/L	0.2	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	x	x	x
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	<0.005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	(**)	(**)	(**)	(**)	(**)	(**)	x	x	x
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.0005	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.0005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloropropene ¹	563-58-6	mg/L	-	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	x	x	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.010	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x	x
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	<0.0005	x	x	x	x	x	x	x	x
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
1,3-Dichloropropane ¹	142-28-9	mg/L	-	<0.0005	<0.005	<0.01	<0.01	<0.01	<0.01	x	x	x
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.0005	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
2,2-Dichloropropane ¹	78-87-5	mg/L	-	<0.0005	<0.0151	<0.015	<0.015	<0.015	<0.015	x	x	x
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.025	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-Chlorotoluene ¹	95-49-8	mg/L	-	<0.0005	x	x	x	x	x	x	x	x
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	-	<0.025	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
4-Chlorotoluene ¹	106-43-4	mg/L	-	<0.0005	x	x	x	x	x	x	x	x
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.025	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
Acetone ¹	67-64-1	mg/L	-	<0.025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Acetonitrile ¹	75-05-8	mg/L	-	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.2	<0.2	<0.2
Acrolein ¹	107-02-8	mg/L	-	<0.025	<0.1	<0.1	<0.1	<0.1	<0.1	x	x	x
Acrylonitrile ¹	107-13-1	mg/L	-	<0.025	<0.2	<0.2	<0.2	<0.2	<0.2	x	x	x
Allyl chloride ¹	107-05-1	mg/L	-	x	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
Benzene ¹	71-43-2	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Bis(chloromethyl) ether ¹	542-88-1	mg/L	-	x	x	x	x	x	x	x	x	x
Bromochloromethane ¹	74-97-5	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

APPENDIX B

Las Cruces Foothills Landfill MW-7

Las Cruces Foothills Landfill monitoring well MW-7

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-7								
				7/15/03	8/27/03	9/29/03	10/27/03	11/25/03	12/29/03	12/2/04	12/14/05	12/12/06
date												
Bromomethane (methyl bromide) ¹	74-83-9	mg/L	-	<0.001	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Carbon Disulfide ¹	75-15-00	mg/L	-	<0.005	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Carbon Tetrachloride ¹	56-23-5	mg/L	0.005	<0.0005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chlorobenzene ¹	108-90-7	mg/L	0.1	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chloroethane ¹	75-03-3	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chloromethane (methyl chloride) ¹	74-87-3	mg/L	-	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroprene (2-Chloro-1,3-butadiene) ¹	126-99-8	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	x	x
cis-1,2-Dichloroethylene (cis-1,2-Dichloroethene) ¹	156-59-2	mg/L	0.07	0.0007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
cis-1,3-Dichloropropene ¹	542-75-6	mg/L	-	<0.0005	<0.001	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	0.0107	0.013	0.01	0.017	0.017	0.012	x	0.013	<0.005
Ethyl methacrylate ¹	97-63-2	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	5E-05	<0.0005	<0.000025	<0.000025	<0.000025	<0.000025	<0.000025	x	x	x
Hexachlorobutadiene ¹	87-68-3	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
Isobutyl alcohol ¹	78-83-1	mg/L	-	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	x	x	x
Isopropylbenzene ¹	98-82-8	mg/L	-	<0.0005	x	x	x	x	x	x	x	x
Methacrylonitrile ¹	126-98-7	mg/L	-	<0.025	<0.005	<0.005	<0.005	<0.005	<0.005	x	x	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.005	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Methyl methacrylate ¹	80-62-6	mg/L	-	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	x	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
n-Butylbenzene ¹	104-51-8	mg/L	-	<0.0005	x	x	x	x	x	x	x	x
Propionitrile ¹	107-12-0	mg/L	-	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	x	x	x
Propylbenzene ¹	103-65-1	mg/L	-	<0.0005	x	x	x	x	x	x	x	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	<0.0005	x	x	x	x	x	x	x	x
Styrene ¹	100-42-5	mg/L	0.1	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	<0.005	x	x	x	x	x	x	x	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	<0.0005	x	x	x	x	x	x	x	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.018	0.02	0.02	0.02	0.019	0.018	0.018	0.019	0.015
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	<0.01	x	x	x	x	x	x	x	x
Toluene ¹	108-88-3	mg/L	0.75	0.0073	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.0005	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.0023	0.0029	0.0028	0.0031	0.0032	0.0026	0.0026	0.0034	0.0031
Trichlorofluoromethane ¹	75-69-4	mg/L	-	0.0032	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Vinyl acetate ¹	108-05-4	mg/L	-	<0.025	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Vinyl chloride ¹	75-01-4	mg/L	0.001	<0.0005	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Trihalomethanes (THM)												
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
Chloroform ¹	67-66-3	mg/L	0.1	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Semi Volatile Organic Compounds												
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	<0.005	x	x	x	x	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
1-Chloronaphthalene	NA	mg/L	-	<0.005	x	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
1-Naphthylamine ¹	134-32-7	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	x	x	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	x	x	x
2-Acetylaminofluorene ¹	53-96-3	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
2-Naphthylamine ¹	91-59-8	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	<0.050	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
2-Picoline	109-06-8	mg/L	-	<0.010	x	x	x	x	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	<0.050	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	<0.050	<0.05	<0.05	<0.05	<0.05	<0.05	x	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	<0.020	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	<0.020	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	<0.050	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
Acenaphthene ¹	83-32-9	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
Acenaphthylene ¹	208-96-8	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
Acetophenone ¹	98-86-2	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	<0.010	x	x	x	x	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	<0.010	x	x	x	x	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
Benzidine ¹	92-87-5	mg/L	-	<0.050	x	x	x	x	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
Benzo (a) pyrene ¹	205-99-2	mg/L	-	<0.005	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x
Benzo (b) fluoranthene ¹	191-24-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
Benzo (g,h,i) perylene ¹	207-08-9	mg/L	-	<0.005	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x
Benzo (k) fluoranthene ¹	50-32-8											

APPENDIX B

Las Cruces Foothills Landfill MW-7

Las Cruces Foothills Landfill monitoring well MW-7

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-7									
				7/15/03	8/27/03	9/29/03	10/27/03	11/25/03	12/29/03	12/2/04	12/14/05	12/12/06	
Endosulfan II (beta-Endosulfan) ¹	60-57-1	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x
Endosulfan sulfate ¹	959-98-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x
Endrin aldehyde ¹	33213-65-9	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x
Endrin ketone	1031-07-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x
Endrin ¹	72-20-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x
gamma-BHC ¹	7421-93-4	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x
gamma-Chlordane ¹	53494-70-5	mg/L	-	<0.00002	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	76-44-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x
Heptachlor ¹	1024-57-3	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x
Isodrin ¹	465-73-6	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x
Kepone ¹	143-50-0	mg/L	-	<0.025	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x
Polychlorinated Biphenyls (PCBs)¹			0.001										
Arochlor-1016	12674-11-2	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	x	x
Other Pesticides and Herbicides¹													
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	<0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	<0.005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
Famphur ¹	52-58-7	mg/L	-	<0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
Phorate ¹	298-02-2	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x

* baseline averages and standard deviations are based on 1999 and 2000 data only as per requirements in Environmental Protection, subpart 803. Ground Water Sampling and Analysis, 1995.

¹ hazardous

x parameter not analyzed

(^^) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(#) Scanned for and not detected, breaks down almost immediately in water.

APPENDIX B
Las Cruces Foothills Landfill MW-7

Las Cruces Foothills Landfill monitoring well MW-7

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-7									
				1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/19/12	6/26/13	12/19/13	6/26/14
Field Parameters													
water level elevation		ft amsl	-	3910.66	3912.28	3911.91	3914.58	3915.19	3914.07	3913.82	3909.46	3908.16	3908.76
conductivity		µS/cm	-	400	390	532	460	448	430	430	470	537	501
pH		pH units	6-9	7.45	7.84	7.35	7.82	7.72	7.41	6.86	6.43	6.89	6.25
temperature		deg F	-	99.0	95.2	95.4	99.0	96.3	78.4	82.6	100.6	99.3	102.4
Major Ions													
calcium	7440-70-2	mg/L	-	49	43	51	53	55	53	53	57	65	59
chloride	16887-00-6	mg/L	250	16	18	20	19	20	19	19	18	20	19
fluoride ¹	16984-48-8	mg/L	1.6	x	0.69	x	0.65	x	x	x	x	x	x
magnesium	7439-95-4	mg/L	-	5.9	5.4	6.3	6.7	6.5	6.6	6.6	6.7	7.4	7.1
potassium	7440-09-7	mg/L	-	2.1	1.8	2.1	2.1	2.2	2.2	2.2	2.3	2.4	2.2
sodium	82115-62-6	mg/L	-	26	24	27	28	28	28	28	28	29	28
sulfate	18785-72-3	mg/L	600	48	51	62	62	64	65	65	67	75	74
alkalinity	NA	mg/L	-	120	120	120	120	120	120	120	130	140	140
bicarbonate alkalinity	71-52-3	mg/L	-	120	120	120	120	120	120	120	130	140	140
carbonate alkalinity	3812-32-6	mg/L	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
total dissolved solids	NA	mg/L	1,000	260	270	280	296	295	288	288	310	348	325
Nitrogen Species													
ammonia as N	1331-21-6	mg/L	-	<0.5	<0.50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Kjeldahl nitrogen	7727-37-9	mg/L	-	x	<1.0	x	x	x	x	x	x	x	x
nitrate as N	14797-55-8	mg/L	10	1.2	1.1	1.2	0.73	0.52	0.63	0.63	0.87	<1.0	0.97
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x
total nitrogen	-	mg/L	-	x	1.1	x	x	x	x	x	x	x	x
Metals													
aluminum	7429-90-5	mg/L	5.0	x	<0.02	x	0.04	x	x	x	x	x	x
antimony ¹	7440-36-0	mg/L	0.006	x	<0.001	<0.001	<0.001	0.00024	<0.0025	<0.0025	<0.001	<0.001	<0.001
arsenic ¹	7440-38-2	mg/L	0.01	x	0.006	<0.002	<0.001	0.0007	<0.0025	<0.0025	0.0011	<0.001	<0.001
barium ¹	7440-39-3	mg/L	1.0	x	0.035	0.039	0.042	0.042	0.044	0.044	0.049	0.054	0.048
beryllium ¹	7440-41-7	mg/L	0.004	x	<0.003	x	<0.001	0.00035	<0.002	<0.002	<0.002	<0.002	<0.003
boron	7440-42-8	mg/L	0.75	x	<0.04	x	<0.04	x	x	x	x	x	x
cadmium ¹	7440-43-9	mg/L	0.005	x	<0.002	<0.0020	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
chromium ¹	7440-47-3	mg/L	0.05	x	<0.006	<0.0060	<0.006	0.00036	<0.006	<0.006	<0.006	<0.006	<0.006
cobalt ¹	7440-48-4	mg/L	0.05	x	<0.006	<0.0060	<0.006	0.0009	<0.006	<0.006	<0.006	<0.006	<0.006
copper ¹	7440-50-8	mg/L	1.0	x	0.0061	0.027	0.016	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
iron	7439-89-6	mg/L	1.0	<0.1	<0.05	0.29	0.091	0.018	0.087	0.087	<0.02	<0.02	<0.05
lead ¹	7439-92-1	mg/L	0.05	x	<0.005	<0.0050	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.005
manganese	7439-96-5	mg/L	0.2	<0.03	0.0032	0.0076	0.0044	0.0033	0.0039	0.0039	0.0042	0.0045	0.0054
mercury ¹	7439-97-6	mg/L	0.002	x	<0.0002	x	<0.0002	x	x	x	x	x	x
molybdenum	7439-98-7	mg/L	1.0	x	<0.008	x	<0.008	x	x	x	x	x	x
nickel ¹	7440-02-0	mg/L	0.2	x	<0.01	0.02	<0.01	0.0011	<0.01	<0.01	<0.01	<0.01	<0.01
selenium ¹	7782-49-2	mg/L	0.05	x	0.002	<0.001	0.00106	0.0016	<0.0025	<0.0025	0.0028	0.0015	0.0017
silver ¹	7440-22-4	mg/L	0.05	x	<0.005	<0.0050	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
thallium ¹	7440-28-0	mg/L	0.002	x	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.0025	<0.001	<0.001	<0.001
tin ¹	7440-31-5	mg/L	-	x	<0.1	x	x	x	x	x	x	x	x
uranium ¹	7440-61-1	mg/L	0.03	x	0.003	x	x	x	x	x	x	x	x
vanadium ¹	7440-62-2	mg/L	-	x	<0.05	<0.050	<0.05	0.0044	<0.05	<0.05	<0.05	<0.05	<0.05
zinc	7440-66-6	mg/L	10.0	x	<0.02	<0.020	<0.02	0.0068	<0.01	<0.01	<0.01	<0.01	<0.02
total organic carbon	-	mg/L	-	<1.0	<1.0	<1.0	<1.0	0.38	<1.0	<1.0	<1.0	<1.0	<1.0
phosphate	14265-44-2	mg/L	-	x	<0.50	x	<0.50	x	x	x	x	x	x
sulfide ¹	18496-25-8	mg/L	-	x	2	x	x	x	x	x	x	x	x
cyanide ¹	57-12-5	mg/L	0.2	x	<0.005	x	x	x	x	x	x	x	x
perchlorate ¹	14797-73-0	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	x	(^^)	x	x	x	x	x	x	x	x
Volatile Organic Compounds													
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.005	<0.005	<0.001	<0.001	0.00065	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	0.00033	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	<0.005	x	x	x	x	x	x	x	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	x	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	x	x	x	x	x	x	x	x	x	x
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	x	<0.001	<0.001	x	x	x	x	x	x	x
1,3-Dichloropropane ¹	142-28-9	mg/L	-	x	<0.01	x	x	x	x	x	x	x	x
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.015	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
2,2-Dichloropropane ¹	78-87-5	mg/L	-	x	<0.015	x	x	x	x	x	x	x	x
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2-Chlorotoluene ¹	95-49-8	mg/L	-	x	x	x	x	x	x	x	x	x	x
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	-	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4-Chlorotoluene ¹	106-43-4	mg/L	-	x	x	x	x	x	x	x	x	x	x
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.015	<0.015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acetone ¹	67-64-1	mg/L	-	<0.1	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Acetonitrile ¹	75-05-8	mg/L	-	<0.2	<0.1	x	x	x	x	x	x	x	x
Acrolein ¹	107-02-8	mg/L	-	x	<0.1	x	x	x	x	x	x	x	x
Acrylonitrile ¹	107-13-1	mg/L	-	x	<0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Allyl chloride ¹	107-05-1	mg/L	-	x	<0.01	x	x	x	x	x	x	x	x
Benzene ¹	71-43-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	0.00054	<0.001	<0.001	<0.001	<	

APPENDIX B
Las Cruces Foothills Landfill MW-7

Las Cruces Foothills Landfill monitoring well MW-7

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-7										
				1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/19/12	6/26/13	12/19/13	6/26/14	
date														
Bromomethane (methyl bromide) ¹	74-83-9	mg/L	-	<0.02	<0.02	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Carbon Disulfide ¹	75-15-00	mg/L	-	<0.1	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Carbon Tetrachloride ¹	56-23-5	mg/L	0.005	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chlorobenzene ¹	108-90-7	mg/L	0.1	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroethane ¹	75-03-3	mg/L	-	<0.01	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chloromethane (methyl chloride) ¹	74-87-3	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroprene (2-Chloro-1,3-butadiene) ¹	126-99-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
cis-1,2-Dichloroethylene (cis-1,2-Dichloroethene) ¹	156-59-2	mg/L	0.07	<0.005	<0.005	0.0011	<0.001	0.0013	0.0013	0.0013	0.0015	0.0017	0.0017	0.0017
cis-1,3-Dichloropropene ¹	542-75-6	mg/L	-	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	0.011	0.013	0.013	0.011	0.010	0.011	0.011	0.0063	0.0063	0.0059	0.0059
Ethyl methacrylate ¹	97-63-2	mg/L	-	x	<0.01	x	x	x	x	x	x	x	x	x
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	5E-05	x	<0.00001	<0.00001	<0.00001	6E-06	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001
Hexachlorobutadiene ¹	87-68-3	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	<0.05	x	x	x	x	x	x	x	x	x
Isopropylbenzene ¹	98-82-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Methacrylonitrile ¹	126-98-7	mg/L	-	x	<0.005	x	x	x	x	x	x	x	x	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.04	<0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Methyl methacrylate ¹	80-62-6	mg/L	-	x	<0.03	x	x	x	x	x	x	x	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	0.00057	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Propionitrile ¹	107-12-0	mg/L	-	x	<0.06	x	x	x	x	x	x	x	x	x
Propylbenzene ¹	103-65-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Styrene ¹	100-42-5	mg/L	0.1	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	x	<0.001	x	x	x	x	x	x	x	x	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.015	0.016	0.018	0.018	0.018	0.019	0.019	0.015	0.015	0.014	0.014
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Toluene ¹	108-88-3	mg/L	0.75	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.005	<0.005	<0.002	<0.002	0.00034	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.002	<0.002	<0.001	<0.001	0.00029	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.1	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Trichloroethene (TCE) ¹	79-01-6	mg/L	0.005	0.0028	0.0028	0.0028	0.0024	0.0029	0.0030	0.0030	0.0028	0.0026	0.0027	0.0027
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.01	0.0028	0.0028	0.0027	0.0032	0.0031	0.0031	0.0024	0.0022	0.0021	0.0021
Vinyl acetate ¹	108-05-4	mg/L	-	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Vinyl chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0004	<0.0004	<0.0004	0.00058	<0.0004	<0.0004	0.00041	<0.0004	<0.0005	<0.0005
Trihalomethanes (THM)														
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.005	<0.005	<0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bromoform ¹	75-25-2	mg/L	-	<0.015	<0.015	<0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloroform ¹	67-66-3	mg/L	0.1	<0.005	<0.005	<0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.005	<0.005	<0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Semi Volatile Organic Compounds														
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	<0.0002	x	x	x	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
2-Acetylaminofluorene ¹	53-96-3	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
2-Picoline	109-06-8	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Acenaphthene ¹	83-32-9	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Acenaphthylene ¹	208-96-8	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Acetophenone ¹	98-86-2	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Benzidine ¹	92-87-5	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	x	<0.00005	x	x	x	x	x	x	x	x	x
Benzo (a) pyrene ¹	205-99-2	mg/L	-	x	<0.00005	x	x	x	x	x	x	x	x	x
Benzo (b) fluoranthene ¹	191-24-2	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Benzo (g,h,i) perylene ¹	207-08-9	mg/L	-	x	<0.00005	x	x	x	x	x	x	x	x	x
Benzo (k) fluoranthene ¹	50-32-8	mg/L	0.0002	x	<0.00005	x	x	x	x	x	x	x	x	x
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x

APPENDIX B
Las Cruces Foothills Landfill MW-7

Las Cruces Foothills Landfill monitoring well MW-7

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-7										
				1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/19/12	6/26/13	12/19/13	6/26/14	
date														
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
bis (2-Chloroisopropyl) ether (bis (2-chloro-1-methylethyl) ethe	108-60-1	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Carbazole	86-74-8	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Chlorobenzilate ¹	510-15-6	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Chrysene ¹	218-01-9	mg/L	-	x	<0.00005	x	x	x	x	x	x	x	x	x
Diallate ¹	2303-16-4	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Dibenz (a,j) acridine	224-42-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	x	<0.00005	x	x	x	x	x	x	x	x	x
Dibenzofuran ¹	132-64-9	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Diethylphthalate ¹	84-66-2	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Dimethylphthalate ¹	131-11-3	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Diphenylamine ¹	122-39-4	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Fluoranthene ¹	206-44-0	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Fluorene ¹	86-73-7	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	<0.0001	x	x	x	x	x	x	x	x	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Hexachloroethane ¹	67-72-1	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Hexachloropropene ¹	1888-71-7	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
HMX ¹	2691-41-0	mg/L	-	x	<0.0001	x	x	x	x	x	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	<0.00005	x	x	x	x	x	x	x	x	x
Isophorone ¹	78-59-1	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Isosafrole ¹	120-58-1	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Methapyrilene ¹	91-80-5	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	x	<0.001	x	x	x	x	x	x	x	x	x
Nitrobenzene ¹	98-95-3	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Pyridine	110-86-1	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	<0.0001	x	x	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Semi Volatile Organic Compounds - Phenolics														
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	<0.001	x	x	x	x	x	x	x	x	x
Radium 226 and 228														
Ra-226, total	NA	pCi/L	5		2.02									
Ra-228 ¹ , total	NA	pCi/L	-	x	0.12	x	x	x	x	x	x	x	x	x
Chlorinated Pesticides														
4,4'-DDD (p,p'-DDD) ¹	309-00-2	mg/L	-	x	<0.00004	x	x	x	x	x	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	319-84-6	mg/L	-	x	<0.00004	x	x	x	x	x	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	319-85-7	mg/L	-	x	<0.00004	x	x	x	x	x	x	x	x	x
aldrin ¹	319-86-8	mg/L	-	x	<0.00004	x	x	x	x	x	x	x	x	x
alpha-BHC ¹	319-86-8	mg/L	-	x	<0.00004	x	x	x	x	x	x	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
beta-BHC ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x	x	x
delta-BHC ¹	72-54-8	mg/L	-	x	<0.00004	x	x	x	x	x	x	x	x	x
Dieldrin ¹	72-55-9	mg/L	-	x	<0.00004	x	x	x	x	x	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	50-29-3	mg/L	-	x	<0.00004	x	x	x	x	x	x	x	x	x

APPENDIX B
Las Cruces Foothills Landfill MW-7

Las Cruces Foothills Landfill monitoring well MW-7

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-7										
				1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/19/12	6/26/13	12/19/13	6/26/14	
Endosulfan II (beta-Endosulfan) ¹	60-57-1	mg/L	-	x	<0.00004	x	x	x	x	x	x	x	x	x
Endosulfan sulfate ¹	959-98-8	mg/L	-	x	<0.00004	x	x	x	x	x	x	x	x	x
Endrin aldehyde ¹	33213-65-9	mg/L	-	x	<0.00004	x	x	x	x	x	x	x	x	x
Endrin ketone	1031-07-8	mg/L	-	x	<0.00004	x	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	x	<0.00004	x	x	x	x	x	x	x	x	x
gamma-BHC ¹	7421-93-4	mg/L	-	x	<0.00004	x	x	x	x	x	x	x	x	x
gamma-Chlordane ¹	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	76-44-8	mg/L	-	x	<0.00004	x	x	x	x	x	x	x	x	x
Heptachlor ¹	1024-57-3	mg/L	-	x	<0.00004	x	x	x	x	x	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Kepon ¹	143-50-0	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	<0.00004	x	x	x	x	x	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹			0.001											
Arochlor-1016	12674-11-2	mg/L	-	x	<0.00025	x	x	x	x	x	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	x	<0.00025	x	x	x	x	x	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	x	<0.00025	x	x	x	x	x	x	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	x	<0.00025	x	x	x	x	x	x	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	x	<0.00025	x	x	x	x	x	x	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	x	<0.00025	x	x	x	x	x	x	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	x	<0.00025	x	x	x	x	x	x	x	x	x
Other Pesticides and Herbicides¹														
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	<0.00117	x	x	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	<0.00005	x	x	x	x	x	x	x	x	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	<0.00005	x	x	x	x	x	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	<0.00005	x	x	x	x	x	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Phorate ¹	298-02-2	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	x	<0.00005	x	x	x	x	x	x	x	x	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x	x

* baseline averages and standard deviations are based on 1999 and 2000 data only as per requirements in Enviro

¹ hazardous

x parameter not analyzed

(^*) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(#) Scanned for and not detected, breaks down almost immediately in water.

APPENDIX B

Las Cruces Foothills Landfill MW-7

Las Cruces Foothills Landfill monitoring well MW-7

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-7							baseline	standard
											average	deviation
				12/11/14	6/18/15	12/17/15	6/16/16	12/28/16	6/27/17	12/13/17	7/15/03 to 12/2/04	7/15/03 to 12/2/04
Field Parameters												
water level elevation		ft amsl	-	3908.71	3908.76	3908.81	3908.76	3908.68	3908.69	3908.46	3,913.93	0.62
conductivity		μS/cm	-	462	474	492	468	489	495	637	334.71	32.27
pH		pH units	6-9	6.81	6.76	7.34	7.23	7.21	7.37	7.01	7.79	0.07
temperature		deg F	-	97.7	104.0	97.2	104.5	104.9	104.9	103.3	99.18	2.04
Major Ions												
calcium	7440-70-2	mg/L	-	50	64	59	61	61	64	79	36.89	2.39
chloride	16887-00-6	mg/L	250	19	21	20	19	20	20	21	10.43	0.53
fluoride ¹	16984-48-8	mg/L	1.6	0.60	x	x	x	x	x	x	0.76	<0.001
magnesium	7439-95-4	mg/L	-	5.9	7.5	7.3	7.3	7.4	7.5	9.7	4.52	0.40
potassium	7440-09-7	mg/L	-	2.1	2.1	2.2	2.2	2.3	2.2	2.6	1.99	0.36
sodium	82115-62-6	mg/L	-	25	29	30	30	30	29	33	27.34	4.97
sulfate	18785-72-3	mg/L	600	69	80	79	73	76	76	100	39.71	0.76
alkalinity	NA	mg/L	-	130	132	130.3	127.4	124.5	128.3	173.6	123.29	4.72
bicarbonate alkalinity	71-52-3	mg/L	-	130	132	130.3	127.4	124.5	128.3	173.6	123.14	4.74
carbonate alkalinity	3812-32-6	mg/L	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	x
total dissolved solids	NA	mg/L	1,000	306	335	335	312	328	336	411	230.00	15.28
Nitrogen Species												
ammonia as N	1331-21-6	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	x
Kjeldahl nitrogen	7727-37-9	mg/L	-	<1.0	x	x	x	x	x	x	<1.0	x
nitrate as N	14797-55-8	mg/L	10	0.85	0.94	0.99	0.73	0.90	0.97	1.1	<1.0	x
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	x	x	<1.0	x
total nitrogen	-	mg/L	-	<1.0	x	x	x	x	x	x	x	x
Metals												
aluminum	7429-90-5	mg/L	5.0	0.077	x	x	x	x	x	x	<3.0	x
antimony ¹	7440-36-0	mg/L	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003	x
arsenic ¹	7440-38-2	mg/L	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0015	<0.01	x
barium ¹	7440-39-3	mg/L	1.0	0.042	0.051	0.047	0.048	0.051	0.050	0.065	0.04	0.01
beryllium ¹	7440-41-7	mg/L	0.004	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x
boron	7440-42-8	mg/L	0.75	<0.04	x	x	x	x	x	x	<0.5	x
cadmium ¹	7440-43-9	mg/L	0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x
chromium ¹	7440-47-3	mg/L	0.05	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.01	x
cobalt ¹	7440-48-4	mg/L	0.05	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.03	x
copper ¹	7440-50-8	mg/L	1.0	<0.006	<0.006	<0.006	<0.006	0.0071	<0.006	0.0041	<0.06	x
iron	7439-89-6	mg/L	1.0	0.029	<0.05	0.022	<0.02	0.033	0.031	<0.02	0.63	0.60
lead ¹	7439-92-1	mg/L	0.05	<0.001	<0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.01	x
manganese	7439-96-5	mg/L	0.2	0.0039	0.0048	0.004	0.0034	0.0040	0.0038	0.0053	<0.03	x
mercury ¹	7439-97-6	mg/L	0.002	<0.0002	x	x	x	x	x	x	<0.001	x
molybdenum	7439-98-7	mg/L	1.0	<0.008	x	x	x	x	x	x	<0.75	x
nickel ¹	7440-02-0	mg/L	0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	x
selenium ¹	7782-49-2	mg/L	0.05	0.0017	0.0015	<0.005	<0.005	<0.005	0.0013	0.0016	<0.005	x
silver ¹	7440-22-4	mg/L	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.0018	<0.01	x
thallium ¹	7440-28-0	mg/L	0.002	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	x
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	x	x	<0.4	x
uranium ¹	7440-61-1	mg/L	0.03	0.0038	x	x	x	x	x	x	<2.5	x
vanadium ¹	7440-62-2	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.08	x
zinc	7440-66-6	mg/L	10.0	<0.01	<0.02	<0.01	<0.01	<0.01	0.012	<0.01	<0.05	x
total organic carbon	-	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.38	2.50	2.05
phosphate	14265-44-2	mg/L	-	<0.50	x	x	x	x	x	x	x	x
sulfide ¹	18496-25-8	mg/L	-	x	x	x	x	x	x	x	<4.0	x
cyanide ¹	57-12-5	mg/L	0.2	<0.01	x	x	x	x	x	x	<0.1	x
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	x	x
total phenolics ¹	-	mg/L	0.005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.003	x
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	(^)	x	x	x	x	x	x	(^^)	x
Volatile Organic Compounds												
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	x
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00085	<0.005	x
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00032	<0.001	x
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	x	x	x	x	x	x	<0.005	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.0001	<0.00002	<0.00002	<0.00002	<0.00002	<0.000019	<0.000019	<0.0001	x
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	x
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	x	x	x	x	x	x	x	<0.01	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	x
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	x	x	x	x	x	x	x	<0.01	x
1,3-Dichloropropane ¹	142-28-9	mg/L	-	x	x	x	x	x	x	x	<0.01	x
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.015	x
2,2-Dichloropropane ¹	78-87-5	mg/L	-	x	x	x	x	x	x	x	<0.015	x
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0016	<0.01	x
2-Chlorotoluene ¹	95-49-8	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	x
4-Chlorotoluene ¹	106-43-4	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.015	x
Acetone ¹	67-64-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0025	<0.1	x
Acetonitrile ¹	75-05-8	mg/L	-	x	x	x	x	x	x	x	<0.1	x
Acrolein ¹	107-02-8	mg/L	-	x	x	x	x	x	x	x	<0.1	x
Acrylonitrile ¹	107-13-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.2	x
Allyl chloride ¹	107-05-1	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Benzene ¹	71-43-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00063	<0.001	x
Bis(chloromethyl) ether ¹	542-88-1	mg/L	-	x	x	x	x	x	x	x	x	x
Bromochloromethane ¹	74-97-5	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x

APPENDIX B

Las Cruces Foothills Landfill MW-7

Las Cruces Foothills Landfill monitoring well MW-7

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-7							baseline	standard
											average	deviation
				12/11/14	6/18/15	12/17/15	6/16/16	12/28/16	6/27/17	12/13/17	7/15/03 to 12/2/04	7/15/03 to 12/2/04
Bromomethane (methyl bromide) ¹	74-83-9	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.02	x
Carbon Disulfide ¹	75-15-00	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	x
Carbon Tetrachloride ¹	56-23-5	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	x
Chlorobenzene ¹	108-90-7	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
Chloroethane ¹	75-03-3	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.01	x
Chloromethane (methyl chloride) ¹	74-87-3	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
Chloroprene (2-Chloro-1,3-butadiene) ¹	126-99-8	mg/L	-	x	x	x	x	x	x	x	<0.05	x
cis-1,2-Dichloroethylene (cis-1,2-Dichloroethene) ¹	156-59-2	mg/L	0.07	0.0015	0.0018	0.0015	0.0020	0.0021	0.0023	0.0031	<0.005	x
cis-1,3-Dichloropropene ¹	542-75-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	x
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.02	x
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	0.0097	0.0066	0.0037	0.0096	0.0085	0.0097	0.0035	0.013	0.003
Ethyl methacrylate ¹	97-63-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005	x
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	5E-05	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.0000094	<0.0000095	<0.000025	x
Hexachlorobutadiene ¹	87-68-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	x	x	x	x	x	<0.05	x
Isopropylbenzene ¹	98-82-8	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	x	x	<0.005	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.04	x
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	x	x	<0.03	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.0019	<0.001	x
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	x	x	x	x	<0.06	x
Propylbenzene ¹	103-65-1	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	x
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	x	x	x	x	x	x	x	<0.005	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	x	x	x	<0.0005	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.017	0.016	0.012	0.016	0.017	0.018	0.013	0.019	0.001
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.019	0.016
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	x
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	x
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01	x
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	x
Trichloroethene (TCE) ¹	79-01-6	mg/L	0.005	0.0030	0.0029	0.0023	0.0036	0.0032	0.0037	0.0029	0.0028	0.0003
Trichlorofluoromethane ¹	75-69-4	mg/L	-	0.0033	0.0025	0.0019	0.0038	0.0034	0.0042	0.0021	0.0032	x
Vinyl acetate ¹	108-05-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	x
Vinyl chloride ¹	75-01-4	mg/L	0.001	<0.0005	<0.0004	<0.0004	0.00041	<0.0004	<0.0004	0.00037	<0.0004	x

Trihalomethanes (THM)

Bromodichloromethane ¹	75-27-4	mg/L	-	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.005	x
Bromoform ¹	75-25-2	mg/L	-	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.015	x
Chloroform ¹	67-66-3	mg/L	0.1	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.005	x
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.005	x

Semi Volatile Organic Compounds

1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	x	x	<0.005	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	x	x	<0.01	x
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	<0.005	x
1-Methylnaphthalene	86-52-2	mg/L	-	<0.002	x	x	x	x	x	x	<0.01	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x	x	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	x	x	x	x	x	<0.005	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	x	x	x	<0.005	x
2-Acetylaminofluorene ¹	53-96-3	mg/L	-	x	x	x	x	x	x	x	<0.02	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	<0.002	x	x	x	x	x	x	<0.01	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	x	x	<0.01	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	x	x	x	<0.01	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	x	x	<0.01	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	x	x	x	<0.05	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	x	x	x	x	x	<0.02	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	x	x	x	x	x	<0.02	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	x	x	x	x	x	<0.02	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	<0.01	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Acenaphthene ¹	83-32-9	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Acenaphthylene ¹	208-96-8	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Acetophenone ¹	98-86-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Aniline ¹	62-53-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Anthracene ¹	120-12-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Benzidine ¹	92-87-5	mg/L	-	x	x	x	x	x	x	x	<0.05	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Benzo (a) pyrene ¹	205-99-2	mg/L	-	<0.00007	x	x	x	x	x	x	<0.02	x
Benzo (b) fluoranthene ¹	191-24-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Benzo (g,h,i) perylene ¹	207-08-9	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Benzo (k) fluoranthene ¹	50-32-8	mg/L	0.0002	x	x	x	x	x	x	x	<0.0001	x
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x	<0.05	x
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	x	x	x	x	x	<0.01	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	x	x	x	x	x	<0.01	x

APPENDIX B

Las Cruces Foothills Landfill MW-7

Las Cruces Foothills Landfill monitoring well MW-7

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-7							baseline	standard
				12/11/14	6/18/15	12/17/15	6/16/16	12/28/16	6/27/17	12/13/17	average	deviation
											7/15/03 to 12/2/04	7/15/03 to 12/2/04
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	x	x	x	x	x	x	<0.01	x
bis (2-Chloroisopropyl) ether (bis (2-chloro-1-methylethyl) ethe	108-60-1	mg/L	-	x	x	x	x	x	x	x	<0.01	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Carbazole	86-74-8	mg/L	-	x	x	x	x	x	x	x	<0.005	x
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Chrysene ¹	218-01-9	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Diallate ¹	2303-16-4	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Dibenz (a,j) acridine	224-42-0	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Dibenzofuran ¹	132-64-9	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x	x	x
Diethylphthalate ¹	84-66-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Dimethylphthalate ¹	131-11-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Diphenylamine ¹	122-39-4	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Fluoranthene ¹	206-44-0	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Fluorene ¹	86-73-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	x	x	x	x	x	<0.001	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	x	x	x	x	x	<0.05	x
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
HMX ¹	2691-41-0	mg/L	-	x	x	x	x	x	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Isophorone ¹	78-59-1	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Isosafrole ¹	120-58-1	mg/L	-	x	x	x	x	x	x	x	<0.01	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Methapyrilene ¹	91-80-5	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Naphthalene ¹	91-20-3	mg/L	0.03	<0.002	x	x	x	x	x	x	<0.01	x
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x	<0.02	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x	<0.002	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
n-Nitrosodinpropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	<0.005	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x	<0.01	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x	<0.02	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x	<0.04	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x	<0.002	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Phenanthrene ¹	85-01-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Pyrene ¹	129-00-0	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	<0.01	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
sym-Trinitrobenzene ¹ (1,3,5-TNB)	99-35-4	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Semi Volatile Organic Compounds - Phenolics												
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	<0.05	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	<0.01	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	x	x	x	x	x	x	x	<0.02	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x	x	x	x	x	x	<0.05	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	x	x	x	x	x	<0.005	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x	<0.05	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	<0.01	x
Radium 226 and 228												
Ra-226, total	NA	pCi/L	-	0.411	x	x	x	x	x	x	<2.5	x
Ra-228 ¹ , total	NA	pCi/L	-	2.06	x	x	x	x	x	x	<2.5	x
Chlorinated Pesticides												
4,4'-DDD (p,p'-DDD) ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
4,4'-DDE (p,p'-DDE) ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x	<0.0001	x
4,4'-DDT (p,p'-DDT) ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x	<0.0001	x
aldrin ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	<0.0001	x
alpha-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	<0.0001	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	alpha +	x
beta-BHC ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	see above	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x
delta-BHC ¹	72-54-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x
Dieldrin ¹	72-55-9	mg/L	-	x	x	x	x	x	x	x	<0.001	x
Endosulfan I (alpha-Endosulfan) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	x	<0.001	x

APPENDIX B

Las Cruces Foothills Landfill MW-7

Las Cruces Foothills Landfill monitoring well MW-7

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-7							baseline	standard
											average	deviation
				12/11/14	6/18/15	12/17/15	6/16/16	12/28/16	6/27/17	12/13/17	7/15/03 to 12/2/04	7/15/03 to 12/2/04
Endosulfan II (beta-Endosulfan) ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x	<0.001	x
Endosulfan sulfate ¹	959-98-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x
Endrin aldehyde ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	<0.001	x
Endrin ketone	1031-07-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x
gamma-BHC ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x	<0.001	x
gamma-Chlordane ¹	53494-70-5	mg/L	-	x	x	x	x	x	x	x	<0.00002	x
Heptachlor epoxide ¹	76-44-8	mg/L	-	x	x	x	x	x	x	x	<0.001	x
Heptachlor ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	x	<0.001	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	x	x	x	x	<0.001	x
Polychlorinated Biphenyls (PCBs)¹			0.001									
Arochlor-1016	12674-11-2	mg/L	-	<0.00025	x	x	x	x	x	x	<0.0005	x
Arochlor-1221	11104-28-2	mg/L	-	<0.00025	x	x	x	x	x	x	<0.0005	x
Arochlor-1232	11141-16-5	mg/L	-	<0.00025	x	x	x	x	x	x	<0.0005	x
Arochlor-1242	53469-21-9	mg/L	-	<0.00025	x	x	x	x	x	x	<0.0005	x
Arochlor-1248	12672-29-6	mg/L	-	<0.00025	x	x	x	x	x	x	<0.0005	x
Arochlor-1254	11097-69-1	mg/L	-	<0.00025	x	x	x	x	x	x	<0.0005	x
Arochlor-1260	11096-82-5	mg/L	-	<0.00025	x	x	x	x	x	x	<0.0005	x
Other Pesticides and Herbicides¹												
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	x	x	x	x	x	x	x	<0.002	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	x	x	x	x	<0.02	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	x	x	x	x	<0.01	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	x	x	x	x	<0.01	x
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	x	x	x	x	x	x	x	<0.002	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	x	x	x	x	x	<0.02	x

* baseline averages and standard deviations are based on 1999 and 2000 data only as per requirements in Enviro

¹ hazardous

x parameter not analyzed

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of PCB concentrations.

(#) Scanned for and not detected, breaks down almost immediately in water.

MW-8

APPENDIX B

Las Cruces Foothills Landfill MW-8

Las Cruces Foothills Landfill monitoring well MW-8

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-8									baseline	standard
				12/29/10	5/18/11	8/23/11	11/28/11	12/29/11	12/20/12	6/26/13	12/21/17	12/29/10 to 12/29/11	12/29/10 to 12/29/11	
Field Parameters														
water level elevation		ft amsl	-	3925.93	3925.68	3925.15	3924.71	3925.33	3923.05	3924.67	3918.84	3,925.36	0.47	
conductivity		µS/cm	-	380	510	325	339	317	310	310	313	374	80	
pH		pH units	6-9	7.75	7.69	7.39	7.25	7.51	6.67	6.39	7.55	7.52	0.21	
temperature		deg F	-	118.2	115.7	119.8	119.5	112.6	105.6	118.6	-	117.2	3.0	
Major Ions														
calcium	7440-70-2	mg/L	-	31	29	27	27	27	25	24	25	28	2	
chloride	16887-00-6	mg/L	250	14	8.7	8.1	8.4	7.7	7.5	7.7	7.7	9.4	2.6	
fluoride ¹	16984-48-8	mg/L	1.6	0.62	0.67	0.64	0.66	0.62	x	x	x	0.64	0.02	
magnesium	7439-95-4	mg/L	-	2.6	2.4	1.9	1.9	2.0	1.8	1.7	1.7	2.2	0.3	
potassium	7440-09-7	mg/L	-	2.7	2.8	2.2	2.6	2.4	2.4	2.8	2.2	2.5	0.2	
sodium	82115-62-6	mg/L	-	41	40	37	38	40	38	40	37	39	2	
sulfate	18785-72-3	mg/L	600	41	32	33	35	32	32	33	30	35	4	
alkalinity	NA	mg/L	-	120	120	110	110	110	110	110	105.6	114	5	
bicarbonate alkalinity	71-52-3	mg/L	-	120	120	110	110	110	110	110	105.6	114	5	
carbonate alkalinity	3812-32-6	mg/L	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	x	
total dissolved solids	NA	mg/L	1,000	249	227	216	237	234	212	226	227	233	12	
Nitrogen Species														
ammonia as N	1331-21-6	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	x	
Kjeldahl nitrogen	7727-37-9	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	x	x	x	<1.0	x	
nitrate as N	14797-55-8	mg/L	10	0.42	x	x	x	x	0.92	0.86	0.89	x	x	
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	
total nitrogen	-	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	x	x	x	<1.0	x	
Metals														
aluminum	7429-90-5	mg/L	5.0	0.026	1.3	0.038	0.026	0.067	x	x	x	0.291	0.564	
antimony ¹	7440-36-0	mg/L	0.006	0.00118	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	x	
arsenic ¹	7440-38-2	mg/L	0.01	<0.001	0.0012	0.00123	0.001	0.00119	0.0012	0.0011	0.0012	0.0012	0.0001	
barium ¹	7440-39-3	mg/L	1.0	0.055	0.042	0.030	0.027	0.029	0.025	0.026	0.022	0.04	0.01	
beryllium ¹	7440-41-7	mg/L	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.001	x	
boron	7440-42-8	mg/L	0.75	<0.04	<0.04	<0.04	<0.04	<0.04	x	x	x	<0.04	x	
cadmium ¹	7440-43-9	mg/L	0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	
chromium ¹	7440-47-3	mg/L	0.05	<0.006	0.0078	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	x	
cobalt ¹	7440-48-4	mg/L	0.05	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	x	
copper ¹	7440-50-8	mg/L	1.0	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	x	
iron	7439-89-6	mg/L	1.0	<0.05	0.94	<0.05	<0.05	<0.05	<0.02	0.078	0.048	0.94	x	
lead ¹	7439-92-1	mg/L	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.0005	<0.005	x	
manganese	7439-96-5	mg/L	0.2	0.17	0.051	0.0027	<0.002	0.0026	<0.002	0.015	0.0042	0.057	0.079	
mercury ¹	7439-97-6	mg/L	0.002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	x	x	x	<0.0002	x	
molybdenum	7439-98-7	mg/L	1.0	0.012	0.0083	<0.008	<0.008	<0.008	x	x	x	0.010	0.003	
nickel ¹	7440-02-0	mg/L	0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	
selenium ¹	7782-49-2	mg/L	0.05	<0.001	<0.001	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	0.004	x	
silver ¹	7440-22-4	mg/L	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	x	
thallium ¹	7440-28-0	mg/L	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.001	x	
tin ¹	7440-31-5	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
uranium ¹	7440-61-1	mg/L	0.03	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x	<0.001	x	
vanadium ¹	7440-62-2	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x	
zinc	7440-66-6	mg/L	10.0	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	0.017	<0.02	x	
total organic carbon	-	mg/L	-	2.4	3.9	1.2	1.2	1.2	2.1	2.6	7.6	2.0	1.2	
phosphate	14265-44-2	mg/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	x	x	x	<0.5	x	
sulfide ¹	18496-25-8	mg/L	-	<0.1	x	x	x	x	x	x	x	<0.1	x	
cyanide ¹	57-12-5	mg/L	0.2	<0.01	<0.01	<0.01	<0.02	<0.01	x	x	x	<0.02	x	
perchlorate ¹	14797-73-0	mg/L	-	0.000376	0.000388	x	x	x	x	x	x	0.0004	x	
total phenolics ¹	-	mg/L	0.005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	x	
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	<0.00025	x	
Volatile Organic Compounds														
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,1-Dichloropropene ¹	563-58-6	mg/L	-	<0.001	x	x	x	x	x	x	x	<0.001	x	
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.00019	<0.0001	x	
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	<0.001	x	x	x	x	x	x	x	<0.001	x	
1,3-Dichloropropane ¹	142-28-9	mg/L	-	<0.001	x	x	x	x	x	x	x	<0.001	x	
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
2,2-Dichloropropane ¹	78-87-5	mg/L	-	<0.001	x	x	x	x	x	x	x	<0.001	x	
2-Butanone (Methyl Ethyl Ketone) (MEK) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	
2-Chlorotoluene ¹	95-49-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	
2-Hexanone (Butyl Ketone) ¹	78-93-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	
4-Chlorotoluene ¹	106-43-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	
4-Methyl-2-pentanone ¹	108-10-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Acetone ¹	67-64-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Acetonitrile ¹	75-05-8	mg/L	-	<0.1	x	x	x	x	x	x	x	<0.1	x	

