



September 27, 2017

Mr. James Dyer
NMED/SWB, Permitting Section
P.O. Box 26110
Santa Fe, New Mexico 87502-6110

james.dyer@state.nm.us

**Re: First semi-annual groundwater monitoring event of the 2017 monitoring period for
Las Cruces Foothills Landfill**

Dear Mr. Dyer:

On behalf of Las Cruces Utilities (LCU), John Shomaker & Associates, Inc. (JSOI) has prepared this first semi-annual groundwater monitoring report for the 2017 monitoring period at Las Cruces Foothills Landfill. This report was prepared according to the requirements listed in 20.9.9.10.N NMAC, and includes the following items:

- Table 1 summarizing parameters detected above the AML in monitor wells sampled, presented below (20.9.9.10.N NMAC requirements (12), (20))
- Figure 1 groundwater elevation contour map, attached to this letter report (20.9.9.10.N NMAC requirements (6), (18))
- tables with summary of water-level elevation measurements (App. A)
- tables with baseline and background monitoring data for monitor wells sampled, attached to this letter report (20.9.9.10.N NMAC requirements (3), (12), (19)) (App. B)
- laboratory reports, attached to this letter report (20.9.9.10.N NMAC requirements (1), (2), (4), (5), (7) through (15), (17)) (App. C)
- Review of the groundwater monitoring results did not reveal any anomalies in the datasets (20.9.9.10.N NMAC requirement (16)).

LCU Staff performed the first semi-annual monitoring event of 2017 at Las Cruces Foothills Landfill on June 27 and 28, 2017. Monitor wells MW-1, MW-2, MW-4, MW-5, MW-6, MW-7, and MW-9 were sampled in June 2017. Pumps at MW-3 and MW-8 were found to have malfunctioned in December 2016, and the replacement pumps were not yet installed for the June 2017 sampling event; NMED/SWB indicated that it would be best to go ahead with the June 2017 sampling of the other monitoring wells instead of delaying sampling of wells until pumps are installed at MW-3 and MW-8 (May 23, 2017 correspondence between Mr. Josh Rosenblatt at LCU and George Schuman at NMED/SWB). It should be noted, however, that the new variable speed pumps have now been installed at MW-3 and MW-8; these pumps will allow for low-flow sampling methodology.

Due to low yield and slow rate of recovery, monitor wells were purged about 1 week prior to sampling. Additional purging of these wells was performed on the day of sampling to the extent possible based on drawdown. Review of the laboratory results for Las Cruces Foothills Landfill monitor wells MW-1, MW-2, MW-4, MW-5, MW-6, MW-7, and MW-9 did not reveal any anomalies in the dataset.

Water levels were measured at MW-1, MW-2, MW-4, MW-5, MW-6, MW-7, and MW-9 on June 21 and 22, 2017, prior to purging. Water levels at MW-3 and MW-8 were measured on August 2, 2017. Based on the depth-to-water measurements collected in June and August 2017, the direction of groundwater flow beneath the landfill remains west-southwest (Fig. 1).

Table 1 presents monitor wells and parameters for which the Assessment Monitoring Level (AML) was exceeded in the first semi-annual monitoring event of 2017. Figures 2 through 5 present graphs of historical data for these parameters. The AML of 0.0025 milligrams per liter (mg/L) for tetrachloroethene (PCE) was exceeded by less than 0.016 mg/L in monitor wells MW-1, MW-4, MW-5, MW-6, and MW-7. Historical PCE trends that show fluctuations and overall decreasing concentrations at MW-2 and MW-6 suggest that PCE is naturally attenuating at these locations (Fig. 2). PCE concentrations at MW-7 have increased over the last three sampling events, but the concentrations are still within historical fluctuations; these fluctuations may also be an indication of natural attenuation.

Table 1. Summary of parameters that were detected above the AML in monitor wells at Las Cruces Foothills Landfill, 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	0.015
	6/27/17	trichloroethene (TCE) ¹	mg/L	0.005	0.005	0.0025	0.0026
MW-4	6/28/17	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	0.0097
	6/28/17	trichloroethene (TCE) ¹	mg/L	0.005	0.005	0.0025	0.0031
	6/28/17	methylene chloride ¹	mg/L	0.005	0.005	0.0025	0.014
MW-5	6/27/17	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	0.0061
MW-6	6/27/17	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	0.0065
MW-7	6/27/17	tetrachloroethene (PCE) ¹	mg/L	0.005	0.005	0.0025	0.018
	6/27/17	trichloroethene (TCE) ¹	mg/L	0.005	0.005	0.0025	0.0037
	6/27/17	trichlorofluoromethane ¹	mg/L	na	na	