APPENDIX B

Las Cruces Foothills Landfill MW-8

Las Cruces Foothills Landfill monitoring well MW-8													baseline	standard
constituent	CAS Number	unit	GWPS	RESULTS FOR MW-8									average	deviation
date				12/29/10	5/18/11	8/23/11	11/28/11	12/29/11	12/20/12	6/26/13	12/21/17	12/29/10 to 12/29/11	12/29/10 to 12/29/11	
Acrolein ¹	107-02-8	mg/L	-	<0.1	x	x	x	x	x	x	x	<0.1	x	
Acrylonitrile ¹	107-13-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Allyl chloride ¹	107-05-1	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
Benzene ¹	71-43-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Bis(chloromethyl) ether ¹	542-88-1	mg/L	-	(#)	x	x	x	x	x	x	(#)	(#)	x	
Bromochloromethane ¹	74-97-5	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	
Bromomethane (methyl bromide) ¹	74-83-9	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	
Carbon Disulfide ¹	75-15-00	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Carbon Tetrachloride ¹	56-23-5	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Chlorobenzene ¹	108-90-7	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Chloroethane ¹	75-03-3	mg/L	-	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	
Chloromethane (methyl chloride) ¹	74-87-3	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Chloroprene (2-Chloro-1,3-butadiene) ¹	126-99-8	mg/L	-	<0.05	x	x	x	x	x	x	x	<0.05	x	
cis-1,2-Dichloroethylene (cis-1,2-Dichloroethene) ¹	156-59-2	mg/L	0.07	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
cis-1,3-Dichloropropene ¹	542-75-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	0.0012	0.0011	0.0017	<0.001	x	
Ethyl methacrylate ¹	97-63-2	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
Ethylbenzene ¹	100-41-4	mg/L	0.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	0.00005	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.00001	<0.0000096	<0.0001	x	
Hexachlorobutadiene ¹	87-68-3	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
Isobutyl alcohol ¹	78-83-1	mg/L	-	<0.05	x	x	x	x	x	x	x	<0.05	x	
Isopropylbenzene ¹	98-82-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	
Methacrylonitrile ¹	126-98-7	mg/L	-	<0.005	x	x	x	x	x	x	x	<0.005	x	
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
Methyl methacrylate ¹	80-62-6	mg/L	-	<0.03	x	x	x	x	x	x	x	<0.03	x	
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.001	x	
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	
Propionitrile ¹	107-12-0	mg/L	-	<0.06	x	x	x	x	x	x	x	<0.06	x	
Propylbenzene ¹	103-65-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	<0.001	x	x	x	x	x	x	x	<0.001	x	
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	
Tetrachloroethane (PCE) ¹	127-18-4	mg/L	0.005	<0.0005	0.00062	0.0011	0.0011	0.0013	0.0016	0.0019	0.0038	0.0010	0.0003	
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x	
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Trichloroethene (TCE) ¹	79-01-6	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Vinyl acetate ¹	108-05-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Vinyl chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	x	
Trihalomethanes (THM)														
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Chloroform ¹	67-66-3	mg/L	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Semi Volatile Organic Compounds														
1,2,4,5-Tetrachlorobenzene ¹	95-94-3	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
1,2-Diphenylhydrazine	122-66-7	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	x	x	x	
1-Methylnaphthalene	86-52-2	mg/L	-	<0.01	<0.002	<0.002	<0.002	<0.002	x	x	x	<0.01	x	
1-Naphthylamine ¹	134-32-7	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	<0.0002	<0.0002	<0.0002	x	x	x	x	x	<0.0002	x	
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	<0.0001	<0.0001	<0.0001	x	x	x	x	x	<0.0001	x	
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	<0.0002	<0.0002	<0.0002	x	x	x	x	x	<0.0002	x	
2-Acetylaminofluorene ¹	53-96-3	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
2-Chloronaphthalene ¹	91-58-7	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
2-Methylnaphthalene ¹	91-57-6	mg/L	-	<0.01	<0.002	<0.002	<0.002	<0.002	x	x	x	<0.01	x	
2-Naphthylamine ¹	91-59-8	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
2-Picoline	109-06-8	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
3-Methylcholanthrene ¹	56-49-5	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
4-Aminobiphenyl ¹	92-67-1	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
4-Bromophenylphenyl ether	101-55-3	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
Acenaphthene ¹	83-32-9	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
Acenaphthylene ¹	208-96-8	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x	
Acetophenone ¹	98-86-2	mg/L	-	0.0125	x	x	x	x	x	x	x	0.0125	x	

APPENDIX B

Las Cruces Foothills Landfill MW-8

Las Cruces Foothills Landfill monitoring well MW-8

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-8									baseline	standard
				12/29/10	5/18/11	8/23/11	11/28/11	12/29/11	12/20/12	6/26/13	12/21/17	12/29/10 to 12/29/11	deviation	
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Aniline ¹	62-53-3	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Anthracene ¹	120-12-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Benzidine ¹	92-87-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
Benzo (a) pyrene ¹	50-32-8	mg/L	0.0002	<0.0001	<0.00007	<0.00007	<0.00007	<0.00007	<0.00007	x	x	x	<0.0001	x
Benzo (b) fluoranthene ¹	205-99-2	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
Benzo (g,h,i) perylene ¹	191-24-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Benzo (k) fluoranthene ¹	207-08-9	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
bis (2-Chloroisopropyl) ether (bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	<0.005	x	x	x	x	x	x	x	x	<0.005	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Carbazole	86-74-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Chlorobenzilate ¹	510-15-6	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Chrysene ¹	218-01-9	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
Diallate ¹	2303-16-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Dibenz (a,j) acridine	224-42-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Dibenz (a,h) anthracene ¹	226-36-8	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
Dibenzofuran ¹	132-64-9	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Diethylphthalate ¹	84-66-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Dimethylphthalate ¹	131-11-3	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Diphenylamine ¹	122-39-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Fluoranthene ¹	206-44-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Fluorene ¹	86-73-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	<0.001	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Hexachloroethane ¹	67-72-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Hexachloropropene ¹	1888-71-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
HMX ¹	2691-41-0	mg/L	-	0.00209	<0.0001	<0.0001	x	x	x	x	x	x	<0.0001	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
Isophorone ¹	78-59-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Isosafrole ¹	120-58-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	<0.0001	<0.0001	<0.0001	x	x	x	x	x	x	<0.0001	x
Methapyrilene ¹	91-80-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Naphthalene ¹	91-20-3	mg/L	0.03	<0.01	<0.002	<0.002	<0.002	<0.002	x	x	x	x	<0.01	x
Nitrobenzene ¹	98-95-3	mg/L	-	<0.01	<0.0001	<0.0001	x	x	x	x	x	x	<0.01	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	<0.002	x	x	x	x	x	x	x	x	<0.002	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	<0.002	x	x	x	x	x	x	x	x	<0.002	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
o-Toluidine ¹	95-53-4	mg/L	-	<0.002	x	x	x	x	x	x	x	x	<0.002	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Phenacetin ¹	62-44-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Phenanthrene ¹	85-01-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Pronamide ¹	23950-58-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Pyrene ¹	129-00-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Pyridine	110-86-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
RDX ¹	121-82-4	mg/L	-	0.00148	<0.0001	<0.0001	x	x	x	x	x	x	<0.0001	x
Safrole ¹	94-59-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
sym-Trinitrobenzene ¹ (1,3,5-TNB)	99-35-4	mg/L	-	<0.0001	<0.0001	<0.0001	x	x	x	x	x	x	<0.0001	x
Semi Volatile Organic Compounds - Phenolics														
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
2-Chlorophenol ¹	95-57-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	08-39-4/106-44	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	<0.005	x	x	x	x	x	x	x	x	<0.005	x

APPENDIX B

Las Cruces Foothills Landfill MW-8

Las Cruces Foothills Landfill monitoring well MW-8

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-8									baseline	standard
				12/29/10	5/18/11	8/23/11	11/28/11	12/29/11	12/20/12	6/26/13	12/21/17	12/29/10 to 12/29/11	12/29/10 to 12/29/11	
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Pentachlorophenol ¹	87-86-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Radium 226 and 228	NA	pCi/L	5	0.752	1.29	2.41	0.507	0.199	x	x	x	x	1.03	0.87
Ra-226, total	NA	pCi/L	-	0.000	0.060	2.29	0.293	0.093	x	x	x	x	0.55	0.98
Ra-228 ¹ , total	NA	pCi/L	-	0.752	1.23	0.123	0.214	0.106	x	x	x	x	0.49	0.49
Chlorinated Pesticides														
4,4'-DDD (p,p'-DDD) ¹	309-00-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
4,4'-DDE (p,p'-DDE) ¹	319-84-6	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
4,4'-DDT (p,p'-DDT) ¹	319-85-7	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
aldrin ¹	319-86-8	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
alpha-BHC ¹	319-86-8	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
beta-BHC ¹	5103-74-2	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
Chlordane ¹	57-74-9	mg/L	0.002	<0.005	x	x	x	x	x	x	x	x	<0.005	x
delta-BHC ¹	72-54-8	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
Dieldrin ¹	72-55-9	mg/L	-	<0.001	x	x	x	x	x	x	x	x	<0.001	x
Endosulfan I (alpha-Endosulfan) ¹	50-29-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	<0.001	x
Endosulfan II (beta-Endosulfan) ¹	60-57-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	<0.001	x
Endosulfan sulfate ¹	959-98-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	<0.001	x
Endrin aldehyde ¹	33213-65-9	mg/L	-	<0.001	x	x	x	x	x	x	x	x	<0.001	x
Endrin ketone	1031-07-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	<0.001	x
gamma-BHC ¹	7421-93-4	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
gamma-Chlordane ¹	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	76-44-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	<0.001	x
Heptachlor ¹	1024-57-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	<0.001	x
Isodrin ¹	465-73-6	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Kepon ¹	143-50-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Methoxychlor ¹	72-43-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Toxaphene ¹	8001-35-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	<0.001	x
Polychlorinated Biphenyls (PCBs)														
Arochlor-1016	12674-11-2	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	<0.00025	x
Arochlor-1221	11104-28-2	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	<0.00025	x
Arochlor-1232	11141-16-5	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	<0.00025	x
Arochlor-1242	53469-21-9	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	<0.00025	x
Arochlor-1248	12672-29-6	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	<0.00025	x
Arochlor-1254	11097-69-1	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	<0.00025	x
Arochlor-1260	11096-82-5	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	<0.00025	x
Other Pesticides and Herbicides¹														
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	<0.000546	x	x	x	x	x	x	x	x	<0.000546	x
2,4,5-T ¹	93-76-5	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
Dimethoate ¹	60-51-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Dinoseb ¹	88-85-7	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
Disulfoton ¹	298-04-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Famphur ¹	52-58-7	mg/L	-	<0.005	x	x	x	x	x	x	x	x	<0.005	x
Methyl parathion ¹	298-00-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Phorate ¹	298-02-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x

¹ baseline averages and standard deviations are based on 1999 and 2000 data only as per requirements in EPA, Subpart 803., Ground Water Sampling and Analysis, 1995.

¹ hazardous

x parameter not analyzed

(#) Scanned for and not detected, breaks down almost immediately in water.

MW-9

APPENDIX B

Las Cruces Foothills Landfill MW-9

Las Cruces Foothills Landfill monitoring well MW-9														baseline	standard
constituent	CAS Number	unit	GWPS	RESULTS FOR MW-9										average	deviation
date				12/29/10	5/18/11	8/23/11	11/28/11	12/29/11	12/20/12	6/26/13	12/28/16	6/28/17	12/19/17	12/29/10 to 12/29/11	12/29/10 to 12/29/11
Field Parameters															
water level elevation		ft amsl	-	3844.86	3844.93	3844.61	3844.20	3845.25	3842.85	3838.88	3837.73	3837.90	3837.24	3,844.77	0.39
conductivity		µS/cm	-	3700	4638	3150	3500	3320	3300	2800	3110	1877	1436	3,662	583
pH		pH units	6-9	7.27	6.48	6.33	6.30	6.46	6.45	6.62	6.69	6.86	6.54	6.57	0.40
temperature		deg F	-	107.6	110.8	111.2	108.0	103.6	106.3	109.8	103.6	106.9	99.1	108.2	3.0
Major Ions															
calcium	7440-70-2	mg/L	-	180	170	150	160	170	150	120	130	68	130	166	11
chloride	16887-00-6	mg/L	250	770	700	680	740	810	670	490	640	250	710	740.0	52.4
fluoride ¹	16984-48-8	mg/L	1.6	1.4	1.5	1.5	1.4	1.3	x	x	x	x	x	1.42	0.08
magnesium	7439-95-4	mg/L	-	37	33	30	32	35	32	24	29	14	25	33.4	2.7
potassium	7440-09-7	mg/L	-	54	49	46	47	53	50	43	48	33	43	49.8	3.6
sodium	82115-62-6	mg/L	-	510	490	430	450	470	450	390	430	260	420	470	32
sulfate	18785-72-3	mg/L	600	240	210	200	220	210	190	170	150	130	130	216	15
alkalinity	NA	mg/L	-	460	440	440	450	450	420	400	364.3	401.9	352	448	8
bicarbonate alkalinity	71-52-3	mg/L	-	460	440	440	450	450	420	400	364.3	401.9	352	448	8
carbonate alkalinity	3812-32-6	mg/L	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	x
total dissolved solids	NA	mg/L	1,000	2070	1930	1870	1950	2020	1910	1600	1780	1110	1680	1,968	78
Nitrogen Species															
ammonia as N	1331-21-6	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	x
Kjeldahl nitrogen	7727-37-9	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	x	x	x	x	<1.0	x
nitrate as N	14797-55-8	mg/L	10	0.26	x	x	x	x	<0.1	<0.1	0.59	<1.0	0.30	x	x
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
total nitrogen	-	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	x	x	x	x	x	<1.0	x
Metals															
aluminum	7429-90-5	mg/L	5.0	<0.02	<0.02	<0.02	0.076	<0.02	x	x	x	x	x	0.076	x
antimony ¹	7440-36-0	mg/L	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
arsenic ¹	7440-38-2	mg/L	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0011	<0.001	<0.001	<0.001	<0.001	x
barium ¹	7440-39-3	mg/L	1.0	0.12	0.11	0.10	0.10	0.11	0.097	0.079	0.110	0.050	0.096	0.11	0.01
beryllium ¹	7440-41-7	mg/L	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	x
boron	7440-42-8	mg/L	0.75	0.39	0.35	0.35	0.34	0.37	x	x	x	x	x	0.36	0.02
cadmium ¹	7440-43-9	mg/L	0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	x
chromium ¹	7440-47-3	mg/L	0.05	<0.006	<0.006	<0.006	0.0084	<0.006	<0.006	<0.006	0.041	0.0093	0.029	<0.006	x
cobalt ¹	7440-48-4	mg/L	0.05	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	x
copper ¹	7440-50-8	mg/L	1.0	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0046	<0.006	x
iron	7439-89-6	mg/L	1.0	0.32	0.25	0.17	0.31	0.092	0.066	0.052	0.28	0.31	0.65	0.23	0.10
lead ¹	7439-92-1	mg/L	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.0005	<0.0005	<0.005	x
manganese	7439-96-5	mg/L	0.2	0.46	0.30	0.25	0.18	0.16	0.06	0.054	0.15	0.047	0.056	0.27	0.12
mercury ¹	7439-97-6	mg/L	0.002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	x	x	x	x	x	<0.0002	x
molybdenum	7439-98-7	mg/L	1.0	0.0093	0.0095	0.0084	<0.008	<0.008	x	x	x	x	x	0.0091	0.0006
nickel ¹	7440-02-0	mg/L	0.2	0.12	0.024	0.072	0.098	0.070	0.13	0.18	0.16	0.17	0.21	0.077	0.036
selenium ¹	7782-49-2	mg/L	0.05	<0.001	<0.001	<0.001	0.005	<0.001	<0.001	0.0037	0.0021	0.0012	<0.001	0.005	x
silver ¹	7440-22-4	mg/L	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.025	<0.005	<0.005	0.022	<0.005	x
thallium ¹	7440-28-0	mg/L	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.0005	<0.001	x
tin ¹	7440-31-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
uranium ¹	7440-61-1	mg/L	0.03	0.00424	0.00377	0.00403	0.004	0.00418	x	x	x	x	x	0.0040	0.0002
vanadium ¹	7440-62-2	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	x
zinc	7440-66-6	mg/L	10.0	<0.02	<0.02	<0.02	0.03	0.021	0.069	0.071	<0.01	0.038	0.088	0.026	0.006
total organic carbon	-	mg/L	-	2.4	<1.0	2.4	<1.0	<1.0	<1.0	<1.0	1.3	2.6	1.4	2.4	0.0
phosphate	14265-44-2	mg/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	x	x	x	x	x	<0.5	x
sulfide ¹	18496-25-8	mg/L	-	<0.1	x	x	x	x	x	x	x	x	x	<0.1	x
cyanide ¹	57-12-5	mg/L	0.2	<0.01	<0.01	<0.01	<0.02	<0.01	x	x	x	x	x	<0.02	x
perchlorate ¹	14797-73-0	mg/L	-	<0.0001	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
total phenolics ¹	-	mg/L	0.005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	x
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	x	<0.00025	x
Volatile Organic Compounds															
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
1,1,2,2-Tetrachloroethane ¹	79-34-5	mg/L	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
1,1-Dichloroethylene (1,1-Dichloroethene; 1,1-DCE) ¹	75-35-4	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
1,1-Dichloropropene ¹	563-58-6	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	<0.001	x
1,2-Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	<0.01	x
1,2-Dichlorobenzene (o-Dichlorobenzene) ¹	95-50-1	mg/L	0.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
1,2-Dichloropropane ¹	78-87-5	mg/L	0.005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	<0.001	x
1,3-Dichloropropane ¹	142-28-9	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	<0.001	x
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
2,2-Dichloropropane ¹	78-87-5	mg/L	-	<0.001											

APPENDIX B

Las Cruces Foothills Landfill MW-9

Las Cruces Foothills Landfill monitoring well MW-9

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-9										baseline	standard	
				12/29/10	5/18/11	8/23/11	11/28/11	12/29/11	12/20/12	6/26/13	12/28/16	6/28/17	12/19/17	12/29/10 to 12/29/11	12/29/10 to 12/29/11	
alpha.alpha-Dimethylphenethylamine	122-09-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Aniline ¹	62-53-3	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Anthracene ¹	120-12-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Benzidine ¹	92-87-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	<0.0001	x
Benzo (a) pyrene ¹	50-32-8	mg/L	0.0002	<0.0001	<0.00007	<0.00007	<0.00007	<0.00007	<0.00007	x	x	x	x	x	<0.0001	x
Benzo (b) fluoranthene ¹	205-99-2	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	<0.0001	x
Benzo (g,h,i) perylene ¹	191-24-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Benzo (k) fluoranthene ¹	207-08-9	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	<0.0001	x
Benzoic acid ¹	65-85-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
bis (2-Chloroisopropyl) ether (bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	<0.005	x	x	x	x	x	x	x	x	x	x	<0.005	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Carbazole	86-74-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Chlorobenzilate ¹	510-15-6	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Chrysene ¹	218-01-9	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	<0.0001	x
Diallate ¹	2303-16-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Dibenz (a,j) acridine	224-42-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	<0.0001	x
Dibenzofuran ¹	132-64-9	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Diethylphthalate ¹	84-66-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Dimethylphthalate ¹	131-11-3	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Diphenylamine ¹	122-39-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Fluoranthene ¹	206-44-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Fluorene ¹	86-73-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	<0.001	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Hexachloroethane ¹	67-72-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Hexachloropropene ¹	1888-71-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
HMX ¹	2691-41-0	mg/L	-	0.00101	<0.0001	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	<0.0001	x
Isophorone ¹	78-59-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Isoctafrole ¹	120-58-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	<0.0001	<0.0001	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
Methacrylonitrile ¹	91-80-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Naphthalene ¹	91-20-3	mg/L	0.03	<0.01	<0.002	<0.002	<0.002	<0.002	x	x	x	x	x	x	<0.01	x
Nitrobenzene ¹	98-95-3	mg/L	-	<0.01	<0.0001	<0.0001	x	x	x	x	x	x	x	x	<0.01	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	<0.010	x	x	x	x	x	x	x	x	x	x	<0.01	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	<0.002	x	x	x	x	x	x	x	x	x	x	<0.002	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	<0.002	x	x	x	x	x	x	x	x	x	x	<0.002	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
o-Toluidine ¹	95-53-4	mg/L	-	<0.002	x	x	x	x	x	x	x	x	x	x	<0.002	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Phenacetin ¹	62-44-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Phenanthrene ¹	85-01-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Pronamide ¹	23950-58-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Pyrene ¹	129-00-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Pyridine	110-86-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
RD ¹	121-82-4	mg/L	-	0.000370	<0.0001	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
Safrole ¹	94-59-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
sym-Trinitrobenzene ¹ (1,3,5-TNB)	99-35-4	mg/L	-	<0.0001	<0.0001	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
Semi Volatile Organic Compounds - Phenolics																
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
2-Chlorophenol ¹	95-57-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	98-39-4/106-44	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	<0.005	x	x	x	x	x	x	x	x	x	x	<0.005	x

APPENDIX B

Las Cruces Foothills Landfill MW-9

Las Cruces Foothills Landfill monitoring well MW-9

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-9										baseline	standard	
				12/29/10	5/18/11	8/23/11	11/28/11	12/29/11	12/20/12	6/26/13	12/28/16	6/28/17	12/19/17	12/29/10 to 12/29/11	12/29/10 to 12/29/11	
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Pentachlorophenol ¹	87-86-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Radium 226 and 228	NA	pCi/L	5	10.24	8.74	6.51	5.73	3.78	x	x	x	x	x	x	7.00	2.54
Ra-226, total	NA	pCi/L	-	1.88	1.210	0.788	1.71	1.26	x	x	x	x	x	x	1.37	0.43
Ra-228 ¹ , total	NA	pCi/L	-	8.36	7.53	5.72	4.02	2.52	x	x	x	x	x	x	5.63	2.42
Chlorinated Pesticides																
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	<0.01	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	<0.0001	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	<0.0001	x
aldrin ¹	309-00-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.0001	x
alpha-BHC ¹	319-84-6	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	<0.0001	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	<0.0001	x
Chlordane ¹	57-74-9	mg/L	0.002	<0.005	x	x	x	x	x	x	x	x	x	x	<0.005	x
delta-BHC ¹	319-86-8	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	<0.0001	x
Dieldrin ¹	60-57-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	<0.001	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	<0.001	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	<0.001	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	<0.001	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	<0.001	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	<0.001	x
gamma-BHC ¹	319-86-8	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	<0.0001	x
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	1024-57-3	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	<0.001	x
Heptachlor ¹	76-44-8	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	<0.001	x
Isodrin ¹	465-73-6	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Kepone ¹	143-50-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Methoxychlor ¹	72-43-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Toxaphene ¹	8001-35-2	mg/L	-	<0.001	x	x	x	x	x	x	x	x	x	x	<0.001	x
Polychlorinated Biphenyls (PCBs)																
Arochlor-1016	12674-11-2	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	x	x	<0.00025	x
Arochlor-1221	11104-28-2	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	x	x	<0.00025	x
Arochlor-1232	11141-16-5	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	x	x	<0.00025	x
Arochlor-1242	53469-21-9	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	x	x	<0.00025	x
Arochlor-1248	12672-29-6	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	x	x	<0.00025	x
Arochlor-1254	11097-69-1	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	x	x	<0.00025	x
Arochlor-1260	11096-82-5	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	x	x	x	<0.00025	x
Other Pesticides and Herbicides¹																
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	<0.000394	x	x	x	x	x	x	x	x	x	x	<0.000394	x
2,4,5-T ¹	93-76-5	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	<0.0001	x
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	<0.0001	x
Dimethoate ¹	60-51-5	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Dinoseb ¹	88-85-7	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	<0.0001	x
Disulfoton ¹	298-04-4	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Famphur ¹	52-58-7	mg/L	-	<0.005	x	x	x	x	x	x	x	x	x	x	<0.005	x
Methyl parathion ¹	298-00-0	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Phorate ¹	298-02-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	<0.0001	x	x	x	x	x	x	x	x	x	x	<0.0001	x
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	x	x	<0.01	x

¹ baseline averages and standard deviations are based on 1999 and 2000 data only as per requirements in EPA, Subpart 803., Ground Water Sampling and Analysis, 1995.

¹ hazardous

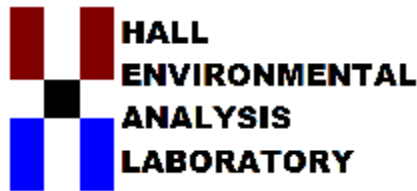
x parameter not analyzed

(#) Scanned for and not detected, breaks down almost immediately in water.

Appendix C.

**Copies of laboratory reports for the June and December 2017
sampling events**

**Laboratory Results
June 2017**



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

July 28, 2017

Luis Guerra
City of Las Cruces
PO Box 20000
Las Cruces, NM 88004
TEL: (575) 528-3635
FAX (575) 528-3513

RE: CLC Foothills Landfill Closure Monitoring Wells

OrderNo.: 1706E83

Dear Luis Guerra:

Hall Environmental Analysis Laboratory received 5 sample(s) on 6/28/2017 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-6

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 8:51:00 AM

Lab ID: 1706E83-001

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	7/1/2017 5:05:52 PM	32601
1,2-Dibromoethane	ND	0.0095		µg/L	1	7/1/2017 5:05:52 PM	32601
EPA METHOD 9060 TOC							Analyst: MAB
Total Organic Carbon	1.1	1.0		mg/L	1	7/1/2017 3:10:06 PM	R43956
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	12	0.50		mg/L	1	6/28/2017 2:53:28 PM	R43864
Nitrogen, Nitrate (As N)	3.0	0.10		mg/L	1	6/28/2017 2:53:28 PM	R43864
Sulfate	44	0.50		mg/L	1	6/28/2017 2:53:28 PM	R43864
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	400	5.0		µmhos/cm	1	7/3/2017 8:59:25 PM	R44003
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	124.8	20.00		mg/L CaCO3	1	7/3/2017 8:59:25 PM	R44003
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	7/3/2017 8:59:25 PM	R44003
Total Alkalinity (as CaCO3)	124.8	20.00		mg/L CaCO3	1	7/3/2017 8:59:25 PM	R44003
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	265	20.0		mg/L	1	6/29/2017 8:14:00 PM	32557
SM 4500 NH3: AMMONIA							Analyst: CJS
Nitrogen, Ammonia	ND	1.0		mg/L	1	7/13/2017 2:48:00 PM	R44217
SM4500-H+B: PH							Analyst: JRR
pH	8.01		H	pH units	1	7/3/2017 8:59:25 PM	R44003
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.058	0.0020		mg/L	1	7/11/2017 12:18:18 PM	32693
Beryllium	ND	0.0020		mg/L	1	7/11/2017 12:18:18 PM	32693
Cadmium	ND	0.0020		mg/L	1	7/11/2017 12:18:18 PM	32693
Calcium	41	1.0		mg/L	1	7/11/2017 12:18:18 PM	32693
Chromium	ND	0.0060		mg/L	1	7/11/2017 12:18:18 PM	32693
Cobalt	ND	0.0060		mg/L	1	7/11/2017 12:18:18 PM	32693
Copper	ND	0.0060		mg/L	1	7/11/2017 12:18:18 PM	32693
Iron	ND	0.020		mg/L	1	7/11/2017 12:18:18 PM	32693
Magnesium	4.6	1.0		mg/L	1	7/11/2017 12:18:18 PM	32693
Manganese	0.0040	0.0020		mg/L	1	7/11/2017 12:18:18 PM	32693
Nickel	ND	0.010		mg/L	1	7/11/2017 12:18:18 PM	32693
Potassium	2.2	1.0		mg/L	1	7/11/2017 12:18:18 PM	32693
Silver	ND	0.0050		mg/L	1	7/11/2017 12:18:18 PM	32693
Sodium	36	1.0		mg/L	1	7/11/2017 12:18:18 PM	32693

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-6

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 8:51:00 AM

Lab ID: 1706E83-001

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Vanadium	ND	0.050		mg/L	1	7/11/2017 12:18:18 PM	32693
Zinc	ND	0.010		mg/L	1	7/11/2017 12:18:18 PM	32693
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Antimony	ND	0.0010		mg/L	1	7/14/2017 12:19:46 PM	32693
Arsenic	0.0014	0.0010		mg/L	1	7/14/2017 12:19:46 PM	32693
Lead	ND	0.00050		mg/L	1	7/14/2017 12:19:46 PM	32693
Selenium	ND	0.0010		mg/L	1	7/14/2017 12:19:46 PM	32693
Thallium	ND	0.00050		mg/L	1	7/14/2017 12:19:46 PM	32693
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Toluene	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Ethylbenzene	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Acetone	ND	10		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Bromodichloromethane	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Bromoform	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Bromomethane	ND	2.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
2-Butanone	ND	10		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Carbon disulfide	ND	10		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Carbon Tetrachloride	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Chlorobenzene	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Chloroethane	ND	2.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Chloroform	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Chloromethane	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
cis-1,2-DCE	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Dibromochloromethane	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Dibromomethane	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Dichlorodifluoromethane	3.1	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
1,1-Dichloroethane	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
1,1-Dichloroethene	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
1,2-Dichloropropane	ND	0.50		µg/L	1	6/28/2017 5:47:00 PM	LF43852
2-Hexanone	ND	10		µg/L	1	6/28/2017 5:47:00 PM	LF43852
4-Methyl-2-pentanone	ND	10		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Methylene Chloride	ND	2.5		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Styrene	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-6

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 8:51:00 AM

Lab ID: 1706E83-001

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Tetrachloroethene (PCE)	6.5	0.50		µg/L	1	6/28/2017 5:47:00 PM	LF43852
trans-1,2-DCE	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Trichlorofluoromethane	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
1,2,3-Trichloropropane	ND	1.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Vinyl chloride	ND	0.40		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Xylenes, Total	ND	2.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Acrylonitrile	ND	10		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Bromochloromethane	ND	2.0		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Iodomethane	ND	10		µg/L	1	6/28/2017 5:47:00 PM	LF43852
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Vinyl acetate	ND	10		µg/L	1	6/28/2017 5:47:00 PM	LF43852
Surr: 1,2-Dichloroethane-d4	112	70-130		%Rec	1	6/28/2017 5:47:00 PM	LF43852
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	6/28/2017 5:47:00 PM	LF43852
Surr: Dibromofluoromethane	115	70-130		%Rec	1	6/28/2017 5:47:00 PM	LF43852
Surr: Toluene-d8	104	70-130		%Rec	1	6/28/2017 5:47:00 PM	LF43852
TOTAL PHENOLICS BY SW-846 9067							Analyst: SCC
Phenolics	ND	2.5		µg/L	1	6/30/2017	32579

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-7

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 9:48:00 AM

Lab ID: 1706E83-002

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	7/1/2017 5:21:02 PM	32601
1,2-Dibromoethane	ND	0.0094		µg/L	1	7/1/2017 5:21:02 PM	32601
EPA METHOD 9060 TOC							Analyst: MAB
Total Organic Carbon	ND	1.0		mg/L	1	7/1/2017 2:53:15 PM	R43956
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	20	10		mg/L	20	6/28/2017 3:55:30 PM	R43864
Nitrogen, Nitrate (As N)	0.97	0.10		mg/L	1	6/28/2017 3:43:05 PM	R43864
Sulfate	76	10		mg/L	20	6/28/2017 3:55:30 PM	R43864
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	490	5.0		µmhos/cm	1	7/3/2017 9:08:12 PM	R44003
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	128.3	20.00		mg/L CaCO3	1	7/3/2017 9:08:12 PM	R44003
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	7/3/2017 9:08:12 PM	R44003
Total Alkalinity (as CaCO3)	128.3	20.00		mg/L CaCO3	1	7/3/2017 9:08:12 PM	R44003
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	336	20.0		mg/L	1	6/29/2017 8:14:00 PM	32557
SM 4500 NH3: AMMONIA							Analyst: CJS
Nitrogen, Ammonia	ND	1.0		mg/L	1	7/13/2017 2:48:00 PM	R44217
SM4500-H+B: PH							Analyst: JRR
pH	7.96		H	pH units	1	7/3/2017 9:08:12 PM	R44003
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.050	0.0020		mg/L	1	7/11/2017 12:22:11 PM	32693
Beryllium	ND	0.0020		mg/L	1	7/11/2017 12:22:11 PM	32693
Cadmium	ND	0.0020		mg/L	1	7/11/2017 12:22:11 PM	32693
Calcium	64	1.0		mg/L	1	7/11/2017 12:22:11 PM	32693
Chromium	ND	0.0060		mg/L	1	7/11/2017 12:22:11 PM	32693
Cobalt	ND	0.0060		mg/L	1	7/11/2017 12:22:11 PM	32693
Copper	ND	0.0060		mg/L	1	7/11/2017 12:22:11 PM	32693
Iron	0.031	0.020		mg/L	1	7/11/2017 12:22:11 PM	32693
Magnesium	7.5	1.0		mg/L	1	7/11/2017 12:22:11 PM	32693
Manganese	0.0038	0.0020		mg/L	1	7/11/2017 12:22:11 PM	32693
Nickel	ND	0.010		mg/L	1	7/11/2017 12:22:11 PM	32693
Potassium	2.2	1.0		mg/L	1	7/11/2017 12:22:11 PM	32693
Silver	ND	0.0050		mg/L	1	7/11/2017 12:22:11 PM	32693
Sodium	29	1.0		mg/L	1	7/11/2017 12:22:11 PM	32693

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-7

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 9:48:00 AM

Lab ID: 1706E83-002

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Vanadium	ND	0.050		mg/L	1	7/11/2017 12:22:11 PM	32693
Zinc	0.012	0.010		mg/L	1	7/11/2017 12:22:11 PM	32693
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Antimony	ND	0.0010		mg/L	1	7/14/2017 12:24:54 PM	32693
Arsenic	ND	0.0010		mg/L	1	7/14/2017 12:24:54 PM	32693
Lead	ND	0.00050		mg/L	1	7/14/2017 12:24:54 PM	32693
Selenium	0.0013	0.0010		mg/L	1	7/14/2017 12:24:54 PM	32693
Thallium	ND	0.00050		mg/L	1	7/14/2017 12:24:54 PM	32693
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Toluene	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Ethylbenzene	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Acetone	ND	10		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Bromodichloromethane	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Bromoform	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Bromomethane	ND	2.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
2-Butanone	ND	10		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Carbon disulfide	ND	10		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Carbon Tetrachloride	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Chlorobenzene	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Chloroethane	ND	2.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Chloroform	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Chloromethane	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
cis-1,2-DCE	2.3	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Dibromochloromethane	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Dibromomethane	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Dichlorodifluoromethane	9.7	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
1,1-Dichloroethane	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
1,1-Dichloroethene	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
1,2-Dichloropropane	ND	0.50		µg/L	1	6/28/2017 7:00:00 PM	LF43852
2-Hexanone	ND	10		µg/L	1	6/28/2017 7:00:00 PM	LF43852
4-Methyl-2-pentanone	ND	10		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Methylene Chloride	ND	2.5		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Styrene	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E Value above quantitation range
H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL	Practical Quantitative Limit	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-7

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 9:48:00 AM

Lab ID: 1706E83-002

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Tetrachloroethene (PCE)	18	0.50		µg/L	1	6/28/2017 7:00:00 PM	LF43852
trans-1,2-DCE	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Trichloroethene (TCE)	3.7	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Trichlorofluoromethane	4.2	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
1,2,3-Trichloropropane	ND	1.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Vinyl chloride	ND	0.40		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Xylenes, Total	ND	2.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Acrylonitrile	ND	10		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Bromochloromethane	ND	2.0		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Iodomethane	ND	10		µg/L	1	6/28/2017 7:00:00 PM	LF43852
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Vinyl acetate	ND	10		µg/L	1	6/28/2017 7:00:00 PM	LF43852
Surr: 1,2-Dichloroethane-d4	117	70-130		%Rec	1	6/28/2017 7:00:00 PM	LF43852
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	6/28/2017 7:00:00 PM	LF43852
Surr: Dibromofluoromethane	114	70-130		%Rec	1	6/28/2017 7:00:00 PM	LF43852
Surr: Toluene-d8	106	70-130		%Rec	1	6/28/2017 7:00:00 PM	LF43852
TOTAL PHENOLICS BY SW-846 9067							Analyst: SCC
Phenolics	ND	2.5		µg/L	1	6/30/2017	32579

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-2

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 10:30:00 AM

Lab ID: 1706E83-003

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	7/1/2017 5:36:09 PM	32601
1,2-Dibromoethane	ND	0.0094		µg/L	1	7/1/2017 5:36:09 PM	32601
EPA METHOD 9060 TOC							Analyst: MAB
Total Organic Carbon	ND	1.0		mg/L	1	7/1/2017 3:26:57 PM	R43956
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	10	0.50		mg/L	1	6/28/2017 4:32:43 PM	R43864
Nitrogen, Nitrate (As N)	2.5	0.10		mg/L	1	6/28/2017 4:32:43 PM	R43864
Sulfate	32	0.50		mg/L	1	6/28/2017 4:32:43 PM	R43864
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	380	5.0		µmhos/cm	1	7/3/2017 9:17:09 PM	R44003
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	130.9	20.00		mg/L CaCO3	1	7/3/2017 9:17:09 PM	R44003
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	7/3/2017 9:17:09 PM	R44003
Total Alkalinity (as CaCO3)	130.9	20.00		mg/L CaCO3	1	7/3/2017 9:17:09 PM	R44003
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	243	20.0		mg/L	1	6/29/2017 8:14:00 PM	32557
SM 4500 NH3: AMMONIA							Analyst: CJS
Nitrogen, Ammonia	ND	1.0		mg/L	1	7/13/2017 2:48:00 PM	R44217
SM4500-H+B: PH							Analyst: JRR
pH	7.96		H	pH units	1	7/3/2017 9:17:09 PM	R44003
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.036	0.0020		mg/L	1	7/11/2017 12:26:05 PM	32693
Beryllium	ND	0.0020		mg/L	1	7/11/2017 12:26:05 PM	32693
Cadmium	ND	0.0020		mg/L	1	7/11/2017 12:26:05 PM	32693
Calcium	42	1.0		mg/L	1	7/11/2017 12:26:05 PM	32693
Chromium	ND	0.0060		mg/L	1	7/11/2017 12:26:05 PM	32693
Cobalt	ND	0.0060		mg/L	1	7/11/2017 12:26:05 PM	32693
Copper	ND	0.0060		mg/L	1	7/11/2017 12:26:05 PM	32693
Iron	0.023	0.020		mg/L	1	7/11/2017 12:26:05 PM	32693
Magnesium	5.9	1.0		mg/L	1	7/11/2017 12:26:05 PM	32693
Manganese	0.0032	0.0020		mg/L	1	7/11/2017 12:26:05 PM	32693
Nickel	ND	0.010		mg/L	1	7/11/2017 12:26:05 PM	32693
Potassium	1.8	1.0		mg/L	1	7/11/2017 12:26:05 PM	32693
Silver	ND	0.0050		mg/L	1	7/11/2017 12:26:05 PM	32693
Sodium	30	1.0		mg/L	1	7/11/2017 12:26:05 PM	32693

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-2

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 10:30:00 AM

Lab ID: 1706E83-003

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Vanadium	ND	0.050		mg/L	1	7/11/2017 12:26:05 PM	32693
Zinc	ND	0.010		mg/L	1	7/11/2017 12:26:05 PM	32693
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Antimony	ND	0.0010		mg/L	1	7/14/2017 12:30:03 PM	32693
Arsenic	0.0014	0.0010		mg/L	1	7/14/2017 12:30:03 PM	32693
Lead	ND	0.00050		mg/L	1	7/14/2017 12:30:03 PM	32693
Selenium	ND	0.0010		mg/L	1	7/14/2017 12:30:03 PM	32693
Thallium	ND	0.00050		mg/L	1	7/14/2017 12:30:03 PM	32693
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Toluene	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Ethylbenzene	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Acetone	ND	10		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Bromodichloromethane	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Bromoform	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Bromomethane	ND	2.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
2-Butanone	ND	10		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Carbon disulfide	ND	10		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Carbon Tetrachloride	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Chlorobenzene	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Chloroethane	ND	2.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Chloroform	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Chloromethane	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
cis-1,2-DCE	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Dibromochloromethane	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Dibromomethane	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
1,1-Dichloroethane	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
1,1-Dichloroethene	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
1,2-Dichloropropane	ND	0.50		µg/L	1	6/28/2017 7:24:00 PM	LF43852
2-Hexanone	ND	10		µg/L	1	6/28/2017 7:24:00 PM	LF43852
4-Methyl-2-pentanone	ND	10		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Methylene Chloride	ND	2.5		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Styrene	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-2

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 10:30:00 AM

Lab ID: 1706E83-003

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Tetrachloroethene (PCE)	1.8	0.50		µg/L	1	6/28/2017 7:24:00 PM	LF43852
trans-1,2-DCE	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Trichlorofluoromethane	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
1,2,3-Trichloropropane	ND	1.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Vinyl chloride	ND	0.40		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Xylenes, Total	ND	2.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Acrylonitrile	ND	10		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Bromochloromethane	ND	2.0		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Iodomethane	ND	10		µg/L	1	6/28/2017 7:24:00 PM	LF43852
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Vinyl acetate	ND	10		µg/L	1	6/28/2017 7:24:00 PM	LF43852
Surr: 1,2-Dichloroethane-d4	112	70-130		%Rec	1	6/28/2017 7:24:00 PM	LF43852
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	6/28/2017 7:24:00 PM	LF43852
Surr: Dibromofluoromethane	115	70-130		%Rec	1	6/28/2017 7:24:00 PM	LF43852
Surr: Toluene-d8	105	70-130		%Rec	1	6/28/2017 7:24:00 PM	LF43852
TOTAL PHENOLICS BY SW-846 9067							Analyst: SCC
Phenolics	ND	2.5		µg/L	1	6/30/2017	32579

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E Value above quantitation range
H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL	Practical Quantitative Limit	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-1

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 11:28:00 AM

Lab ID: 1706E83-004

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	7/1/2017 6:06:43 PM	32601
1,2-Dibromoethane	ND	0.0095		µg/L	1	7/1/2017 6:06:43 PM	32601
EPA METHOD 9060 TOC							Analyst: MAB
Total Organic Carbon	ND	1.0		mg/L	1	7/1/2017 4:27:43 PM	R43956
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	66	10		mg/L	20	6/28/2017 5:09:56 PM	R43864
Nitrogen, Nitrate (As N)	0.96	0.10		mg/L	1	6/28/2017 4:57:32 PM	R43864
Sulfate	30	0.50		mg/L	1	6/28/2017 4:57:32 PM	R43864
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	480	5.0		µmhos/cm	1	7/3/2017 9:30:42 PM	R44003
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	72.28	20.00		mg/L CaCO3	1	7/3/2017 9:30:42 PM	R44003
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	7/3/2017 9:30:42 PM	R44003
Total Alkalinity (as CaCO3)	72.28	20.00		mg/L CaCO3	1	7/3/2017 9:30:42 PM	R44003
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	268	20.0		mg/L	1	6/29/2017 8:14:00 PM	32557
SM 4500 NH3: AMMONIA							Analyst: CJS
Nitrogen, Ammonia	ND	1.0		mg/L	1	7/13/2017 2:48:00 PM	R44217
SM4500-H+B: PH							Analyst: JRR
pH	8.16		H	pH units	1	7/3/2017 9:30:42 PM	R44003
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.13	0.0020		mg/L	1	7/11/2017 12:36:20 PM	32693
Beryllium	ND	0.0020		mg/L	1	7/11/2017 12:36:20 PM	32693
Cadmium	ND	0.0020		mg/L	1	7/11/2017 12:36:20 PM	32693
Calcium	36	1.0		mg/L	1	7/11/2017 12:36:20 PM	32693
Chromium	ND	0.0060		mg/L	1	7/11/2017 12:36:20 PM	32693
Cobalt	ND	0.0060		mg/L	1	7/11/2017 12:36:20 PM	32693
Copper	ND	0.0060		mg/L	1	7/11/2017 12:36:20 PM	32693
Iron	0.14	0.020		mg/L	1	7/11/2017 12:36:20 PM	32693
Magnesium	8.2	1.0		mg/L	1	7/11/2017 12:36:20 PM	32693
Manganese	0.0086	0.0020		mg/L	1	7/11/2017 12:36:20 PM	32693
Nickel	ND	0.010		mg/L	1	7/11/2017 12:36:20 PM	32693
Potassium	2.9	1.0		mg/L	1	7/11/2017 12:36:20 PM	32693
Silver	ND	0.0050		mg/L	1	7/11/2017 12:36:20 PM	32693
Sodium	42	1.0		mg/L	1	7/11/2017 12:36:20 PM	32693

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-1

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 11:28:00 AM

Lab ID: 1706E83-004

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Vanadium	ND	0.050		mg/L	1	7/11/2017 12:36:20 PM	32693
Zinc	ND	0.010		mg/L	1	7/11/2017 12:36:20 PM	32693
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Antimony	ND	0.0010		mg/L	1	7/14/2017 12:50:40 PM	32693
Arsenic	ND	0.0010		mg/L	1	7/14/2017 12:50:40 PM	32693
Lead	ND	0.00050		mg/L	1	7/14/2017 12:50:40 PM	32693
Selenium	0.0020	0.0010		mg/L	1	7/14/2017 12:50:40 PM	32693
Thallium	ND	0.00050		mg/L	1	7/14/2017 12:50:40 PM	32693
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Toluene	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Ethylbenzene	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Acetone	ND	10		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Bromodichloromethane	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Bromoform	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Bromomethane	ND	2.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
2-Butanone	ND	10		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Carbon disulfide	ND	10		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Carbon Tetrachloride	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Chlorobenzene	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Chloroethane	ND	2.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Chloroform	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Chloromethane	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
cis-1,2-DCE	5.6	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Dibromochloromethane	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Dibromomethane	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Dichlorodifluoromethane	3.7	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
1,1-Dichloroethane	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
1,1-Dichloroethene	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
1,2-Dichloropropane	ND	0.50		µg/L	1	6/28/2017 7:49:00 PM	LF43852
2-Hexanone	ND	10		µg/L	1	6/28/2017 7:49:00 PM	LF43852
4-Methyl-2-pentanone	ND	10		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Methylene Chloride	ND	2.5		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Styrene	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E Value above quantitation range
H	Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P Sample pH Not In Range
PQL	Practical Quantitative Limit	RL Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-1

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 11:28:00 AM

Lab ID: 1706E83-004

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Tetrachloroethene (PCE)	15	0.50		µg/L	1	6/28/2017 7:49:00 PM	LF43852
trans-1,2-DCE	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Trichloroethene (TCE)	2.6	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Trichlorofluoromethane	1.1	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
1,2,3-Trichloropropane	ND	1.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Vinyl chloride	ND	0.40		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Xylenes, Total	ND	2.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Acrylonitrile	ND	10		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Bromochloromethane	ND	2.0		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Iodomethane	ND	10		µg/L	1	6/28/2017 7:49:00 PM	LF43852
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Vinyl acetate	ND	10		µg/L	1	6/28/2017 7:49:00 PM	LF43852
Surr: 1,2-Dichloroethane-d4	110	70-130		%Rec	1	6/28/2017 7:49:00 PM	LF43852
Surr: 4-Bromofluorobenzene	112	70-130		%Rec	1	6/28/2017 7:49:00 PM	LF43852
Surr: Dibromofluoromethane	112	70-130		%Rec	1	6/28/2017 7:49:00 PM	LF43852
Surr: Toluene-d8	107	70-130		%Rec	1	6/28/2017 7:49:00 PM	LF43852
TOTAL PHENOLICS BY SW-846 9067							Analyst: SCC
Phenolics	ND	2.5		µg/L	1	6/30/2017	32579

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-5

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 1:05:00 PM

Lab ID: 1706E83-005

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	7/1/2017 6:21:56 PM	32601
1,2-Dibromoethane	ND	0.0095		µg/L	1	7/1/2017 6:21:56 PM	32601
EPA METHOD 9060 TOC							Analyst: MAB
Total Organic Carbon	ND	1.0		mg/L	1	7/1/2017 2:00:58 PM	R43956
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	26	10		mg/L	20	6/28/2017 5:34:45 PM	R43864
Nitrogen, Nitrate (As N)	5.1	0.10		mg/L	1	6/28/2017 5:22:20 PM	R43864
Sulfate	44	10		mg/L	20	6/28/2017 5:34:45 PM	R43864
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	450	5.0		µmhos/cm	1	7/3/2017 9:37:57 PM	R44003
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	107.7	20.00		mg/L CaCO3	1	7/3/2017 9:37:57 PM	R44003
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	7/3/2017 9:37:57 PM	R44003
Total Alkalinity (as CaCO3)	107.7	20.00		mg/L CaCO3	1	7/3/2017 9:37:57 PM	R44003
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	289	20.0		mg/L	1	6/29/2017 8:14:00 PM	32557
SM 4500 NH3: AMMONIA							Analyst: CJS
Nitrogen, Ammonia	ND	1.0		mg/L	1	7/13/2017 2:48:00 PM	R44217
SM4500-H+B: PH							Analyst: JRR
pH	8.06		H	pH units	1	7/3/2017 9:37:57 PM	R44003
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.062	0.0020		mg/L	1	7/11/2017 12:40:13 PM	32693
Beryllium	ND	0.0020		mg/L	1	7/11/2017 12:40:13 PM	32693
Cadmium	ND	0.0020		mg/L	1	7/11/2017 12:40:13 PM	32693
Calcium	39	1.0		mg/L	1	7/11/2017 12:40:13 PM	32693
Chromium	ND	0.0060		mg/L	1	7/11/2017 12:40:13 PM	32693
Cobalt	ND	0.0060		mg/L	1	7/11/2017 12:40:13 PM	32693
Copper	ND	0.0060		mg/L	1	7/11/2017 12:40:13 PM	32693
Iron	ND	0.020		mg/L	1	7/11/2017 12:40:13 PM	32693
Magnesium	4.9	1.0		mg/L	1	7/11/2017 12:40:13 PM	32693
Manganese	ND	0.0020		mg/L	1	7/11/2017 12:40:13 PM	32693
Nickel	ND	0.010		mg/L	1	7/11/2017 12:40:13 PM	32693
Potassium	2.4	1.0		mg/L	1	7/11/2017 12:40:13 PM	32693
Silver	ND	0.0050		mg/L	1	7/11/2017 12:40:13 PM	32693
Sodium	47	1.0		mg/L	1	7/11/2017 12:40:13 PM	32693

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-5

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 1:05:00 PM

Lab ID: 1706E83-005

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Vanadium	ND	0.050		mg/L	1	7/11/2017 12:40:13 PM	32693
Zinc	ND	0.010		mg/L	1	7/11/2017 12:40:13 PM	32693
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Antimony	ND	0.0010		mg/L	1	7/14/2017 1:00:59 PM	32693
Arsenic	0.0021	0.0010		mg/L	1	7/14/2017 1:00:59 PM	32693
Lead	ND	0.00050		mg/L	1	7/14/2017 1:00:59 PM	32693
Selenium	0.0013	0.0010		mg/L	1	7/14/2017 1:00:59 PM	32693
Thallium	ND	0.00050		mg/L	1	7/14/2017 1:00:59 PM	32693
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Toluene	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Ethylbenzene	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Acetone	ND	10		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Bromodichloromethane	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Bromoform	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Bromomethane	ND	2.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
2-Butanone	ND	10		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Carbon disulfide	ND	10		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Carbon Tetrachloride	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Chlorobenzene	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Chloroethane	ND	2.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Chloroform	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Chloromethane	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
cis-1,2-DCE	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Dibromochloromethane	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Dibromomethane	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Dichlorodifluoromethane	2.2	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
1,1-Dichloroethane	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
1,1-Dichloroethene	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
1,2-Dichloropropane	ND	0.50		µg/L	1	6/28/2017 8:13:00 PM	LF43852
2-Hexanone	ND	10		µg/L	1	6/28/2017 8:13:00 PM	LF43852
4-Methyl-2-pentanone	ND	10		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Methylene Chloride	ND	2.5		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Styrene	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706E83

Date Reported: 7/28/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-5

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/27/2017 1:05:00 PM

Lab ID: 1706E83-005

Matrix: AQUEOUS

Received Date: 6/28/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Tetrachloroethene (PCE)	6.1	0.50		µg/L	1	6/28/2017 8:13:00 PM	LF43852
trans-1,2-DCE	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Trichlorofluoromethane	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
1,2,3-Trichloropropane	ND	1.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Vinyl chloride	ND	0.40		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Xylenes, Total	ND	2.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Acrylonitrile	ND	10		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Bromochloromethane	ND	2.0		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Iodomethane	ND	10		µg/L	1	6/28/2017 8:13:00 PM	LF43852
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Vinyl acetate	ND	10		µg/L	1	6/28/2017 8:13:00 PM	LF43852
Surr: 1,2-Dichloroethane-d4	108	70-130		%Rec	1	6/28/2017 8:13:00 PM	LF43852
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	6/28/2017 8:13:00 PM	LF43852
Surr: Dibromofluoromethane	107	70-130		%Rec	1	6/28/2017 8:13:00 PM	LF43852
Surr: Toluene-d8	107	70-130		%Rec	1	6/28/2017 8:13:00 PM	LF43852
TOTAL PHENOLICS BY SW-846 9067							Analyst: SCC
Phenolics	ND	2.5		µg/L	1	6/30/2017	32579

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	MB-32693	SampType:	MBLK	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID:	32693	RunNo:	44105					
Prep Date:	7/9/2017	Analysis Date:	7/11/2017	SeqNo:	1391662	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID	LLCS-32693	SampType:	LCSLL	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	32693	RunNo:	44105					
Prep Date:	7/9/2017	Analysis Date:	7/11/2017	SeqNo:	1391668	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	92.0	50	150			
Beryllium	0.0021	0.0020	0.002000	0	106	50	150			
Cadmium	ND	0.0020	0.002000	0	88.0	50	150			
Calcium	ND	1.0	0.5000	0	105	50	150			
Chromium	0.0066	0.0060	0.006000	0	111	50	150			
Cobalt	0.0064	0.0060	0.006000	0	106	50	150			
Copper	0.0062	0.0060	0.006000	0	103	50	150			
Iron	0.022	0.020	0.02000	0	110	50	150			
Magnesium	ND	1.0	0.5000	0	105	50	150			
Manganese	0.0023	0.0020	0.002000	0	113	50	150			
Nickel	ND	0.010	0.005000	0	109	50	150			
Potassium	ND	1.0	0.5000	0	96.5	50	150			
Silver	0.0050	0.0050	0.005000	0	100	50	150			
Sodium	ND	1.0	0.5000	0	104	50	150			
Vanadium	ND	0.050	0.01000	0	100	50	150			
Zinc	ND	0.010	0.005000	0	130	50	150			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	LCS-32693		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals				
Client ID:	LCSW		Batch ID:	32693		RunNo:	44105				
Prep Date:	7/9/2017		Analysis Date:	7/11/2017		SeqNo:	1391669		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Barium	0.50	0.0020	0.5000	0	99.7	85	115				
Beryllium	0.51	0.0020	0.5000	0	102	85	115				
Cadmium	0.49	0.0020	0.5000	0	98.8	85	115				
Calcium	51	1.0	50.00	0	102	85	115				
Chromium	0.50	0.0060	0.5000	0	99.9	85	115				
Cobalt	0.48	0.0060	0.5000	0	95.8	85	115				
Copper	0.50	0.0060	0.5000	0	99.8	85	115				
Iron	0.50	0.020	0.5000	0	99.4	85	115				
Magnesium	51	1.0	50.00	0	103	85	115				
Manganese	0.48	0.0020	0.5000	0	96.6	85	115				
Nickel	0.48	0.010	0.5000	0	96.5	85	115				
Potassium	50	1.0	50.00	0	100	85	115				
Silver	0.10	0.0050	0.1000	0	102	85	115				
Sodium	51	1.0	50.00	0	101	85	115				
Vanadium	0.50	0.050	0.5000	0	101	85	115				
Zinc	0.48	0.010	0.5000	0	95.8	85	115				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	MB-32693	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	32693	RunNo:	44108					
Prep Date:	7/9/2017	Analysis Date:	7/10/2017	SeqNo:	1391753	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Thallium	ND	0.00050								

Sample ID	MSLCS-32693	SampType:	LCS	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	LCSW	Batch ID:	32693	RunNo:	44108					
Prep Date:	7/9/2017	Analysis Date:	7/10/2017	SeqNo:	1391754	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	99.2	85	115			
Arsenic	0.023	0.0010	0.02500	0	92.1	85	115			
Lead	0.012	0.00050	0.01250	0	95.2	85	115			
Selenium	0.022	0.0010	0.02500	0	89.8	85	115			
Thallium	0.012	0.00050	0.01250	0	95.7	85	115			

Sample ID	MSLLLCS-32693	SampType:	LCSLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID:	32693	RunNo:	44108					
Prep Date:	7/9/2017	Analysis Date:	7/10/2017	SeqNo:	1391755	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.0010	0.0010	0.001000	0	102	50	150			
Arsenic	ND	0.0010	0.001000	0	99.5	50	150			
Lead	ND	0.00050	0.0005001	0	92.3	50	150			
Selenium	ND	0.0010	0.001000	0	93.6	50	150			
Thallium	ND	0.00050	0.0005001	0	94.4	50	150			

Sample ID	1706E83-003ELLMS	SampType:	MSLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	Foothills MW-2	Batch ID:	32693	RunNo:	44225					
Prep Date:	7/9/2017	Analysis Date:	7/14/2017	SeqNo:	1396278	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.027	0.0010	0.02500	0	108	70	130			
Arsenic	0.026	0.0010	0.02500	0.001401	98.7	70	130			
Lead	0.013	0.00050	0.01250	0.0002548	105	70	130			
Selenium	0.023	0.0010	0.02500	0	92.7	70	130			
Thallium	0.013	0.00050	0.01250	0	104	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: mblk		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R43864		RunNo: 43864							
Prep Date:	Analysis Date: 6/28/2017		SeqNo: 1383379		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	ND	0.50								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID LCS	SampType: lcs		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R43864		RunNo: 43864							
Prep Date:	Analysis Date: 6/28/2017		SeqNo: 1383380		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	4.7	0.50	5.000	0	93.5	90	110			
Nitrogen, Nitrate (As N)	2.4	0.10	2.500	0	97.3	90	110			
Sulfate	9.6	0.50	10.00	0	96.0	90	110			

Sample ID 1706E83-001DMS	SampType: ms		TestCode: EPA Method 300.0: Anions							
Client ID: Foothills MW-6	Batch ID: R43864		RunNo: 43864							
Prep Date:	Analysis Date: 6/28/2017		SeqNo: 1383396		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	17	0.50	5.000	11.78	101	80.8	121			
Nitrogen, Nitrate (As N)	5.6	0.10	2.500	3.009	102	85.6	113			

Sample ID 1706E83-001DMSD	SampType: msd		TestCode: EPA Method 300.0: Anions							
Client ID: Foothills MW-6	Batch ID: R43864		RunNo: 43864							
Prep Date:	Analysis Date: 6/28/2017		SeqNo: 1383397		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	17	0.50	5.000	11.78	103	80.8	121	0.513	20	
Nitrogen, Nitrate (As N)	5.6	0.10	2.500	3.009	103	85.6	113	0.341	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-32601	SampType: MBLK		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: PBW	Batch ID: 32601		RunNo: 43960							
Prep Date: 7/1/2017	Analysis Date: 7/1/2017		SeqNo: 1385722		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	0.020								
1,2-Dibromoethane	ND	0.010								

Sample ID LCS-32601	SampType: LCS		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: LCSW	Batch ID: 32601		RunNo: 43960							
Prep Date: 7/1/2017	Analysis Date: 7/1/2017		SeqNo: 1385723		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.092	0.020	0.1000	0	92.0	70	130			
1,2-Dibromoethane	0.091	0.010	0.1000	0	90.8	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID 100ng lcs	SampType: LCS		TestCode: EPA Method 8260B: Volatiles, Table I							
Client ID: LCSW	Batch ID: LF43852		RunNo: 43852							
Prep Date:	Analysis Date: 6/28/2017		SeqNo: 1383259		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	70	130			
Toluene	20	1.0	20.00	0	101	70	130			
Chlorobenzene	21	1.0	20.00	0	103	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	100	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	100	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		106	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		110	70	130			
Surr: Dibromofluoromethane	11		10.00		111	70	130			
Surr: Toluene-d8	11		10.00		109	70	130			

Sample ID rb	SampType: MBLK		TestCode: EPA Method 8260B: Volatiles, Table I							
Client ID: PBW	Batch ID: LF43852		RunNo: 43852							
Prep Date:	Analysis Date: 6/28/2017		SeqNo: 1383262		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
Acetone	ND	10								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	2.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	0.50								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	rb	SampType: MBLK			TestCode: EPA Method 8260B: Volatiles, Table I					
Client ID:	PBW	Batch ID: LF43852			RunNo: 43852					
Prep Date:		Analysis Date: 6/28/2017			SeqNo: 1383262		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	2.5								
Styrene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
Tetrachloroethene (PCE)	ND	0.50								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	1.0								
Vinyl chloride	ND	0.40								
Xylenes, Total	ND	2.0								
Acrylonitrile	ND	10								
Bromochloromethane	ND	2.0								
Iodomethane	ND	10								
trans-1,4-Dichloro-2-butene	ND	10								
Vinyl acetate	ND	10								
Surr: 1,2-Dichloroethane-d4	10		10.00		105	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		109	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	11		10.00		107	70	130			

Sample ID	1706e83-001ams	SampType: MS			TestCode: EPA Method 8260B: Volatiles, Table I					
Client ID:	Foothills MW-6	Batch ID: LF43852			RunNo: 43852					
Prep Date:		Analysis Date: 6/28/2017			SeqNo: 1383278		Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	106	70	130			
Toluene	21	1.0	20.00	0	104	70	130			
Chlorobenzene	21	1.0	20.00	0	106	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	110	70	130			
Trichloroethene (TCE)	21	1.0	20.00	0.5360	101	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		111	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		111	70	130			
Surr: Dibromofluoromethane	11		10.00		113	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	1706e83-001ams	SampType:	MS	TestCode:	EPA Method 8260B: Volatiles, Table I					
Client ID:	Foothills MW-6	Batch ID:	LF43852	RunNo:	43852					
Prep Date:		Analysis Date:	6/28/2017	SeqNo:	1383278	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID	1706e83-001amsd	SampType:	MSD	TestCode:	EPA Method 8260B: Volatiles, Table I					
Client ID:	Foothills MW-6	Batch ID:	LF43852	RunNo:	43852					
Prep Date:		Analysis Date:	6/28/2017	SeqNo:	1383279	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	104	70	130	2.37	20	
Toluene	21	1.0	20.00	0	103	70	130	0.397	20	
Chlorobenzene	21	1.0	20.00	0	106	70	130	0.218	20	
1,1-Dichloroethene	21	1.0	20.00	0	105	70	130	3.85	20	
Trichloroethene (TCE)	21	1.0	20.00	0.5360	102	70	130	0.365	20	
Surr: 1,2-Dichloroethane-d4	12		10.00		115	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		113	70	130	0	0	
Surr: Dibromofluoromethane	12		10.00		115	70	130	0	0	
Surr: Toluene-d8	11		10.00		107	70	130	0	0	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: MBLK		TestCode: EPA Method 9060 TOC							
Client ID: PBW	Batch ID: R43956		RunNo: 43956							
Prep Date:	Analysis Date: 7/1/2017		SeqNo: 1385491		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	1.0								

Sample ID LCS ST9060-16016/	SampType: LCS		TestCode: EPA Method 9060 TOC							
Client ID: LCSW	Batch ID: R43956		RunNo: 43956							
Prep Date:	Analysis Date: 7/1/2017		SeqNo: 1385492		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	4.8	1.0	4.850	0	99.3	90	110			

Sample ID 1706E83-005FMS	SampType: MS		TestCode: EPA Method 9060 TOC							
Client ID: Foothills MW-5	Batch ID: R43956		RunNo: 43956							
Prep Date:	Analysis Date: 7/1/2017		SeqNo: 1385496		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	5.1	1.0	4.650	0.5917	96.6	75	125			

Sample ID 1706E83-005FMSD	SampType: MSD		TestCode: EPA Method 9060 TOC							
Client ID: Foothills MW-5	Batch ID: R43956		RunNo: 43956							
Prep Date:	Analysis Date: 7/1/2017		SeqNo: 1385497		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	5.1	1.0	4.650	0.5917	96.4	75	125	0.118	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	MB-32579	SampType:	MBLK	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	PBW	Batch ID:	32579	RunNo:	43905					
Prep Date:	6/30/2017	Analysis Date:	6/30/2017	SeqNo:	1383952	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	ND	2.5								

Sample ID	LCS-32579	SampType:	LCS	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	LCSW	Batch ID:	32579	RunNo:	43905					
Prep Date:	6/30/2017	Analysis Date:	6/30/2017	SeqNo:	1383953	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	20	2.5	20.00	0	98.6	62.4	146			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	1706e83-003d dup	SampType:	dup	TestCode:	SM2510B: Specific Conductance					
Client ID:	Foothills MW-2	Batch ID:	R44003	RunNo:	44003					
Prep Date:		Analysis Date:	7/3/2017	SeqNo:	1387329	Units:	µmhos/cm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	380	5.0						0.0796	20	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: MBLK		TestCode: SM 4500 NH3: Ammonia							
Client ID: PBW	Batch ID: R44217		RunNo: 44217							
Prep Date:	Analysis Date: 7/13/2017		SeqNo: 1395816		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	1.0								

Sample ID LCS	SampType: LCS		TestCode: SM 4500 NH3: Ammonia							
Client ID: LCSW	Batch ID: R44217		RunNo: 44217							
Prep Date:	Analysis Date: 7/13/2017		SeqNo: 1395817		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	10	1.0	10.00	0	101	80	120			

Sample ID 1706E83-001DMS	SampType: MS		TestCode: SM 4500 NH3: Ammonia							
Client ID: Foothills MW-6	Batch ID: R44217		RunNo: 44217							
Prep Date:	Analysis Date: 7/13/2017		SeqNo: 1395822		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	10	1.0	10.00	0	101	75	125			

Sample ID 1706E83-001DMSD	SampType: MSD		TestCode: SM 4500 NH3: Ammonia							
Client ID: Foothills MW-6	Batch ID: R44217		RunNo: 44217							
Prep Date:	Analysis Date: 7/13/2017		SeqNo: 1395823		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	10	1.0	10.00	0	101	75	125	0	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	1706e83-003d dup	SampType:	dup	TestCode:	SM4500-H+B: pH					
Client ID:	Foothills MW-2	Batch ID:	R44003	RunNo:	44003					
Prep Date:		Analysis Date:	7/3/2017	SeqNo:	1387365	Units:	pH units			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	8.01									H

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID mb-1	SampType: mbk		TestCode: SM2320B: Alkalinity							
Client ID: PBW	Batch ID: R44003		RunNo: 44003							
Prep Date:	Analysis Date: 7/3/2017		SeqNo: 1387252		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID ics-1	SampType: ics		TestCode: SM2320B: Alkalinity							
Client ID: LCSW	Batch ID: R44003		RunNo: 44003							
Prep Date:	Analysis Date: 7/3/2017		SeqNo: 1387253		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	79.00	20.00	80.00	0	98.8	90	110			

Sample ID mb-2	SampType: mbk		TestCode: SM2320B: Alkalinity							
Client ID: PBW	Batch ID: R44003		RunNo: 44003							
Prep Date:	Analysis Date: 7/3/2017		SeqNo: 1387276		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID ics-2	SampType: ics		TestCode: SM2320B: Alkalinity							
Client ID: LCSW	Batch ID: R44003		RunNo: 44003							
Prep Date:	Analysis Date: 7/3/2017		SeqNo: 1387277		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.16	20.00	80.00	0	97.7	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706E83

28-Jul-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-32557	SampType: MBLK		TestCode: SM2540C MOD: Total Dissolved Solids							
Client ID: PBW	Batch ID: 32557		RunNo: 43903							
Prep Date: 6/28/2017	Analysis Date: 6/29/2017		SeqNo: 1383864		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID LCS-32557	SampType: LCS		TestCode: SM2540C MOD: Total Dissolved Solids							
Client ID: LCSW	Batch ID: 32557		RunNo: 43903							
Prep Date: 6/28/2017	Analysis Date: 6/29/2017		SeqNo: 1383865		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	987	20.0	1000	0	98.7	80	120			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |



Hall Environmental Analysis Laboratory
 4901 Hawkins NE
 Albuquerque, NM 87109
 TEL: 505-345-3975 FAX: 505-345-4107
 Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: City of Las Cruces Work Order Number: 1706E83 RcptNo: 1

Received By: Sophia Campuzano 6/28/2017 9:00:00 AM
 Completed By: Ashley Gallegos 6/28/2017 9:54:15 AM
 Reviewed By: *SPC 06/28/17*

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? FedEx

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
 - 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
 - 6. Sample(s) in proper container(s)? Yes No
 - 7. Sufficient sample volume for indicated test(s)? Yes No
 - 8. Are samples (except VOA and ONG) properly preserved? Yes No
 - 9. Was preservative added to bottles? Yes No NA
 - 10. VOA vials have zero headspace? Yes No No VOA Vials
 - 11. Were any sample containers received broken? Yes No
 - 12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes No
 - 13. Are matrices correctly identified on Chain of Custody? Yes No
 - 14. Is it clear what analyses were requested? Yes No
 - 15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes No
- # of preserved bottles checked for pH: **15**
 (≤2 or >12 unless noted)
 Adjusted? **No**
 Checked by: *[Signature]*

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.3	Good	Yes			

Chain-of-Custody Record

Client: City of Las Cruces
Water Quality Laboratory
 Mailing Address: P.O. Box 20000
Las Cruces, N.M. 88004
 Phone #: 575-528-3604
 email or Fax#: (575-528-3630)
 QA/QC Package: Standard Level 4 (Full Validation)
 Standard Other
 Accreditation NELAP Other
 EDD (Type) EXCEL

Turn-Around Time: Standard Rush
 Project Name: Chc Foothills Landfill Closure Monitoring Wells
 Project #: Luis Bryant
POC: Joshua Rosenblatt
 Project Manager: Luis Bryant
lgumar@las-cruces.org
 Sampler: Jadira Rynca
 On Ice: Yes No
 Sample Temperature: 1.3

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. <u>83</u> <u>1706538</u>
1-29-17	0851	Ground Water	Foothills MW-6	Various	Various	-001
1-29-17	0948	Ground Water	Foothills MW-7	Various	Various	-002
1-29-17	1030	Ground Water	Foothills MW-2	Various	Various	-003
1-29-17	1127	Ground Water	Foothills MW-1	Various	Various	-004
1-29-17	1305	Ground Water	Foothills MW-5	Various	Various	-005

Date: 1-29-17 Time: 1500 Relinquished by: Jadira Rynca
 Date: 1-29-17 Time: 0900 Received by: Sophi Cruz



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com
 4901 Hawkins NE - Albuquerque, NM 87109
 Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Water: Reduced Parameters (list)	Air Bubbles (Y or N)

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
acetone	67-64-1	8260B	-	0.01	0.0195	-	mg/L	y
acrylonitrile	107-13-1	8260B	-	0.1	0.195	-	mg/L	y
benzene	71-43-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
bromochloromethane	74-97-5	8260B	-	0.001	0.00195	-	mg/L	y
bromodichloromethane	75-27-4	8260B	-	0.005	0.00975	-	mg/L	y
bromoform	75-25-2	8260B	-	0.015	0.02925	-	mg/L	y
carbon disulfide	75-15-0	8260B	-	0.001	0.00195	-	mg/L	y
carbon tetrachloride	56-23-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
chlorobenzene	108-90-7	8260B	0.1	0.005	0.05	0.075	mg/L	y
chloroethane	75-00-3	8260B	-	0.01	0.0195	-	mg/L	y
chloroform	67-66-3	8260B	0.1	0.005	0.05	0.75	mg/L	y
dibromochloromethane	124-48-1	8260B	-	0.005	0.00975	-	mg/L	y
1,2-dibromo-3-chloropropane	96-12-8	504.1	0.0002	0.0001	0.0001	0.00015	mg/L	y
1,2-dichlorobenzene	95-50-1	8260B	0.06	0.01	0.03	0.045	mg/L	y
1,3-dichlorobenzene	541-73-1	8260B	-	0.01	0.0195	-	mg/L	n
1,4-dichlorobenzene	106-46-7	8260B	0.075	0.015	0.0375	0.5625	mg/L	y
trans-1,4-dichloro-2-butene	110-57-6	8260B	-	0.001	0.00195	-	mg/L	y
dichlorodifluoromethane	75-71-8	8260B	-	0.005	0.00975	-	mg/L	n
1,1-dichloroethane	75-34-3	8260B	0.025	0.005	0.0125	0.01875	mg/L	y
1,2-dichloroethane (EDC)	107-06-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
1,1-dichloroethylene (1,1-DCE)	75-35-4	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
cis-1,2-dichloroethylene	156-59-2	8260B	0.07	0.005	0.035	0.0525	mg/L	y
trans-1,2- dichloroethylene	156-60-5	8260B	0.1	0.005	0.05	0.075	mg/L	y
1,2-dichloropropane	78-87-5	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y
cis-1,3-dichloropropene	10061-01-5	8260B	-	0.02	0.039	-	mg/L	y
trans-1,3- dichloropropene	10061-02-6	8260B	-	0.01	0.0195	-	mg/L	y
ethylbenzene	100-41-4	8260B	0.7	0.01	0.35	0.525	mg/L	y
ethylene dibromide (EDB)	106-93-4	504.1	0.00005	0.000025	0.000025	0.000038	mg/L	y
2-hexanone	591-78-6	8260B	-	0.04	0.078	-	mg/L	y
methyl bromide	74-83-9	8260B	-	0.01	0.0195	-	mg/L	y
methyl chloride	74-87-3	8260B	-	0.001	0.00195	-	mg/L	y
methyl ethyl ketone	78-93-3	8260B	-	0.01	0.0195	-	mg/L	y
methyl iodide	74-88-4	8260B	-	0.05	0.0975	-	mg/L	y
4-methyl-2-pentanone	108-10-1	8260B	-	0.001	0.00195	-	mg/L	y
methylene bromide	74-95-3	8260B	-	0.001	0.00195	-	mg/L	y
methylene chloride	74-87-3	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
styrene	100-42-5	8260B	0.1	0.001	0.05	0.075	mg/L	y
1,1,1,2- tetrachloroethane	630-20-6	8260B	-	0.001	0.00195	-	mg/L	y
1,1,2,2- tetrachloroethane	79-34-5	8260B	0.01	0.005	0.005	0.0075	mg/L	y
tetrachloroethylene (PCE)	127-18-4	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells
MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
toluene	108-88-3	8260B	0.75	0.001	0.375	0.5625	mg/L	y
1,1,1-trichloroethane	71-55-6	8260B	0.06	0.005	0.03	0.045	mg/L	y
1,1,2-trichloroethane	79-00-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
trichloroethylene (TCE)	79-01-6	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
trichlorofluoromethane	75-69-4	8260B	-	0.01	0.0195	-	mg/L	y
1,2,3-trichloropropane	96-18-4	8260B	-	0.05	0.0975	-	mg/L	y
vinyl acetate	108-05-4	8260B	-	0.0004	0.00078	-	mg/L	y
vinyl chloride	75-01-4	8260B	0.001	0.0004	0.0005	0.00075	mg/L	y
xylenes	1330-20-7	8260B	0.62	0.0015	0.31	0.465	mg/L	y
ammonia as (N)	N/A	SM 4500 NH3	-	0.5	-	-	mg/L	n
nitrate (as N)	N/A	300.0	10	1.0	5.0	7.5	mg/L	n
chloride	16887-00-6	300.0	250	5.0	187.5	250	mg/L	n
sulfate	14808-79-8	300.0	250	5.0	187.5	250	mg/L	n
total dissolved solids	N/A	SM 2540C	500	5.0	-	-	mg/L	n
carbonate alkalinity	3812-32-6	SM 2320B	-	10	-	-	mg/L	n
bicarbonate alkalinity	71-52-3	SM 2320B	-	10	-	-	mg/L	n
total phenolics	N/A	9067	0.005	0.0025	0.0025	0.00375	mg/L	n
total organic carbon	N/A	9060	-	1	-	-	mg/L	n
barium (total)	7440-39-3	6010B	1	0.01	0.5	0.75	mg/L	y
beryllium (total)	7440-41-7	6010B	0.004	0.002	0.002	0.003	mg/L	y
cadmium (total)	7440-43-9	6010B	0.005	0.002	0.0025	0.00375	mg/L	y
calcium (total)	7440-70-2	6010B	-	1	-	-	mg/L	n
chromium (total)	7440-47-3	6010B	0.05	0.006	0.025	0.0375	mg/L	y
cobalt (total)	7440-48-4	6010B	0.05	0.006	0.025	0.0375	mg/L	y
copper (total)	7440-50-8	6010B	1	0.006	0.5	0.75	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (concluded)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
iron (total)	7439-89-6	6010B	0.3	0.1	0.225	0.3	mg/L	n
lead (total)	7439-92-1	6010B	0.05	0.005	0.025	0.0375	mg/L	y
magnesium (total)	7439-95-4	6010B	-	1	-	-	mg/L	n
manganese (total)	7439-96-5	6010B	0.05	0.03	0.0375	0.05	mg/L	n
nickel (total)	7440-02-0	6010B	0.2	0.01	0.1	0.15	mg/L	y
potassium (total)	7440-09-7	6010B	-	1	-	-	mg/L	n
silver (total)	7440-22-4	6010B	0.05	0.005	0.025	0.0375	mg/L	y
sodium (total)	7440-23-5	6010B	-	1	-	-	mg/L	n
vanadium (total)	7440-62-2	6010B	-	0.05	-	-	mg/L	y
zinc (total)	7440-66-6	6010B	5	0.02	2.5	3.75	mg/L	y
antimony (total)	7440-36-0	6020	0.006	0.001	0.003	0.0045	mg/L	y
arsenic (total)	7440-38-2	6020	0.01	0.004	0.005	0.0075	mg/L	y
selenium (total)	7782-49-2	6020	0.05	0.001	0.025	0.0375	mg/L	y
thallium (total)	7440-28-0	6020	0.002	0.001	0.001	0.0015	mg/L	y
pH	N/A	SM4500	6.5-8.5	+/- 0.1	-	-	S.U.	n
specific conductance	N/A	120.1	-	+/- 25	-	-	µS/cm	n
temperature	N/A	field	-	+/- 0.5	-	-	°F	n
water level elevation	N/A	field	-	+/- 0.01	-	-	ft	n

GWPS - ground water protection standard

PQL - practical quantitation limit

AML - assessment monitoring level

CAL - corrective action level

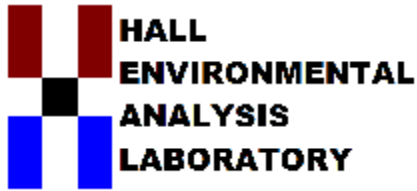
mg/L - milligrams per liter

µS/cm - microSiemens per centimeter

S.U. - standard pH units

°F - degrees Fahrenheit

ft - feet



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

August 10, 2017

Luis Guerra

City of Las Cruces

PO Box 20000

Las Cruces, NM 88004

TEL: (575) 528-3635

FAX (575) 528-3513

RE: CLC Foothills Landfill Closure Monitoring Wells

OrderNo.: 1706F45

Dear Luis Guerra:

Hall Environmental Analysis Laboratory received 2 sample(s) on 6/29/2017 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued July 24, 2017.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a white background.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706F45

Date Reported: 8/10/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-9

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/28/2017 10:20:00 AM

Lab ID: 1706F45-001

Matrix: AQUEOUS

Received Date: 6/29/2017 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 9060 TOC							Analyst: MAB
Total Organic Carbon	2.6	1.0		mg/L	1	6/30/2017 2:05:37 PM	R43945
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	250	10		mg/L	20	7/19/2017 10:07:04 AM	R44336
Sulfate	130	10		mg/L	20	6/29/2017 7:39:25 PM	R43889
Nitrate+Nitrite as N	ND	1.0		mg/L	5	7/19/2017 10:31:53 AM	R44336
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	1800	5.0		µmhos/cm	1	7/3/2017 2:07:43 PM	R44003
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	401.9	20.00		mg/L CaCO3	1	7/3/2017 2:07:43 PM	R44003
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	7/3/2017 2:07:43 PM	R44003
Total Alkalinity (as CaCO3)	401.9	20.00		mg/L CaCO3	1	7/3/2017 2:07:43 PM	R44003
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	1110	20.0	*	mg/L	1	7/2/2017 2:34:00 PM	32575
SM 4500 NH3: AMMONIA							Analyst: CJS
Nitrogen, Ammonia	ND	1.0		mg/L	1	7/5/2017 3:00:00 PM	R44016
SM4500-H+B: PH							Analyst: JRR
pH	7.33		H	pH units	1	7/3/2017 2:07:43 PM	R44003
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.050	0.0020		mg/L	1	7/11/2017 10:34:34 AM	32720
Beryllium	ND	0.0020		mg/L	1	7/11/2017 10:34:34 AM	32720
Cadmium	ND	0.0020		mg/L	1	7/11/2017 10:34:34 AM	32720
Calcium	68	1.0		mg/L	1	7/11/2017 10:34:34 AM	32720
Chromium	0.0093	0.0060		mg/L	1	7/11/2017 10:34:34 AM	32720
Cobalt	ND	0.0060		mg/L	1	7/11/2017 10:34:34 AM	32720
Copper	ND	0.0060		mg/L	1	7/11/2017 10:34:34 AM	32720
Iron	0.31	0.020	*	mg/L	1	7/11/2017 10:34:34 AM	32720
Magnesium	14	1.0		mg/L	1	7/11/2017 10:34:34 AM	32720
Manganese	0.047	0.0020		mg/L	1	7/11/2017 10:34:34 AM	32720
Nickel	0.17	0.010	*	mg/L	1	7/11/2017 10:34:34 AM	32720
Potassium	33	1.0		mg/L	1	7/11/2017 10:34:34 AM	32720
Silver	ND	0.0050		mg/L	1	7/11/2017 10:34:34 AM	32720
Sodium	260	10		mg/L	10	7/11/2017 10:36:29 AM	32720
Vanadium	ND	0.050		mg/L	1	7/11/2017 10:34:34 AM	32720
Zinc	0.038	0.010		mg/L	1	7/11/2017 10:34:34 AM	32720
200.8 ICPMS METALS:TOTAL							Analyst: ELS

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706F45

Date Reported: 8/10/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-9

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/28/2017 10:20:00 AM

Lab ID: 1706F45-001

Matrix: AQUEOUS

Received Date: 6/29/2017 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: ELS
Antimony	ND	0.0010		mg/L	1	7/18/2017 11:00:15 AM	32720
Arsenic	ND	0.0010		mg/L	1	7/18/2017 11:00:15 AM	32720
Lead	ND	0.00050		mg/L	1	7/18/2017 11:00:15 AM	32720
Selenium	0.0012	0.0010		mg/L	1	7/18/2017 11:00:15 AM	32720
Thallium	ND	0.00050		mg/L	1	7/18/2017 11:00:15 AM	32720
EPA METHOD 8011/504.1: EDB							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	7/1/2017 2:33:40 PM	32600
1,2-Dibromoethane	ND	0.0094		µg/L	1	7/1/2017 2:33:40 PM	32600
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Toluene	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Ethylbenzene	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Acetone	ND	10		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Bromodichloromethane	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Bromoform	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Bromomethane	ND	2.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
2-Butanone	ND	10		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Carbon disulfide	ND	10		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Carbon Tetrachloride	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Chlorobenzene	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Chloroethane	ND	2.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Chloroform	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Chloromethane	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
cis-1,2-DCE	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Dibromochloromethane	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Dibromomethane	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Dichlorodifluoromethane	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
1,1-Dichloroethane	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
1,1-Dichloroethene	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
1,2-Dichloropropane	ND	0.50		µg/L	1	6/29/2017 6:57:00 PM	LF43892
2-Hexanone	ND	10		µg/L	1	6/29/2017 6:57:00 PM	LF43892
4-Methyl-2-pentanone	ND	10		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Methylene Chloride	ND	2.5		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Styrene	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706F45

Date Reported: 8/10/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-9

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/28/2017 10:20:00 AM

Lab ID: 1706F45-001

Matrix: AQUEOUS

Received Date: 6/29/2017 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Tetrachloroethene (PCE)	ND	0.50		µg/L	1	6/29/2017 6:57:00 PM	LF43892
trans-1,2-DCE	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Trichloroethene (TCE)	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Trichlorofluoromethane	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
1,2,3-Trichloropropane	ND	1.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Vinyl chloride	ND	0.40		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Xylenes, Total	ND	2.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Acrylonitrile	ND	10		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Bromochloromethane	ND	2.0		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Iodomethane	ND	10		µg/L	1	6/29/2017 6:57:00 PM	LF43892
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Vinyl acetate	ND	10		µg/L	1	6/29/2017 6:57:00 PM	LF43892
Surr: 1,2-Dichloroethane-d4	109	70-130		%Rec	1	6/29/2017 6:57:00 PM	LF43892
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	6/29/2017 6:57:00 PM	LF43892
Surr: Dibromofluoromethane	111	70-130		%Rec	1	6/29/2017 6:57:00 PM	LF43892
Surr: Toluene-d8	102	70-130		%Rec	1	6/29/2017 6:57:00 PM	LF43892
TOTAL PHENOLICS BY SW-846 9067							Analyst: SCC
Phenolics	ND	2.5		µg/L	1	6/30/2017	32579

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706F45

Date Reported: 8/10/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-4

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/28/2017 12:11:00 PM

Lab ID: 1706F45-002

Matrix: AQUEOUS

Received Date: 6/29/2017 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 9060 TOC							Analyst: MAB
Total Organic Carbon	ND	1.0		mg/L	1	6/30/2017 3:10:06 PM	R43945
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	6.5	0.50		mg/L	1	7/19/2017 10:19:29 AM	R44336
Nitrogen, Nitrate (As N)	0.99	0.10		mg/L	1	6/29/2017 8:16:39 PM	R43889
Sulfate	33	0.50		mg/L	1	6/29/2017 8:16:39 PM	R43889
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	720	5.0		µmhos/cm	1	7/3/2017 2:25:49 PM	R44003
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	350.8	20.00		mg/L CaCO3	1	7/3/2017 2:25:49 PM	R44003
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	7/3/2017 2:25:49 PM	R44003
Total Alkalinity (as CaCO3)	350.8	20.00		mg/L CaCO3	1	7/3/2017 2:25:49 PM	R44003
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	466	20.0		mg/L	1	7/2/2017 2:34:00 PM	32575
SM 4500 NH3: AMMONIA							Analyst: CJS
Nitrogen, Ammonia	ND	1.0		mg/L	1	7/5/2017 3:00:00 PM	R44016
SM4500-H+B: PH							Analyst: JRR
pH	7.15		H	pH units	1	7/3/2017 2:25:49 PM	R44003
EPA METHOD 200.7: TOTAL METALS							Analyst: ELS
Barium	0.091	0.0020		mg/L	1	7/11/2017 10:38:37 AM	32720
Beryllium	ND	0.0020		mg/L	1	7/11/2017 10:38:37 AM	32720
Cadmium	ND	0.0020		mg/L	1	7/11/2017 10:38:37 AM	32720
Calcium	110	10		mg/L	10	7/11/2017 10:40:34 AM	32720
Chromium	ND	0.0060		mg/L	1	7/11/2017 10:38:37 AM	32720
Cobalt	ND	0.0060		mg/L	1	7/11/2017 10:38:37 AM	32720
Copper	0.017	0.0060		mg/L	1	7/11/2017 10:38:37 AM	32720
Iron	ND	0.020		mg/L	1	7/11/2017 10:38:37 AM	32720
Magnesium	15	1.0		mg/L	1	7/11/2017 10:38:37 AM	32720
Manganese	ND	0.0020		mg/L	1	7/11/2017 10:38:37 AM	32720
Nickel	ND	0.010		mg/L	1	7/11/2017 10:38:37 AM	32720
Potassium	2.7	1.0		mg/L	1	7/11/2017 10:38:37 AM	32720
Silver	ND	0.0050		mg/L	1	7/11/2017 10:38:37 AM	32720
Sodium	31	1.0		mg/L	1	7/11/2017 10:38:37 AM	32720
Vanadium	ND	0.050		mg/L	1	7/11/2017 10:38:37 AM	32720
Zinc	0.015	0.010		mg/L	1	7/11/2017 10:38:37 AM	32720
200.8 ICPMS METALS:TOTAL							Analyst: ELS

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706F45

Date Reported: 8/10/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-4

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/28/2017 12:11:00 PM

Lab ID: 1706F45-002

Matrix: AQUEOUS

Received Date: 6/29/2017 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: ELS
Antimony	ND	0.0010		mg/L	1	7/18/2017 11:05:24 AM	32720
Arsenic	ND	0.0010		mg/L	1	7/18/2017 11:05:24 AM	32720
Lead	0.0012	0.00050		mg/L	1	7/18/2017 11:05:24 AM	32720
Selenium	ND	0.0010		mg/L	1	7/18/2017 11:05:24 AM	32720
Thallium	ND	0.00050		mg/L	1	7/18/2017 11:05:24 AM	32720
EPA METHOD 8011/504.1: EDB							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.018		µg/L	1	7/1/2017 3:34:38 PM	32600
1,2-Dibromoethane	ND	0.0092		µg/L	1	7/1/2017 3:34:38 PM	32600
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
Benzene	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Toluene	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Ethylbenzene	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Acetone	ND	10		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Bromodichloromethane	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Bromoform	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Bromomethane	ND	2.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
2-Butanone	ND	10		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Carbon disulfide	ND	10		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Carbon Tetrachloride	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Chlorobenzene	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Chloroethane	ND	2.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Chloroform	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Chloromethane	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
cis-1,2-DCE	2.3	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Dibromochloromethane	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Dibromomethane	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
1,2-Dichlorobenzene	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
1,4-Dichlorobenzene	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Dichlorodifluoromethane	3.9	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
1,1-Dichloroethane	4.0	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
1,1-Dichloroethene	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
1,2-Dichloropropane	ND	0.50		µg/L	1	6/29/2017 7:21:00 PM	LF43892
2-Hexanone	ND	10		µg/L	1	6/29/2017 7:21:00 PM	LF43892
4-Methyl-2-pentanone	ND	10		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Methylene Chloride	14	2.5		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Styrene	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1706F45

Date Reported: 8/10/2017

CLIENT: City of Las Cruces

Client Sample ID: Foothills MW-4

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 6/28/2017 12:11:00 PM

Lab ID: 1706F45-002

Matrix: AQUEOUS

Received Date: 6/29/2017 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Tetrachloroethene (PCE)	9.7	0.50		µg/L	1	6/29/2017 7:21:00 PM	LF43892
trans-1,2-DCE	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
1,1,1-Trichloroethane	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
1,1,2-Trichloroethane	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Trichloroethene (TCE)	3.1	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Trichlorofluoromethane	1.3	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
1,2,3-Trichloropropane	ND	1.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Vinyl chloride	ND	0.40		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Xylenes, Total	ND	2.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Acrylonitrile	ND	10		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Bromochloromethane	ND	2.0		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Iodomethane	ND	10		µg/L	1	6/29/2017 7:21:00 PM	LF43892
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Vinyl acetate	ND	10		µg/L	1	6/29/2017 7:21:00 PM	LF43892
Surr: 1,2-Dichloroethane-d4	113	70-130		%Rec	1	6/29/2017 7:21:00 PM	LF43892
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	6/29/2017 7:21:00 PM	LF43892
Surr: Dibromofluoromethane	108	70-130		%Rec	1	6/29/2017 7:21:00 PM	LF43892
Surr: Toluene-d8	104	70-130		%Rec	1	6/29/2017 7:21:00 PM	LF43892
TOTAL PHENOLICS BY SW-846 9067							Analyst: SCC
Phenolics	ND	2.5		µg/L	1	6/30/2017	32579

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-32720	SampType: MBLK	TestCode: EPA Method 200.7: Total Metals
Client ID: PBW	Batch ID: 32720	RunNo: 44105
Prep Date: 7/10/2017	Analysis Date: 7/11/2017	SeqNo: 1393882 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID LLCS-32720	SampType: LCSLL	TestCode: EPA Method 200.7: Total Metals
Client ID: BatchQC	Batch ID: 32720	RunNo: 44105
Prep Date: 7/10/2017	Analysis Date: 7/11/2017	SeqNo: 1393883 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0021	0.0020	0.002000	0	103	50	150			
Beryllium	0.0022	0.0020	0.002000	0	108	50	150			
Cadmium	ND	0.0020	0.002000	0	92.5	50	150			
Calcium	ND	1.0	0.5000	0	105	50	150			
Chromium	0.0073	0.0060	0.006000	0	122	50	150			
Cobalt	0.0063	0.0060	0.006000	0	105	50	150			
Copper	0.0064	0.0060	0.006000	0	106	50	150			
Iron	0.025	0.020	0.02000	0	124	50	150			
Magnesium	ND	1.0	0.5000	0	105	50	150			
Manganese	ND	0.0020	0.002000	0	96.0	50	150			
Nickel	ND	0.010	0.005000	0	110	50	150			
Potassium	ND	1.0	0.5000	0	101	50	150			
Silver	0.0052	0.0050	0.005000	0	105	50	150			
Sodium	ND	1.0	0.5000	0	103	50	150			
Vanadium	ND	0.050	0.01000	0	100	50	150			
Zinc	ND	0.010	0.005000	0	118	50	150			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	LCS-32720		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals				
Client ID:	LCSW		Batch ID:	32720		RunNo:	44105				
Prep Date:	7/10/2017		Analysis Date:	7/11/2017		SeqNo:	1393884		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Barium	0.49	0.0020	0.5000	0	98.6	85	115				
Beryllium	0.50	0.0020	0.5000	0	101	85	115				
Cadmium	0.48	0.0020	0.5000	0	96.8	85	115				
Calcium	51	1.0	50.00	0	102	85	115				
Chromium	0.49	0.0060	0.5000	0	98.8	85	115				
Cobalt	0.47	0.0060	0.5000	0	94.6	85	115				
Copper	0.49	0.0060	0.5000	0	98.2	85	115				
Iron	0.50	0.020	0.5000	0	101	85	115				
Magnesium	51	1.0	50.00	0	101	85	115				
Manganese	0.48	0.0020	0.5000	0	96.4	85	115				
Nickel	0.47	0.010	0.5000	0	94.6	85	115				
Potassium	49	1.0	50.00	0	98.8	85	115				
Silver	0.098	0.0050	0.1000	0	97.5	85	115				
Sodium	50	1.0	50.00	0	99.9	85	115				
Vanadium	0.50	0.050	0.5000	0	99.6	85	115				
Zinc	0.48	0.010	0.5000	0	96.3	85	115				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	MB-32720	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	32720	RunNo:	44293					
Prep Date:	7/10/2017	Analysis Date:	7/18/2017	SeqNo:	1398746	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Thallium	ND	0.00050								

Sample ID	MSLCS-32720	SampType:	LCS	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	LCSW	Batch ID:	32720	RunNo:	44293					
Prep Date:	7/10/2017	Analysis Date:	7/18/2017	SeqNo:	1398748	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.027	0.0010	0.02500	0	108	85	115			
Arsenic	0.023	0.0010	0.02500	0	92.3	85	115			
Lead	0.012	0.00050	0.01250	0	97.7	85	115			
Selenium	0.023	0.0010	0.02500	0	90.0	85	115			
Thallium	0.012	0.00050	0.01250	0	97.5	85	115			

Sample ID	MSLLCS-32720	SampType:	LCSLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID:	32720	RunNo:	44293					
Prep Date:	7/10/2017	Analysis Date:	7/18/2017	SeqNo:	1398750	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010	0.001000	0	90.5	50	150			
Arsenic	ND	0.0010	0.001000	0	91.9	50	150			
Lead	ND	0.00050	0.0005001	0	96.1	50	150			
Selenium	0.0010	0.0010	0.001000	0	104	50	150			
Thallium	ND	0.00050	0.0005001	0	96.7	50	150			

Sample ID	1706F45-002FLLMS	SampType:	MSDLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	Foothills MW-4	Batch ID:	32720	RunNo:	44293					
Prep Date:	7/10/2017	Analysis Date:	7/18/2017	SeqNo:	1398814	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.027	0.0010	0.02500	0	108	70	130			
Arsenic	0.025	0.0010	0.02500	0.0005507	97.0	70	130			
Lead	0.014	0.00050	0.01250	0.001201	101	70	130			
Selenium	0.023	0.0010	0.02500	0	91.5	70	130			
Thallium	0.013	0.00050	0.01250	0	102	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	1706F45-002FLLMS	SampType:	MSLL		TestCode:	200.8 ICPMS Metals:Total				
Client ID:	Foothills MW-4	Batch ID:	32720		RunNo:	44293				
Prep Date:	7/10/2017	Analysis Date:	7/18/2017		SeqNo:	1398815	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.027	0.0010	0.02500	0	108	70	130			
Arsenic	0.025	0.0010	0.02500	0.0005507	97.4	70	130			
Lead	0.014	0.00050	0.01250	0.001201	101	70	130			
Selenium	0.023	0.0010	0.02500	0	92.5	70	130			
Thallium	0.013	0.00050	0.01250	0	102	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: mblk		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R43889		RunNo: 43889							
Prep Date:	Analysis Date: 6/29/2017		SeqNo: 1384595		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID LCS	SampType: lcs		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R43889		RunNo: 43889							
Prep Date:	Analysis Date: 6/29/2017		SeqNo: 1384596		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	2.3	0.10	2.500	0	93.0	90	110			
Sulfate	9.1	0.50	10.00	0	91.2	90	110			

Sample ID 1706F45-001EMS	SampType: ms		TestCode: EPA Method 300.0: Anions							
Client ID: Foothills MW-9	Batch ID: R43889		RunNo: 43889							
Prep Date:	Analysis Date: 6/29/2017		SeqNo: 1384600		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	2.7	0.10	2.500	0	108	85.6	113			

Sample ID 1706F45-001EMSD	SampType: msd		TestCode: EPA Method 300.0: Anions							
Client ID: Foothills MW-9	Batch ID: R43889		RunNo: 43889							
Prep Date:	Analysis Date: 6/29/2017		SeqNo: 1384601		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	2.7	0.10	2.500	0	108	85.6	113	0.711	20	

Sample ID MB	SampType: mblk		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R44336		RunNo: 44336							
Prep Date:	Analysis Date: 7/19/2017		SeqNo: 1400722		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: lcs		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R44336		RunNo: 44336							
Prep Date:	Analysis Date: 7/19/2017		SeqNo: 1400723		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.2	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	96.4	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-32600	SampType: MBLK		TestCode: EPA Method 8011/504.1: EDB							
Client ID: PBW	Batch ID: 32600		RunNo: 43960							
Prep Date: 7/1/2017	Analysis Date: 7/1/2017		SeqNo: 1385713	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	0.020								
1,2-Dibromoethane	ND	0.010								

Sample ID LCS-32600	SampType: LCS		TestCode: EPA Method 8011/504.1: EDB							
Client ID: LCSW	Batch ID: 32600		RunNo: 43960							
Prep Date: 7/1/2017	Analysis Date: 7/1/2017		SeqNo: 1385714	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.092	0.020	0.1000	0	91.7	70	130			
1,2-Dibromoethane	0.091	0.010	0.1000	0	90.8	70	130			

Sample ID 1706F45-001BMS	SampType: MS		TestCode: EPA Method 8011/504.1: EDB							
Client ID: Foothills MW-9	Batch ID: 32600		RunNo: 43960							
Prep Date: 7/1/2017	Analysis Date: 7/1/2017		SeqNo: 1385719	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.087	0.019	0.09409	0	92.7	70	130			
1,2-Dibromoethane	0.084	0.0094	0.09409	0	89.5	57.7	132			

Sample ID 1706F45-001BMSD	SampType: MSD		TestCode: EPA Method 8011/504.1: EDB							
Client ID: Foothills MW-9	Batch ID: 32600		RunNo: 43960							
Prep Date: 7/1/2017	Analysis Date: 7/1/2017		SeqNo: 1385720	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.084	0.019	0.09309	0	90.7	70	130	3.28	20	
1,2-Dibromoethane	0.082	0.0093	0.09309	0	88.2	57.7	132	2.51	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	RB	SampType:	MBLK		TestCode:	EPA Method 8260B: Volatiles, Table I				
Client ID:	PBW	Batch ID:	LF43892		RunNo:	43892				
Prep Date:		Analysis Date:	6/29/2017		SeqNo:	1384415	Units:	µg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
Acetone	ND	10								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	2.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	0.50								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	2.5								
Styrene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
Tetrachloroethene (PCE)	ND	0.50								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	1.0								
Vinyl chloride	ND	0.40								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	RB	SampType: MBLK		TestCode: EPA Method 8260B: Volatiles, Table I						
Client ID:	PBW	Batch ID: LF43892		RunNo: 43892						
Prep Date:		Analysis Date: 6/29/2017		SeqNo: 1384415		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	ND	2.0								
Acrylonitrile	ND	10								
Bromochloromethane	ND	2.0								
Iodomethane	ND	10								
trans-1,4-Dichloro-2-butene	ND	10								
Vinyl acetate	ND	10								
Surr: 1,2-Dichloroethane-d4	11		10.00		106	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		109	70	130			
Surr: Dibromofluoromethane	11		10.00		110	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID	100ng lcs	SampType: LCS		TestCode: EPA Method 8260B: Volatiles, Table I						
Client ID:	LCSW	Batch ID: LF43892		RunNo: 43892						
Prep Date:		Analysis Date: 6/29/2017		SeqNo: 1384421		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.4	70	130			
Toluene	20	1.0	20.00	0	98.6	70	130			
Ethylbenzene	20	1.0	20.00	0	98.6	70	130			
1,2-Dichloroethane (EDC)	20	1.0	20.00	0	98.6	70	130			
Acetone	43	10	40.00	0	108	70	130			
Bromodichloromethane	20	1.0	20.00	0	102	70	130			
Bromoform	19	1.0	20.00	0	96.7	70	130			
Bromomethane	18	2.0	20.00	0	87.8	70	130			
2-Butanone	47	10	40.00	0	117	70	130			
Carbon disulfide	37	10	40.00	0	91.6	70	130			
Carbon Tetrachloride	20	1.0	20.00	0	98.0	70	130			
Chlorobenzene	20	1.0	20.00	0	100	70	130			
Chloroethane	19	2.0	20.00	0	96.3	70	130			
Chloroform	20	1.0	20.00	0	102	70	130			
Chloromethane	17	1.0	20.00	0	82.9	70	130			
cis-1,2-DCE	20	1.0	20.00	0	99.5	70	130			
cis-1,3-Dichloropropene	18	1.0	20.00	0	91.1	70	130			
Dibromochloromethane	19	1.0	20.00	0	93.0	70	130			
Dibromomethane	20	1.0	20.00	0	99.6	70	130			
1,2-Dichlorobenzene	20	1.0	20.00	0	98.4	70	130			
1,4-Dichlorobenzene	20	1.0	20.00	0	98.9	70	130			
1,1-Dichloroethane	20	1.0	20.00	0	97.6	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	95.3	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: Volatiles, Table I					
Client ID:	LCSW	Batch ID:	LF43892	RunNo:	43892					
Prep Date:		Analysis Date:	6/29/2017	SeqNo:	1384421	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dichloropropane	20	0.50	20.00	0	98.3	70	130			
2-Hexanone	38	10	40.00	0	94.0	70	130			
4-Methyl-2-pentanone	39	10	40.00	0	97.1	70	130			
Methylene Chloride	20	2.5	20.00	0	98.2	70	130			
Styrene	20	1.0	20.00	0	99.0	70	130			
1,1,1,2-Tetrachloroethane	19	1.0	20.00	0	96.6	70	130			
1,1,2,2-Tetrachloroethane	21	1.0	20.00	0	104	70	130			
Tetrachloroethene (PCE)	20	0.50	20.00	0	101	70	130			
trans-1,2-DCE	19	1.0	20.00	0	96.5	70	130			
trans-1,3-Dichloropropene	18	1.0	20.00	0	91.4	70	130			
1,1,1-Trichloroethane	20	1.0	20.00	0	98.9	70	130			
1,1,2-Trichloroethane	19	1.0	20.00	0	96.0	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	98.2	70	130			
Trichlorofluoromethane	20	1.0	20.00	0	100	70	130			
1,2,3-Trichloropropane	20	1.0	20.00	0	101	70	130			
Vinyl chloride	18	0.40	20.00	0	90.8	70	130			
Xylenes, Total	60	2.0	60.00	0	99.7	70	130			
Acrylonitrile	20	10	20.00	0	102	60	140			
Bromochloromethane	20	2.0	20.00	0	102	70	130			
Iodomethane	38	10	40.00	0	95.3	60	140			
trans-1,4-Dichloro-2-butene	26	10	20.00	0	131	60	140			
Surr: 1,2-Dichloroethane-d4	10		10.00		105	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	11		10.00		107	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: MBLK		TestCode: EPA Method 9060 TOC							
Client ID: PBW	Batch ID: R43945		RunNo: 43945							
Prep Date:	Analysis Date: 6/30/2017		SeqNo: 1385270		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	1.0								

Sample ID LCS ST9060-16016/	SampType: LCS		TestCode: EPA Method 9060 TOC							
Client ID: LCSW	Batch ID: R43945		RunNo: 43945							
Prep Date:	Analysis Date: 6/30/2017		SeqNo: 1385271		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	4.7	1.0	4.850	0	96.9	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-32579	SampType: MBLK		TestCode: Total Phenolics by SW-846 9067							
Client ID: PBW	Batch ID: 32579		RunNo: 43905							
Prep Date: 6/30/2017	Analysis Date: 6/30/2017		SeqNo: 1383952	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	ND	2.5								

Sample ID LCS-32579	SampType: LCS		TestCode: Total Phenolics by SW-846 9067							
Client ID: LCSW	Batch ID: 32579		RunNo: 43905							
Prep Date: 6/30/2017	Analysis Date: 6/30/2017		SeqNo: 1383953	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	20	2.5	20.00	0	98.6	62.4	146			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: MBLK		TestCode: SM 4500 NH3: Ammonia							
Client ID: PBW	Batch ID: R44016		RunNo: 44016							
Prep Date:	Analysis Date: 7/5/2017		SeqNo: 1387918		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	1.0								

Sample ID LCS	SampType: LCS		TestCode: SM 4500 NH3: Ammonia							
Client ID: LCSW	Batch ID: R44016		RunNo: 44016							
Prep Date:	Analysis Date: 7/5/2017		SeqNo: 1387919		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	9.9	1.0	10.00	0	99.4	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID mb-1	SampType: mblk		TestCode: SM2320B: Alkalinity							
Client ID: PBW	Batch ID: R44003		RunNo: 44003							
Prep Date:	Analysis Date: 7/3/2017		SeqNo: 1387252		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID ics-1	SampType: ics		TestCode: SM2320B: Alkalinity							
Client ID: LCSW	Batch ID: R44003		RunNo: 44003							
Prep Date:	Analysis Date: 7/3/2017		SeqNo: 1387253		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	79.00	20.00	80.00	0	98.8	90	110			

Sample ID mb-2	SampType: mblk		TestCode: SM2320B: Alkalinity							
Client ID: PBW	Batch ID: R44003		RunNo: 44003							
Prep Date:	Analysis Date: 7/3/2017		SeqNo: 1387276		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID ics-2	SampType: ics		TestCode: SM2320B: Alkalinity							
Client ID: LCSW	Batch ID: R44003		RunNo: 44003							
Prep Date:	Analysis Date: 7/3/2017		SeqNo: 1387277		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.16	20.00	80.00	0	97.7	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1706F45

11-Aug-17

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-32575	SampType: MBLK	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: PBW	Batch ID: 32575	RunNo: 43954								
Prep Date: 6/30/2017	Analysis Date: 7/2/2017	SeqNo: 1385414	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID LCS-32575	SampType: LCS	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: LCSW	Batch ID: 32575	RunNo: 43954								
Prep Date: 6/30/2017	Analysis Date: 7/2/2017	SeqNo: 1385415	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	991	20.0	1000	0	99.1	80	120			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

Sample Log-In Check List

Client Name: City of Las Cruces

Work Order Number: 1706F45

RcptNo: 1

Received By: Andy Jansson

6/29/2017 9:40:00 AM

Andy Jansson

Completed By: Ashley Gallegos

6/29/2017 10:57:09 AM

Ashley Gallegos

Reviewed By:

[Signature]

6/29/17

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? FedEx

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels? Yes No
 (Note discrepancies on chain of custody)
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met? Yes No
 (If no, notify customer for authorization.)

of preserved bottles checked for pH: 6
 (2) or >12 unless noted
 Adjusted? No
 Checked by: *[Signature]*

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.6	Good	Yes			

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
acetone	67-64-1	8260B	-	0.01	0.0195	-	mg/L	y
acrylonitrile	107-13-1	8260B	-	0.1	0.195	-	mg/L	y
benzene	71-43-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
bromochloromethane	74-97-5	8260B	-	0.001	0.00195	-	mg/L	y
bromodichloromethane	75-27-4	8260B	-	0.005	0.00975	-	mg/L	y
bromoform	75-25-2	8260B	-	0.015	0.02925	-	mg/L	y
carbon disulfide	75-15-0	8260B	-	0.001	0.00195	-	mg/L	y
carbon tetrachloride	56-23-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
chlorobenzene	108-90-7	8260B	0.1	0.005	0.05	0.075	mg/L	y
chloroethane	75-00-3	8260B	-	0.01	0.0195	-	mg/L	y
chloroform	67-66-3	8260B	0.1	0.005	0.05	0.75	mg/L	y
dibromochloromethane	124-48-1	8260B	-	0.005	0.00975	-	mg/L	y
1,2-dibromo-3-chloropropane	96-12-8	504.1	0.0002	0.0001	0.0001	0.00015	mg/L	y
1,2-dichlorobenzene	95-50-1	8260B	0.06	0.01	0.03	0.045	mg/L	y
1,3-dichlorobenzene	541-73-1	8260B	-	0.01	0.0195	-	mg/L	n
1,4-dichlorobenzene	106-46-7	8260B	0.075	0.015	0.0375	0.5625	mg/L	y
trans-1,4-dichloro-2-butene	110-57-6	8260B	-	0.001	0.00195	-	mg/L	y
dichlorodifluoromethane	75-71-8	8260B	-	0.005	0.00975	-	mg/L	n
1,1-dichloroethane	75-34-3	8260B	0.025	0.005	0.0125	0.01875	mg/L	y
1,2-dichloroethane (EDC)	107-06-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y

**Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells
MW-1 through MW-7, Las Cruces, New Mexico (continued)**

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
1,1-dichloroethylene (1,1-DCE)	75-35-4	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
cis-1,2-dichloroethylene	156-59-2	8260B	0.07	0.005	0.035	0.0525	mg/L	y
trans-1,2- dichloroethylene	156-60-5	8260B	0.1	0.005	0.05	0.075	mg/L	y
1,2-dichloropropane	78-87-5	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y
cis-1,3-dichloropropene	10061-01-5	8260B	-	0.02	0.039	-	mg/L	y
trans-1,3- dichloropropene	10061-02-6	8260B	-	0.01	0.0195	-	mg/L	y
ethylbenzene	100-41-4	8260B	0.7	0.01	0.35	0.525	mg/L	y
ethylene dibromide (EDB)	106-93-4	504.1	0.00005	0.000025	0.000025	0.000038	mg/L	y
2-hexanone	591-78-6	8260B	-	0.04	0.078	-	mg/L	y
methyl bromide	74-83-9	8260B	-	0.01	0.0195	-	mg/L	y
methyl chloride	74-87-3	8260B	-	0.001	0.00195	-	mg/L	y
methyl ethyl ketone	78-93-3	8260B	-	0.01	0.0195	-	mg/L	y
methyl iodide	74-88-4	8260B	-	0.05	0.0975	-	mg/L	y
4-methyl-2-pentanone	108-10-1	8260B	-	0.001	0.00195	-	mg/L	y
methylene bromide	74-95-3	8260B	-	0.001	0.00195	-	mg/L	y
methylene chloride	74-87-3	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
styrene	100-42-5	8260B	0.1	0.001	0.05	0.075	mg/L	y
1,1,1,2- tetrachloroethane	630-20-6	8260B	-	0.001	0.00195	-	mg/L	y
1,1,2,2- tetrachloroethane	79-34-5	8260B	0.01	0.005	0.005	0.0075	mg/L	y
tetrachloroethylene (PCE)	127-18-4	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells
MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
toluene	108-88-3	8260B	0.75	0.001	0.375	0.5625	mg/L	y
1,1,1-trichloroethane	71-55-6	8260B	0.06	0.005	0.03	0.045	mg/L	y
1,1,2-trichloroethane	79-00-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
trichloroethylene (TCE)	79-01-6	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
trichlorofluoromethane	75-69-4	8260B	-	0.01	0.0195	-	mg/L	y
1,2,3-trichloropropane	96-18-4	8260B	-	0.05	0.0975	-	mg/L	y
vinyl acetate	108-05-4	8260B	-	0.0004	0.00078	-	mg/L	y
vinyl chloride	75-01-4	8260B	0.001	0.0004	0.0005	0.00075	mg/L	y
xylenes	1330-20-7	8260B	0.62	0.0015	0.31	0.465	mg/L	y
ammonia as (N)	N/A	SM 4500 NH3	-	0.5	-	-	mg/L	n
nitrate (as N)	N/A	300.0	10	1.0	5.0	7.5	mg/L	n
chloride	16887-00-6	300.0	250	5.0	187.5	250	mg/L	n
sulfate	14808-79-8	300.0	250	5.0	187.5	250	mg/L	n
total dissolved solids	N/A	SM 2540C	500	5.0	-	-	mg/L	n
carbonate alkalinity	3812-32-6	SM 2320B	-	10	-	-	mg/L	n
bicarbonate alkalinity	71-52-3	SM 2320B	-	10	-	-	mg/L	n
total phenolics	N/A	9067	0.005	0.0025	0.0025	0.00375	mg/L	n
total organic carbon	N/A	9060	-	1	-	-	mg/L	n
barium (total)	7440-39-3	6010B	1	0.01	0.5	0.75	mg/L	y
beryllium (total)	7440-41-7	6010B	0.004	0.002	0.002	0.003	mg/L	y
cadmium (total)	7440-43-9	6010B	0.005	0.002	0.0025	0.00375	mg/L	y
calcium (total)	7440-70-2	6010B	-	1	-	-	mg/L	n
chromium (total)	7440-47-3	6010B	0.05	0.006	0.025	0.0375	mg/L	y
cobalt (total)	7440-48-4	6010B	0.05	0.006	0.025	0.0375	mg/L	y
copper (total)	7440-50-8	6010B	1	0.006	0.5	0.75	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (concluded)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
iron (total)	7439-89-6	6010B	0.3	0.1	0.225	0.3	mg/L	n
lead (total)	7439-92-1	6010B	0.05	0.005	0.025	0.0375	mg/L	y
magnesium (total)	7439-95-4	6010B	-	1	-	-	mg/L	n
manganese (total)	7439-96-5	6010B	0.05	0.03	0.0375	0.05	mg/L	n
nickel (total)	7440-02-0	6010B	0.2	0.01	0.1	0.15	mg/L	y
potassium (total)	7440-09-7	6010B	-	1	-	-	mg/L	n
silver (total)	7440-22-4	6010B	0.05	0.005	0.025	0.0375	mg/L	y
sodium (total)	7440-23-5	6010B	-	1	-	-	mg/L	n
vanadium (total)	7440-62-2	6010B	-	0.05	-	-	mg/L	y
zinc (total)	7440-66-6	6010B	5	0.02	2.5	3.75	mg/L	y
antimony (total)	7440-36-0	6020	0.006	0.001	0.003	0.0045	mg/L	y
arsenic (total)	7440-38-2	6020	0.01	0.004	0.005	0.0075	mg/L	y
selenium (total)	7782-49-2	6020	0.05	0.001	0.025	0.0375	mg/L	y
thallium (total)	7440-28-0	6020	0.002	0.001	0.001	0.0015	mg/L	y
pH	N/A	SM4500	6.5-8.5	+/- 0.1	-	-	S.U.	n
specific conductance	N/A	120.1	-	+/- 25	-	-	µS/cm	n
temperature	N/A	field	-	+/- 0.5	-	-	°F	n
water level elevation	N/A	field	-	+/- 0.01	-	-	ft	n

GWPS - ground water protection standard

PQL - practical quantitation limit

AML - assessment monitoring level

CAL - corrective action level

mg/L - milligrams per liter

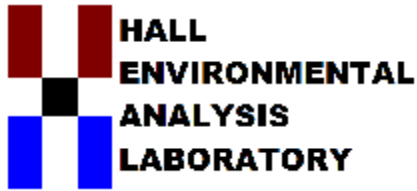
µS/cm - microSiemens per centimeter

S.U. - standard pH units

°F - degrees Fahrenheit

ft - feet

**Laboratory Results
December 2017**



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 23, 2018

Luis Guerra

City of Las Cruces

PO Box 20000

Las Cruces, NM 88004

TEL: (575) 528-3635

FAX (575) 528-3513

RE: CLC Foothills Landfill Closure Monitoring Wells

OrderNo.: 1712C02

Dear Luis Guerra:

Hall Environmental Analysis Laboratory received 3 sample(s) on 12/20/2017 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued January 18, 2018.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a white background.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712C02

Date Reported: 1/23/2018

CLIENT: City of Las Cruces

Client Sample ID: CLC MW#1

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/19/2017 1:25:00 PM

Lab ID: 1712C02-001

Matrix: AQUEOUS

Received Date: 12/20/2017 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 9060 TOC							Analyst: MAB
Total Organic Carbon	ND	1.0		mg/L	1	12/27/2017 4:34:47 PM	R48049
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	62	10		mg/L	20	12/21/2017 12:49:47 AM	A47945
Nitrogen, Nitrate (As N)	0.81	0.10		mg/L	1	12/21/2017 12:37:23 AM	A47945
Sulfate	32	0.50		mg/L	1	12/21/2017 12:37:23 AM	A47945
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	460	5.0		µmhos/cm	1	12/27/2017 1:04:14 PM	R48063
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	70.24	20.00		mg/L CaCO3	1	12/27/2017 1:04:14 PM	R48063
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	12/27/2017 1:04:14 PM	R48063
Total Alkalinity (as CaCO3)	70.24	20.00		mg/L CaCO3	1	12/27/2017 1:04:14 PM	R48063
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	270	20.0		mg/L	1	12/26/2017 5:41:00 PM	35695
SM 4500 NH3: AMMONIA							Analyst: smb
Nitrogen, Ammonia	ND	1.0		mg/L	1	1/10/2018 12:49:00 PM	R48345
SM4500-H+B: PH							Analyst: JRR
pH	8.06		H	pH units	1	12/27/2017 1:04:14 PM	R48063
EPA METHOD 200.7: TOTAL METALS							Analyst: pmf
Barium	0.12	0.0020		mg/L	1	1/5/2018 4:10:27 PM	35821
Beryllium	ND	0.0020		mg/L	1	1/5/2018 4:10:27 PM	35821
Cadmium	ND	0.0020		mg/L	1	1/5/2018 4:10:27 PM	35821
Calcium	31	1.0		mg/L	1	1/5/2018 4:10:27 PM	35821
Chromium	ND	0.0060		mg/L	1	1/5/2018 4:10:27 PM	35821
Cobalt	ND	0.0060		mg/L	1	1/9/2018 5:31:33 PM	35821
Iron	0.21	0.020		mg/L	1	1/5/2018 4:10:27 PM	35821
Magnesium	7.6	1.0		mg/L	1	1/5/2018 4:10:27 PM	35821
Manganese	0.044	0.0020		mg/L	1	1/5/2018 4:10:27 PM	35821
Nickel	ND	0.010		mg/L	1	1/5/2018 4:10:27 PM	35821
Potassium	2.8	1.0		mg/L	1	1/5/2018 4:10:27 PM	35821
Silver	0.0054	0.0050		mg/L	1	1/9/2018 5:31:33 PM	35821
Sodium	40	1.0		mg/L	1	1/5/2018 4:10:27 PM	35821
Vanadium	ND	0.050		mg/L	1	1/5/2018 4:10:27 PM	35821
Zinc	ND	0.010		mg/L	1	1/5/2018 4:10:27 PM	35821
200.8 ICPMS METALS:TOTAL							Analyst: DBK
Antimony	ND	0.0010		mg/L	1	1/4/2018 6:04:24 PM	35821

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712C02

Date Reported: 1/23/2018

CLIENT: City of Las Cruces

Client Sample ID: CLC MW#1

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/19/2017 1:25:00 PM

Lab ID: 1712C02-001

Matrix: AQUEOUS

Received Date: 12/20/2017 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBK
Arsenic	ND	0.0010		mg/L	1	1/4/2018 6:04:24 PM	35821
Copper	0.0011	0.0010		mg/L	1	1/4/2018 6:04:24 PM	35821
Lead	ND	0.00050		mg/L	1	1/4/2018 6:04:24 PM	35821
Selenium	0.0011	0.0010		mg/L	1	1/4/2018 6:04:24 PM	35821
Thallium	ND	0.00050		mg/L	1	1/4/2018 6:04:24 PM	35821
EPA METHOD 8011/504.1: EDB							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.094		µg/L	1	12/21/2017 9:42:49 AM	35647
1,2-Dibromoethane	ND	0.0094		µg/L	1	12/21/2017 9:42:49 AM	35647
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
Benzene	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Toluene	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Ethylbenzene	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Acetone	ND	10		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Bromodichloromethane	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Bromoform	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Bromomethane	ND	2.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
2-Butanone	ND	10		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Carbon disulfide	ND	10		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Carbon Tetrachloride	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Chlorobenzene	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Chloroethane	ND	2.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Chloroform	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Chloromethane	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
cis-1,2-DCE	5.2	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Dibromochloromethane	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Dibromomethane	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Dichlorodifluoromethane	2.1	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
1,1-Dichloroethane	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
1,1-Dichloroethene	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
1,2-Dichloropropane	ND	0.50		µg/L	1	12/21/2017 2:38:58 PM	LF48003
2-Hexanone	ND	10		µg/L	1	12/21/2017 2:38:58 PM	LF48003
4-Methyl-2-pentanone	ND	10		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Methylene Chloride	ND	2.5		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Styrene	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712C02

Date Reported: 1/23/2018

CLIENT: City of Las Cruces

Client Sample ID: CLC MW#1

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/19/2017 1:25:00 PM

Lab ID: 1712C02-001

Matrix: AQUEOUS

Received Date: 12/20/2017 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Tetrachloroethene (PCE)	12	0.50		µg/L	1	12/21/2017 2:38:58 PM	LF48003
trans-1,2-DCE	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Trichloroethene (TCE)	2.3	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Trichlorofluoromethane	1.1	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
1,2,3-Trichloropropane	ND	1.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Vinyl chloride	ND	0.40		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Xylenes, Total	ND	2.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Acrylonitrile	ND	10		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Bromochloromethane	ND	2.0		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Iodomethane	ND	10		µg/L	1	12/21/2017 2:38:58 PM	LF48003
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Vinyl acetate	ND	10		µg/L	1	12/21/2017 2:38:58 PM	LF48003
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	12/21/2017 2:38:58 PM	LF48003
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	12/21/2017 2:38:58 PM	LF48003
Surr: Dibromofluoromethane	102	70-130		%Rec	1	12/21/2017 2:38:58 PM	LF48003
Surr: Toluene-d8	100	70-130		%Rec	1	12/21/2017 2:38:58 PM	LF48003
TOTAL PHENOLICS BY SW-846 9067							Analyst: SCC
Phenolics	ND	2.5		µg/L	1	1/4/2018	35838

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712C02

Date Reported: 1/23/2018

CLIENT: City of Las Cruces

Client Sample ID: CLC MW#9

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/19/2017 2:36:00 PM

Lab ID: 1712C02-002

Matrix: AQUEOUS

Received Date: 12/20/2017 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 9060 TOC							Analyst: MAB
Total Organic Carbon	1.4	1.0		mg/L	1	12/27/2017 4:51:17 PM	R48049
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	710	25	*	mg/L	50	1/9/2018 3:18:29 PM	R48335
Nitrogen, Nitrate (As N)	0.30	0.10		mg/L	1	12/21/2017 1:27:01 AM	A47945
Sulfate	130	10		mg/L	20	12/21/2017 1:39:26 AM	A47945
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	2800	5.0		µmhos/cm	1	12/27/2017 1:38:12 PM	R48063
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	352.0	20.00		mg/L CaCO3	1	12/27/2017 1:38:12 PM	R48063
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	12/27/2017 1:38:12 PM	R48063
Total Alkalinity (as CaCO3)	352.0	20.00		mg/L CaCO3	1	12/27/2017 1:38:12 PM	R48063
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	1680	20.0	*	mg/L	1	12/26/2017 5:41:00 PM	35695
SM 4500 NH3: AMMONIA							Analyst: smb
Nitrogen, Ammonia	ND	1.0		mg/L	1	1/10/2018 12:49:00 PM	R48345
SM4500-H+B: PH							Analyst: JRR
pH	7.04		H	pH units	1	12/27/2017 1:38:12 PM	R48063
EPA METHOD 200.7: TOTAL METALS							Analyst: pmf
Barium	0.096	0.0020		mg/L	1	1/5/2018 4:13:31 PM	35821
Beryllium	ND	0.0020		mg/L	1	1/5/2018 4:13:31 PM	35821
Cadmium	ND	0.0020		mg/L	1	1/5/2018 4:13:31 PM	35821
Calcium	130	5.0		mg/L	5	1/16/2018 7:39:25 PM	35821
Chromium	0.029	0.0060		mg/L	1	1/5/2018 4:13:31 PM	35821
Cobalt	ND	0.0060		mg/L	1	1/9/2018 5:39:30 PM	35821
Iron	0.65	0.020	*	mg/L	1	1/5/2018 4:13:31 PM	35821
Magnesium	25	1.0		mg/L	1	1/5/2018 4:13:31 PM	35821
Manganese	0.056	0.0020	*	mg/L	1	1/5/2018 4:13:31 PM	35821
Nickel	0.21	0.010	*	mg/L	1	1/5/2018 4:13:31 PM	35821
Potassium	43	1.0		mg/L	1	1/5/2018 4:13:31 PM	35821
Silver	0.022	0.0050		mg/L	1	1/9/2018 5:39:30 PM	35821
Sodium	420	5.0		mg/L	5	1/16/2018 7:39:25 PM	35821
Vanadium	ND	0.050		mg/L	1	1/5/2018 4:13:31 PM	35821
Zinc	0.088	0.010		mg/L	1	1/5/2018 4:13:31 PM	35821
200.8 ICPMS METALS:TOTAL							Analyst: DBK
Antimony	ND	0.0010		mg/L	1	1/4/2018 6:10:58 PM	35821

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712C02

Date Reported: 1/23/2018

CLIENT: City of Las Cruces

Client Sample ID: CLC MW#9

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/19/2017 2:36:00 PM

Lab ID: 1712C02-002

Matrix: AQUEOUS

Received Date: 12/20/2017 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
200.8 ICPMS METALS:TOTAL							Analyst: DBK
Arsenic	ND	0.0010		mg/L	1	1/4/2018 6:10:58 PM	35821
Copper	0.0046	0.0010		mg/L	1	1/4/2018 6:10:58 PM	35821
Lead	ND	0.00050		mg/L	1	1/4/2018 6:10:58 PM	35821
Selenium	ND	0.0010		mg/L	1	1/4/2018 6:10:58 PM	35821
Thallium	ND	0.00050		mg/L	1	1/4/2018 6:10:58 PM	35821
EPA METHOD 8011/504.1: EDB							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.094		µg/L	1	12/21/2017 10:28:18 AM	35647
1,2-Dibromoethane	ND	0.0094		µg/L	1	12/21/2017 10:28:18 AM	35647
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
Benzene	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Toluene	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Ethylbenzene	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Acetone	ND	10		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Bromodichloromethane	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Bromoform	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Bromomethane	ND	2.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
2-Butanone	ND	10		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Carbon disulfide	ND	10		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Carbon Tetrachloride	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Chlorobenzene	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Chloroethane	ND	2.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Chloroform	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Chloromethane	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
cis-1,2-DCE	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Dibromochloromethane	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Dibromomethane	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Dichlorodifluoromethane	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
1,1-Dichloroethane	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
1,1-Dichloroethene	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
1,2-Dichloropropane	ND	0.50		µg/L	1	12/21/2017 3:08:00 PM	LF48003
2-Hexanone	ND	10		µg/L	1	12/21/2017 3:08:00 PM	LF48003
4-Methyl-2-pentanone	ND	10		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Methylene Chloride	ND	2.5		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Styrene	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712C02

Date Reported: 1/23/2018

CLIENT: City of Las Cruces

Client Sample ID: CLC MW#9

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/19/2017 2:36:00 PM

Lab ID: 1712C02-002

Matrix: AQUEOUS

Received Date: 12/20/2017 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Tetrachloroethene (PCE)	ND	0.50		µg/L	1	12/21/2017 3:08:00 PM	LF48003
trans-1,2-DCE	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Trichlorofluoromethane	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
1,2,3-Trichloropropane	ND	1.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Vinyl chloride	ND	0.40		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Xylenes, Total	ND	2.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Acrylonitrile	ND	10		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Bromochloromethane	ND	2.0		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Iodomethane	ND	10		µg/L	1	12/21/2017 3:08:00 PM	LF48003
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Vinyl acetate	ND	10		µg/L	1	12/21/2017 3:08:00 PM	LF48003
Surr: 1,2-Dichloroethane-d4	95.1	70-130		%Rec	1	12/21/2017 3:08:00 PM	LF48003
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	12/21/2017 3:08:00 PM	LF48003
Surr: Dibromofluoromethane	102	70-130		%Rec	1	12/21/2017 3:08:00 PM	LF48003
Surr: Toluene-d8	97.0	70-130		%Rec	1	12/21/2017 3:08:00 PM	LF48003
TOTAL PHENOLICS BY SW-846 9067							Analyst: SCC
Phenolics	ND	2.5		µg/L	1	1/4/2018	35838

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712C02

Date Reported: 1/23/2018

CLIENT: City of Las Cruces

Client Sample ID: Trip Blank

Project: CLC Foothills Landfill Closure Monitori

Collection Date:

Lab ID: 1712C02-003

Matrix: TRIP BLANK

Received Date: 12/20/2017 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8011/504.1: EDB							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.094		µg/L	1	12/21/2017 10:43:29 AM	35647
1,2-Dibromoethane	ND	0.0094		µg/L	1	12/21/2017 10:43:29 AM	35647
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
Benzene	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Toluene	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Ethylbenzene	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Acetone	ND	10		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Bromodichloromethane	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Bromoform	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Bromomethane	ND	2.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
2-Butanone	ND	10		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Carbon disulfide	ND	10		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Carbon Tetrachloride	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Chlorobenzene	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Chloroethane	ND	2.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Chloroform	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Chloromethane	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
cis-1,2-DCE	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Dibromochloromethane	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Dibromomethane	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Dichlorodifluoromethane	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
1,1-Dichloroethane	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
1,1-Dichloroethene	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
1,2-Dichloropropane	ND	0.50		µg/L	1	12/21/2017 3:37:15 PM	LF48003
2-Hexanone	ND	10		µg/L	1	12/21/2017 3:37:15 PM	LF48003
4-Methyl-2-pentanone	ND	10		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Methylene Chloride	ND	2.5		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Styrene	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Tetrachloroethene (PCE)	ND	0.50		µg/L	1	12/21/2017 3:37:15 PM	LF48003
trans-1,2-DCE	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712C02

Date Reported: 1/23/2018

CLIENT: City of Las Cruces

Client Sample ID: Trip Blank

Project: CLC Foothills Landfill Closure Monitori

Collection Date:

Lab ID: 1712C02-003

Matrix: TRIP BLANK

Received Date: 12/20/2017 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Trichlorofluoromethane	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
1,2,3-Trichloropropane	ND	1.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Vinyl chloride	ND	0.40		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Xylenes, Total	ND	2.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Acrylonitrile	ND	10		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Bromochloromethane	ND	2.0		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Iodomethane	ND	10		µg/L	1	12/21/2017 3:37:15 PM	LF48003
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Vinyl acetate	ND	10		µg/L	1	12/21/2017 3:37:15 PM	LF48003
Surr: 1,2-Dichloroethane-d4	94.9	70-130		%Rec	1	12/21/2017 3:37:15 PM	LF48003
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	12/21/2017 3:37:15 PM	LF48003
Surr: Dibromofluoromethane	98.7	70-130		%Rec	1	12/21/2017 3:37:15 PM	LF48003
Surr: Toluene-d8	96.8	70-130		%Rec	1	12/21/2017 3:37:15 PM	LF48003

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712C02

23-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-35821	SampType: MBLK	TestCode: EPA Method 200.7: Total Metals
Client ID: PBW	Batch ID: 35821	RunNo: 48200
Prep Date: 1/3/2018	Analysis Date: 1/4/2018	SeqNo: 1547847 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID LL LCS-35821	SampType: LCSLL	TestCode: EPA Method 200.7: Total Metals
Client ID: BatchQC	Batch ID: 35821	RunNo: 48200
Prep Date: 1/3/2018	Analysis Date: 1/4/2018	SeqNo: 1547848 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0020	0.0020	0.002000	0	100	50	150			
Beryllium	ND	0.0020	0.002000	0	97.5	50	150			
Cadmium	ND	0.0020	0.002000	0	87.5	50	150			
Calcium	ND	1.0	0.5000	0	103	50	150			
Chromium	0.0061	0.0060	0.006000	0	102	50	150			
Cobalt	0.0062	0.0060	0.006000	0	104	50	150			
Iron	0.022	0.020	0.02000	0	110	50	150			
Magnesium	ND	1.0	0.5000	0	102	50	150			
Manganese	0.0021	0.0020	0.002000	0	106	50	150			
Nickel	ND	0.010	0.005000	0	74.4	50	150			
Potassium	ND	1.0	0.5000	0	104	50	150			
Silver	0.0052	0.0050	0.005000	0	103	50	150			
Sodium	ND	1.0	0.5000	0	95.3	50	150			
Vanadium	ND	0.050	0.01000	0	105	50	150			
Zinc	ND	0.010	0.005000	0	120	50	150			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712C02

23-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	LCS-35821		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals				
Client ID:	LCSW		Batch ID:	35821		RunNo:	48200				
Prep Date:	1/3/2018		Analysis Date:	1/4/2018		SeqNo:	1547849		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Barium	0.49	0.0020	0.5000	0	97.2	85	115				
Beryllium	0.50	0.0020	0.5000	0	101	85	115				
Cadmium	0.50	0.0020	0.5000	0	99.2	85	115				
Calcium	49	1.0	50.00	0	98.3	85	115				
Chromium	0.49	0.0060	0.5000	0	97.6	85	115				
Cobalt	0.49	0.0060	0.5000	0	98.1	85	115				
Iron	0.49	0.020	0.5000	0	98.5	85	115				
Magnesium	50	1.0	50.00	0	100	85	115				
Manganese	0.49	0.0020	0.5000	0	99.0	85	115				
Nickel	0.48	0.010	0.5000	0	95.6	85	115				
Potassium	49	1.0	50.00	0	97.8	85	115				
Silver	0.10	0.0050	0.1000	0	103	85	115				
Sodium	49	1.0	50.00	0	97.3	85	115				
Vanadium	0.49	0.050	0.5000	0	98.3	85	115				
Zinc	0.48	0.010	0.5000	0	95.8	85	115				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712C02

23-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	MB-35821	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	35821	RunNo:	48204					
Prep Date:	1/3/2018	Analysis Date:	1/4/2018	SeqNo:	1547343	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Copper	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Thallium	ND	0.00050								

Sample ID	MSLLCS-35821	SampType:	LCSLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID:	35821	RunNo:	48204					
Prep Date:	1/3/2018	Analysis Date:	1/4/2018	SeqNo:	1547344	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.0014	0.0010	0.001000	0	138	50	150			
Arsenic	ND	0.0010	0.001000	0	73.2	50	150			
Copper	ND	0.0010	0.001000	0	98.8	50	150			
Lead	ND	0.00050	0.0005000	0	95.7	50	150			
Selenium	ND	0.0010	0.001000	0	90.1	50	150			
Thallium	ND	0.00050	0.0005000	0	94.3	50	150			

Sample ID	MSLCS-35821	SampType:	LCS	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	LCSW	Batch ID:	35821	RunNo:	48204					
Prep Date:	1/3/2018	Analysis Date:	1/4/2018	SeqNo:	1547345	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.027	0.0010	0.02500	0	106	85	115			
Arsenic	0.024	0.0010	0.02500	0	94.9	85	115			
Copper	0.025	0.0010	0.02500	0	99.3	85	115			
Lead	0.012	0.00050	0.01250	0	98.3	85	115			
Selenium	0.023	0.0010	0.02500	0	90.7	85	115			
Thallium	0.012	0.00050	0.01250	0	98.4	85	115			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712C02

23-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: mblk		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: A47945		RunNo: 47945							
Prep Date:	Analysis Date: 12/20/2017		SeqNo: 1535835		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	ND	0.50								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID LCS	SampType: lcs		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: A47945		RunNo: 47945							
Prep Date:	Analysis Date: 12/20/2017		SeqNo: 1535836		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	4.8	0.50	5.000	0	96.8	90	110			
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	103	90	110			
Sulfate	9.8	0.50	10.00	0	98.1	90	110			

Sample ID MB	SampType: mblk		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R48335		RunNo: 48335							
Prep Date:	Analysis Date: 1/9/2018		SeqNo: 1552451		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	ND	0.50								
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Sample ID LCS	SampType: lcs		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R48335		RunNo: 48335							
Prep Date:	Analysis Date: 1/9/2018		SeqNo: 1552452		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	4.8	0.50	5.000	0	96.7	90	110			
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Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712C02

23-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-35647	SampType: MBLK	TestCode: EPA Method 8011/504.1: EDB								
Client ID: PBW	Batch ID: 35647	RunNo: 47941								
Prep Date: 12/21/2017	Analysis Date: 12/21/2017	SeqNo: 1536208	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	0.10								
1,2-Dibromoethane	ND	0.010								

Sample ID LCS-35647	SampType: LCS	TestCode: EPA Method 8011/504.1: EDB								
Client ID: LCSW	Batch ID: 35647	RunNo: 47941								
Prep Date: 12/21/2017	Analysis Date: 12/21/2017	SeqNo: 1536209	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.11	0.10	0.1000	0	113	70	130			
1,2-Dibromoethane	0.082	0.010	0.1000	0	81.6	70	130			

Sample ID 1712C02-001BMS	SampType: MS	TestCode: EPA Method 8011/504.1: EDB								
Client ID: CLC MW#1	Batch ID: 35647	RunNo: 47941								
Prep Date: 12/21/2017	Analysis Date: 12/21/2017	SeqNo: 1536215	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.043	0.0095	0.09485	0	45.2	57.7	132			S

Sample ID 1712C02-001BMSD	SampType: MSD	TestCode: EPA Method 8011/504.1: EDB								
Client ID: CLC MW#1	Batch ID: 35647	RunNo: 47941								
Prep Date: 12/21/2017	Analysis Date: 12/21/2017	SeqNo: 1536216	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.046	0.0093	0.09309	0	49.2	57.7	132	6.61	20	S

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712C02

23-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	rb	SampType:	MBLK		TestCode:	EPA Method 8260B: Volatiles, Table I				
Client ID:	PBW	Batch ID:	LF48003		RunNo:	48003				
Prep Date:		Analysis Date:	12/21/2017		SeqNo:	1537950	Units:	µg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
Acetone	ND	10								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	2.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	0.50								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	2.5								
Styrene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
Tetrachloroethene (PCE)	ND	0.50								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712C02

23-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID rb	SampType: MBLK		TestCode: EPA Method 8260B: Volatiles, Table I							
Client ID: PBW	Batch ID: LF48003		RunNo: 48003							
Prep Date:	Analysis Date: 12/21/2017		SeqNo: 1537950		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.40								
Xylenes, Total	ND	2.0								
Acrylonitrile	ND	10								
Bromochloromethane	ND	2.0								
Iodomethane	ND	10								
trans-1,4-Dichloro-2-butene	ND	10								
Vinyl acetate	ND	10								
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.9	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		110	70	130			
Surr: Dibromofluoromethane	9.9		10.00		99.4	70	130			
Surr: Toluene-d8	10		10.00		99.9	70	130			

Sample ID 100ng lcs	SampType: LCS		TestCode: EPA Method 8260B: Volatiles, Table I							
Client ID: LCSW	Batch ID: LF48003		RunNo: 48003							
Prep Date:	Analysis Date: 12/21/2017		SeqNo: 1537951		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0	86.0	70	130			
Toluene	17	1.0	20.00	0	87.3	70	130			
Chlorobenzene	18	1.0	20.00	0	87.6	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	88.5	70	130			
Trichloroethene (TCE)	17	1.0	20.00	0	82.7	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.6	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		108	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.5	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712C02

23-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: MBLK		TestCode: EPA Method 9060 TOC							
Client ID: PBW	Batch ID: R48049		RunNo: 48049							
Prep Date:	Analysis Date: 12/27/2017		SeqNo: 1539877		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	1.0								

Sample ID LCS ST9060-16010/	SampType: LCS		TestCode: EPA Method 9060 TOC							
Client ID: LCSW	Batch ID: R48049		RunNo: 48049							
Prep Date:	Analysis Date: 12/27/2017		SeqNo: 1539878		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	5.2	1.0	4.850	0	108	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712C02

23-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-35838	SampType: MBLK		TestCode: Total Phenolics by SW-846 9067							
Client ID: PBW	Batch ID: 35838		RunNo: 48176							
Prep Date: 1/4/2018	Analysis Date: 1/4/2018		SeqNo: 1545926		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	ND	2.5								

Sample ID LCS-35838	SampType: LCS		TestCode: Total Phenolics by SW-846 9067							
Client ID: LCSW	Batch ID: 35838		RunNo: 48176							
Prep Date: 1/4/2018	Analysis Date: 1/4/2018		SeqNo: 1545927		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	21	2.5	20.00	0	103	62.4	146			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712C02

23-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	lcs-1 ~20uS eC		SampType: LCS	TestCode: SM2510B: Specific Conductance						
Client ID:	LCSW		Batch ID: R48063	RunNo: 48063						
Prep Date:			Analysis Date: 12/27/2017	SeqNo: 1540527	Units: µmhos/cm					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	23	5.0	19.96	0	114	80	120			

Sample ID	lcs-2 ~20uS eC		SampType: LCS	TestCode: SM2510B: Specific Conductance						
Client ID:	LCSW		Batch ID: R48063	RunNo: 48063						
Prep Date:			Analysis Date: 12/27/2017	SeqNo: 1540553	Units: µmhos/cm					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	23	5.0	19.96	0	113	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712C02

23-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: MBLK		TestCode: SM 4500 NH3: Ammonia							
Client ID: PBW	Batch ID: R48345		RunNo: 48345							
Prep Date:	Analysis Date: 1/10/2018		SeqNo: 1552733		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	1.0								

Sample ID LCS	SampType: LCS		TestCode: SM 4500 NH3: Ammonia							
Client ID: LCSW	Batch ID: R48345		RunNo: 48345							
Prep Date:	Analysis Date: 1/10/2018		SeqNo: 1552734		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	8.5	1.0	10.00	0	85.4	80	120			

Sample ID 1712C02-001EMS	SampType: MS		TestCode: SM 4500 NH3: Ammonia							
Client ID: CLC MW#1	Batch ID: R48345		RunNo: 48345							
Prep Date:	Analysis Date: 1/10/2018		SeqNo: 1552736		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	10	1.0	10.00	0	101	75	125			

Sample ID 1712C02-001EMSD	SampType: MSD		TestCode: SM 4500 NH3: Ammonia							
Client ID: CLC MW#1	Batch ID: R48345		RunNo: 48345							
Prep Date:	Analysis Date: 1/10/2018		SeqNo: 1552737		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	8.8	1.0	10.00	0	88.2	75	125	13.3	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712C02

23-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	mb-1 alk	SampType:	MBLK	TestCode:	SM2320B: Alkalinity					
Client ID:	PBW	Batch ID:	R48063	RunNo:	48063					
Prep Date:		Analysis Date:	12/27/2017	SeqNo:	1540483	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID	ics-1 alk	SampType:	LCS	TestCode:	SM2320B: Alkalinity					
Client ID:	LCSW	Batch ID:	R48063	RunNo:	48063					
Prep Date:		Analysis Date:	12/27/2017	SeqNo:	1540484	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.88	20.00	80.00	0	98.6	90	110			

Sample ID	1712c02-001ems	SampType:	MS	TestCode:	SM2320B: Alkalinity					
Client ID:	CLC MW#1	Batch ID:	R48063	RunNo:	48063					
Prep Date:		Analysis Date:	12/27/2017	SeqNo:	1540486	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	129.8	20.00	80.00	70.24	74.5	19.8	126			

Sample ID	1712c02-001emsd	SampType:	MSD	TestCode:	SM2320B: Alkalinity					
Client ID:	CLC MW#1	Batch ID:	R48063	RunNo:	48063					
Prep Date:		Analysis Date:	12/27/2017	SeqNo:	1540487	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	125.2	20.00	80.00	70.24	68.7	19.8	126	3.58	20	

Sample ID	mb-2 alk	SampType:	MBLK	TestCode:	SM2320B: Alkalinity					
Client ID:	PBW	Batch ID:	R48063	RunNo:	48063					
Prep Date:		Analysis Date:	12/27/2017	SeqNo:	1540507	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID	ics-2 alk	SampType:	LCS	TestCode:	SM2320B: Alkalinity					
Client ID:	LCSW	Batch ID:	R48063	RunNo:	48063					
Prep Date:		Analysis Date:	12/27/2017	SeqNo:	1540508	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.24	20.00	80.00	0	97.8	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712C02

23-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-35695	SampType: MBLK		TestCode: SM2540C MOD: Total Dissolved Solids							
Client ID: PBW	Batch ID: 35695		RunNo: 48017							
Prep Date: 12/23/2017	Analysis Date: 12/26/2017		SeqNo: 1538731		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID LCS-35695	SampType: LCS		TestCode: SM2540C MOD: Total Dissolved Solids							
Client ID: LCSW	Batch ID: 35695		RunNo: 48017							
Prep Date: 12/23/2017	Analysis Date: 12/26/2017		SeqNo: 1538732		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1020	20.0	1000	0	102	80	120			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

Sample Log-In Check List

Client Name: City of Las Cruces

Work Order Number: 1712C02

RcptNo: 1

Received By: Isaiah Ortiz

12/20/2017 10:00:00 AM

IO

Completed By: Ashley Gallegos

12/20/2017 11:10:19 AM

AG

Reviewed By: ENM

12/20/17

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? FedEx

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes No
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes No

of preserved bottles checked for pH: _____
 (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified:		Date	
By Whom:		Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.9	Good	Yes			

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
acetone	67-64-1	8260B	-	0.01	0.0195	-	mg/L	y
acrylonitrile	107-13-1	8260B	-	0.1	0.195	-	mg/L	y
benzene	71-43-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
bromochloromethane	74-97-5	8260B	-	0.001	0.00195	-	mg/L	y
bromodichloromethane	75-27-4	8260B	-	0.005	0.00975	-	mg/L	y
bromoform	75-25-2	8260B	-	0.015	0.02925	-	mg/L	y
carbon disulfide	75-15-0	8260B	-	0.001	0.00195	-	mg/L	y
carbon tetrachloride	56-23-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
chlorobenzene	108-90-7	8260B	0.1	0.005	0.05	0.075	mg/L	y
chloroethane	75-00-3	8260B	-	0.01	0.0195	-	mg/L	y
chloroform	67-66-3	8260B	0.1	0.005	0.05	0.75	mg/L	y
dibromochloromethane	124-48-1	8260B	-	0.005	0.00975	-	mg/L	y
1,2-dibromo-3-chloropropane	96-12-8	504.1	0.0002	0.0001	0.0001	0.00015	mg/L	y
1,2-dichlorobenzene	95-50-1	8260B	0.06	0.01	0.03	0.045	mg/L	y
1,3-dichlorobenzene	541-73-1	8260B	-	0.01	0.0195	-	mg/L	n
1,4-dichlorobenzene	106-46-7	8260B	0.075	0.015	0.0375	0.5625	mg/L	y
trans-1,4-dichloro-2-butene	110-57-6	8260B	-	0.001	0.00195	-	mg/L	y
dichlorodifluoromethane	75-71-8	8260B	-	0.005	0.00975	-	mg/L	n
1,1-dichloroethane	75-34-3	8260B	0.025	0.005	0.0125	0.01875	mg/L	y
1,2-dichloroethane (EDC)	107-06-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
1,1-dichloroethylene (1,1-DCE)	75-35-4	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
cis-1,2-dichloroethylene	156-59-2	8260B	0.07	0.005	0.035	0.0525	mg/L	y
trans-1,2- dichloroethylene	156-60-5	8260B	0.1	0.005	0.05	0.075	mg/L	y
1,2-dichloropropane	78-87-5	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y
cis-1,3-dichloropropene	10061-01-5	8260B	-	0.02	0.039	-	mg/L	y
trans-1,3- dichloropropene	10061-02-6	8260B	-	0.01	0.0195	-	mg/L	y
ethylbenzene	100-41-4	8260B	0.7	0.01	0.35	0.525	mg/L	y
ethylene dibromide (EDB)	106-93-4	504.1	0.00005	0.000025	0.000025	0.000038	mg/L	y
2-hexanone	591-78-6	8260B	-	0.04	0.078	-	mg/L	y
methyl bromide	74-83-9	8260B	-	0.01	0.0195	-	mg/L	y
methyl chloride	74-87-3	8260B	-	0.001	0.00195	-	mg/L	y
methyl ethyl ketone	78-93-3	8260B	-	0.01	0.0195	-	mg/L	y
methyl iodide	74-88-4	8260B	-	0.05	0.0975	-	mg/L	y
4-methyl-2-pentanone	108-10-1	8260B	-	0.001	0.00195	-	mg/L	y
methylene bromide	74-95-3	8260B	-	0.001	0.00195	-	mg/L	y
methylene chloride	74-87-3	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
styrene	100-42-5	8260B	0.1	0.001	0.05	0.075	mg/L	y
1,1,1,2- tetrachloroethane	630-20-6	8260B	-	0.001	0.00195	-	mg/L	y
1,1,2,2- tetrachloroethane	79-34-5	8260B	0.01	0.005	0.005	0.0075	mg/L	y
tetrachloroethylene (PCE)	127-18-4	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y

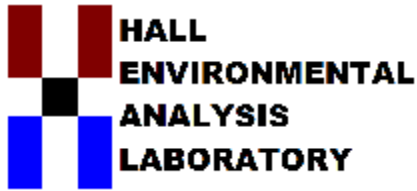
Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
toluene	108-88-3	8260B	0.75	0.001	0.375	0.5625	mg/L	y
1,1,1-trichloroethane	71-55-6	8260B	0.06	0.005	0.03	0.045	mg/L	y
1,1,2-trichloroethane	79-00-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
trichloroethylene (TCE)	79-01-6	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
trichlorofluoromethane	75-69-4	8260B	-	0.01	0.0195	-	mg/L	y
1,2,3-trichloropropane	96-18-4	8260B	-	0.05	0.0975	-	mg/L	y
vinyl acetate	108-05-4	8260B	-	0.0004	0.00078	-	mg/L	y
vinyl chloride	75-01-4	8260B	0.001	0.0004	0.0005	0.00075	mg/L	y
xylenes	1330-20-7	8260B	0.62	0.0015	0.31	0.465	mg/L	y
ammonia as (N)	N/A	SM 4500 NH3	-	0.5	-	-	mg/L	n
nitrate (as N)	N/A	300.0	10	1.0	5.0	7.5	mg/L	n
chloride	16887-00-6	300.0	250	5.0	187.5	250	mg/L	n
sulfate	14808-79-8	300.0	250	5.0	187.5	250	mg/L	n
total dissolved solids	N/A	SM 2540C	500	5.0	-	-	mg/L	n
carbonate alkalinity	3812-32-6	SM 2320B	-	10	-	-	mg/L	n
bicarbonate alkalinity	71-52-3	SM 2320B	-	10	-	-	mg/L	n
total phenolics	N/A	9067	0.005	0.0025	0.0025	0.00375	mg/L	n
total organic carbon	N/A	9060	-	1	-	-	mg/L	n
barium (total)	7440-39-3	6010B	1	0.01	0.5	0.75	mg/L	y
beryllium (total)	7440-41-7	6010B	0.004	0.002	0.002	0.003	mg/L	y
cadmium (total)	7440-43-9	6010B	0.005	0.002	0.0025	0.00375	mg/L	y
calcium (total)	7440-70-2	6010B	-	1	-	-	mg/L	y
chromium (total)	7440-47-3	6010B	0.05	0.006	0.025	0.0375	mg/L	n
cobalt (total)	7440-48-4	6010B	0.05	0.006	0.025	0.0375	mg/L	y
copper (total)	7440-50-8	6010B	1	0.006	0.5	0.75	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (concluded)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Appendix I, Part 258, 40 CFR
iron (total)	7439-89-6	6010B	0.3	0.1	0.225	0.3	mg/L	n
lead (total)	7439-92-1	6010B	0.05	0.005	0.025	0.0375	mg/L	y
magnesium (total)	7439-95-4	6010B	-	1	-	-	mg/L	n
manganese (total)	7439-96-5	6010B	0.05	0.03	0.0375	0.05	mg/L	n
nickel (total)	7440-02-0	6010B	0.2	0.01	0.1	0.15	mg/L	y
potassium (total)	7440-09-7	6010B	-	1	-	-	mg/L	n
silver (total)	7440-22-4	6010B	0.05	0.005	0.025	0.0375	mg/L	y
sodium (total)	7440-23-5	6010B	-	1	-	-	mg/L	n
vanadium (total)	7440-62-2	6010B	-	0.05	-	-	mg/L	y
zinc (total)	7440-66-6	6010B	5	0.02	2.5	3.75	mg/L	y
antimony (total)	7440-36-0	6020	0.006	0.001	0.003	0.0045	mg/L	y
arsenic (total)	7440-38-2	6020	0.01	0.004	0.005	0.0075	mg/L	y
selenium (total)	7782-49-2	6020	0.05	0.001	0.025	0.0375	mg/L	y
thallium (total)	7440-28-0	6020	0.002	0.001	0.001	0.0015	mg/L	y
pH	N/A	SM4500	6.5-8.5	+/- 0.1	-	-	S.U.	n
specific conductance	N/A	120.1	-	+/- 25	-	-	µS/cm	n
temperature	N/A	field	-	+/- 0.5	-	-	°F	n
water level elevation	N/A	field	-	+/- 0.01	-	-	ft	n

GWPS - ground water protection standard
 PQL - practical quantitation limit
 AML - assessment monitoring level
 CAL - corrective action level
 mg/L - milligrams per liter
 µS/cm - microSiemens per centimeter
 S.U. - standard pH units
 °F - degrees Fahrenheit
 ft - feet



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 19, 2018

Luis Guerra

City of Las Cruces

PO Box 20000

Las Cruces, NM 88004

TEL: (575) 528-3635

FAX (575) 528-3513

RE: CLC Foothills Landfill Closure Monitoring Wells

OrderNo.: 1712770

Dear Luis Guerra:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/13/2017 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued January 12, 2018.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a white background.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1712770

Date Reported: 1/19/2018

Hall Environmental Analysis Laboratory, Inc.

CLIENT: City of Las Cruces

Client Sample ID: CLC MW #2

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/12/2017 10:53:00 AM

Lab ID: 1712770-001

Matrix: AQUEOUS

Received Date: 12/13/2017 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	12/18/2017 10:59:00 PM	35552
1,2-Dibromoethane	ND	0.0095		µg/L	1	12/18/2017 10:59:00 PM	35552
EPA METHOD 9060 TOC							Analyst: MAB
Total Organic Carbon	ND	1.0		mg/L	1	12/18/2017 5:14:18 PM	R47864
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	9.0	0.50		mg/L	1	12/13/2017 1:03:13 PM	R47783
Nitrogen, Nitrate (As N)	3.3	0.10		mg/L	1	12/13/2017 1:03:13 PM	R47783
Sulfate	33	0.50		mg/L	1	12/13/2017 1:03:13 PM	R47783
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	380	5.0		µmhos/cm	1	12/18/2017 2:15:00 PM	R47902
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	134.8	20.00		mg/L CaCO3	1	12/18/2017 2:15:00 PM	R47902
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	12/18/2017 2:15:00 PM	R47902
Total Alkalinity (as CaCO3)	134.8	20.00		mg/L CaCO3	1	12/18/2017 2:15:00 PM	R47902
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: SRM
Total Dissolved Solids	248	20.0		mg/L	1	12/19/2017 4:53:00 PM	35576
SM 4500 NH3: AMMONIA							Analyst: CJS
Nitrogen, Ammonia	ND	1.0		mg/L	1	1/3/2018 12:46:00 PM	R48166
SM4500-H+B: PH							Analyst: JRR
pH	6.96		H	pH units	1	12/18/2017 2:15:00 PM	R47902
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.033	0.0020		mg/L	1	12/21/2017 7:12:33 PM	35567
Beryllium	ND	0.0020		mg/L	1	12/26/2017 2:45:47 PM	35567
Cadmium	ND	0.0020		mg/L	1	12/26/2017 2:45:47 PM	35567
Calcium	39	1.0		mg/L	1	12/21/2017 7:12:33 PM	35567
Chromium	ND	0.0060		mg/L	1	12/26/2017 2:45:47 PM	35567
Cobalt	ND	0.0060		mg/L	1	12/26/2017 2:45:47 PM	35567
Iron	ND	0.020		mg/L	1	12/21/2017 7:12:33 PM	35567
Magnesium	5.8	1.0		mg/L	1	12/21/2017 7:12:33 PM	35567
Manganese	ND	0.0020		mg/L	1	12/26/2017 2:45:47 PM	35567
Nickel	ND	0.010		mg/L	1	12/21/2017 7:12:33 PM	35567
Potassium	1.7	1.0		mg/L	1	12/21/2017 7:12:33 PM	35567
Silver	ND	0.0050		mg/L	1	12/21/2017 7:12:33 PM	35567
Sodium	29	1.0		mg/L	1	12/26/2017 2:45:47 PM	35567
Vanadium	ND	0.050		mg/L	1	12/21/2017 7:12:33 PM	35567

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712770

Date Reported: 1/19/2018

CLIENT: City of Las Cruces

Client Sample ID: CLC MW #2

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/12/2017 10:53:00 AM

Lab ID: 1712770-001

Matrix: AQUEOUS

Received Date: 12/13/2017 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Zinc	ND	0.010		mg/L	1	12/26/2017 2:45:47 PM	35567
200.8 ICPMS METALS:TOTAL							Analyst: DBK
Antimony	ND	0.0010		mg/L	1	1/3/2018 7:54:11 PM	35567
Arsenic	0.0018	0.0010		mg/L	1	1/2/2018 9:18:09 PM	35567
Copper	ND	0.0010		mg/L	1	1/2/2018 9:18:09 PM	35567
Lead	ND	0.00050		mg/L	1	1/2/2018 9:18:09 PM	35567
Selenium	ND	0.0010		mg/L	1	1/2/2018 9:18:09 PM	35567
Thallium	ND	0.00050		mg/L	1	1/3/2018 7:54:11 PM	35567
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
Benzene	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Toluene	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Ethylbenzene	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Acetone	ND	10		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Bromodichloromethane	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Bromoform	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Bromomethane	ND	2.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
2-Butanone	ND	10		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Carbon disulfide	ND	10		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Carbon Tetrachloride	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Chlorobenzene	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Chloroethane	ND	2.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Chloroform	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Chloromethane	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
cis-1,2-DCE	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Dibromochloromethane	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Dibromomethane	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Dichlorodifluoromethane	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
1,1-Dichloroethane	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
1,1-Dichloroethene	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
1,2-Dichloropropane	ND	0.50		µg/L	1	12/15/2017 2:53:39 PM	LF47843
2-Hexanone	ND	10		µg/L	1	12/15/2017 2:53:39 PM	LF47843
4-Methyl-2-pentanone	ND	10		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Methylene Chloride	ND	2.5		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Styrene	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712770

Date Reported: 1/19/2018

CLIENT: City of Las Cruces

Client Sample ID: CLC MW #2

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/12/2017 10:53:00 AM

Lab ID: 1712770-001

Matrix: AQUEOUS

Received Date: 12/13/2017 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Tetrachloroethene (PCE)	1.9	0.50		µg/L	1	12/15/2017 2:53:39 PM	LF47843
trans-1,2-DCE	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Trichlorofluoromethane	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
1,2,3-Trichloropropane	ND	1.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Vinyl chloride	ND	0.40		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Xylenes, Total	ND	2.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Acrylonitrile	ND	10		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Bromochloromethane	ND	2.0		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Iodomethane	ND	10		µg/L	1	12/15/2017 2:53:39 PM	LF47843
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Vinyl acetate	ND	10		µg/L	1	12/15/2017 2:53:39 PM	LF47843
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	12/15/2017 2:53:39 PM	LF47843
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	12/15/2017 2:53:39 PM	LF47843
Surr: Dibromofluoromethane	102	70-130		%Rec	1	12/15/2017 2:53:39 PM	LF47843
Surr: Toluene-d8	97.5	70-130		%Rec	1	12/15/2017 2:53:39 PM	LF47843
TOTAL PHENOLICS BY SW-846 9067							Analyst: SCC
Phenolics	ND	2.5		µg/L	1	12/20/2017	35618

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712770

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	MB-35567	SampType:	MBLK	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID:	35567	RunNo:	47970					
Prep Date:	12/18/2017	Analysis Date:	12/21/2017	SeqNo:	1536814	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID	LL LCS-35567	SampType:	LCSLL	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	35567	RunNo:	47970					
Prep Date:	12/18/2017	Analysis Date:	12/21/2017	SeqNo:	1536815	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	92.5	50	150			
Beryllium	ND	0.0020	0.002000	0	92.0	50	150			
Cadmium	0.0025	0.0020	0.002000	0	125	50	150			
Calcium	ND	1.0	0.5000	0	97.7	50	150			
Chromium	ND	0.0060	0.006000	0	83.0	50	150			
Cobalt	ND	0.0060	0.006000	0	93.0	50	150			
Iron	ND	0.020	0.02000	0	66.8	50	150			
Magnesium	ND	1.0	0.5000	0	97.7	50	150			
Manganese	ND	0.0020	0.002000	0	96.5	50	150			
Nickel	ND	0.010	0.005000	0	73.4	50	150			
Potassium	ND	1.0	0.5000	0	94.0	50	150			
Silver	ND	0.0050	0.005000	0	97.6	50	150			
Sodium	ND	1.0	0.5000	0	108	50	150			
Vanadium	ND	0.050	0.01000	0	94.3	50	150			
Zinc	ND	0.010	0.005000	0	129	50	150			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712770

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	LCS-35567		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals				
Client ID:	LCSW		Batch ID:	35567		RunNo:	47970				
Prep Date:	12/18/2017		Analysis Date:	12/21/2017		SeqNo:	1536816		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Barium	0.49	0.0020	0.5000	0	97.7	85	115				
Beryllium	0.49	0.0020	0.5000	0	98.8	85	115				
Cadmium	0.52	0.0020	0.5000	0	103	85	115				
Calcium	46	1.0	50.00	0	92.1	85	115				
Chromium	0.48	0.0060	0.5000	0	95.3	85	115				
Cobalt	0.45	0.0060	0.5000	0	90.8	85	115				
Iron	0.47	0.020	0.5000	0	94.7	85	115				
Magnesium	48	1.0	50.00	0	95.2	85	115				
Manganese	0.46	0.0020	0.5000	0	92.9	85	115				
Nickel	0.47	0.010	0.5000	0	93.7	85	115				
Potassium	47	1.0	50.00	0	93.4	85	115				
Silver	0.11	0.0050	0.1000	0	108	85	115				
Sodium	47	1.0	50.00	0	93.1	85	115				
Vanadium	0.49	0.050	0.5000	0	97.0	85	115				
Zinc	0.47	0.010	0.5000	0	93.2	85	115				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712770

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	MB-35567	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	35567	RunNo:	48033					
Prep Date:	12/18/2017	Analysis Date:	12/22/2017	SeqNo:	1539328	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Copper	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Thallium	ND	0.00050								

Sample ID	MSLLCS-35567	SampType:	LCSLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID:	35567	RunNo:	48033					
Prep Date:	12/18/2017	Analysis Date:	12/22/2017	SeqNo:	1539329	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010	0.001000	0	99.3	50	150			
Arsenic	0.0010	0.0010	0.001000	0	100	50	150			
Copper	ND	0.0010	0.001000	0	88.4	50	150			
Lead	ND	0.00050	0.0005000	0	97.1	50	150			
Selenium	ND	0.0010	0.001000	0	84.4	50	150			
Thallium	ND	0.00050	0.0005000	0	95.8	50	150			

Sample ID	MSLCS-35567	SampType:	LCS	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	LCSW	Batch ID:	35567	RunNo:	48033					
Prep Date:	12/18/2017	Analysis Date:	12/22/2017	SeqNo:	1539332	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.030	0.0010	0.02500	0	121	85	115			S
Arsenic	0.025	0.0010	0.02500	0	102	85	115			
Copper	0.025	0.0010	0.02500	0	98.9	85	115			
Lead	0.013	0.00050	0.01250	0	101	85	115			
Selenium	0.024	0.0010	0.02500	0	94.3	85	115			
Thallium	0.013	0.00050	0.01250	0	101	85	115			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712770

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBW	Batch ID: R47783	RunNo: 47783								
Prep Date:	Analysis Date: 12/13/2017	SeqNo: 1527846			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	ND	0.50								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID LCS	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSW	Batch ID: R47783	RunNo: 47783								
Prep Date:	Analysis Date: 12/13/2017	SeqNo: 1527847			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	4.8	0.50	5.000	0	95.7	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	102	90	110			
Sulfate	9.8	0.50	10.00	0	98.2	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712770

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-35552	SampType: MBLK		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: PBW	Batch ID: 35552		RunNo: 47866							
Prep Date: 12/18/2017	Analysis Date: 12/18/2017		SeqNo: 1531860		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	0.020								
1,2-Dibromoethane	ND	0.010								

Sample ID LCS-35552	SampType: LCS		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: LCSW	Batch ID: 35552		RunNo: 47866							
Prep Date: 12/18/2017	Analysis Date: 12/18/2017		SeqNo: 1531864		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.086	0.020	0.1000	0	85.7	70	130			
1,2-Dibromoethane	0.075	0.010	0.1000	0	74.6	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712770

19-Jan-18

Client: City of Las Cruces

Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles, Table I					
Client ID:	PBW	Batch ID:	LF47843	RunNo:	47843					
Prep Date:		Analysis Date:	12/15/2017	SeqNo:	1530697	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
Acetone	ND	10								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	2.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	0.50								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	2.5								
Styrene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
Tetrachloroethene (PCE)	ND	0.50								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	1.0								

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712770

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID rb	SampType: MBLK		TestCode: EPA Method 8260B: Volatiles, Table I							
Client ID: PBW	Batch ID: LF47843		RunNo: 47843							
Prep Date:	Analysis Date: 12/15/2017		SeqNo: 1530697		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.40								
Xylenes, Total	ND	2.0								
Acrylonitrile	ND	10								
Bromochloromethane	ND	2.0								
Iodomethane	ND	10								
trans-1,4-Dichloro-2-butene	ND	10								
Vinyl acetate	ND	10								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		98.8	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		111	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID 100ng lcs	SampType: LCS		TestCode: EPA Method 8260B: Volatiles, Table I							
Client ID: LCSW	Batch ID: LF47843		RunNo: 47843							
Prep Date:	Analysis Date: 12/15/2017		SeqNo: 1530698		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0	86.1	70	130			
Toluene	17	1.0	20.00	0	87.2	70	130			
Chlorobenzene	18	1.0	20.00	0	87.6	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	90.8	70	130			
Trichloroethene (TCE)	16	1.0	20.00	0	81.6	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.8	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		111	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.2	70	130			
Surr: Toluene-d8	9.8		10.00		98.4	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712770

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: MBLK		TestCode: EPA Method 9060 TOC							
Client ID: PBW	Batch ID: R47864		RunNo: 47864							
Prep Date:	Analysis Date: 12/18/2017		SeqNo: 1531660		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	1.0								

Sample ID LCS ST9060-16010/	SampType: LCS		TestCode: EPA Method 9060 TOC							
Client ID: LCSW	Batch ID: R47864		RunNo: 47864							
Prep Date:	Analysis Date: 12/18/2017		SeqNo: 1531661		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	5.0	1.0	4.850	0	104	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712770

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	MB-35618	SampType:	MBLK	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	PBW	Batch ID:	35618	RunNo:	47898					
Prep Date:	12/20/2017	Analysis Date:	12/20/2017	SeqNo:	1533562	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	ND	2.5								

Sample ID	LCS-35618	SampType:	LCS	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	LCSW	Batch ID:	35618	RunNo:	47898					
Prep Date:	12/20/2017	Analysis Date:	12/20/2017	SeqNo:	1533563	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	20	2.5	20.00	0	101	62.4	146			

Sample ID	LCSD-35618	SampType:	LCSD	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	LCSS02	Batch ID:	35618	RunNo:	47898					
Prep Date:	12/20/2017	Analysis Date:	12/20/2017	SeqNo:	1533564	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	22	2.5	20.00	0	110	62.4	146	8.76	21	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712770

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	Ics-1 ~20uS eC		SampType:	LCS		TestCode:	SM2510B: Specific Conductance				
Client ID:	LCSW		Batch ID:	R47902		RunNo:	47902				
Prep Date:			Analysis Date:	12/18/2017		SeqNo:	1533681		Units: µmhos/cm		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Conductivity	22	5.0	19.96	0	112	80	120				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712770

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: MBLK		TestCode: SM 4500 NH3: Ammonia							
Client ID: PBW	Batch ID: R48166		RunNo: 48166							
Prep Date:	Analysis Date: 1/3/2018		SeqNo: 1545295		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	1.0								

Sample ID LCS	SampType: LCS		TestCode: SM 4500 NH3: Ammonia							
Client ID: LCSW	Batch ID: R48166		RunNo: 48166							
Prep Date:	Analysis Date: 1/3/2018		SeqNo: 1545296		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	9.9	1.0	10.00	0	99.4	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712770

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	mb-1 alk	SampType:	MBLK	TestCode:	SM2320B: Alkalinity					
Client ID:	PBW	Batch ID:	R47902	RunNo:	47902					
Prep Date:		Analysis Date:	12/18/2017	SeqNo:	1533705	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID	lcs-1 alk	SampType:	LCS	TestCode:	SM2320B: Alkalinity					
Client ID:	LCSW	Batch ID:	R47902	RunNo:	47902					
Prep Date:		Analysis Date:	12/18/2017	SeqNo:	1533706	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.28	20.00	80.00	0	97.9	90	110			

Sample ID	1712770-001ems	SampType:	MS	TestCode:	SM2320B: Alkalinity					
Client ID:	CLC MW #2	Batch ID:	R47902	RunNo:	47902					
Prep Date:		Analysis Date:	12/18/2017	SeqNo:	1533708	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	208.1	20.00	80.00	134.8	91.6	19.8	126			

Sample ID	1712770-001emsd	SampType:	MSD	TestCode:	SM2320B: Alkalinity					
Client ID:	CLC MW #2	Batch ID:	R47902	RunNo:	47902					
Prep Date:		Analysis Date:	12/18/2017	SeqNo:	1533709	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	208.2	20.00	80.00	134.8	91.8	19.8	126	0.0576	20	

Sample ID	mb-2 alk	SampType:	MBLK	TestCode:	SM2320B: Alkalinity					
Client ID:	PBW	Batch ID:	R47902	RunNo:	47902					
Prep Date:		Analysis Date:	12/18/2017	SeqNo:	1533729	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID	lcs-2 alk	SampType:	LCS	TestCode:	SM2320B: Alkalinity					
Client ID:	LCSW	Batch ID:	R47902	RunNo:	47902					
Prep Date:		Analysis Date:	12/18/2017	SeqNo:	1533730	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.20	20.00	80.00	0	97.7	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712770

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-35576	SampType: MBLK		TestCode: SM2540C MOD: Total Dissolved Solids							
Client ID: PBW	Batch ID: 35576		RunNo: 47893							
Prep Date: 12/18/2017	Analysis Date: 12/19/2017		SeqNo: 1532726		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID LCS-35576	SampType: LCS		TestCode: SM2540C MOD: Total Dissolved Solids							
Client ID: LCSW	Batch ID: 35576		RunNo: 47893							
Prep Date: 12/18/2017	Analysis Date: 12/19/2017		SeqNo: 1532727		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1000	20.0	1000	0	100	80	120			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

Sample Log-In Check List

Client Name: City of Las Cruces

Work Order Number: 1712770

RcptNo: 1

Received By: Erin Melendrez

12/13/17 0845
~~12/12/2017 10:53:00 AM~~ 12/13/17

Completed By: Michelle Garcia

12/13/2017 11:33:01 AM

Reviewed By: *IM*

12/13/17

u. u. u.
Michelle Garcia

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? FedEx

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels? Yes No
 (Note discrepancies on chain of custody)
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met? Yes No
 (If no, notify customer for authorization.)

of preserved bottles checked for pH: 3
 (or >12 unless noted)
 Adjusted? no
 Checked by: DD

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified:		Date:	
By Whom:		Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:			
Client Instructions:			

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.8	Good	Yes			

Table I. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
acetone	67-64-1	8260B	-	0.01	0.0195	-	mg/L	y
acrylonitrile	107-13-1	8260B	-	0.1	0.195	-	mg/L	y
benzene	71-43-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
bromochloromethane	74-97-5	8260B	-	0.001	0.00195	-	mg/L	y
bromodichloromethane	75-27-4	8260B	-	0.005	0.00975	-	mg/L	y
bromoform	75-25-2	8260B	-	0.015	0.02925	-	mg/L	y
carbon disulfide	75-15-0	8260B	-	0.001	0.00195	-	mg/L	y
carbon tetrachloride	56-23-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
chlorobenzene	108-90-7	8260B	0.1	0.005	0.05	0.075	mg/L	y
chloroethane	75-00-3	8260B	-	0.01	0.0195	-	mg/L	y
chloroform	67-66-3	8260B	0.1	0.005	0.05	0.75	mg/L	y
dibromochloromethane	124-48-1	8260B	-	0.005	0.00975	-	mg/L	y
1,2-dibromo-3-chloropropane	96-12-8	504.1	0.0002	0.0001	0.0001	0.00015	mg/L	y
1,2-dichlorobenzene	95-50-1	8260B	0.06	0.01	0.03	0.045	mg/L	y
1,3-dichlorobenzene	541-73-1	8260B	-	0.01	0.0195	-	mg/L	y
1,4-dichlorobenzene	106-46-7	8260B	0.075	0.015	0.0375	0.5625	mg/L	n
trans-1,4-dichloro-2-butene	110-57-6	8260B	-	0.001	0.00195	-	mg/L	y
dichlorodifluoromethane	75-71-8	8260B	-	0.005	0.00975	-	mg/L	y
1,1-dichloroethane	75-34-3	8260B	0.025	0.005	0.0125	0.01875	mg/L	n
1,2-dichloroethane (EDC)	107-06-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
1,1-dichloroethylene (1,1-DCE)	75-35-4	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
cis-1,2-dichloroethylene	156-59-2	8260B	0.07	0.005	0.035	0.0525	mg/L	y
trans-1,2- dichloroethylene	156-60-5	8260B	0.1	0.005	0.05	0.075	mg/L	y
1,2-dichloropropane	78-87-5	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y
cis-1,3-dichloropropene	10061-01-5	8260B	-	0.02	0.039	-	mg/L	y
trans-1,3- dichloropropene	10061-02-6	8260B	-	0.01	0.0195	-	mg/L	y
ethylbenzene	100-41-4	8260B	0.7	0.01	0.35	0.525	mg/L	y
ethylene dibromide (EDB)	106-93-4	504.1	0.00005	0.000025	0.000025	0.000038	mg/L	y
2-hexanone	591-78-6	8260B	-	0.04	0.078	-	mg/L	y
methyl bromide	74-83-9	8260B	-	0.01	0.0195	-	mg/L	y
methyl chloride	74-87-3	8260B	-	0.001	0.00195	-	mg/L	y
methyl ethyl ketone	78-93-3	8260B	-	0.01	0.0195	-	mg/L	y
methyl iodide	74-88-4	8260B	-	0.05	0.0975	-	mg/L	y
4-methyl-2-pentanone	108-10-1	8260B	-	0.001	0.00195	-	mg/L	y
methylene bromide	74-95-3	8260B	-	0.001	0.00195	-	mg/L	y
methylene chloride	74-87-3	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
styrene	100-42-5	8260B	0.1	0.001	0.05	0.075	mg/L	y
1,1,1,2- tetrachloroethane	630-20-6	8260B	-	0.001	0.00195	-	mg/L	y
1,1,2,2- tetrachloroethane	79-34-5	8260B	0.01	0.005	0.005	0.0075	mg/L	y
tetrachloroethylene (PCE)	127-18-4	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
toluene	108-88-3	8260B	0.75	0.001	0.375	0.5625	mg/L	y
1,1,1-trichloroethane	71-55-6	8260B	0.06	0.005	0.03	0.045	mg/L	y
1,1,2-trichloroethane	79-00-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
trichloroethylene (TCE)	79-01-6	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
trichlorofluoromethane	75-69-4	8260B	-	0.01	0.0195	-	mg/L	y
1,2,3-trichloropropane	96-18-4	8260B	-	0.05	0.0975	-	mg/L	y
vinyl acetate	108-05-4	8260B	-	0.0004	0.00078	-	mg/L	y
vinyl chloride	75-01-4	8260B	0.001	0.0004	0.0005	0.00075	mg/L	y
xylenes	1330-20-7	8260B	0.62	0.0015	0.31	0.465	mg/L	y
ammonia as (N)	N/A	SM 4500 NH3	-	0.5	-	-	mg/L	n
nitrate (as N)	N/A	300.0	10	1.0	5.0	7.5	mg/L	n
chloride	16887-00-6	300.0	250	5.0	187.5	250	mg/L	n
sulfate	14808-79-8	300.0	250	5.0	187.5	250	mg/L	n
total dissolved solids	N/A	SM 2540C	500	5.0	-	-	mg/L	n
carbonate alkalinity	3812-32-6	SM 2320B	-	10	-	-	mg/L	n
bicarbonate alkalinity	71-52-3	SM 2320B	-	10	-	-	mg/L	n
total phenolics	N/A	9067	0.005	0.0025	0.0025	0.00375	mg/L	n
total organic carbon	N/A	9060	-	1	-	-	mg/L	n
barium (total)	7440-39-3	6010B	1	0.01	0.5	0.75	mg/L	y
beryllium (total)	7440-41-7	6010B	0.004	0.002	0.002	0.003	mg/L	y
cadmium (total)	7440-43-9	6010B	0.005	0.002	0.0025	0.00375	mg/L	y
calcium (total)	7440-70-2	6010B	-	1	-	-	mg/L	y
chromium (total)	7440-47-3	6010B	0.05	0.006	0.025	0.0375	mg/L	n
cobalt (total)	7440-48-4	6010B	0.05	0.006	0.025	0.0375	mg/L	y
copper (total)	7440-50-8	6010B	1	0.006	0.5	0.75	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (concluded)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
iron (total)	7439-89-6	6010B	0.3	0.1	0.225	0.3	mg/L	n
lead (total)	7439-92-1	6010B	0.05	0.005	0.025	0.0375	mg/L	y
magnesium (total)	7439-95-4	6010B	-	1	-	-	mg/L	n
manganese (total)	7439-96-5	6010B	0.05	0.03	0.0375	0.05	mg/L	n
nickel (total)	7440-02-0	6010B	0.2	0.01	0.1	0.15	mg/L	y
potassium (total)	7440-09-7	6010B	-	1	-	-	mg/L	n
silver (total)	7440-22-4	6010B	0.05	0.005	0.025	0.0375	mg/L	y
sodium (total)	7440-23-5	6010B	-	1	-	-	mg/L	n
vanadium (total)	7440-62-2	6010B	-	0.05	-	-	mg/L	y
zinc (total)	7440-66-6	6010B	5	0.02	2.5	3.75	mg/L	y
antimony (total)	7440-36-0	6020	0.006	0.001	0.003	0.0045	mg/L	y
arsenic (total)	7440-38-2	6020	0.01	0.004	0.005	0.0075	mg/L	y
selenium (total)	7782-49-2	6020	0.05	0.001	0.025	0.0375	mg/L	y
thallium (total)	7440-28-0	6020	0.002	0.001	0.001	0.0015	mg/L	y
pH	N/A	SM4500	6.5-8.5	+/- 0.1	-	-	S.U.	n
specific conductance	N/A	120.1	-	+/- 25	-	-	µS/cm	n
temperature	N/A	field	-	+/- 0.5	-	-	°F	n
water level elevation	N/A	field	-	+/- 0.01	-	-	ft	n

GWPS - ground water protection standard

PQL - practical quantitation limit

AML - assessment monitoring level

CAL - corrective action level

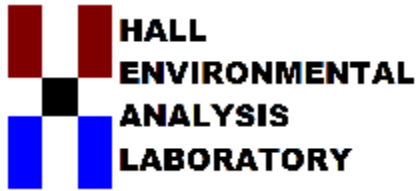
mg/L - milligrams per liter

µS/cm - microSiemens per centimeter

S.U. - standard pH units

°F - degrees Fahrenheit

ft - feet



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 19, 2018

Luis Guerra

City of Las Cruces

PO Box 20000

Las Cruces, NM 88004

TEL: (575) 528-3635

FAX (575) 528-3513

RE: CLC Foothills Landfill Closures Monitoring Wells

OrderNo.: 1712669

Dear Luis Guerra:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/12/2017 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued January 10, 2018.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a white background.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712669

Date Reported: 1/19/2018

CLIENT: City of Las Cruces

Client Sample ID: CLC MW-3

Project: CLC Foothills Landfill Closures Monitori

Collection Date: 12/11/2017 12:53:00 PM

Lab ID: 1712669-001

Matrix: AQUEOUS

Received Date: 12/12/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	12/18/2017 8:27:49 PM	35552
1,2-Dibromoethane	ND	0.0095		µg/L	1	12/18/2017 8:27:49 PM	35552
EPA METHOD 9060 TOC							Analyst: MAB
Total Organic Carbon	5.3	1.0		mg/L	1	12/18/2017 4:23:02 PM	R47864
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	6.8	0.50		mg/L	1	12/13/2017 11:48:45 AM	R47783
Nitrogen, Nitrate (As N)	ND	0.10		mg/L	1	12/13/2017 11:48:45 AM	R47783
Sulfate	35	0.50		mg/L	1	12/13/2017 11:48:45 AM	R47783
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	290	5.0		µmhos/cm	1	12/13/2017 7:23:44 PM	R47803
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	103.9	20.00		mg/L CaCO3	1	12/13/2017 7:23:44 PM	R47803
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	12/13/2017 7:23:44 PM	R47803
Total Alkalinity (as CaCO3)	103.9	20.00		mg/L CaCO3	1	12/13/2017 7:23:44 PM	R47803
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: SRM
Total Dissolved Solids	195	20.0		mg/L	1	12/19/2017 11:47:00 AM	35547
SM 4500 NH3: AMMONIA							Analyst: smb
Nitrogen, Ammonia	ND	1.0		mg/L	1	1/4/2018 3:07:00 PM	R48198
SM4500-H+B: PH							Analyst: JRR
pH	7.63		H	pH units	1	12/13/2017 7:23:44 PM	R47803
EPA METHOD 200.7: TOTAL METALS							Analyst: pmf
Barium	0.019	0.0020		mg/L	1	12/29/2017 7:37:47 PM	35732
Beryllium	ND	0.0020		mg/L	1	1/2/2018 4:27:31 PM	35732
Cadmium	ND	0.0020		mg/L	1	12/29/2017 7:37:47 PM	35732
Calcium	23	1.0		mg/L	1	12/29/2017 7:37:47 PM	35732
Chromium	ND	0.0060		mg/L	1	1/2/2018 4:27:31 PM	35732
Cobalt	ND	0.0060		mg/L	1	1/2/2018 4:27:31 PM	35732
Iron	0.23	0.020		mg/L	1	12/29/2017 7:37:47 PM	35732
Magnesium	4.2	1.0		mg/L	1	12/29/2017 7:37:47 PM	35732
Manganese	0.035	0.0020		mg/L	1	1/2/2018 4:27:31 PM	35732
Nickel	0.048	0.010		mg/L	1	12/29/2017 7:37:47 PM	35732
Potassium	2.0	1.0		mg/L	1	12/29/2017 7:37:47 PM	35732
Silver	ND	0.0050		mg/L	1	12/29/2017 7:37:47 PM	35732
Sodium	31	1.0		mg/L	1	12/29/2017 7:37:47 PM	35732
Vanadium	ND	0.050		mg/L	1	12/29/2017 7:37:47 PM	35732

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712669

Date Reported: 1/19/2018

CLIENT: City of Las Cruces

Client Sample ID: CLC MW-3

Project: CLC Foothills Landfill Closures Monitori

Collection Date: 12/11/2017 12:53:00 PM

Lab ID: 1712669-001

Matrix: AQUEOUS

Received Date: 12/12/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: pmf
Zinc	1.9	0.050		mg/L	5	1/2/2018 4:35:28 PM	35732
200.8 ICPMS METALS:TOTAL							Analyst: DBK
Antimony	0.0039	0.0010		mg/L	1	1/4/2018 4:45:38 PM	35732
Arsenic	0.0024	0.0010		mg/L	1	1/2/2018 9:23:04 PM	35732
Copper	0.39	0.010		mg/L	10	1/3/2018 8:33:35 PM	35732
Lead	0.039	0.0050	*	mg/L	10	1/3/2018 8:33:35 PM	35732
Selenium	ND	0.0010		mg/L	1	1/2/2018 9:23:04 PM	35732
Thallium	ND	0.00050		mg/L	1	1/3/2018 8:40:08 PM	35732
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
Benzene	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Toluene	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Ethylbenzene	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Acetone	ND	10		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Bromodichloromethane	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Bromoform	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Bromomethane	ND	2.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
2-Butanone	ND	10		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Carbon disulfide	ND	10		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Carbon Tetrachloride	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Chlorobenzene	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Chloroethane	ND	2.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Chloroform	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Chloromethane	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
cis-1,2-DCE	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Dibromochloromethane	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Dibromomethane	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Dichlorodifluoromethane	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
1,1-Dichloroethane	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
1,1-Dichloroethene	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
1,2-Dichloropropane	ND	0.50		µg/L	1	12/15/2017 2:24:08 PM	LF47843
2-Hexanone	ND	10		µg/L	1	12/15/2017 2:24:08 PM	LF47843
4-Methyl-2-pentanone	ND	10		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Methylene Chloride	ND	2.5		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Styrene	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
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	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712669

Date Reported: 1/19/2018

CLIENT: City of Las Cruces

Client Sample ID: CLC MW-3

Project: CLC Foothills Landfill Closures Monitori

Collection Date: 12/11/2017 12:53:00 PM

Lab ID: 1712669-001

Matrix: AQUEOUS

Received Date: 12/12/2017 8:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Tetrachloroethene (PCE)	ND	0.50		µg/L	1	12/15/2017 2:24:08 PM	LF47843
trans-1,2-DCE	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Trichlorofluoromethane	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
1,2,3-Trichloropropane	ND	1.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Vinyl chloride	ND	0.40		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Xylenes, Total	ND	2.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Acrylonitrile	ND	10		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Bromochloromethane	ND	2.0		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Iodomethane	ND	10		µg/L	1	12/15/2017 2:24:08 PM	LF47843
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Vinyl acetate	ND	10		µg/L	1	12/15/2017 2:24:08 PM	LF47843
Surr: 1,2-Dichloroethane-d4	99.6	70-130		%Rec	1	12/15/2017 2:24:08 PM	LF47843
Surr: 4-Bromofluorobenzene	108	70-130		%Rec	1	12/15/2017 2:24:08 PM	LF47843
Surr: Dibromofluoromethane	100	70-130		%Rec	1	12/15/2017 2:24:08 PM	LF47843
Surr: Toluene-d8	97.4	70-130		%Rec	1	12/15/2017 2:24:08 PM	LF47843
TOTAL PHENOLICS BY SW-846 9067							Analyst: SCC
Phenolics	6.0	2.5		µg/L	1	12/20/2017	35618

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
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	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712669

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closures Monitoring Wel

Sample ID	MB-35732	SampType:	MBLK	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID:	35732	RunNo:	48109					
Prep Date:	12/27/2017	Analysis Date:	12/29/2017	SeqNo:	1542656	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID	LLLCS-35732	SampType:	LCSLL	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	35732	RunNo:	48109					
Prep Date:	12/27/2017	Analysis Date:	12/29/2017	SeqNo:	1542657	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	99.0	50	150			
Beryllium	ND	0.0020	0.002000	0	95.0	50	150			
Cadmium	ND	0.0020	0.002000	0	88.0	50	150			
Calcium	ND	1.0	0.5000	0	102	50	150			
Chromium	ND	0.0060	0.006000	0	93.0	50	150			
Cobalt	ND	0.0060	0.006000	0	98.5	50	150			
Iron	0.020	0.020	0.02000	0	101	50	150			
Magnesium	ND	1.0	0.5000	0	103	50	150			
Manganese	0.0020	0.0020	0.002000	0	102	50	150			
Nickel	ND	0.010	0.005000	0	100	50	150			
Potassium	ND	1.0	0.5000	0	99.4	50	150			
Silver	0.0053	0.0050	0.005000	0	106	50	150			
Sodium	ND	1.0	0.5000	0	97.4	50	150			
Vanadium	ND	0.050	0.01000	0	100	50	150			
Zinc	ND	0.010	0.005000	0	107	50	150			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712669

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closures Monitoring Wel

Sample ID	LCS-35732		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals				
Client ID:	LCSW		Batch ID:	35732		RunNo:	48109				
Prep Date:	12/27/2017		Analysis Date:	12/29/2017		SeqNo:	1542658		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Barium	0.49	0.0020	0.5000	0	97.5	85	115				
Beryllium	0.49	0.0020	0.5000	0	98.0	85	115				
Cadmium	0.50	0.0020	0.5000	0	99.2	85	115				
Calcium	49	1.0	50.00	0	98.5	85	115				
Chromium	0.49	0.0060	0.5000	0	97.1	85	115				
Cobalt	0.47	0.0060	0.5000	0	94.6	85	115				
Iron	0.50	0.020	0.5000	0	99.1	85	115				
Magnesium	51	1.0	50.00	0	101	85	115				
Manganese	0.49	0.0020	0.5000	0	97.4	85	115				
Nickel	0.48	0.010	0.5000	0	95.0	85	115				
Potassium	50	1.0	50.00	0	99.4	85	115				
Silver	0.10	0.0050	0.1000	0	104	85	115				
Sodium	50	1.0	50.00	0	100	85	115				
Vanadium	0.49	0.050	0.5000	0	97.6	85	115				
Zinc	0.47	0.010	0.5000	0	94.8	85	115				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712669

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closures Monitoring Wel

Sample ID MB-35732	SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total							
Client ID: PBW	Batch ID: 35732		RunNo: 48096							
Prep Date: 12/27/2017	Analysis Date: 12/29/2017		SeqNo: 1542204		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Copper	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Thallium	ND	0.00050								

Sample ID MSLLCS-35732	SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total							
Client ID: BatchQC	Batch ID: 35732		RunNo: 48096							
Prep Date: 12/27/2017	Analysis Date: 12/29/2017		SeqNo: 1542205		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010	0.001000	0	80.0	50	150			
Copper	ND	0.0010	0.001000	0	99.8	50	150			
Lead	ND	0.00050	0.0005000	0	98.6	50	150			
Selenium	ND	0.0010	0.001000	0	89.0	50	150			
Thallium	ND	0.00050	0.0005000	0	94.5	50	150			

Sample ID MSLCS-35732	SampType: LCS		TestCode: 200.8 ICPMS Metals:Total							
Client ID: LCSW	Batch ID: 35732		RunNo: 48096							
Prep Date: 12/27/2017	Analysis Date: 12/29/2017		SeqNo: 1542206		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.0	85	115			
Copper	0.025	0.0010	0.02500	0	99.9	85	115			
Lead	0.012	0.00050	0.01250	0	97.6	85	115			
Selenium	0.024	0.0010	0.02500	0	95.3	85	115			
Thallium	0.012	0.00050	0.01250	0	98.0	85	115			

Sample ID MB-35732	SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total							
Client ID: PBW	Batch ID: 35732		RunNo: 48204							
Prep Date: 12/27/2017	Analysis Date: 1/4/2018		SeqNo: 1547347		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								

Sample ID MSLLCS-35732	SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total							
Client ID: BatchQC	Batch ID: 35732		RunNo: 48204							
Prep Date: 12/27/2017	Analysis Date: 1/4/2018		SeqNo: 1547348		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712669

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closures Monitoring Wel

Sample ID	MSLLCS-35732	SampType:	LCSLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID:	35732	RunNo:	48204					
Prep Date:	12/27/2017	Analysis Date:	1/4/2018	SeqNo:	1547348	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.0013	0.0010	0.001000	0	128	50	150			

Sample ID	MSLCS-35732	SampType:	LCS	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	LCSW	Batch ID:	35732	RunNo:	48204					
Prep Date:	12/27/2017	Analysis Date:	1/4/2018	SeqNo:	1547349	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.028	0.0010	0.02500	0	111	85	115			

Qualifiers:

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- D Sample Diluted Due to Matrix
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- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712669

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closures Monitoring Wel

Sample ID MB	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBW	Batch ID: R47783	RunNo: 47783								
Prep Date:	Analysis Date: 12/13/2017	SeqNo: 1527846			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	ND	0.50								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID LCS	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSW	Batch ID: R47783	RunNo: 47783								
Prep Date:	Analysis Date: 12/13/2017	SeqNo: 1527847			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	4.8	0.50	5.000	0	95.7	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	102	90	110			
Sulfate	9.8	0.50	10.00	0	98.2	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712669

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closures Monitoring Wel

Sample ID MB-35552	SampType: MBLK		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: PBW	Batch ID: 35552		RunNo: 47866							
Prep Date: 12/18/2017	Analysis Date: 12/18/2017		SeqNo: 1531860		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	0.020								
1,2-Dibromoethane	ND	0.010								

Sample ID LCS-35552	SampType: LCS		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: LCSW	Batch ID: 35552		RunNo: 47866							
Prep Date: 12/18/2017	Analysis Date: 12/18/2017		SeqNo: 1531864		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.086	0.020	0.1000	0	85.7	70	130			
1,2-Dibromoethane	0.075	0.010	0.1000	0	74.6	70	130			

Sample ID 1712669-001BMS	SampType: MS		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: CLC MW-3	Batch ID: 35552		RunNo: 47866							
Prep Date: 12/18/2017	Analysis Date: 12/18/2017		SeqNo: 1531927		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.088	0.019	0.09485	0	92.3	42.1	145			
1,2-Dibromoethane	0.074	0.0095	0.09485	0	78.2	42.7	143			

Sample ID 1712669-001BMSD	SampType: MSD		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: CLC MW-3	Batch ID: 35552		RunNo: 47866							
Prep Date: 12/18/2017	Analysis Date: 12/18/2017		SeqNo: 1531929		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.081	0.019	0.09459	0	85.5	42.1	145	7.94	20	
1,2-Dibromoethane	0.068	0.0095	0.09459	0	71.9	42.7	143	8.69	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712669

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closures Monitoring Wel

Sample ID	rb	SampType:	MBLK		TestCode:	EPA Method 8260B: Volatiles, Table I				
Client ID:	PBW	Batch ID:	LF47843		RunNo:	47843				
Prep Date:		Analysis Date:	12/15/2017		SeqNo:	1530697	Units:	µg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
Acetone	ND	10								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	2.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	0.50								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	2.5								
Styrene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
Tetrachloroethene (PCE)	ND	0.50								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	1.0								

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712669

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closures Monitoring Wel

Sample ID rb	SampType: MBLK		TestCode: EPA Method 8260B: Volatiles, Table I							
Client ID: PBW	Batch ID: LF47843		RunNo: 47843							
Prep Date:	Analysis Date: 12/15/2017		SeqNo: 1530697		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.40								
Xylenes, Total	ND	2.0								
Acrylonitrile	ND	10								
Bromochloromethane	ND	2.0								
Iodomethane	ND	10								
trans-1,4-Dichloro-2-butene	ND	10								
Vinyl acetate	ND	10								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		98.8	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		111	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID 100ng lcs	SampType: LCS		TestCode: EPA Method 8260B: Volatiles, Table I							
Client ID: LCSW	Batch ID: LF47843		RunNo: 47843							
Prep Date:	Analysis Date: 12/15/2017		SeqNo: 1530698		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0	86.1	70	130			
Toluene	17	1.0	20.00	0	87.2	70	130			
Chlorobenzene	18	1.0	20.00	0	87.6	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	90.8	70	130			
Trichloroethene (TCE)	16	1.0	20.00	0	81.6	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.8	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		111	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.2	70	130			
Surr: Toluene-d8	9.8		10.00		98.4	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712669

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closures Monitoring Wel

Sample ID MB	SampType: MBLK		TestCode: EPA Method 9060 TOC							
Client ID: PBW	Batch ID: R47864		RunNo: 47864							
Prep Date:	Analysis Date: 12/18/2017		SeqNo: 1531660		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	1.0								

Sample ID LCS ST9060-16010/	SampType: LCS		TestCode: EPA Method 9060 TOC							
Client ID: LCSW	Batch ID: R47864		RunNo: 47864							
Prep Date:	Analysis Date: 12/18/2017		SeqNo: 1531661		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	5.0	1.0	4.850	0	104	90	110			

Sample ID 1712669-001CMS	SampType: MS		TestCode: EPA Method 9060 TOC							
Client ID: CLC MW-3	Batch ID: R47864		RunNo: 47864							
Prep Date:	Analysis Date: 12/18/2017		SeqNo: 1531667		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	10	1.0	4.650	5.267	105	75	125			

Sample ID 1712669-001CMSD	SampType: MSD		TestCode: EPA Method 9060 TOC							
Client ID: CLC MW-3	Batch ID: R47864		RunNo: 47864							
Prep Date:	Analysis Date: 12/18/2017		SeqNo: 1531668		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	10	1.0	4.650	5.267	105	75	125	0.0984	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712669

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closures Monitoring Wel

Sample ID	MB-35618	SampType:	MBLK	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	PBW	Batch ID:	35618	RunNo:	47898					
Prep Date:	12/20/2017	Analysis Date:	12/20/2017	SeqNo:	1533562	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	ND	2.5								

Sample ID	LCS-35618	SampType:	LCS	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	LCSW	Batch ID:	35618	RunNo:	47898					
Prep Date:	12/20/2017	Analysis Date:	12/20/2017	SeqNo:	1533563	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	20	2.5	20.00	0	101	62.4	146			

Sample ID	LCSD-35618	SampType:	LCSD	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	LCSS02	Batch ID:	35618	RunNo:	47898					
Prep Date:	12/20/2017	Analysis Date:	12/20/2017	SeqNo:	1533564	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	22	2.5	20.00	0	110	62.4	146	8.76	21	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712669

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closures Monitoring Wel

Sample ID	Ics-1 ~20uS eC		SampType:	LCS		TestCode:	SM2510B: Specific Conductance				
Client ID:	LCSW		Batch ID:	R47803		RunNo:	47803				
Prep Date:			Analysis Date:	12/13/2017		SeqNo:	1528860		Units: µmhos/cm		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Conductivity	22	5.0	19.96	0	110	80	120				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712669

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closures Monitoring Wel

Sample ID MB	SampType: MBLK		TestCode: SM 4500 NH3: Ammonia							
Client ID: PBW	Batch ID: R48198		RunNo: 48198							
Prep Date:	Analysis Date: 1/4/2018		SeqNo: 1547067		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	1.0								

Sample ID LCS	SampType: LCS		TestCode: SM 4500 NH3: Ammonia							
Client ID: LCSW	Batch ID: R48198		RunNo: 48198							
Prep Date:	Analysis Date: 1/4/2018		SeqNo: 1547068		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	10	1.0	10.00	0	101	80	120			

Sample ID 1712669-001EMS	SampType: MS		TestCode: SM 4500 NH3: Ammonia							
Client ID: CLC MW-3	Batch ID: R48198		RunNo: 48198							
Prep Date:	Analysis Date: 1/4/2018		SeqNo: 1547072		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	10	1.0	10.00	0	102	75	125			

Sample ID 1712669-001EMSD	SampType: MSD		TestCode: SM 4500 NH3: Ammonia							
Client ID: CLC MW-3	Batch ID: R48198		RunNo: 48198							
Prep Date:	Analysis Date: 1/4/2018		SeqNo: 1547073		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	10	1.0	10.00	0	102	75	125	0	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712669

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closures Monitoring Wel

Sample ID mb-1 alk	SampType: MBLK		TestCode: SM2320B: Alkalinity							
Client ID: PBW	Batch ID: R47803		RunNo: 47803							
Prep Date:	Analysis Date: 12/13/2017		SeqNo: 1528814		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID ics-1 alk	SampType: LCS		TestCode: SM2320B: Alkalinity							
Client ID: LCSW	Batch ID: R47803		RunNo: 47803							
Prep Date:	Analysis Date: 12/13/2017		SeqNo: 1528815		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.32	20.00	80.00	0	97.9	90	110			

Sample ID mb-2 alk	SampType: MBLK		TestCode: SM2320B: Alkalinity							
Client ID: PBW	Batch ID: R47803		RunNo: 47803							
Prep Date:	Analysis Date: 12/13/2017		SeqNo: 1528838		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID ics-2 alk	SampType: LCS		TestCode: SM2320B: Alkalinity							
Client ID: LCSW	Batch ID: R47803		RunNo: 47803							
Prep Date:	Analysis Date: 12/13/2017		SeqNo: 1528839		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.56	20.00	80.00	0	98.2	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712669

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closures Monitoring Wel

Sample ID MB-35547	SampType: MBLK	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: PBW	Batch ID: 35547	RunNo: 47876								
Prep Date: 12/16/2017	Analysis Date: 12/19/2017	SeqNo: 1532324	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID LCS-35547	SampType: LCS	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: LCSW	Batch ID: 35547	RunNo: 47876								
Prep Date: 12/16/2017	Analysis Date: 12/19/2017	SeqNo: 1532325	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1010	20.0	1000	0	101	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Sample Log-In Check List

Client Name: City of Las Cruces

Work Order Number: 1712689

RcptNo: 1

Received By: Erin Melendrez

Completed By: Ashley Gallegos

Reviewed By: DDS

12/12/2017 8:30:00 AM

12/12/2017 2:01:58 PM

12/13/17

Handwritten initials/signatures

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? FedEx No Not Present

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C? Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes No
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met? (if no, notify customer for authorization.) Yes No

of preserved bottles checked for pH: 3
 (<2 or >12 unless noted)
 Adjusted? NO
 Checked by: IMU

Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.4	Good	Yes			

October 12, 2009

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Appendix I, Part 258, 40 CFR
acetone	67-64-1	8260B	-	0.01	0.0195	-	mg/L	y
acrylonitrile	107-13-1	8260B	-	0.1	0.195	-	mg/L	y
benzene	71-43-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
bromochloromethane	74-97-5	8260B	-	0.001	0.00195	-	mg/L	y
bromodichloromethane	75-27-4	8260B	-	0.005	0.00975	-	mg/L	y
bromoform	75-25-2	8260B	-	0.015	0.02925	-	mg/L	y
carbon disulfide	75-15-0	8260B	-	0.001	0.00195	-	mg/L	y
carbon tetrachloride	56-23-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
chlorobenzene	108-90-7	8260B	0.1	0.005	0.05	0.075	mg/L	y
chloroethane	75-00-3	8260B	-	0.01	0.0195	-	mg/L	y
chloroform	67-66-3	8260B	0.1	0.005	0.05	0.75	mg/L	y
dibromochloromethane	124-48-1	8260B	-	0.005	0.00975	-	mg/L	y
1,2-dibromo-3-chloropropane	96-12-8	504.1	0.0002	0.0001	0.0001	0.00015	mg/L	y
1,2-dichlorobenzene	95-50-1	8260B	0.06	0.01	0.03	0.045	mg/L	y
1,3-dichlorobenzene	541-73-1	8260B	-	0.01	0.0195	-	mg/L	y
1,4-dichlorobenzene	106-46-7	8260B	0.075	0.015	0.0375	0.5625	mg/L	n
trans-1,4-dichloro-2-butene	110-57-6	8260B	-	0.001	0.00195	-	mg/L	y
dichlorodifluoromethane	75-71-8	8260B	-	0.005	0.00975	-	mg/L	y
1,1-dichloroethane	75-34-3	8260B	0.025	0.005	0.0125	0.01875	mg/L	n
1,2-dichloroethane (EDC)	107-06-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
1,1-dichloroethylene (1,1-DCE)	75-35-4	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
cis-1,2-dichloroethylene	156-59-2	8260B	0.07	0.005	0.035	0.0525	mg/L	y
trans-1,2- dichloroethylene	156-60-5	8260B	0.1	0.005	0.05	0.075	mg/L	y
1,2-dichloropropane	78-87-5	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y
cis-1,3-dichloropropene	10061-01-5	8260B	-	0.02	0.039	-	mg/L	y
trans-1,3- dichloropropene	10061-02-6	8260B	-	0.01	0.0195	-	mg/L	y
ethylbenzene	100-41-4	8260B	0.7	0.01	0.35	0.525	mg/L	y
ethylene dibromide (EDB)	106-93-4	504.1	0.00005	0.000025	0.000025	0.000038	mg/L	y
2-hexanone	591-78-6	8260B	-	0.04	0.078	-	mg/L	y
methyl bromide	74-83-9	8260B	-	0.01	0.0195	-	mg/L	y
methyl chloride	74-87-3	8260B	-	0.001	0.00195	-	mg/L	y
methyl ethyl ketone	78-93-3	8260B	-	0.01	0.0195	-	mg/L	y
methyl iodide	74-88-4	8260B	-	0.05	0.0975	-	mg/L	y
4-methyl-2-pentanone	108-10-1	8260B	-	0.001	0.00195	-	mg/L	y
methylene bromide	74-95-3	8260B	-	0.001	0.00195	-	mg/L	y
methylene chloride	74-87-3	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
styrene	100-42-5	8260B	0.1	0.001	0.05	0.075	mg/L	y
1,1,1,2- tetrachloroethane	630-20-6	8260B	-	0.001	0.00195	-	mg/L	y
1,1,2,2- tetrachloroethane	79-34-5	8260B	0.01	0.005	0.005	0.0075	mg/L	y
tetrachloroethylene (PCE)	127-18-4	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
toluene	108-88-3	8260B	0.75	0.001	0.375	0.5625	mg/L	y
1,1,1-trichloroethane	71-55-6	8260B	0.06	0.005	0.03	0.045	mg/L	y
1,1,2-trichloroethane	79-00-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
trichloroethylene (TCE)	79-01-6	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
trichlorofluoromethane	75-69-4	8260B	-	0.01	0.0195	-	mg/L	y
1,2,3-trichloropropane	96-18-4	8260B	-	0.05	0.0975	-	mg/L	y
vinyl acetate	108-05-4	8260B	-	0.0004	0.00078	-	mg/L	y
vinyl chloride	75-01-4	8260B	0.001	0.0004	0.0005	0.00075	mg/L	y
xylenes	1330-20-7	8260B	0.62	0.0015	0.31	0.465	mg/L	y
ammonia as (N)	N/A	SM 4500 NH3	-	0.5	-	-	mg/L	n
nitrate (as N)	N/A	300.0	10	1.0	5.0	7.5	mg/L	n
chloride	16887-00-6	300.0	250	5.0	187.5	250	mg/L	n
sulfate	14808-79-8	300.0	250	5.0	187.5	250	mg/L	n
total dissolved solids	N/A	SM 2540C	500	5.0	-	-	mg/L	n
carbonate alkalinity	3812-32-6	SM 2320B	-	10	-	-	mg/L	n
bicarbonate alkalinity	71-52-3	SM 2320B	-	10	-	-	mg/L	n
total phenolics	N/A	9067	0.005	0.0025	0.0025	0.00375	mg/L	n
total organic carbon	N/A	9060	-	1	-	-	mg/L	n
barium (total)	7440-39-3	6010B	1	0.01	0.5	0.75	mg/L	y
beryllium (total)	7440-41-7	6010B	0.004	0.002	0.002	0.003	mg/L	y
cadmium (total)	7440-43-9	6010B	0.005	0.002	0.0025	0.00375	mg/L	y
calcium (total)	7440-70-2	6010B	-	1	-	-	mg/L	y
chromium (total)	7440-47-3	6010B	0.05	0.006	0.025	0.0375	mg/L	n
cobalt (total)	7440-48-4	6010B	0.05	0.006	0.025	0.0375	mg/L	y
copper (total)	7440-50-8	6010B	1	0.006	0.5	0.75	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (concluded)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Appendix I, Part 258, 40 CFR
iron (total)	7439-89-6	6010B	0.3	0.1	0.225	0.3	mg/L	n
lead (total)	7439-92-1	6010B	0.05	0.005	0.025	0.0375	mg/L	y
magnesium (total)	7439-95-4	6010B	-	1	-	-	mg/L	n
manganese (total)	7439-96-5	6010B	0.05	0.03	0.0375	0.05	mg/L	n
nickel (total)	7440-02-0	6010B	0.2	0.01	0.1	0.15	mg/L	y
potassium (total)	7440-09-7	6010B	-	1	-	-	mg/L	n
silver (total)	7440-22-4	6010B	0.05	0.005	0.025	0.0375	mg/L	y
sodium (total)	7440-23-5	6010B	-	1	-	-	mg/L	n
vanadium (total)	7440-62-2	6010B	-	0.05	-	-	mg/L	y
zinc (total)	7440-66-6	6010B	5	0.02	2.5	3.75	mg/L	y
antimony (total)	7440-36-0	6020	0.006	0.001	0.003	0.0045	mg/L	y
arsenic (total)	7440-38-2	6020	0.01	0.004	0.005	0.0075	mg/L	y
selenium (total)	7782-49-2	6020	0.05	0.001	0.025	0.0375	mg/L	y
thallium (total)	7440-28-0	6020	0.002	0.001	0.001	0.0015	mg/L	y
pH	N/A	SM4500	6.5-8.5	+/- 0.1	-	-	S.U.	n
specific conductance	N/A	120.1	-	+/- 25	-	-	µS/cm	n
temperature	N/A	field	-	+/- 0.5	-	-	°F	n
water level elevation	N/A	field	-	+/- 0.01	-	-	ft	n

GWPS - ground water protection standard

PQL - practical quantitation limit

AML - assessment monitoring level

CAL - corrective action level

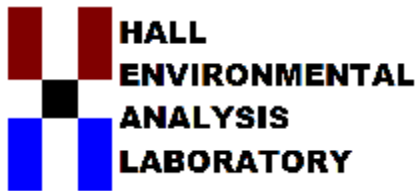
mg/L - milligrams per liter

µS/cm - microSiemens per centimeter

S.U. - standard pH units

°F - degrees Fahrenheit

ft - feet



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 17, 2018

Joshua Rosenblatt
City of Las Cruces
PO Box 20000
Las Cruces, NM 88004
TEL: (575) 528-3635
FAX (575) 528-3513

RE: CLC Foothills Landfill Closure Monitoring Wells

OrderNo.: 1712373

Dear Joshua Rosenblatt:

Hall Environmental Analysis Laboratory received 3 sample(s) on 12/7/2017 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued December 26, 2017.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written in a cursive style.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** City of Las Cruces**Client Sample ID:** CLC MW #5**Project:** CLC Foothills Landfill Closure Monitori**Collection Date:** 12/6/2017 12:44:00 PM**Lab ID:** 1712373-001**Matrix:** AQUEOUS**Received Date:** 12/7/2017 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8011/504.1: EDB							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.0075	0.095		µg/L	1	12/12/2017 10:17:59 PM
1,2-Dibromoethane	ND	0.0061	0.0095		µg/L	1	12/12/2017 10:17:59 PM
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	29	5.0	10		mg/L	20	12/7/2017 4:47:02 PM
Nitrogen, Nitrate (As N)	5.0	0.022	0.10		mg/L	1	12/7/2017 4:09:48 PM
Sulfate	46	1.9	10		mg/L	20	12/7/2017 4:47:02 PM
EPA METHOD 200.7: TOTAL METALS							Analyst: pmf
Barium	0.062	0.0010	0.0020		mg/L	1	12/13/2017 7:03:41 PM
Beryllium	ND	0.00026	0.0020		mg/L	1	12/13/2017 7:03:41 PM
Cadmium	ND	0.00058	0.0020		mg/L	1	12/13/2017 7:03:41 PM
Calcium	37	0.045	1.0		mg/L	1	12/13/2017 7:03:41 PM
Chromium	ND	0.0018	0.0060		mg/L	1	12/13/2017 7:03:41 PM
Cobalt	ND	0.0014	0.0060		mg/L	1	12/13/2017 7:03:41 PM
Copper	ND	0.0041	0.0060		mg/L	1	12/13/2017 7:03:41 PM
Iron	ND	0.010	0.020		mg/L	1	12/13/2017 7:03:41 PM
Magnesium	4.6	0.12	1.0		mg/L	1	12/13/2017 7:03:41 PM
Manganese	ND	0.0011	0.0020		mg/L	1	12/13/2017 7:03:41 PM
Nickel	ND	0.0036	0.010		mg/L	1	12/13/2017 7:03:41 PM
Potassium	2.4	0.071	1.0		mg/L	1	12/13/2017 7:03:41 PM
Silver	ND	0.0012	0.0050		mg/L	1	12/13/2017 7:03:41 PM
Sodium	44	0.16	1.0		mg/L	1	12/13/2017 7:03:41 PM
Vanadium	0.0073	0.00076	0.050	J	mg/L	1	12/13/2017 7:03:41 PM
Zinc	ND	0.0033	0.010		mg/L	1	12/13/2017 7:03:41 PM
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Antimony	ND	0.00037	0.0010		mg/L	1	12/14/2017 5:52:38 PM
Arsenic	0.0016	0.00041	0.0010		mg/L	1	12/14/2017 5:52:38 PM
Lead	ND	0.00023	0.00050		mg/L	1	12/14/2017 5:52:38 PM
Selenium	0.0010	0.00098	0.0010		mg/L	1	12/14/2017 5:52:38 PM
Thallium	ND	0.000034	0.00050		mg/L	1	12/14/2017 5:52:38 PM
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
Benzene	0.096	0.062	1.0	J	µg/L	1	12/8/2017 3:05:00 AM
Toluene	ND	0.064	1.0		µg/L	1	12/8/2017 3:05:00 AM
Ethylbenzene	ND	0.093	1.0		µg/L	1	12/8/2017 3:05:00 AM
1,2-Dichloroethane (EDC)	ND	0.40	1.0		µg/L	1	12/8/2017 3:05:00 AM
Acetone	ND	0.82	10		µg/L	1	12/8/2017 3:05:00 AM
Bromodichloromethane	ND	0.18	1.0		µg/L	1	12/8/2017 3:05:00 AM
Bromoform	ND	0.21	1.0		µg/L	1	12/8/2017 3:05:00 AM
Bromomethane	ND	0.26	2.0		µg/L	1	12/8/2017 3:05:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: City of Las Cruces

Client Sample ID: CLC MW #5

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/6/2017 12:44:00 PM

Lab ID: 1712373-001

Matrix: AQUEOUS

Received Date: 12/7/2017 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
2-Butanone	ND	1.1	10		µg/L	1	12/8/2017 3:05:00 AM
Carbon disulfide	ND	0.40	10		µg/L	1	12/8/2017 3:05:00 AM
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	12/8/2017 3:05:00 AM
Chlorobenzene	ND	0.11	1.0		µg/L	1	12/8/2017 3:05:00 AM
Chloroethane	ND	0.23	2.0		µg/L	1	12/8/2017 3:05:00 AM
Chloroform	ND	0.40	1.0		µg/L	1	12/8/2017 3:05:00 AM
Chloromethane	ND	0.29	1.0		µg/L	1	12/8/2017 3:05:00 AM
cis-1,2-DCE	0.50	0.20	1.0	J	µg/L	1	12/8/2017 3:05:00 AM
cis-1,3-Dichloropropene	ND	0.082	1.0		µg/L	1	12/8/2017 3:05:00 AM
Dibromochloromethane	ND	0.072	1.0		µg/L	1	12/8/2017 3:05:00 AM
Dibromomethane	ND	0.091	1.0		µg/L	1	12/8/2017 3:05:00 AM
1,2-Dichlorobenzene	ND	0.090	1.0		µg/L	1	12/8/2017 3:05:00 AM
1,4-Dichlorobenzene	ND	0.40	1.0		µg/L	1	12/8/2017 3:05:00 AM
Dichlorodifluoromethane	1.6	1.0	1.0		µg/L	1	12/8/2017 3:05:00 AM
1,1-Dichloroethane	ND	0.40	1.0		µg/L	1	12/8/2017 3:05:00 AM
1,1-Dichloroethene	ND	0.081	1.0		µg/L	1	12/8/2017 3:05:00 AM
1,2-Dichloropropane	ND	0.10	0.50		µg/L	1	12/8/2017 3:05:00 AM
2-Hexanone	ND	0.66	10		µg/L	1	12/8/2017 3:05:00 AM
4-Methyl-2-pentanone	1.7	0.71	10	J	µg/L	1	12/8/2017 3:05:00 AM
Methylene Chloride	ND	0.11	2.5		µg/L	1	12/8/2017 3:05:00 AM
Styrene	ND	0.16	1.0		µg/L	1	12/8/2017 3:05:00 AM
1,1,1,2-Tetrachloroethane	ND	0.10	1.0		µg/L	1	12/8/2017 3:05:00 AM
1,1,2,2-Tetrachloroethane	ND	0.14	1.0		µg/L	1	12/8/2017 3:05:00 AM
Tetrachloroethene (PCE)	5.9	0.13	0.50		µg/L	1	12/8/2017 3:05:00 AM
trans-1,2-DCE	ND	0.18	1.0		µg/L	1	12/8/2017 3:05:00 AM
trans-1,3-Dichloropropene	ND	0.22	1.0		µg/L	1	12/8/2017 3:05:00 AM
1,1,1-Trichloroethane	ND	0.073	1.0		µg/L	1	12/8/2017 3:05:00 AM
1,1,2-Trichloroethane	ND	0.14	1.0		µg/L	1	12/8/2017 3:05:00 AM
Trichloroethene (TCE)	0.78	0.11	1.0	J	µg/L	1	12/8/2017 3:05:00 AM
Trichlorofluoromethane	0.97	0.18	1.0	J	µg/L	1	12/8/2017 3:05:00 AM
1,2,3-Trichloropropane	ND	0.39	1.0		µg/L	1	12/8/2017 3:05:00 AM
Vinyl chloride	ND	0.18	0.40		µg/L	1	12/8/2017 3:05:00 AM
Xylenes, Total	ND	0.32	2.0		µg/L	1	12/8/2017 3:05:00 AM
Acrylonitrile	ND	0.56	10		µg/L	1	12/8/2017 3:05:00 AM
Bromochloromethane	ND	0.43	2.0		µg/L	1	12/8/2017 3:05:00 AM
Iodomethane	ND	0.27	10		µg/L	1	12/8/2017 3:05:00 AM
trans-1,4-Dichloro-2-butene	ND	0.39	10		µg/L	1	12/8/2017 3:05:00 AM
Vinyl acetate	ND	0.60	10		µg/L	1	12/8/2017 3:05:00 AM
Surr: 1,2-Dichloroethane-d4	102	0	70-130		%Rec	1	12/8/2017 3:05:00 AM
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	12/8/2017 3:05:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** City of Las Cruces**Client Sample ID:** CLC MW #5**Project:** CLC Foothills Landfill Closure Monitori**Collection Date:** 12/6/2017 12:44:00 PM**Lab ID:** 1712373-001**Matrix:** AQUEOUS**Received Date:** 12/7/2017 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
Surr: Dibromofluoromethane	102	0	70-130		%Rec	1	12/8/2017 3:05:00 AM
Surr: Toluene-d8	98.3	0	70-130		%Rec	1	12/8/2017 3:05:00 AM
TOTAL PHENOLICS BY SW-846 9067							Analyst: SCC
Phenolics	ND	1.7	2.5		µg/L	1	12/20/2017
EPA METHOD 9060 TOC							Analyst: MAB
Total Organic Carbon	0.20	0.18	1.0	J	mg/L	1	12/8/2017 8:12:50 PM
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	450	5.0	5.0		µmhos/c	1	12/11/2017 3:26:36 PM
SM 4500 NH3: AMMONIA							Analyst: smb
Nitrogen, Ammonia	ND	0.40	1.0		mg/L	1	12/22/2017 3:34:00 PM
SM4500-H+B: PH							Analyst: JRR
pH	7.80			H	pH units	1	12/11/2017 3:26:36 PM
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	106.0	8.000	20.00		mg/L CaC	1	12/11/2017 3:26:36 PM
Carbonate (As CaCO3)	ND	2.000	2.000		mg/L CaC	1	12/11/2017 3:26:36 PM
Total Alkalinity (as CaCO3)	106.0	8.000	20.00		mg/L CaC	1	12/11/2017 3:26:36 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	302	11.8	20.0		mg/L	1	12/11/2017 1:30:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** City of Las Cruces**Client Sample ID:** CLC MW #6**Project:** CLC Foothills Landfill Closure Monitori**Collection Date:** 12/6/2017 11:00:00 AM**Lab ID:** 1712373-002**Matrix:** AQUEOUS**Received Date:** 12/7/2017 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8011/504.1: EDB							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.0075	0.095		µg/L	1	12/12/2017 10:33:10 PM
1,2-Dibromoethane	ND	0.0061	0.0095		µg/L	1	12/12/2017 10:33:10 PM
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	12	0.25	0.50		mg/L	1	12/7/2017 4:59:26 PM
Nitrogen, Nitrate (As N)	3.6	0.022	0.10		mg/L	1	12/7/2017 4:59:26 PM
Sulfate	47	0.096	0.50		mg/L	1	12/7/2017 4:59:26 PM
EPA METHOD 200.7: TOTAL METALS							Analyst: pmf
Barium	0.056	0.0010	0.0020		mg/L	1	12/13/2017 7:07:41 PM
Beryllium	ND	0.00026	0.0020		mg/L	1	12/13/2017 7:07:41 PM
Cadmium	ND	0.00058	0.0020		mg/L	1	12/13/2017 7:07:41 PM
Calcium	38	0.045	1.0		mg/L	1	12/13/2017 7:07:41 PM
Chromium	ND	0.0018	0.0060		mg/L	1	12/13/2017 7:07:41 PM
Cobalt	ND	0.0014	0.0060		mg/L	1	12/13/2017 7:07:41 PM
Copper	ND	0.0041	0.0060		mg/L	1	12/13/2017 7:07:41 PM
Iron	ND	0.010	0.020		mg/L	1	12/13/2017 7:07:41 PM
Magnesium	4.2	0.12	1.0		mg/L	1	12/13/2017 7:07:41 PM
Manganese	0.0026	0.0011	0.0020		mg/L	1	12/13/2017 7:07:41 PM
Nickel	ND	0.0036	0.010		mg/L	1	12/13/2017 7:07:41 PM
Potassium	2.3	0.071	1.0		mg/L	1	12/13/2017 7:07:41 PM
Silver	ND	0.0012	0.0050		mg/L	1	12/13/2017 7:07:41 PM
Sodium	35	0.16	1.0		mg/L	1	12/13/2017 7:07:41 PM
Vanadium	0.0070	0.00076	0.050	J	mg/L	1	12/13/2017 7:07:41 PM
Zinc	ND	0.0033	0.010		mg/L	1	12/13/2017 7:07:41 PM
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Antimony	ND	0.00037	0.0010		mg/L	1	12/14/2017 5:59:10 PM
Arsenic	0.0012	0.00041	0.0010		mg/L	1	12/14/2017 5:59:10 PM
Lead	ND	0.00023	0.00050		mg/L	1	12/14/2017 5:59:10 PM
Selenium	ND	0.00098	0.0010		mg/L	1	12/14/2017 5:59:10 PM
Thallium	ND	0.000034	0.00050		mg/L	1	12/14/2017 5:59:10 PM
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
Benzene	0.13	0.062	1.0	J	µg/L	1	12/8/2017 3:28:00 AM
Toluene	ND	0.064	1.0		µg/L	1	12/8/2017 3:28:00 AM
Ethylbenzene	ND	0.093	1.0		µg/L	1	12/8/2017 3:28:00 AM
1,2-Dichloroethane (EDC)	ND	0.40	1.0		µg/L	1	12/8/2017 3:28:00 AM
Acetone	ND	0.82	10		µg/L	1	12/8/2017 3:28:00 AM
Bromodichloromethane	ND	0.18	1.0		µg/L	1	12/8/2017 3:28:00 AM
Bromoform	ND	0.21	1.0		µg/L	1	12/8/2017 3:28:00 AM
Bromomethane	ND	0.26	2.0		µg/L	1	12/8/2017 3:28:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** City of Las Cruces**Client Sample ID:** CLC MW #6**Project:** CLC Foothills Landfill Closure Monitori**Collection Date:** 12/6/2017 11:00:00 AM**Lab ID:** 1712373-002**Matrix:** AQUEOUS**Received Date:** 12/7/2017 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
2-Butanone	ND	1.1	10		µg/L	1	12/8/2017 3:28:00 AM
Carbon disulfide	ND	0.40	10		µg/L	1	12/8/2017 3:28:00 AM
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	12/8/2017 3:28:00 AM
Chlorobenzene	ND	0.11	1.0		µg/L	1	12/8/2017 3:28:00 AM
Chloroethane	ND	0.23	2.0		µg/L	1	12/8/2017 3:28:00 AM
Chloroform	ND	0.40	1.0		µg/L	1	12/8/2017 3:28:00 AM
Chloromethane	ND	0.29	1.0		µg/L	1	12/8/2017 3:28:00 AM
cis-1,2-DCE	0.57	0.20	1.0	J	µg/L	1	12/8/2017 3:28:00 AM
cis-1,3-Dichloropropene	ND	0.082	1.0		µg/L	1	12/8/2017 3:28:00 AM
Dibromochloromethane	ND	0.072	1.0		µg/L	1	12/8/2017 3:28:00 AM
Dibromomethane	ND	0.091	1.0		µg/L	1	12/8/2017 3:28:00 AM
1,2-Dichlorobenzene	ND	0.090	1.0		µg/L	1	12/8/2017 3:28:00 AM
1,4-Dichlorobenzene	ND	0.40	1.0		µg/L	1	12/8/2017 3:28:00 AM
Dichlorodifluoromethane	2.2	1.0	1.0		µg/L	1	12/8/2017 3:28:00 AM
1,1-Dichloroethane	ND	0.40	1.0		µg/L	1	12/8/2017 3:28:00 AM
1,1-Dichloroethene	ND	0.081	1.0		µg/L	1	12/8/2017 3:28:00 AM
1,2-Dichloropropane	ND	0.10	0.50		µg/L	1	12/8/2017 3:28:00 AM
2-Hexanone	ND	0.66	10		µg/L	1	12/8/2017 3:28:00 AM
4-Methyl-2-pentanone	1.7	0.71	10	J	µg/L	1	12/8/2017 3:28:00 AM
Methylene Chloride	ND	0.11	2.5		µg/L	1	12/8/2017 3:28:00 AM
Styrene	ND	0.16	1.0		µg/L	1	12/8/2017 3:28:00 AM
1,1,1,2-Tetrachloroethane	ND	0.10	1.0		µg/L	1	12/8/2017 3:28:00 AM
1,1,2,2-Tetrachloroethane	ND	0.14	1.0		µg/L	1	12/8/2017 3:28:00 AM
Tetrachloroethene (PCE)	6.9	0.13	0.50		µg/L	1	12/8/2017 3:28:00 AM
trans-1,2-DCE	ND	0.18	1.0		µg/L	1	12/8/2017 3:28:00 AM
trans-1,3-Dichloropropene	ND	0.22	1.0		µg/L	1	12/8/2017 3:28:00 AM
1,1,1-Trichloroethane	ND	0.073	1.0		µg/L	1	12/8/2017 3:28:00 AM
1,1,2-Trichloroethane	ND	0.14	1.0		µg/L	1	12/8/2017 3:28:00 AM
Trichloroethene (TCE)	0.64	0.11	1.0	J	µg/L	1	12/8/2017 3:28:00 AM
Trichlorofluoromethane	0.69	0.18	1.0	J	µg/L	1	12/8/2017 3:28:00 AM
1,2,3-Trichloropropane	ND	0.39	1.0		µg/L	1	12/8/2017 3:28:00 AM
Vinyl chloride	ND	0.18	0.40		µg/L	1	12/8/2017 3:28:00 AM
Xylenes, Total	ND	0.32	2.0		µg/L	1	12/8/2017 3:28:00 AM
Acrylonitrile	ND	0.56	10		µg/L	1	12/8/2017 3:28:00 AM
Bromochloromethane	ND	0.43	2.0		µg/L	1	12/8/2017 3:28:00 AM
Iodomethane	ND	0.27	10		µg/L	1	12/8/2017 3:28:00 AM
trans-1,4-Dichloro-2-butene	ND	0.39	10		µg/L	1	12/8/2017 3:28:00 AM
Vinyl acetate	ND	0.60	10		µg/L	1	12/8/2017 3:28:00 AM
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	1	12/8/2017 3:28:00 AM
Surr: 4-Bromofluorobenzene	101	0	70-130		%Rec	1	12/8/2017 3:28:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** City of Las Cruces**Client Sample ID:** CLC MW #6**Project:** CLC Foothills Landfill Closure Monitori**Collection Date:** 12/6/2017 11:00:00 AM**Lab ID:** 1712373-002**Matrix:** AQUEOUS**Received Date:** 12/7/2017 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
Surr: Dibromofluoromethane	102	0	70-130		%Rec	1	12/8/2017 3:28:00 AM
Surr: Toluene-d8	99.9	0	70-130		%Rec	1	12/8/2017 3:28:00 AM
TOTAL PHENOLICS BY SW-846 9067							Analyst: SCC
Phenolics	ND	1.7	2.5		µg/L	1	12/20/2017
EPA METHOD 9060 TOC							Analyst: MAB
Total Organic Carbon	ND	0.18	1.0		mg/L	1	12/8/2017 8:29:11 PM
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	400	5.0	5.0		µmhos/c	1	12/11/2017 3:40:18 PM
SM 4500 NH3: AMMONIA							Analyst: smb
Nitrogen, Ammonia	ND	0.40	1.0		mg/L	1	12/22/2017 3:34:00 PM
SM4500-H+B: PH							Analyst: JRR
pH	7.75			H	pH units	1	12/11/2017 3:40:18 PM
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	119.5	8.000	20.00		mg/L CaC	1	12/11/2017 3:40:18 PM
Carbonate (As CaCO3)	ND	2.000	2.000		mg/L CaC	1	12/11/2017 3:40:18 PM
Total Alkalinity (as CaCO3)	119.5	8.000	20.00		mg/L CaC	1	12/11/2017 3:40:18 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	273	11.8	20.0		mg/L	1	12/11/2017 1:30:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

CLIENT: City of Las Cruces

Client Sample ID: CLC MW #4

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/6/2017 2:56:00 PM

Lab ID: 1712373-003

Matrix: AQUEOUS

Received Date: 12/7/2017 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8011/504.1: EDB							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.0074	0.094		µg/L	1	12/12/2017 10:48:16 PM
1,2-Dibromoethane	ND	0.0060	0.0094		µg/L	1	12/12/2017 10:48:16 PM
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	6.8	0.25	0.50		mg/L	1	12/7/2017 5:24:16 PM
Nitrogen, Nitrate (As N)	0.96	0.022	0.10		mg/L	1	12/7/2017 5:24:16 PM
Sulfate	34	0.096	0.50		mg/L	1	12/7/2017 5:24:16 PM
EPA METHOD 200.7: TOTAL METALS							Analyst: pmf
Barium	0.085	0.0010	0.0020		mg/L	1	12/13/2017 7:11:51 PM
Beryllium	ND	0.00026	0.0020		mg/L	1	12/13/2017 7:11:51 PM
Cadmium	ND	0.00058	0.0020		mg/L	1	12/13/2017 7:11:51 PM
Calcium	110	0.23	5.0		mg/L	5	12/13/2017 7:22:03 PM
Chromium	ND	0.0018	0.0060		mg/L	1	12/13/2017 7:11:51 PM
Cobalt	ND	0.0014	0.0060		mg/L	1	12/13/2017 7:11:51 PM
Copper	0.026	0.0041	0.0060		mg/L	1	12/13/2017 7:11:51 PM
Iron	ND	0.010	0.020		mg/L	1	12/13/2017 7:11:51 PM
Magnesium	14	0.12	1.0		mg/L	1	12/13/2017 7:11:51 PM
Manganese	0.0012	0.0011	0.0020	J	mg/L	1	12/13/2017 7:11:51 PM
Nickel	ND	0.0036	0.010		mg/L	1	12/13/2017 7:11:51 PM
Potassium	2.6	0.071	1.0		mg/L	1	12/13/2017 7:11:51 PM
Silver	0.0017	0.0012	0.0050	J	mg/L	1	12/13/2017 7:11:51 PM
Sodium	31	0.16	1.0		mg/L	1	12/13/2017 7:11:51 PM
Vanadium	0.0034	0.00076	0.050	J	mg/L	1	12/13/2017 7:11:51 PM
Zinc	0.013	0.0033	0.010		mg/L	1	12/13/2017 7:11:51 PM
200.8 ICPMS METALS:TOTAL							Analyst: JLF
Antimony	ND	0.00037	0.0010		mg/L	1	12/14/2017 6:05:42 PM
Arsenic	ND	0.00041	0.0010		mg/L	1	12/14/2017 6:05:42 PM
Lead	0.0015	0.00023	0.00050		mg/L	1	12/14/2017 6:05:42 PM
Selenium	ND	0.00098	0.0010		mg/L	1	12/14/2017 6:05:42 PM
Thallium	ND	0.000034	0.00050		mg/L	1	12/14/2017 6:05:42 PM
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
Benzene	0.68	0.062	1.0	J	µg/L	1	12/8/2017 3:50:00 AM
Toluene	ND	0.064	1.0		µg/L	1	12/8/2017 3:50:00 AM
Ethylbenzene	ND	0.093	1.0		µg/L	1	12/8/2017 3:50:00 AM
1,2-Dichloroethane (EDC)	ND	0.40	1.0		µg/L	1	12/8/2017 3:50:00 AM
Acetone	ND	0.82	10		µg/L	1	12/8/2017 3:50:00 AM
Bromodichloromethane	ND	0.18	1.0		µg/L	1	12/8/2017 3:50:00 AM
Bromoform	ND	0.21	1.0		µg/L	1	12/8/2017 3:50:00 AM
Bromomethane	ND	0.26	2.0		µg/L	1	12/8/2017 3:50:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** City of Las Cruces**Client Sample ID:** CLC MW #4**Project:** CLC Foothills Landfill Closure Monitori**Collection Date:** 12/6/2017 2:56:00 PM**Lab ID:** 1712373-003**Matrix:** AQUEOUS**Received Date:** 12/7/2017 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
2-Butanone	ND	1.1	10		µg/L	1	12/8/2017 3:50:00 AM
Carbon disulfide	ND	0.40	10		µg/L	1	12/8/2017 3:50:00 AM
Carbon Tetrachloride	ND	0.11	1.0		µg/L	1	12/8/2017 3:50:00 AM
Chlorobenzene	ND	0.11	1.0		µg/L	1	12/8/2017 3:50:00 AM
Chloroethane	ND	0.23	2.0		µg/L	1	12/8/2017 3:50:00 AM
Chloroform	ND	0.40	1.0		µg/L	1	12/8/2017 3:50:00 AM
Chloromethane	ND	0.29	1.0		µg/L	1	12/8/2017 3:50:00 AM
cis-1,2-DCE	2.3	0.20	1.0		µg/L	1	12/8/2017 3:50:00 AM
cis-1,3-Dichloropropene	ND	0.082	1.0		µg/L	1	12/8/2017 3:50:00 AM
Dibromochloromethane	ND	0.072	1.0		µg/L	1	12/8/2017 3:50:00 AM
Dibromomethane	ND	0.091	1.0		µg/L	1	12/8/2017 3:50:00 AM
1,2-Dichlorobenzene	ND	0.090	1.0		µg/L	1	12/8/2017 3:50:00 AM
1,4-Dichlorobenzene	ND	0.40	1.0		µg/L	1	12/8/2017 3:50:00 AM
Dichlorodifluoromethane	2.6	1.0	1.0		µg/L	1	12/8/2017 3:50:00 AM
1,1-Dichloroethane	3.9	0.40	1.0		µg/L	1	12/8/2017 3:50:00 AM
1,1-Dichloroethene	0.18	0.081	1.0	J	µg/L	1	12/8/2017 3:50:00 AM
1,2-Dichloropropane	ND	0.10	0.50		µg/L	1	12/8/2017 3:50:00 AM
2-Hexanone	ND	0.66	10		µg/L	1	12/8/2017 3:50:00 AM
4-Methyl-2-pentanone	1.8	0.71	10	J	µg/L	1	12/8/2017 3:50:00 AM
Methylene Chloride	13	0.11	2.5		µg/L	1	12/8/2017 3:50:00 AM
Styrene	ND	0.16	1.0		µg/L	1	12/8/2017 3:50:00 AM
1,1,1,2-Tetrachloroethane	ND	0.10	1.0		µg/L	1	12/8/2017 3:50:00 AM
1,1,2,2-Tetrachloroethane	ND	0.14	1.0		µg/L	1	12/8/2017 3:50:00 AM
Tetrachloroethene (PCE)	9.3	0.13	0.50		µg/L	1	12/8/2017 3:50:00 AM
trans-1,2-DCE	ND	0.18	1.0		µg/L	1	12/8/2017 3:50:00 AM
trans-1,3-Dichloropropene	ND	0.22	1.0		µg/L	1	12/8/2017 3:50:00 AM
1,1,1-Trichloroethane	ND	0.073	1.0		µg/L	1	12/8/2017 3:50:00 AM
1,1,2-Trichloroethane	ND	0.14	1.0		µg/L	1	12/8/2017 3:50:00 AM
Trichloroethene (TCE)	3.0	0.11	1.0		µg/L	1	12/8/2017 3:50:00 AM
Trichlorofluoromethane	1.5	0.18	1.0		µg/L	1	12/8/2017 3:50:00 AM
1,2,3-Trichloropropane	ND	0.39	1.0		µg/L	1	12/8/2017 3:50:00 AM
Vinyl chloride	0.20	0.18	0.40	J	µg/L	1	12/8/2017 3:50:00 AM
Xylenes, Total	0.59	0.32	2.0	J	µg/L	1	12/8/2017 3:50:00 AM
Acrylonitrile	ND	0.56	10		µg/L	1	12/8/2017 3:50:00 AM
Bromochloromethane	ND	0.43	2.0		µg/L	1	12/8/2017 3:50:00 AM
Iodomethane	ND	0.27	10		µg/L	1	12/8/2017 3:50:00 AM
trans-1,4-Dichloro-2-butene	ND	0.39	10		µg/L	1	12/8/2017 3:50:00 AM
Vinyl acetate	ND	0.60	10		µg/L	1	12/8/2017 3:50:00 AM
Surr: 1,2-Dichloroethane-d4	101	0	70-130		%Rec	1	12/8/2017 3:50:00 AM
Surr: 4-Bromofluorobenzene	103	0	70-130		%Rec	1	12/8/2017 3:50:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** City of Las Cruces**Client Sample ID:** CLC MW #4**Project:** CLC Foothills Landfill Closure Monitori**Collection Date:** 12/6/2017 2:56:00 PM**Lab ID:** 1712373-003**Matrix:** AQUEOUS**Received Date:** 12/7/2017 9:05:00 AM

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: RAA
Surr: Dibromofluoromethane	104	0	70-130		%Rec	1	12/8/2017 3:50:00 AM
Surr: Toluene-d8	99.8	0	70-130		%Rec	1	12/8/2017 3:50:00 AM
TOTAL PHENOLICS BY SW-846 9067							Analyst: SCC
Phenolics	ND	1.7	2.5		µg/L	1	12/20/2017
EPA METHOD 9060 TOC							Analyst: MAB
Total Organic Carbon	ND	0.18	1.0		mg/L	1	12/8/2017 8:43:24 PM
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	720	5.0	5.0		µmhos/c	1	12/11/2017 3:49:21 PM
SM 4500 NH3: AMMONIA							Analyst: smb
Nitrogen, Ammonia	ND	0.40	1.0		mg/L	1	12/22/2017 3:34:00 PM
SM4500-H+B: PH							Analyst: JRR
pH	7.32			H	pH units	1	12/11/2017 3:49:21 PM
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	350.7	8.000	20.00		mg/L CaC	1	12/11/2017 3:49:21 PM
Carbonate (As CaCO3)	ND	2.000	2.000		mg/L CaC	1	12/11/2017 3:49:21 PM
Total Alkalinity (as CaCO3)	350.7	8.000	20.00		mg/L CaC	1	12/11/2017 3:49:21 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	449	11.8	20.0		mg/L	1	12/11/2017 1:30:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Value above quantitation range
H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712373

17-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	MB-35442	SampType:	MBLK	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID:	35442	RunNo:	47751					
Prep Date:	12/11/2017	Analysis Date:	12/13/2017	SeqNo:	1527381	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID	LLLCS-35442	SampType:	LCSLL	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	35442	RunNo:	47751					
Prep Date:	12/11/2017	Analysis Date:	12/13/2017	SeqNo:	1527382	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0018	0.0020	0.002000	0	88.0	50	150			J
Beryllium	0.0019	0.0020	0.002000	0	95.5	50	150			J
Cadmium	0.0025	0.0020	0.002000	0	125	50	150			
Calcium	0.50	1.0	0.5000	0	101	50	150			J
Chromium	0.0055	0.0060	0.006000	0	92.2	50	150			J
Cobalt	0.0052	0.0060	0.006000	0	87.3	50	150			J
Copper	0.0062	0.0060	0.006000	0	104	50	150			
Iron	0.022	0.020	0.02000	0	108	50	150			
Magnesium	0.47	1.0	0.5000	0	94.3	50	150			J
Manganese	0.0021	0.0020	0.002000	0	103	50	150			
Nickel	0.0059	0.010	0.005000	0	117	50	150			J
Potassium	0.45	1.0	0.5000	0	89.1	50	150			J
Silver	0.0049	0.0050	0.005000	0	97.8	50	150			J
Sodium	0.43	1.0	0.5000	0	86.6	50	150			J
Vanadium	0.010	0.050	0.01000	0	101	50	150			J
Zinc	0.0068	0.010	0.005000	0	136	50	150			J

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712373

17-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	LCS-35442		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals				
Client ID:	LCSW		Batch ID:	35442		RunNo:	47751				
Prep Date:	12/11/2017		Analysis Date:	12/13/2017		SeqNo:	1527383		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Barium	0.53	0.0020	0.5000	0	106	85	115				
Beryllium	0.51	0.0020	0.5000	0	103	85	115				
Cadmium	0.53	0.0020	0.5000	0	107	85	115				
Calcium	52	1.0	50.00	0	105	85	115				
Chromium	0.50	0.0060	0.5000	0	100	85	115				
Cobalt	0.50	0.0060	0.5000	0	99.3	85	115				
Copper	0.50	0.0060	0.5000	0	100	85	115				
Iron	0.51	0.020	0.5000	0	102	85	115				
Magnesium	52	1.0	50.00	0	104	85	115				
Manganese	0.50	0.0020	0.5000	0	100	85	115				
Nickel	0.50	0.010	0.5000	0	99.0	85	115				
Potassium	51	1.0	50.00	0	103	85	115				
Silver	0.11	0.0050	0.1000	0	107	85	115				
Sodium	52	1.0	50.00	0	104	85	115				
Vanadium	0.50	0.050	0.5000	0	101	85	115				
Zinc	0.50	0.010	0.5000	0	99.7	85	115				

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712373

17-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	MB-35442	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	35442	RunNo:	47806					
Prep Date:	12/11/2017	Analysis Date:	12/14/2017	SeqNo:	1529473	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Thallium	ND	0.00050								

Sample ID	MSLLCS-35442	SampType:	LCSLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID:	35442	RunNo:	47806					
Prep Date:	12/11/2017	Analysis Date:	12/14/2017	SeqNo:	1529474	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.0011	0.0010	0.001000	0	110	50	150			
Arsenic	0.00078	0.0010	0.001000	0	78.0	50	150			J
Lead	0.00048	0.00050	0.0005000	0	95.8	50	150			J
Selenium	0.00088	0.0010	0.001000	0	88.3	50	150			J
Thallium	0.00047	0.00050	0.0005000	0	94.3	50	150			J

Sample ID	MSLCS-35442	SampType:	LCS	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	LCSW	Batch ID:	35442	RunNo:	47806					
Prep Date:	12/11/2017	Analysis Date:	12/14/2017	SeqNo:	1529475	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.027	0.0010	0.02500	0	107	85	115			
Arsenic	0.024	0.0010	0.02500	0	97.4	85	115			
Lead	0.012	0.00050	0.01250	0	98.2	85	115			
Selenium	0.023	0.0010	0.02500	0	93.5	85	115			
Thallium	0.012	0.00050	0.01250	0	97.0	85	115			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712373

17-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: mblk		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R47628		RunNo: 47628							
Prep Date:	Analysis Date: 12/7/2017		SeqNo: 1522258		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	0.12	0.50								J

Sample ID LCS	SampType: lcs		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R47628		RunNo: 47628							
Prep Date:	Analysis Date: 12/7/2017		SeqNo: 1522259		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.0	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	98.1	90	110			
Sulfate	9.5	0.50	10.00	0	95.0	90	110			

Sample ID 1712373-001EMS	SampType: ms		TestCode: EPA Method 300.0: Anions							
Client ID: CLC MW #5	Batch ID: R47628		RunNo: 47628							
Prep Date:	Analysis Date: 12/7/2017		SeqNo: 1522261		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	7.8	0.10	2.500	4.998	112	85.6	113			

Sample ID 1712373-001EMSD	SampType: msd		TestCode: EPA Method 300.0: Anions							
Client ID: CLC MW #5	Batch ID: R47628		RunNo: 47628							
Prep Date:	Analysis Date: 12/7/2017		SeqNo: 1522262		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	7.8	0.10	2.500	4.998	113	85.6	113	0.414	20	S

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712373

17-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-35426	SampType: MBLK	TestCode: EPA Method 8011/504.1: EDB								
Client ID: PBW	Batch ID: 35426	RunNo: 47721								
Prep Date: 12/11/2017	Analysis Date: 12/12/2017	SeqNo: 1525552	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	0.10								
1,2-Dibromoethane	ND	0.010								

Sample ID LCS-35426	SampType: LCS	TestCode: EPA Method 8011/504.1: EDB								
Client ID: LCSW	Batch ID: 35426	RunNo: 47721								
Prep Date: 12/11/2017	Analysis Date: 12/12/2017	SeqNo: 1525553	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.093	0.010	0.1000	0	92.9	70	130			
1,2-Dibromoethane	0.095	0.010	0.1000	0	95.0	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712373

17-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID 100ng lcs2	SampType: LCS		TestCode: EPA Method 8260B: Volatiles, Table I							
Client ID: LCSW	Batch ID: LB47668		RunNo: 47668							
Prep Date:	Analysis Date: 12/8/2017		SeqNo: 1523315				Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	70	130			
Toluene	20	1.0	20.00	0	99.4	70	130			
Chlorobenzene	20	1.0	20.00	0	100	70	130			
1,1-Dichloroethene	22	1.0	20.00	0	110	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	99.9	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		103	70	130			
Surr: Toluene-d8	9.9		10.00		99.0	70	130			

Sample ID rb2	SampType: MBLK		TestCode: EPA Method 8260B: Volatiles, Table I							
Client ID: PBW	Batch ID: LB47668		RunNo: 47668							
Prep Date:	Analysis Date: 12/8/2017		SeqNo: 1523318				Units: µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.072	1.0								J
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
Acetone	ND	10								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	2.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712373

17-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	rb2	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles, Table I					
Client ID:	PBW	Batch ID:	LB47668	RunNo:	47668					
Prep Date:		Analysis Date:	12/8/2017	SeqNo:	1523318	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dichloropropane	ND	0.50								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	1.6	10								J
Methylene Chloride	ND	2.5								
Styrene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
Tetrachloroethene (PCE)	ND	0.50								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	1.0								
Vinyl chloride	ND	0.40								
Xylenes, Total	ND	2.0								
Acrylonitrile	ND	10								
Bromochloromethane	ND	2.0								
Iodomethane	ND	10								
trans-1,4-Dichloro-2-butene	ND	10								
Vinyl acetate	ND	10								
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	9.9		10.00		99.4	70	130			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
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QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712373

17-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: MBLK		TestCode: EPA Method 9060 TOC							
Client ID: PBW	Batch ID: R47657		RunNo: 47657							
Prep Date:	Analysis Date: 12/8/2017		SeqNo: 1522821		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	0.19	1.0								J

Sample ID LCS ST9060-17010/	SampType: LCS		TestCode: EPA Method 9060 TOC							
Client ID: LCSW	Batch ID: R47657		RunNo: 47657							
Prep Date:	Analysis Date: 12/8/2017		SeqNo: 1522822		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	5.3	1.0	4.850	0	108	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712373

17-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	MB-35618	SampType:	MBLK	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	PBW	Batch ID:	35618	RunNo:	47898					
Prep Date:	12/20/2017	Analysis Date:	12/20/2017	SeqNo:	1533562	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	ND	2.5								

Sample ID	LCS-35618	SampType:	LCS	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	LCSW	Batch ID:	35618	RunNo:	47898					
Prep Date:	12/20/2017	Analysis Date:	12/20/2017	SeqNo:	1533563	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	20	2.5	20.00	0	101	62.4	146			

Sample ID	LCSD-35618	SampType:	LCSD	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	LCSS02	Batch ID:	35618	RunNo:	47898					
Prep Date:	12/20/2017	Analysis Date:	12/20/2017	SeqNo:	1533564	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	22	2.5	20.00	0	110	62.4	146	8.76	21	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712373

17-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	Ics-1 ~20uS eC		SampType: LCS		TestCode: SM2510B: Specific Conductance					
Client ID:	LCSW		Batch ID: R47724		RunNo: 47724					
Prep Date:			Analysis Date: 12/11/2017		SeqNo: 1525679		Units: µmhos/cm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	22	5.0	19.96	0	110	80	120			

Sample ID	1712373-001e dup		SampType: DUP		TestCode: SM2510B: Specific Conductance					
Client ID:	CLC MW #5		Batch ID: R47724		RunNo: 47724					
Prep Date:			Analysis Date: 12/11/2017		SeqNo: 1525696		Units: µmhos/cm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	460	5.0						0.286	20	

Sample ID	Ics-2 ~20uS eC		SampType: LCS		TestCode: SM2510B: Specific Conductance					
Client ID:	LCSW		Batch ID: R47724		RunNo: 47724					
Prep Date:			Analysis Date: 12/11/2017		SeqNo: 1525702		Units: µmhos/cm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	25	5.0	19.96	0	125	80	120			S

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712373

17-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: MBLK		TestCode: SM 4500 NH3: Ammonia							
Client ID: PBW	Batch ID: R47996		RunNo: 47996							
Prep Date:	Analysis Date: 12/22/2017		SeqNo: 1537565		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	1.0								

Sample ID LCS	SampType: LCS		TestCode: SM 4500 NH3: Ammonia							
Client ID: LCSW	Batch ID: R47996		RunNo: 47996							
Prep Date:	Analysis Date: 12/22/2017		SeqNo: 1537566		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	9.8	1.0	10.00	0	98.0	80	120			

Sample ID 1712373-001EMS	SampType: MS		TestCode: SM 4500 NH3: Ammonia							
Client ID: CLC MW #5	Batch ID: R47996		RunNo: 47996							
Prep Date:	Analysis Date: 12/22/2017		SeqNo: 1537581		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	9.9	1.0	10.00	0	99.4	75	125			

Sample ID 1712373-001EMSD	SampType: MSD		TestCode: SM 4500 NH3: Ammonia							
Client ID: CLC MW #5	Batch ID: R47996		RunNo: 47996							
Prep Date:	Analysis Date: 12/22/2017		SeqNo: 1537582		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	9.9	1.0	10.00	0	99.4	75	125	0	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712373

17-Jan-18

Client: City of Las Cruces

Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	1712373-001e dup	SampType:	DUP	TestCode:	SM4500-H+B: pH					
Client ID:	CLC MW #5	Batch ID:	R47724	RunNo:	47724					
Prep Date:		Analysis Date:	12/11/2017	SeqNo:	1525662	Units:	pH units			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.80									H

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712373

17-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID mb-1 alk	SampType: MBLK		TestCode: SM2320B: Alkalinity							
Client ID: PBW	Batch ID: R47724		RunNo: 47724							
Prep Date:	Analysis Date: 12/11/2017		SeqNo: 1525726		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID ics-1 alk	SampType: LCS		TestCode: SM2320B: Alkalinity							
Client ID: LCSW	Batch ID: R47724		RunNo: 47724							
Prep Date:	Analysis Date: 12/11/2017		SeqNo: 1525727		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.80	20.00	80.00	0	98.5	90	110			

Sample ID mb-2 alk	SampType: MBLK		TestCode: SM2320B: Alkalinity							
Client ID: PBW	Batch ID: R47724		RunNo: 47724							
Prep Date:	Analysis Date: 12/11/2017		SeqNo: 1525750		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID ics-2 alk	SampType: LCS		TestCode: SM2320B: Alkalinity							
Client ID: LCSW	Batch ID: R47724		RunNo: 47724							
Prep Date:	Analysis Date: 12/11/2017		SeqNo: 1525751		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.44	20.00	80.00	0	98.0	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712373

17-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-35416	SampType: MBLK		TestCode: SM2540C MOD: Total Dissolved Solids							
Client ID: PBW	Batch ID: 35416		RunNo: 47671							
Prep Date: 12/9/2017	Analysis Date: 12/11/2017		SeqNo: 1523336		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID LCS-35416	SampType: LCS		TestCode: SM2540C MOD: Total Dissolved Solids							
Client ID: LCSW	Batch ID: 35416		RunNo: 47671							
Prep Date: 12/9/2017	Analysis Date: 12/11/2017		SeqNo: 1523337		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1020	20.0	1000	0	102	80	120			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

Client Name: City of Las Cruces Work Order Number: 1712373 RcptNo: 1

Received By: Erin Melendrez 12/7/2017 9:05:00 AM *EM*
 Completed By: Ashley Gallegos 12/7/2017 9:50:12 AM *AG*
 Reviewed By: *IMO* 12/07/2017

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? FedEx

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes No
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes No

of preserved bottles checked for pH: 9
 (or >12 unless noted)
 Adjusted? NO
 Checked by: ENM

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.5	Good	Yes			

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
acetone	67-64-1	8260B	-	0.01	0.0195	-	mg/L	y
acrylonitrile	107-13-1	8260B	-	0.1	0.195	-	mg/L	y
benzene	71-43-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
bromochloromethane	74-97-5	8260B	-	0.001	0.00195	-	mg/L	y
bromodichloromethane	75-27-4	8260B	-	0.005	0.00975	-	mg/L	y
bromoform	75-25-2	8260B	-	0.015	0.02925	-	mg/L	y
carbon disulfide	75-15-0	8260B	-	0.001	0.00195	-	mg/L	y
carbon tetrachloride	56-23-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
chlorobenzene	108-90-7	8260B	0.1	0.005	0.05	0.075	mg/L	y
chloroethane	75-00-3	8260B	-	0.01	0.0195	-	mg/L	y
chloroform	67-66-3	8260B	0.1	0.005	0.05	0.75	mg/L	y
dibromochloromethane	124-48-1	8260B	-	0.005	0.00975	-	mg/L	y
1,2-dibromo-3-chloropropane	96-12-8	504.1	0.0002	0.0001	0.0001	0.00015	mg/L	y
1,2-dichlorobenzene	95-50-1	8260B	0.06	0.01	0.03	0.045	mg/L	y
1,3-dichlorobenzene	541-73-1	8260B	-	0.01	0.0195	-	mg/L	n
1,4-dichlorobenzene	106-46-7	8260B	0.075	0.015	0.0375	0.5625	mg/L	y
trans-1,4-dichloro-2-butene	110-57-6	8260B	-	0.001	0.00195	-	mg/L	y
dichlorodifluoromethane	75-71-8	8260B	-	0.005	0.00975	-	mg/L	n
1,1-dichloroethane	75-34-3	8260B	0.025	0.005	0.0125	0.01875	mg/L	y
1,2-dichloroethane (EDC)	107-06-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Appendix I, Part 258, 40 CFR
1,1-dichloroethylene (1,1-DCE)	75-35-4	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
cis-1,2-dichloroethylene	156-59-2	8260B	0.07	0.005	0.035	0.0525	mg/L	y
trans-1,2-dichloroethylene	156-60-5	8260B	0.1	0.005	0.05	0.075	mg/L	y
1,2-dichloropropane	78-87-5	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y
cis-1,3-dichloropropene	10061-01-5	8260B	-	0.02	0.039	-	mg/L	y
trans-1,3-dichloropropene	10061-02-6	8260B	-	0.01	0.0195	-	mg/L	y
ethylbenzene	100-41-4	8260B	0.7	0.01	0.35	0.525	mg/L	y
ethylene dibromide (EDB)	106-93-4	504.1	0.00005	0.000025	0.000025	0.000038	mg/L	y
2-hexanone	591-78-6	8260B	-	0.04	0.078	-	mg/L	y
methyl bromide	74-83-9	8260B	-	0.01	0.0195	-	mg/L	y
methyl chloride	74-87-3	8260B	-	0.001	0.00195	-	mg/L	y
methyl ethyl ketone	78-93-3	8260B	-	0.01	0.0195	-	mg/L	y
methyl iodide	74-88-4	8260B	-	0.05	0.0975	-	mg/L	y
4-methyl-2-pentanone	108-10-1	8260B	-	0.001	0.00195	-	mg/L	y
methylene bromide	74-95-3	8260B	-	0.001	0.00195	-	mg/L	y
methylene chloride	74-87-3	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
styrene	100-42-5	8260B	0.1	0.001	0.05	0.075	mg/L	y
1,1,1,2-tetrachloroethane	630-20-6	8260B	-	0.001	0.00195	-	mg/L	y
1,1,2,2-tetrachloroethane	79-34-5	8260B	0.01	0.005	0.005	0.0075	mg/L	y
tetrachloroethylene (PCE)	127-18-4	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
toluene	108-88-3	8260B	0.75	0.001	0.375	0.5625	mg/L	y
1,1,1-trichloroethane	71-55-6	8260B	0.06	0.005	0.03	0.045	mg/L	y
1,1,2-trichloroethane	79-00-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
trichloroethylene (TCE)	79-01-6	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
trichlorofluoromethane	75-69-4	8260B	-	0.01	0.0195	-	mg/L	y
1,2,3-trichloropropane	96-18-4	8260B	-	0.05	0.0975	-	mg/L	y
vinyl acetate	108-05-4	8260B	-	0.0004	0.00078	-	mg/L	y
vinyl chloride	75-01-4	8260B	0.001	0.0004	0.0005	0.00075	mg/L	y
xylenes	1330-20-7	8260B	0.62	0.0015	0.31	0.465	mg/L	y
ammonia as (N)	N/A	SM 4500 NH3	-	0.5	-	-	mg/L	n
nitrate (as N)	N/A	300.0	10	1.0	5.0	7.5	mg/L	n
chloride	16887-00-6	300.0	250	5.0	187.5	250	mg/L	n
sulfate	14808-79-8	300.0	250	5.0	187.5	250	mg/L	n
total dissolved solids	N/A	SM 2540C	500	5.0	-	-	mg/L	n
carbonate alkalinity	3812-32-6	SM 2320B	-	10	-	-	mg/L	n
bicarbonate alkalinity	71-52-3	SM 2320B	-	10	-	-	mg/L	n
total phenolics	N/A	9067	0.005	0.0025	0.0025	0.00375	mg/L	n
total organic carbon	N/A	9060	-	1	-	-	mg/L	n
barium (total)	7440-39-3	6010B	1	0.01	0.5	0.75	mg/L	y
beryllium (total)	7440-41-7	6010B	0.004	0.002	0.002	0.003	mg/L	y
cadmium (total)	7440-43-9	6010B	0.005	0.002	0.0025	0.00375	mg/L	y
calcium (total)	7440-70-2	6010B	-	1	-	-	mg/L	n
chromium (total)	7440-47-3	6010B	0.05	0.006	0.025	0.0375	mg/L	y
cobalt (total)	7440-48-4	6010B	0.05	0.006	0.025	0.0375	mg/L	y
copper (total)	7440-50-8	6010B	1	0.006	0.5	0.75	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (concluded)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
iron (total)	7439-89-6	6010B	0.3	0.1	0.225	0.3	mg/L	n
lead (total)	7439-92-1	6010B	0.05	0.005	0.025	0.0375	mg/L	y
magnesium (total)	7439-95-4	6010B	-	1	-	-	mg/L	n
manganese (total)	7439-96-5	6010B	0.05	0.03	0.0375	0.05	mg/L	n
nickel (total)	7440-02-0	6010B	0.2	0.01	0.1	0.15	mg/L	y
potassium (total)	7440-09-7	6010B	-	1	-	-	mg/L	n
silver (total)	7440-22-4	6010B	0.05	0.005	0.025	0.0375	mg/L	y
sodium (total)	7440-23-5	6010B	-	1	-	-	mg/L	n
vanadium (total)	7440-62-2	6010B	-	0.05	-	-	mg/L	y
zinc (total)	7440-66-6	6010B	5	0.02	2.5	3.75	mg/L	y
antimony (total)	7440-36-0	6020	0.006	0.001	0.003	0.0045	mg/L	y
arsenic (total)	7440-38-2	6020	0.01	0.004	0.005	0.0075	mg/L	y
selenium (total)	7782-49-2	6020	0.05	0.001	0.025	0.0375	mg/L	y
thallium (total)	7440-28-0	6020	0.002	0.001	0.001	0.0015	mg/L	y
pH	N/A	SM4500	6.5-8.5	+/- 0.1	-	-	S.U.	n
specific conductance	N/A	120.1	-	+/- 25	-	-	µS/cm	n
temperature	N/A	field	-	+/- 0.5	-	-	°F	n
water level elevation	N/A	field	-	+/- 0.01	-	-	ft	n

GWPS - ground water protection standard

PQL - practical quantitation limit

AML - assessment monitoring level

CAL - corrective action level

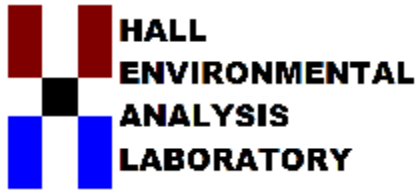
mg/L - milligrams per liter

µS/cm - microSiemens per centimeter

S.U. - standard pH units

°F - degrees Fahrenheit

ft - feet



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 19, 2018

Luis Guerra

City of Las Cruces

PO Box 20000

Las Cruces, NM 88004

TEL: (575) 528-3635

FAX (575) 528-3513

RE: CLC Foothills Landfill Closure Monitoring Wells

OrderNo.: 1712866

Dear Luis Guerra:

Hall Environmental Analysis Laboratory received 1 sample(s) on 12/14/2017 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued January 16, 2018.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a white background.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712866

Date Reported: 1/19/2018

CLIENT: City of Las Cruces

Client Sample ID: CLC MW #7

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/13/2017 12:44:00 PM

Lab ID: 1712866-001

Matrix: AQUEOUS

Received Date: 12/14/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	12/19/2017 2:00:30 AM	35553
1,2-Dibromoethane	ND	0.0095		µg/L	1	12/19/2017 2:00:30 AM	35553
EPA METHOD 9060 TOC							Analyst: MAB
Total Organic Carbon	ND	1.0		mg/L	1	12/18/2017 5:30:47 PM	R47864
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	21	10		mg/L	20	1/4/2018 9:06:03 PM	R48234
Sulfate	100	10		mg/L	20	1/4/2018 9:06:03 PM	R48234
Nitrate+Nitrite as N	1.1	1.0		mg/L	5	1/4/2018 9:18:28 PM	R48234
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	620	5.0		µmhos/cm	1	12/18/2017 5:19:29 PM	R47902
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	173.6	20.00		mg/L CaCO3	1	12/18/2017 5:19:29 PM	R47902
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	12/18/2017 5:19:29 PM	R47902
Total Alkalinity (as CaCO3)	173.6	20.00		mg/L CaCO3	1	12/18/2017 5:19:29 PM	R47902
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	411	20.0		mg/L	1	12/21/2017 9:41:00 PM	35628
SM 4500 NH3: AMMONIA							Analyst: smb
Nitrogen, Ammonia	ND	1.0		mg/L	1	1/6/2018 1:45:00 PM	R48261
SM4500-H+B: PH							Analyst: JRR
pH	7.49		H	pH units	1	12/18/2017 5:19:29 PM	R47902
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Barium	0.065	0.0020		mg/L	1	12/21/2017 7:45:42 PM	35567
Beryllium	ND	0.0020		mg/L	1	1/5/2018 3:56:29 PM	35567
Cadmium	ND	0.0020		mg/L	1	1/5/2018 3:56:29 PM	35567
Calcium	79	1.0		mg/L	1	12/21/2017 7:45:42 PM	35567
Chromium	ND	0.0060		mg/L	1	1/5/2018 3:56:29 PM	35567
Cobalt	ND	0.0060		mg/L	1	1/5/2018 3:56:29 PM	35567
Iron	ND	0.020		mg/L	1	12/21/2017 7:45:42 PM	35567
Magnesium	9.7	1.0		mg/L	1	12/21/2017 7:45:42 PM	35567
Manganese	0.0053	0.0020		mg/L	1	1/5/2018 3:56:29 PM	35567
Nickel	ND	0.010		mg/L	1	12/21/2017 7:45:42 PM	35567
Potassium	2.6	1.0		mg/L	1	12/21/2017 7:45:42 PM	35567
Silver	ND	0.0050		mg/L	1	1/5/2018 3:56:29 PM	35567
Sodium	33	1.0		mg/L	1	1/5/2018 3:56:29 PM	35567
Vanadium	ND	0.050		mg/L	1	12/21/2017 7:45:42 PM	35567

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712866

Date Reported: 1/19/2018

CLIENT: City of Las Cruces

Client Sample ID: CLC MW #7

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/13/2017 12:44:00 PM

Lab ID: 1712866-001

Matrix: AQUEOUS

Received Date: 12/14/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: JLF
Zinc	ND	0.010		mg/L	1	1/5/2018 3:56:29 PM	35567
200.8 ICPMS METALS:TOTAL							Analyst: DBK
Antimony	ND	0.0010		mg/L	1	1/3/2018 7:34:32 PM	35567
Arsenic	0.0015	0.0010		mg/L	1	1/2/2018 9:27:59 PM	35567
Copper	0.0041	0.0010		mg/L	1	1/2/2018 9:27:59 PM	35567
Lead	ND	0.00050		mg/L	1	1/2/2018 9:27:59 PM	35567
Selenium	0.0016	0.0010		mg/L	1	1/2/2018 9:27:59 PM	35567
Thallium	ND	0.00050		mg/L	1	1/3/2018 7:34:32 PM	35567
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
Benzene	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Toluene	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Ethylbenzene	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Acetone	ND	10		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Bromodichloromethane	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Bromoform	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Bromomethane	ND	2.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
2-Butanone	ND	10		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Carbon disulfide	ND	10		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Carbon Tetrachloride	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Chlorobenzene	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Chloroethane	ND	2.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Chloroform	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Chloromethane	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
cis-1,2-DCE	3.1	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Dibromochloromethane	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Dibromomethane	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Dichlorodifluoromethane	3.5	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
1,1-Dichloroethane	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
1,1-Dichloroethene	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
1,2-Dichloropropane	ND	0.50		µg/L	1	12/15/2017 7:47:26 PM	LF47843
2-Hexanone	ND	10		µg/L	1	12/15/2017 7:47:26 PM	LF47843
4-Methyl-2-pentanone	ND	10		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Methylene Chloride	ND	2.5		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Styrene	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712866

Date Reported: 1/19/2018

CLIENT: City of Las Cruces

Client Sample ID: CLC MW #7

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/13/2017 12:44:00 PM

Lab ID: 1712866-001

Matrix: AQUEOUS

Received Date: 12/14/2017 9:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Tetrachloroethene (PCE)	13	0.50		µg/L	1	12/15/2017 7:47:26 PM	LF47843
trans-1,2-DCE	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Trichloroethene (TCE)	2.9	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Trichlorofluoromethane	2.1	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
1,2,3-Trichloropropane	ND	1.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Vinyl chloride	ND	0.40		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Xylenes, Total	ND	2.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Acrylonitrile	ND	10		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Bromochloromethane	ND	2.0		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Iodomethane	ND	10		µg/L	1	12/15/2017 7:47:26 PM	LF47843
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Vinyl acetate	ND	10		µg/L	1	12/15/2017 7:47:26 PM	LF47843
Surr: 1,2-Dichloroethane-d4	95.4	70-130		%Rec	1	12/15/2017 7:47:26 PM	LF47843
Surr: 4-Bromofluorobenzene	111	70-130		%Rec	1	12/15/2017 7:47:26 PM	LF47843
Surr: Dibromofluoromethane	101	70-130		%Rec	1	12/15/2017 7:47:26 PM	LF47843
Surr: Toluene-d8	97.0	70-130		%Rec	1	12/15/2017 7:47:26 PM	LF47843
TOTAL PHENOLICS BY SW-846 9067							Analyst: SCC
Phenolics	ND	2.5		µg/L	1	12/20/2017	35620

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712866

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	MB-35567	SampType:	MBLK	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	PBW	Batch ID:	35567	RunNo:	47970					
Prep Date:	12/18/2017	Analysis Date:	12/21/2017	SeqNo:	1536814	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID	LL LCS-35567	SampType:	LCSLL	TestCode:	EPA Method 200.7: Total Metals					
Client ID:	BatchQC	Batch ID:	35567	RunNo:	47970					
Prep Date:	12/18/2017	Analysis Date:	12/21/2017	SeqNo:	1536815	Units:	mg/L			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020	0.002000	0	92.5	50	150			
Beryllium	ND	0.0020	0.002000	0	92.0	50	150			
Cadmium	0.0025	0.0020	0.002000	0	125	50	150			
Calcium	ND	1.0	0.5000	0	97.7	50	150			
Chromium	ND	0.0060	0.006000	0	83.0	50	150			
Cobalt	ND	0.0060	0.006000	0	93.0	50	150			
Iron	ND	0.020	0.02000	0	66.8	50	150			
Magnesium	ND	1.0	0.5000	0	97.7	50	150			
Manganese	ND	0.0020	0.002000	0	96.5	50	150			
Nickel	ND	0.010	0.005000	0	73.4	50	150			
Potassium	ND	1.0	0.5000	0	94.0	50	150			
Silver	ND	0.0050	0.005000	0	97.6	50	150			
Sodium	ND	1.0	0.5000	0	108	50	150			
Vanadium	ND	0.050	0.01000	0	94.3	50	150			
Zinc	ND	0.010	0.005000	0	129	50	150			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712866

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	LCS-35567		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals				
Client ID:	LCSW		Batch ID:	35567		RunNo:	47970				
Prep Date:	12/18/2017		Analysis Date:	12/21/2017		SeqNo:	1536816		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Barium	0.49	0.0020	0.5000	0	97.7	85	115				
Beryllium	0.49	0.0020	0.5000	0	98.8	85	115				
Cadmium	0.52	0.0020	0.5000	0	103	85	115				
Calcium	46	1.0	50.00	0	92.1	85	115				
Chromium	0.48	0.0060	0.5000	0	95.3	85	115				
Cobalt	0.45	0.0060	0.5000	0	90.8	85	115				
Iron	0.47	0.020	0.5000	0	94.7	85	115				
Magnesium	48	1.0	50.00	0	95.2	85	115				
Manganese	0.46	0.0020	0.5000	0	92.9	85	115				
Nickel	0.47	0.010	0.5000	0	93.7	85	115				
Potassium	47	1.0	50.00	0	93.4	85	115				
Silver	0.11	0.0050	0.1000	0	108	85	115				
Sodium	47	1.0	50.00	0	93.1	85	115				
Vanadium	0.49	0.050	0.5000	0	97.0	85	115				
Zinc	0.47	0.010	0.5000	0	93.2	85	115				

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712866

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	MB-35567	SampType:	MBLK	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	PBW	Batch ID:	35567	RunNo:	48033					
Prep Date:	12/18/2017	Analysis Date:	12/22/2017	SeqNo:	1539328	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Copper	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Thallium	ND	0.00050								

Sample ID	MSLLCS-35567	SampType:	LCSLL	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	BatchQC	Batch ID:	35567	RunNo:	48033					
Prep Date:	12/18/2017	Analysis Date:	12/22/2017	SeqNo:	1539329	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010	0.001000	0	99.3	50	150			
Arsenic	0.0010	0.0010	0.001000	0	100	50	150			
Copper	ND	0.0010	0.001000	0	88.4	50	150			
Lead	ND	0.00050	0.0005000	0	97.1	50	150			
Selenium	ND	0.0010	0.001000	0	84.4	50	150			
Thallium	ND	0.00050	0.0005000	0	95.8	50	150			

Sample ID	MSLCS-35567	SampType:	LCS	TestCode:	200.8 ICPMS Metals:Total					
Client ID:	LCSW	Batch ID:	35567	RunNo:	48033					
Prep Date:	12/18/2017	Analysis Date:	12/22/2017	SeqNo:	1539332	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.030	0.0010	0.02500	0	121	85	115			S
Arsenic	0.025	0.0010	0.02500	0	102	85	115			
Copper	0.025	0.0010	0.02500	0	98.9	85	115			
Lead	0.013	0.00050	0.01250	0	101	85	115			
Selenium	0.024	0.0010	0.02500	0	94.3	85	115			
Thallium	0.013	0.00050	0.01250	0	101	85	115			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712866

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBW	Batch ID: R48234	RunNo: 48234								
Prep Date:	Analysis Date: 1/4/2018	SeqNo: 1548675			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID LCS	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSW	Batch ID: R48234	RunNo: 48234								
Prep Date:	Analysis Date: 1/4/2018	SeqNo: 1548676			Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	4.8	0.50	5.000	0	95.8	90	110			
Sulfate	9.7	0.50	10.00	0	97.3	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	101	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712866

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-35553	SampType: MBLK		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: PBW	Batch ID: 35553		RunNo: 47866							
Prep Date: 12/18/2017	Analysis Date: 12/18/2017		SeqNo: 1531862	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	0.020								
1,2-Dibromoethane	ND	0.010								

Sample ID LCS-35553	SampType: LCS		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: LCSW	Batch ID: 35553		RunNo: 47866							
Prep Date: 12/18/2017	Analysis Date: 12/18/2017		SeqNo: 1531865	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.085	0.020	0.1000	0	84.9	70	130			
1,2-Dibromoethane	0.072	0.010	0.1000	0	72.2	70	130			

Sample ID 1712866-001BMS	SampType: MS		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: CLC MW #7	Batch ID: 35553		RunNo: 47866							
Prep Date: 12/18/2017	Analysis Date: 12/19/2017		SeqNo: 1531928	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.079	0.019	0.09409	0	84.2	42.1	145			
1,2-Dibromoethane	0.048	0.0094	0.09409	0	51.2	42.7	143			

Sample ID 1712866-001BMSD	SampType: MSD		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: CLC MW #7	Batch ID: 35553		RunNo: 47866							
Prep Date: 12/18/2017	Analysis Date: 12/19/2017		SeqNo: 1531930	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.085	0.019	0.09511	0	89.0	42.1	145	6.52	20	
1,2-Dibromoethane	0.051	0.0095	0.09511	0	53.8	42.7	143	5.92	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712866

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: Volatiles, Table I					
Client ID:	PBW	Batch ID:	LF47843	RunNo:	47843					
Prep Date:		Analysis Date:	12/15/2017	SeqNo:	1530697	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
Acetone	ND	10								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	2.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	0.50								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	2.5								
Styrene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
Tetrachloroethene (PCE)	ND	0.50								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	1.0								

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712866

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	rb	SampType: MBLK		TestCode: EPA Method 8260B: Volatiles, Table I						
Client ID:	PBW	Batch ID: LF47843		RunNo: 47843						
Prep Date:		Analysis Date: 12/15/2017		SeqNo: 1530697		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.40								
Xylenes, Total	ND	2.0								
Acrylonitrile	ND	10								
Bromochloromethane	ND	2.0								
Iodomethane	ND	10								
trans-1,4-Dichloro-2-butene	ND	10								
Vinyl acetate	ND	10								
Surr: 1,2-Dichloroethane-d4	9.9		10.00		98.8	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		111	70	130			
Surr: Dibromofluoromethane	10		10.00		102	70	130			
Surr: Toluene-d8	10		10.00		100	70	130			

Sample ID	100ng lcs	SampType: LCS		TestCode: EPA Method 8260B: Volatiles, Table I						
Client ID:	LCSW	Batch ID: LF47843		RunNo: 47843						
Prep Date:		Analysis Date: 12/15/2017		SeqNo: 1530698		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	17	1.0	20.00	0	86.1	70	130			
Toluene	17	1.0	20.00	0	87.2	70	130			
Chlorobenzene	18	1.0	20.00	0	87.6	70	130			
1,1-Dichloroethene	18	1.0	20.00	0	90.8	70	130			
Trichloroethene (TCE)	16	1.0	20.00	0	81.6	70	130			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		94.8	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		111	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.2	70	130			
Surr: Toluene-d8	9.8		10.00		98.4	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712866

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: MBLK		TestCode: EPA Method 9060 TOC							
Client ID: PBW	Batch ID: R47864		RunNo: 47864							
Prep Date:	Analysis Date: 12/18/2017		SeqNo: 1531660		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	1.0								

Sample ID LCS ST9060-16010/	SampType: LCS		TestCode: EPA Method 9060 TOC							
Client ID: LCSW	Batch ID: R47864		RunNo: 47864							
Prep Date:	Analysis Date: 12/18/2017		SeqNo: 1531661		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	5.0	1.0	4.850	0	104	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712866

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	MB-35620	SampType:	MBLK	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	PBW	Batch ID:	35620	RunNo:	47898					
Prep Date:	12/20/2017	Analysis Date:	12/20/2017	SeqNo:	1533585	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	ND	2.5								

Sample ID	LCS-35620	SampType:	LCS	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	LCSW	Batch ID:	35620	RunNo:	47898					
Prep Date:	12/20/2017	Analysis Date:	12/20/2017	SeqNo:	1533586	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	23	2.5	20.00	0	117	62.4	146			

Sample ID	LCSD-35620	SampType:	LCSD	TestCode:	Total Phenolics by SW-846 9067					
Client ID:	LCSS02	Batch ID:	35620	RunNo:	47898					
Prep Date:	12/20/2017	Analysis Date:	12/20/2017	SeqNo:	1533587	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	22	2.5	20.00	0	111	62.4	146	5.39	21	

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712866

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	Ics-1 ~20uS eC		SampType:	LCS		TestCode:	SM2510B: Specific Conductance				
Client ID:	LCSW		Batch ID:	R47902		RunNo:	47902				
Prep Date:			Analysis Date:	12/18/2017		SeqNo:	1533681		Units: µmhos/cm		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Conductivity	22	5.0	19.96	0	112	80	120				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712866

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: MBLK		TestCode: SM 4500 NH3: Ammonia							
Client ID: PBW	Batch ID: R48261		RunNo: 48261							
Prep Date:	Analysis Date: 1/6/2018		SeqNo: 1549653		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	1.0								

Sample ID LCS	SampType: LCS		TestCode: SM 4500 NH3: Ammonia							
Client ID: LCSW	Batch ID: R48261		RunNo: 48261							
Prep Date:	Analysis Date: 1/6/2018		SeqNo: 1549654		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	9.8	1.0	10.00	0	98.0	80	120			

Sample ID 1712866-001EMS	SampType: MS		TestCode: SM 4500 NH3: Ammonia							
Client ID: CLC MW #7	Batch ID: R48261		RunNo: 48261							
Prep Date:	Analysis Date: 1/6/2018		SeqNo: 1549680		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	9.9	1.0	10.00	0	99.4	75	125			

Sample ID 1712866-001EMSD	SampType: MSD		TestCode: SM 4500 NH3: Ammonia							
Client ID: CLC MW #7	Batch ID: R48261		RunNo: 48261							
Prep Date:	Analysis Date: 1/6/2018		SeqNo: 1549681		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	9.9	1.0	10.00	0	99.4	75	125	0	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712866

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	mb-1 alk	SampType:	MBLK	TestCode:	SM2320B: Alkalinity					
Client ID:	PBW	Batch ID:	R47902	RunNo:	47902					
Prep Date:		Analysis Date:	12/18/2017	SeqNo:	1533705	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID	ics-1 alk	SampType:	LCS	TestCode:	SM2320B: Alkalinity					
Client ID:	LCSW	Batch ID:	R47902	RunNo:	47902					
Prep Date:		Analysis Date:	12/18/2017	SeqNo:	1533706	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.28	20.00	80.00	0	97.9	90	110			

Sample ID	mb-2 alk	SampType:	MBLK	TestCode:	SM2320B: Alkalinity					
Client ID:	PBW	Batch ID:	R47902	RunNo:	47902					
Prep Date:		Analysis Date:	12/18/2017	SeqNo:	1533729	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID	ics-2 alk	SampType:	LCS	TestCode:	SM2320B: Alkalinity					
Client ID:	LCSW	Batch ID:	R47902	RunNo:	47902					
Prep Date:		Analysis Date:	12/18/2017	SeqNo:	1533730	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.20	20.00	80.00	0	97.7	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712866

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-35628	SampType: MBLK	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: PBW	Batch ID: 35628	RunNo: 47971								
Prep Date: 12/20/2017	Analysis Date: 12/21/2017	SeqNo: 1536820	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID LCS-35628	SampType: LCS	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: LCSW	Batch ID: 35628	RunNo: 47971								
Prep Date: 12/20/2017	Analysis Date: 12/21/2017	SeqNo: 1536821	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	999	20.0	1000	0	99.9	80	120			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

Sample Log-In Check List

Client Name: City of Las Cruces

Work Order Number: 1712866

RcptNo: 1

Received By: Erin Melendrez 12/14/2017 9:00:00 AM

EM

Completed By: Michelle Garcia 12/14/2017 11:57:15 AM

Michelle Garcia

Reviewed By: ENM 12/14/17

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? FedEx

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels? Yes No # of preserved bottles checked for pH: 3
(#2 or >12 unless noted)
- 13. Are matrices correctly identified on Chain of Custody? Yes No Adjusted? NO
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met? Yes No Checked by: PDS
(If no, notify customer for authorization.)

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.3	Good	Yes			

October 12, 2009

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
acetone	67-64-1	8260B	-	0.01	0.0195	-	mg/L	y
acrylonitrile	107-13-1	8260B	-	0.1	0.195	-	mg/L	y
benzene	71-43-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
bromochloromethane	74-97-5	8260B	-	0.001	0.00195	-	mg/L	y
bromodichloromethane	75-27-4	8260B	-	0.005	0.00975	-	mg/L	y
bromoform	75-25-2	8260B	-	0.015	0.02925	-	mg/L	y
carbon disulfide	75-15-0	8260B	-	0.001	0.00195	-	mg/L	y
carbon tetrachloride	56-23-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
chlorobenzene	108-90-7	8260B	0.1	0.005	0.05	0.075	mg/L	y
chloroethane	75-00-3	8260B	-	0.01	0.0195	-	mg/L	y
chloroform	67-66-3	8260B	0.1	0.005	0.05	0.75	mg/L	y
dibromochloromethane	124-48-1	8260B	-	0.005	0.00975	-	mg/L	y
1,2-dibromo-3-chloropropane	96-12-8	504.1	0.0002	0.0001	0.0001	0.00015	mg/L	y
1,2-dichlorobenzene	95-50-1	8260B	0.06	0.01	0.03	0.045	mg/L	y
1,3-dichlorobenzene	541-73-1	8260B	-	0.01	0.0195	-	mg/L	y
1,4-dichlorobenzene	106-46-7	8260B	0.075	0.015	0.0375	0.5625	mg/L	n
trans-1,4-dichloro-2-butene	110-57-6	8260B	-	0.001	0.00195	-	mg/L	y
dichlorodifluoromethane	75-71-8	8260B	-	0.005	0.00975	-	mg/L	y
1,1-dichloroethane	75-34-3	8260B	0.025	0.005	0.0125	0.01875	mg/L	n
1,2-dichloroethane (EDC)	107-06-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
1,1-dichloroethylene (1,1-DCE)	75-35-4	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
cis-1,2-dichloroethylene	156-59-2	8260B	0.07	0.005	0.035	0.0525	mg/L	y
trans-1,2- dichloroethylene	156-60-5	8260B	0.1	0.005	0.05	0.075	mg/L	y
1,2-dichloropropane	78-87-5	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y
cis-1,3-dichloropropene	10061-01-5	8260B	-	0.02	0.039	-	mg/L	y
trans-1,3- dichloropropene	10061-02-6	8260B	-	0.01	0.0195	-	mg/L	y
ethylbenzene	100-41-4	8260B	0.7	0.01	0.35	0.525	mg/L	y
ethylene dibromide (EDB)	106-93-4	504.1	0.00005	0.000025	0.000025	0.000038	mg/L	y
2-hexanone	591-78-6	8260B	-	0.04	0.078	-	mg/L	y
methyl bromide	74-83-9	8260B	-	0.01	0.0195	-	mg/L	y
methyl chloride	74-87-3	8260B	-	0.001	0.00195	-	mg/L	y
methyl ethyl ketone	78-93-3	8260B	-	0.01	0.0195	-	mg/L	y
methyl iodide	74-88-4	8260B	-	0.05	0.0975	-	mg/L	y
4-methyl-2-pentanone	108-10-1	8260B	-	0.001	0.00195	-	mg/L	y
methylene bromide	74-95-3	8260B	-	0.001	0.00195	-	mg/L	y
methylene chloride	74-87-3	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
styrene	100-42-5	8260B	0.1	0.001	0.05	0.075	mg/L	y
1,1,1,2- tetrachloroethane	630-20-6	8260B	-	0.001	0.00195	-	mg/L	y
1,1,2,2- tetrachloroethane	79-34-5	8260B	0.01	0.005	0.005	0.0075	mg/L	y
tetrachloroethylene (PCE)	127-18-4	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
toluene	108-88-3	8260B	0.75	0.001	0.375	0.5625	mg/L	y
1,1,1-trichloroethane	71-55-6	8260B	0.06	0.005	0.03	0.045	mg/L	y
1,1,2-trichloroethane	79-00-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
trichloroethylene (TCE)	79-01-6	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
trichlorofluoromethane	75-69-4	8260B	-	0.01	0.0195	-	mg/L	y
1,2,3-trichloropropane	96-18-4	8260B	-	0.05	0.0975	-	mg/L	y
vinyl acetate	108-05-4	8260B	-	0.0004	0.00078	-	mg/L	y
vinyl chloride	75-01-4	8260B	0.001	0.0004	0.0005	0.00075	mg/L	y
xylenes	1330-20-7	8260B	0.62	0.0015	0.31	0.465	mg/L	y
ammonia as (N)	N/A	SM 4500 NH3	-	0.5	-	-	mg/L	y
nitrate (as N)	N/A	300.0	10	1.0	5.0	7.5	mg/L	n
chloride	16887-00-6	300.0	250	5.0	187.5	250	mg/L	n
sulfate	14808-79-8	300.0	250	5.0	187.5	250	mg/L	n
total dissolved solids	N/A	SM 2540C	500	5.0	-	-	mg/L	n
carbonate alkalinity	3812-32-6	SM 2320B	-	10	-	-	mg/L	n
bicarbonate alkalinity	71-52-3	SM 2320B	-	10	-	-	mg/L	n
total phenolics	N/A	9067	0.005	0.0025	0.0025	0.00375	mg/L	n
total organic carbon	N/A	9060	-	1	-	-	mg/L	n
barium (total)	7440-39-3	6010B	1	0.01	0.5	0.75	mg/L	n
beryllium (total)	7440-41-7	6010B	0.004	0.002	0.002	0.003	mg/L	y
cadmium (total)	7440-43-9	6010B	0.005	0.002	0.0025	0.00375	mg/L	y
calcium (total)	7440-70-2	6010B	-	1	-	-	mg/L	y
chromium (total)	7440-47-3	6010B	0.05	0.006	0.025	0.0375	mg/L	n
cobalt (total)	7440-48-4	6010B	0.05	0.006	0.025	0.0375	mg/L	y
copper (total)	7440-50-8	6010B	1	0.006	0.5	0.75	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (concluded)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
iron (total)	7439-89-6	6010B	0.3	0.1	0.225	0.3	mg/L	n
lead (total)	7439-92-1	6010B	0.05	0.005	0.025	0.0375	mg/L	y
magnesium (total)	7439-95-4	6010B	-	1	-	-	mg/L	n
manganese (total)	7439-96-5	6010B	0.05	0.03	0.0375	0.05	mg/L	n
nickel (total)	7440-02-0	6010B	0.2	0.01	0.1	0.15	mg/L	y
potassium (total)	7440-09-7	6010B	-	1	-	-	mg/L	n
silver (total)	7440-22-4	6010B	0.05	0.005	0.025	0.0375	mg/L	y
sodium (total)	7440-23-5	6010B	-	1	-	-	mg/L	n
vanadium (total)	7440-62-2	6010B	-	0.05	-	-	mg/L	y
zinc (total)	7440-66-6	6010B	5	0.02	2.5	3.75	mg/L	y
antimony (total)	7440-36-0	6020	0.006	0.001	0.003	0.0045	mg/L	y
arsenic (total)	7440-38-2	6020	0.01	0.004	0.005	0.0075	mg/L	y
selenium (total)	7782-49-2	6020	0.05	0.001	0.025	0.0375	mg/L	y
thallium (total)	7440-28-0	6020	0.002	0.001	0.001	0.0015	mg/L	y
pH	N/A	SM4500	6.5-8.5	+/- 0.1	-	-	S.U.	n
specific conductance	N/A	120.1	-	+/- 25	-	-	µS/cm	n
temperature	N/A	field	-	+/- 0.5	-	-	°F	n
water level elevation	N/A	field	-	+/- 0.01	-	-	ft	n

GWPS - ground water protection standard

PQL - practical quantitation limit

AML - assessment monitoring level

CAL - corrective action level

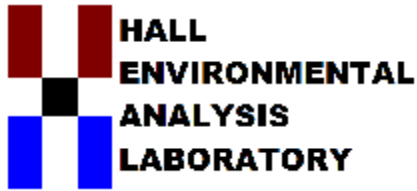
mg/L - milligrams per liter

µS/cm - microSiemens per centimeter

S.U. - standard pH units

°F - degrees Fahrenheit

ft - feet



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

January 19, 2018

Luis Guerra

City of Las Cruces

PO Box 20000

Las Cruces, NM 88004

TEL: (575) 528-3635

FAX (575) 528-3513

RE: CLC Foothills Landfill Closure Monitoring Wells

OrderNo.: 1712D75

Dear Luis Guerra:

Hall Environmental Analysis Laboratory received 2 sample(s) on 12/22/2017 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued January 12, 2018.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a white background.

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D75

Date Reported: 1/19/2018

CLIENT: City of Las Cruces

Client Sample ID: CLC MW #8

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/21/2017 1:28:00 PM

Lab ID: 1712D75-001

Matrix: AQUEOUS

Received Date: 12/22/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	12/29/2017 3:24:51 PM	35768
1,2-Dibromoethane	ND	0.0096		µg/L	1	12/29/2017 3:24:51 PM	35768
EPA METHOD 9060 TOC							Analyst: MAB
Total Organic Carbon	7.6	1.0		mg/L	1	12/27/2017 12:55:44 PM	R48049
EPA METHOD 300.0: ANIONS							Analyst: MRA
Chloride	7.7	0.50		mg/L	1	1/7/2018 12:21:51 PM	R48280
Nitrogen, Nitrate (As N)	0.89	0.10		mg/L	1	12/22/2017 7:36:28 PM	R48014
Sulfate	30	0.50		mg/L	1	12/22/2017 7:36:28 PM	R48014
SM2510B: SPECIFIC CONDUCTANCE							Analyst: JRR
Conductivity	310	5.0		µmhos/cm	1	12/27/2017 3:58:54 PM	R48063
SM2320B: ALKALINITY							Analyst: JRR
Bicarbonate (As CaCO3)	105.6	20.00		mg/L CaCO3	1	12/27/2017 3:58:54 PM	R48063
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	12/27/2017 3:58:54 PM	R48063
Total Alkalinity (as CaCO3)	105.6	20.00		mg/L CaCO3	1	12/27/2017 3:58:54 PM	R48063
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: KS
Total Dissolved Solids	227	20.0		mg/L	1	1/3/2018 2:07:00 PM	35734
SM 4500 NH3: AMMONIA							Analyst: smb
Nitrogen, Ammonia	ND	1.0		mg/L	1	1/9/2018 2:41:00 PM	R48314
SM4500-H+B: PH							Analyst: JRR
pH	7.56		H	pH units	1	12/27/2017 3:58:54 PM	R48063
EPA METHOD 200.7: TOTAL METALS							Analyst: pmf
Barium	0.022	0.0020		mg/L	1	1/5/2018 3:58:37 PM	35821
Beryllium	ND	0.0020		mg/L	1	1/5/2018 3:58:37 PM	35821
Cadmium	ND	0.0020		mg/L	1	1/5/2018 3:58:37 PM	35821
Calcium	25	1.0		mg/L	1	1/5/2018 3:58:37 PM	35821
Chromium	ND	0.0060		mg/L	1	1/5/2018 3:58:37 PM	35821
Cobalt	ND	0.0060		mg/L	1	1/5/2018 3:58:37 PM	35821
Copper	ND	0.0060		mg/L	1	1/5/2018 3:58:37 PM	35821
Iron	0.048	0.020		mg/L	1	1/5/2018 3:58:37 PM	35821
Magnesium	1.7	1.0		mg/L	1	1/5/2018 3:58:37 PM	35821
Manganese	0.0042	0.0020		mg/L	1	1/5/2018 3:58:37 PM	35821
Nickel	ND	0.010		mg/L	1	1/5/2018 3:58:37 PM	35821
Potassium	2.2	1.0		mg/L	1	1/5/2018 3:58:37 PM	35821
Silver	ND	0.0050		mg/L	1	1/5/2018 3:58:37 PM	35821
Sodium	37	1.0		mg/L	1	1/5/2018 3:58:37 PM	35821

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D75

Date Reported: 1/19/2018

CLIENT: City of Las Cruces

Client Sample ID: CLC MW #8

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/21/2017 1:28:00 PM

Lab ID: 1712D75-001

Matrix: AQUEOUS

Received Date: 12/22/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 200.7: TOTAL METALS							Analyst: pmf
Vanadium	ND	0.050		mg/L	1	1/5/2018 3:58:37 PM	35821
Zinc	0.017	0.010		mg/L	1	1/5/2018 3:58:37 PM	35821
200.8 ICPMS METALS:TOTAL							Analyst: DBK
Antimony	ND	0.0010		mg/L	1	1/8/2018 12:53:48 PM	35821
Arsenic	0.0012	0.0010		mg/L	1	1/8/2018 12:53:48 PM	35821
Lead	ND	0.00050		mg/L	1	1/8/2018 12:53:48 PM	35821
Selenium	ND	0.0010		mg/L	1	1/8/2018 12:53:48 PM	35821
Thallium	ND	0.00050		mg/L	1	1/8/2018 12:53:48 PM	35821
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
Benzene	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Toluene	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Ethylbenzene	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Acetone	ND	10		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Bromodichloromethane	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Bromoform	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Bromomethane	ND	2.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
2-Butanone	ND	10		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Carbon disulfide	ND	10		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Carbon Tetrachloride	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Chlorobenzene	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Chloroethane	ND	2.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Chloroform	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Chloromethane	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
cis-1,2-DCE	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Dibromochloromethane	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Dibromomethane	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Dichlorodifluoromethane	1.7	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
1,1-Dichloroethane	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
1,1-Dichloroethene	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
1,2-Dichloropropane	ND	0.50		µg/L	1	12/28/2017 5:16:41 PM	LF48086
2-Hexanone	ND	10		µg/L	1	12/28/2017 5:16:41 PM	LF48086
4-Methyl-2-pentanone	ND	10		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Methylene Chloride	ND	2.5		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Styrene	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D75

Date Reported: 1/19/2018

CLIENT: City of Las Cruces

Client Sample ID: CLC MW #8

Project: CLC Foothills Landfill Closure Monitori

Collection Date: 12/21/2017 1:28:00 PM

Lab ID: 1712D75-001

Matrix: AQUEOUS

Received Date: 12/22/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Tetrachloroethene (PCE)	3.8	0.50		µg/L	1	12/28/2017 5:16:41 PM	LF48086
trans-1,2-DCE	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Trichlorofluoromethane	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
1,2,3-Trichloropropane	ND	1.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Vinyl chloride	ND	0.40		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Xylenes, Total	ND	2.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Acrylonitrile	ND	10		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Bromochloromethane	ND	2.0		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Iodomethane	ND	10		µg/L	1	12/28/2017 5:16:41 PM	LF48086
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Vinyl acetate	ND	10		µg/L	1	12/28/2017 5:16:41 PM	LF48086
Surr: 1,2-Dichloroethane-d4	92.9	70-130		%Rec	1	12/28/2017 5:16:41 PM	LF48086
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	12/28/2017 5:16:41 PM	LF48086
Surr: Dibromofluoromethane	101	70-130		%Rec	1	12/28/2017 5:16:41 PM	LF48086
Surr: Toluene-d8	96.6	70-130		%Rec	1	12/28/2017 5:16:41 PM	LF48086
TOTAL PHENOLICS BY SW-846 9067							Analyst: SCC
Phenolics	ND	2.5		µg/L	1	1/4/2018	35838

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D75

Date Reported: 1/19/2018

CLIENT: City of Las Cruces

Client Sample ID: Trip Blank

Project: CLC Foothills Landfill Closure Monitori

Collection Date:

Lab ID: 1712D75-002

Matrix: TRIP BLANK

Received Date: 12/22/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP							Analyst: JME
1,2-Dibromo-3-chloropropane	ND	0.019		µg/L	1	12/29/2017 3:40:13 PM	35768
1,2-Dibromoethane	ND	0.0095		µg/L	1	12/29/2017 3:40:13 PM	35768
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
Benzene	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Toluene	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Ethylbenzene	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Acetone	ND	10		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Bromodichloromethane	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Bromoform	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Bromomethane	ND	2.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
2-Butanone	ND	10		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Carbon disulfide	ND	10		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Carbon Tetrachloride	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Chlorobenzene	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Chloroethane	ND	2.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Chloroform	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Chloromethane	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
cis-1,2-DCE	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Dibromochloromethane	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Dibromomethane	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
1,2-Dichlorobenzene	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
1,4-Dichlorobenzene	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Dichlorodifluoromethane	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
1,1-Dichloroethane	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
1,1-Dichloroethene	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
1,2-Dichloropropane	ND	0.50		µg/L	1	12/28/2017 5:46:02 PM	LF48086
2-Hexanone	ND	10		µg/L	1	12/28/2017 5:46:02 PM	LF48086
4-Methyl-2-pentanone	ND	10		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Methylene Chloride	ND	2.5		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Styrene	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
1,1,2,2-Tetrachloroethane	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Tetrachloroethene (PCE)	ND	0.50		µg/L	1	12/28/2017 5:46:02 PM	LF48086
trans-1,2-DCE	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
1,1,1-Trichloroethane	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
1,1,2-Trichloroethane	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1712D75

Date Reported: 1/19/2018

CLIENT: City of Las Cruces

Client Sample ID: Trip Blank

Project: CLC Foothills Landfill Closure Monitori

Collection Date:

Lab ID: 1712D75-002

Matrix: TRIP BLANK

Received Date: 12/22/2017 10:15:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							Analyst: DJF
Trichloroethene (TCE)	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Trichlorofluoromethane	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
1,2,3-Trichloropropane	ND	1.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Vinyl chloride	ND	0.40		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Xylenes, Total	ND	2.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Acrylonitrile	ND	10		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Bromochloromethane	ND	2.0		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Iodomethane	ND	10		µg/L	1	12/28/2017 5:46:02 PM	LF48086
trans-1,4-Dichloro-2-butene	ND	10		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Vinyl acetate	ND	10		µg/L	1	12/28/2017 5:46:02 PM	LF48086
Surr: 1,2-Dichloroethane-d4	95.3	70-130		%Rec	1	12/28/2017 5:46:02 PM	LF48086
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	12/28/2017 5:46:02 PM	LF48086
Surr: Dibromofluoromethane	102	70-130		%Rec	1	12/28/2017 5:46:02 PM	LF48086
Surr: Toluene-d8	95.1	70-130		%Rec	1	12/28/2017 5:46:02 PM	LF48086

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712D75

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-35821	SampType: MBLK	TestCode: EPA Method 200.7: Total Metals
Client ID: PBW	Batch ID: 35821	RunNo: 48200
Prep Date: 1/3/2018	Analysis Date: 1/4/2018	SeqNo: 1547847 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Vanadium	ND	0.050								
Zinc	ND	0.010								

Sample ID LL LCS-35821	SampType: LCSLL	TestCode: EPA Method 200.7: Total Metals
Client ID: BatchQC	Batch ID: 35821	RunNo: 48200
Prep Date: 1/3/2018	Analysis Date: 1/4/2018	SeqNo: 1547848 Units: mg/L

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.0020	0.0020	0.002000	0	100	50	150			
Beryllium	ND	0.0020	0.002000	0	97.5	50	150			
Cadmium	ND	0.0020	0.002000	0	87.5	50	150			
Calcium	ND	1.0	0.5000	0	103	50	150			
Chromium	0.0061	0.0060	0.006000	0	102	50	150			
Cobalt	0.0062	0.0060	0.006000	0	104	50	150			
Copper	0.0068	0.0060	0.006000	0	113	50	150			
Iron	0.022	0.020	0.02000	0	110	50	150			
Magnesium	ND	1.0	0.5000	0	102	50	150			
Manganese	0.0021	0.0020	0.002000	0	106	50	150			
Nickel	ND	0.010	0.005000	0	74.4	50	150			
Potassium	ND	1.0	0.5000	0	104	50	150			
Silver	0.0052	0.0050	0.005000	0	103	50	150			
Sodium	ND	1.0	0.5000	0	95.3	50	150			
Vanadium	ND	0.050	0.01000	0	105	50	150			
Zinc	ND	0.010	0.005000	0	120	50	150			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712D75

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	LCS-35821		SampType:	LCS		TestCode:	EPA Method 200.7: Total Metals				
Client ID:	LCSW		Batch ID:	35821		RunNo:	48200				
Prep Date:	1/3/2018		Analysis Date:	1/4/2018		SeqNo:	1547849		Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Barium	0.49	0.0020	0.5000	0	97.2	85	115				
Beryllium	0.50	0.0020	0.5000	0	101	85	115				
Cadmium	0.50	0.0020	0.5000	0	99.2	85	115				
Calcium	49	1.0	50.00	0	98.3	85	115				
Chromium	0.49	0.0060	0.5000	0	97.6	85	115				
Cobalt	0.49	0.0060	0.5000	0	98.1	85	115				
Copper	0.50	0.0060	0.5000	0	99.1	85	115				
Iron	0.49	0.020	0.5000	0	98.5	85	115				
Magnesium	50	1.0	50.00	0	100	85	115				
Manganese	0.49	0.0020	0.5000	0	99.0	85	115				
Nickel	0.48	0.010	0.5000	0	95.6	85	115				
Potassium	49	1.0	50.00	0	97.8	85	115				
Silver	0.10	0.0050	0.1000	0	103	85	115				
Sodium	49	1.0	50.00	0	97.3	85	115				
Vanadium	0.49	0.050	0.5000	0	98.3	85	115				
Zinc	0.48	0.010	0.5000	0	95.8	85	115				

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712D75

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-35821	SampType: MBLK		TestCode: 200.8 ICPMS Metals:Total							
Client ID: PBW	Batch ID: 35821		RunNo: 48204							
Prep Date: 1/3/2018	Analysis Date: 1/4/2018		SeqNo: 1547343		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Thallium	ND	0.00050								

Sample ID MSLLCS-35821	SampType: LCSLL		TestCode: 200.8 ICPMS Metals:Total							
Client ID: BatchQC	Batch ID: 35821		RunNo: 48204							
Prep Date: 1/3/2018	Analysis Date: 1/4/2018		SeqNo: 1547344		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.0014	0.0010	0.001000	0	138	50	150			
Arsenic	ND	0.0010	0.001000	0	73.2	50	150			
Lead	ND	0.00050	0.0005000	0	95.7	50	150			
Selenium	ND	0.0010	0.001000	0	90.1	50	150			
Thallium	ND	0.00050	0.0005000	0	94.3	50	150			

Sample ID MSLCS-35821	SampType: LCS		TestCode: 200.8 ICPMS Metals:Total							
Client ID: LCSW	Batch ID: 35821		RunNo: 48204							
Prep Date: 1/3/2018	Analysis Date: 1/4/2018		SeqNo: 1547345		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.027	0.0010	0.02500	0	106	85	115			
Arsenic	0.024	0.0010	0.02500	0	94.9	85	115			
Lead	0.012	0.00050	0.01250	0	98.3	85	115			
Selenium	0.023	0.0010	0.02500	0	90.7	85	115			
Thallium	0.012	0.00050	0.01250	0	98.4	85	115			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712D75

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R48014		RunNo: 48014							
Prep Date:	Analysis Date: 12/22/2017		SeqNo: 1538505		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	ND	0.10								
Sulfate	ND	0.50								

Sample ID LCS	SampType: LCS		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R48014		RunNo: 48014							
Prep Date:	Analysis Date: 12/22/2017		SeqNo: 1538506		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	2.3	0.10	2.500	0	93.6	90	110			
Sulfate	9.1	0.50	10.00	0	91.2	90	110			

Sample ID 1712D75-001EMS	SampType: MS		TestCode: EPA Method 300.0: Anions							
Client ID: CLC MW #8	Batch ID: R48014		RunNo: 48014							
Prep Date:	Analysis Date: 12/22/2017		SeqNo: 1538646		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	3.3	0.10	2.500	0.8888	97.1	85.6	113			
Sulfate	41	0.50	10.00	30.41	103	87.1	118			

Sample ID 1712D75-001EMSD	SampType: MSD		TestCode: EPA Method 300.0: Anions							
Client ID: CLC MW #8	Batch ID: R48014		RunNo: 48014							
Prep Date:	Analysis Date: 12/22/2017		SeqNo: 1538647		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Nitrate (As N)	3.3	0.10	2.500	0.8888	97.3	85.6	113	0.142	20	
Sulfate	41	0.50	10.00	30.41	104	87.1	118	0.247	20	

Sample ID MB	SampType: mblk		TestCode: EPA Method 300.0: Anions							
Client ID: PBW	Batch ID: R48280		RunNo: 48280							
Prep Date:	Analysis Date: 1/7/2018		SeqNo: 1550614		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID LCS	SampType: lcs		TestCode: EPA Method 300.0: Anions							
Client ID: LCSW	Batch ID: R48280		RunNo: 48280							
Prep Date:	Analysis Date: 1/7/2018		SeqNo: 1550615		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.1	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712D75

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-35768	SampType: MBLK		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: PBW	Batch ID: 35768		RunNo: 48103							
Prep Date: 12/29/2017	Analysis Date: 12/29/2017		SeqNo: 1542500		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	ND	0.020								
1,2-Dibromoethane	ND	0.010								

Sample ID LCS-35768	SampType: LCS		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: LCSW	Batch ID: 35768		RunNo: 48103							
Prep Date: 12/29/2017	Analysis Date: 12/29/2017		SeqNo: 1542501		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.084	0.020	0.1000	0	83.8	70	130			
1,2-Dibromoethane	0.072	0.010	0.1000	0	71.6	70	130			

Sample ID LCSD-35768	SampType: LCSD		TestCode: EPA Method 504.1: EDB/DBCP							
Client ID: LCSS02	Batch ID: 35768		RunNo: 48103							
Prep Date: 12/29/2017	Analysis Date: 12/29/2017		SeqNo: 1542502		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromo-3-chloropropane	0.080	0.020	0.1000	0	80.1	70	130	4.50	20	
1,2-Dibromoethane	0.071	0.010	0.1000	0	70.8	70	130	1.16	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712D75

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	rb	SampType:	MBLK		TestCode:	EPA Method 8260B: Volatiles, Table I				
Client ID:	PBW	Batch ID:	LF48086		RunNo:	48086				
Prep Date:		Analysis Date:	12/28/2017		SeqNo:	1541303	Units:	µg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
Acetone	ND	10								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	2.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	0.50								
2-Hexanone	ND	10								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	2.5								
Styrene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	1.0								
Tetrachloroethene (PCE)	ND	0.50								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	1.0								

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712D75

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID rb	SampType: MBLK		TestCode: EPA Method 8260B: Volatiles, Table I							
Client ID: PBW	Batch ID: LF48086		RunNo: 48086							
Prep Date:	Analysis Date: 12/28/2017		SeqNo: 1541303		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	0.40								
Xylenes, Total	ND	2.0								
Acrylonitrile	ND	10								
Bromochloromethane	ND	2.0								
Iodomethane	ND	10								
trans-1,4-Dichloro-2-butene	ND	10								
Vinyl acetate	ND	10								
Surr: 1,2-Dichloroethane-d4	8.7		10.00		87.2	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		108	70	130			
Surr: Dibromofluoromethane	9.5		10.00		94.7	70	130			
Surr: Toluene-d8	9.1		10.00		91.0	70	130			

Sample ID 100ng lcs	SampType: LCS		TestCode: EPA Method 8260B: Volatiles, Table I							
Client ID: LCSW	Batch ID: LF48086		RunNo: 48086							
Prep Date:	Analysis Date: 12/28/2017		SeqNo: 1541304		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	94.9	70	130			
Toluene	18	1.0	20.00	0	88.8	70	130			
Chlorobenzene	17	1.0	20.00	0	86.0	70	130			
1,1-Dichloroethene	20	1.0	20.00	0	98.4	70	130			
Trichloroethene (TCE)	19	1.0	20.00	0	93.2	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.7	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	9.7		10.00		97.0	70	130			
Surr: Toluene-d8	9.3		10.00		93.1	70	130			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712D75

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: MBLK		TestCode: EPA Method 9060 TOC							
Client ID: PBW	Batch ID: R48049		RunNo: 48049							
Prep Date:	Analysis Date: 12/27/2017		SeqNo: 1539877		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	ND	1.0								

Sample ID LCS ST9060-16010/	SampType: LCS		TestCode: EPA Method 9060 TOC							
Client ID: LCSW	Batch ID: R48049		RunNo: 48049							
Prep Date:	Analysis Date: 12/27/2017		SeqNo: 1539878		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	5.2	1.0	4.850	0	108	90	110			

Sample ID 1712D75-001CMS	SampType: MS		TestCode: EPA Method 9060 TOC							
Client ID: CLC MW #8	Batch ID: R48049		RunNo: 48049							
Prep Date:	Analysis Date: 12/27/2017		SeqNo: 1539883		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	12	1.0	4.650	7.574	89.2	75	125			

Sample ID 1712D75-001CMSD	SampType: MSD		TestCode: EPA Method 9060 TOC							
Client ID: CLC MW #8	Batch ID: R48049		RunNo: 48049							
Prep Date:	Analysis Date: 12/27/2017		SeqNo: 1539884		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Organic Carbon	12	1.0	4.650	7.574	92.2	75	125	1.19	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712D75

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-35838	SampType: MBLK		TestCode: Total Phenolics by SW-846 9067							
Client ID: PBW	Batch ID: 35838		RunNo: 48176							
Prep Date: 1/4/2018	Analysis Date: 1/4/2018		SeqNo: 1545926	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	ND	2.5								

Sample ID LCS-35838	SampType: LCS		TestCode: Total Phenolics by SW-846 9067							
Client ID: LCSW	Batch ID: 35838		RunNo: 48176							
Prep Date: 1/4/2018	Analysis Date: 1/4/2018		SeqNo: 1545927	Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phenolics	21	2.5	20.00	0	103	62.4	146			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712D75

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	Ics-1 ~20uS eC		SampType: LCS		TestCode: SM2510B: Specific Conductance					
Client ID:	LCSW		Batch ID: R48063		RunNo: 48063					
Prep Date:			Analysis Date: 12/27/2017		SeqNo: 1540527		Units: µmhos/cm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	23	5.0	19.96	0	114	80	120			

Sample ID	Ics-2 ~20uS eC		SampType: LCS		TestCode: SM2510B: Specific Conductance					
Client ID:	LCSW		Batch ID: R48063		RunNo: 48063					
Prep Date:			Analysis Date: 12/27/2017		SeqNo: 1540553		Units: µmhos/cm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	23	5.0	19.96	0	113	80	120			

Sample ID	1712d75-001e dup		SampType: DUP		TestCode: SM2510B: Specific Conductance					
Client ID:	CLC MW #8		Batch ID: R48063		RunNo: 48063					
Prep Date:			Analysis Date: 12/27/2017		SeqNo: 1540556		Units: µmhos/cm			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	310	5.0						1.07	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712D75

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB	SampType: MBLK		TestCode: SM 4500 NH3: Ammonia							
Client ID: PBW	Batch ID: R48314		RunNo: 48314							
Prep Date:	Analysis Date: 1/9/2018		SeqNo: 1551556		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	ND	1.0								

Sample ID LCS	SampType: LCS		TestCode: SM 4500 NH3: Ammonia							
Client ID: LCSW	Batch ID: R48314		RunNo: 48314							
Prep Date:	Analysis Date: 1/9/2018		SeqNo: 1551557		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	9.8	1.0	10.00	0	98.0	80	120			

Sample ID 1712D75-001EMS	SampType: MS		TestCode: SM 4500 NH3: Ammonia							
Client ID: CLC MW #8	Batch ID: R48314		RunNo: 48314							
Prep Date:	Analysis Date: 1/9/2018		SeqNo: 1551572		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	9.9	1.0	10.00	0	99.4	75	125			

Sample ID 1712D75-001EMSD	SampType: MSD		TestCode: SM 4500 NH3: Ammonia							
Client ID: CLC MW #8	Batch ID: R48314		RunNo: 48314							
Prep Date:	Analysis Date: 1/9/2018		SeqNo: 1551573		Units: mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrogen, Ammonia	9.9	1.0	10.00	0	99.4	75	125	0	20	

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712D75

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID	1712d75-001e dup	SampType:	DUP	TestCode:	SM4500-H+B: pH					
Client ID:	CLC MW #8	Batch ID:	R48063	RunNo:	48063					
Prep Date:		Analysis Date:	12/27/2017	SeqNo:	1540608	Units:	pH units			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.59									H

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712D75

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID mb-1 alk	SampType: MBLK		TestCode: SM2320B: Alkalinity							
Client ID: PBW	Batch ID: R48063		RunNo: 48063							
Prep Date:	Analysis Date: 12/27/2017		SeqNo: 1540483		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID ics-1 alk	SampType: LCS		TestCode: SM2320B: Alkalinity							
Client ID: LCSW	Batch ID: R48063		RunNo: 48063							
Prep Date:	Analysis Date: 12/27/2017		SeqNo: 1540484		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.88	20.00	80.00	0	98.6	90	110			

Sample ID mb-2 alk	SampType: MBLK		TestCode: SM2320B: Alkalinity							
Client ID: PBW	Batch ID: R48063		RunNo: 48063							
Prep Date:	Analysis Date: 12/27/2017		SeqNo: 1540507		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID ics-2 alk	SampType: LCS		TestCode: SM2320B: Alkalinity							
Client ID: LCSW	Batch ID: R48063		RunNo: 48063							
Prep Date:	Analysis Date: 12/27/2017		SeqNo: 1540508		Units: mg/L CaCO3					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.24	20.00	80.00	0	97.8	90	110			

Qualifiers:

- | | |
|---|---|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix | E Value above quantitation range |
| H Holding times for preparation or analysis exceeded | J Analyte detected below quantitation limits |
| ND Not Detected at the Reporting Limit | P Sample pH Not In Range |
| PQL Practical Quantitative Limit | RL Reporting Detection Limit |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1712D75

19-Jan-18

Client: City of Las Cruces
Project: CLC Foothills Landfill Closure Monitoring Well

Sample ID MB-35734	SampType: MBLK	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: PBW	Batch ID: 35734	RunNo: 48156								
Prep Date: 12/27/2017	Analysis Date: 1/3/2018	SeqNo: 1545151	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID LCS-35734	SampType: LCS	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: LCSW	Batch ID: 35734	RunNo: 48156								
Prep Date: 12/27/2017	Analysis Date: 1/3/2018	SeqNo: 1545152	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1030	20.0	1000	0	103	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

Sample Log-In Check List

Client Name: City of Las Cruces

Work Order Number: 1712D75

RcptNo: 1

Received By: Erin Melendrez 12/22/2017 10:15:00 AM

EM

Completed By: Ashley Gallegos 12/22/2017 10:55:11 AM

AG

Reviewed By: *JMD* 12/22/17

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? FedEx

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes No
- 13. Are matrices correctly identified on Chain of Custody? Yes No
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met? (If no, notify customer for authorization.) Yes No

# of preserved bottles checked for pH:	<u>3</u>
	(≤ or >12 unless noted)
Adjusted?	<u>NO</u>
Checked by:	<u>ENM</u>

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.3	Good	Yes			

October 12, 2009

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append L, Part 258, 40 CFR
acetone	67-64-1	8260B	-	0.01	0.0195	-	mg/L	y
acrylonitrile	107-13-1	8260B	-	0.1	0.195	-	mg/L	y
benzene	71-43-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
bromochloromethane	74-97-5	8260B	-	0.001	0.00195	-	mg/L	y
bromodichloromethane	75-27-4	8260B	-	0.005	0.00975	-	mg/L	y
bromoform	75-25-2	8260B	-	0.015	0.02925	-	mg/L	y
carbon disulfide	75-15-0	8260B	-	0.001	0.00195	-	mg/L	y
carbon tetrachloride	56-23-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
chlorobenzene	108-90-7	8260B	0.1	0.005	0.05	0.075	mg/L	y
chloroethane	75-00-3	8260B	-	0.01	0.0195	-	mg/L	y
chloroform	67-66-3	8260B	0.1	0.005	0.05	0.75	mg/L	y
dibromochloromethane	124-48-1	8260B	-	0.005	0.00975	-	mg/L	y
1,2-dibromo-3-chloropropane	96-12-8	504.1	0.0002	0.0001	0.0001	0.00015	mg/L	y
1,2-dichlorobenzene	95-50-1	8260B	0.06	0.01	0.03	0.045	mg/L	y
1,3-dichlorobenzene	541-73-1	8260B	-	0.01	0.0195	-	mg/L	n
1,4-dichlorobenzene	106-46-7	8260B	0.075	0.015	0.0375	0.5625	mg/L	y
trans-1,4-dichloro-2-butene	110-57-6	8260B	-	0.001	0.00195	-	mg/L	y
dichlorodifluoromethane	75-71-8	8260B	-	0.005	0.00975	-	mg/L	n
1,1-dichloroethane	75-34-3	8260B	0.025	0.005	0.0125	0.01875	mg/L	y
1,2-dichloroethane (EDC)	107-06-2	8260B	0.005	0.001	0.0025	0.00375	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
1,1-dichloroethylene (1,1-DCE)	75-35-4	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
cis-1,2-dichloroethylene	156-59-2	8260B	0.07	0.005	0.035	0.0525	mg/L	y
trans-1,2- dichloroethylene	156-60-5	8260B	0.1	0.005	0.05	0.075	mg/L	y
1,2-dichloropropane	78-87-5	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y
cis-1,3-dichloropropene	10061-01-5	8260B	-	0.02	0.039	-	mg/L	y
trans-1,3- dichloropropene	10061-02-6	8260B	-	0.01	0.0195	-	mg/L	y
ethylbenzene	100-41-4	8260B	0.7	0.01	0.35	0.525	mg/L	y
ethylene dibromide (EDB)	106-93-4	504.1	0.00005	0.000025	0.000025	0.000038	mg/L	y
2-hexanone	591-78-6	8260B	-	0.04	0.078	-	mg/L	y
methyl bromide	74-83-9	8260B	-	0.01	0.0195	-	mg/L	y
methyl chloride	74-87-3	8260B	-	0.001	0.00195	-	mg/L	y
methyl ethyl ketone	78-93-3	8260B	-	0.01	0.0195	-	mg/L	y
methyl iodide	74-88-4	8260B	-	0.05	0.0975	-	mg/L	y
4-methyl-2-pentanone	108-10-1	8260B	-	0.001	0.00195	-	mg/L	y
methylene bromide	74-95-3	8260B	-	0.001	0.00195	-	mg/L	y
methylene chloride	74-87-3	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
styrene	100-42-5	8260B	0.1	0.001	0.05	0.075	mg/L	y
1,1,1,2- tetrachloroethane	630-20-6	8260B	-	0.001	0.00195	-	mg/L	y
1,1,2,2- tetrachloroethane	79-34-5	8260B	0.01	0.005	0.005	0.0075	mg/L	y
tetrachloroethylene (PCE)	127-18-4	8260B	0.005	0.0005	0.0025	0.00375	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (continued)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Appendix I, Part 258, 40 CFR
toluene	108-88-3	8260B	0.75	0.001	0.375	0.5625	mg/L	y
1,1,1-trichloroethane	71-55-6	8260B	0.06	0.005	0.03	0.045	mg/L	y
1,1,2-trichloroethane	79-00-5	8260B	0.005	0.002	0.0025	0.00375	mg/L	y
trichloroethylene (TCE)	79-01-6	8260B	0.005	0.001	0.0025	0.00375	mg/L	y
trichlorofluoromethane	75-69-4	8260B	-	0.01	0.0195	-	mg/L	y
1,2,3-trichloropropane	96-18-4	8260B	-	0.05	0.0975	-	mg/L	y
vinyl acetate	108-05-4	8260B	-	0.0004	0.00078	-	mg/L	y
vinyl chloride	75-01-4	8260B	0.001	0.0004	0.0005	0.00075	mg/L	y
xylenes	1330-20-7	8260B	0.62	0.0015	0.31	0.465	mg/L	y
ammonia as (N)	N/A	SM 4500 NH3	-	0.5	-	-	mg/L	n
nitrate (as N)	N/A	300.0	10	1.0	5.0	7.5	mg/L	n
chloride	16887-00-6	300.0	250	5.0	187.5	250	mg/L	n
sulfate	14808-79-8	300.0	250	5.0	187.5	250	mg/L	n
total dissolved solids	N/A	SM 2540C	500	5.0	-	-	mg/L	n
carbonate alkalinity	3812-32-6	SM 2320B	-	10	-	-	mg/L	n
bicarbonate alkalinity	71-52-3	SM 2320B	-	10	-	-	mg/L	n
total phenolics	N/A	9067	0.005	0.0025	0.0025	0.00375	mg/L	n
total organic carbon	N/A	9060	-	1	-	-	mg/L	n
barium (total)	7440-39-3	6010B	1	0.01	0.5	0.75	mg/L	y
beryllium (total)	7440-41-7	6010B	0.004	0.002	0.002	0.003	mg/L	y
cadmium (total)	7440-43-9	6010B	0.005	0.002	0.0025	0.00375	mg/L	y
calcium (total)	7440-70-2	6010B	-	1	-	-	mg/L	y
chromium (total)	7440-47-3	6010B	0.05	0.006	0.025	0.0375	mg/L	n
cobalt (total)	7440-48-4	6010B	0.05	0.006	0.025	0.0375	mg/L	y
copper (total)	7440-50-8	6010B	1	0.006	0.5	0.75	mg/L	y

Table 1. Reduced parameter list for water-quality sampling at Las Cruces Foothills Landfill monitoring wells MW-1 through MW-7, Las Cruces, New Mexico (concluded)

parameters	CAS no.	method	GWPS	PQL	AML	CAL	units	included in Append I, Part 258, 40 CFR
iron (total)	7439-89-6	6010B	0.3	0.1	0.225	0.3	mg/L	n
lead (total)	7439-92-1	6010B	0.05	0.005	0.025	0.0375	mg/L	y
magnesium (total)	7439-95-4	6010B	-	1	-	-	mg/L	n
manganese (total)	7439-96-5	6010B	0.05	0.03	0.0375	0.05	mg/L	n
nickel (total)	7440-02-0	6010B	0.2	0.01	0.1	0.15	mg/L	y
potassium (total)	7440-09-7	6010B	-	1	-	-	mg/L	n
silver (total)	7440-22-4	6010B	0.05	0.005	0.025	0.0375	mg/L	y
sodium (total)	7440-23-5	6010B	-	1	-	-	mg/L	n
vanadium (total)	7440-62-2	6010B	-	0.05	-	-	mg/L	y
zinc (total)	7440-66-6	6010B	5	0.02	2.5	3.75	mg/L	y
antimony (total)	7440-36-0	6020	0.006	0.001	0.003	0.0045	mg/L	y
arsenic (total)	7440-38-2	6020	0.01	0.004	0.005	0.0075	mg/L	y
selenium (total)	7782-49-2	6020	0.05	0.001	0.025	0.0375	mg/L	y
thallium (total)	7440-28-0	6020	0.002	0.001	0.001	0.0015	mg/L	y
pH	N/A	SM4500	6.5-8.5	+/- 0.1	-	-	S.U.	n
specific conductance	N/A	120.1	-	+/- 25	-	-	µS/cm	n
temperature	N/A	field	-	+/- 0.5	-	-	°F	n
water level elevation	N/A	field	-	+/- 0.01	-	-	ft	n

GWPS - ground water protection standard
 PQL - practical quantitation limit
 AML - assessment monitoring level
 CAL - corrective action level
 mg/L - milligrams per liter
 µS/cm - microSiemens per centimeter
 S.U. - standard pH units
 °F - degrees Fahrenheit
 ft - feet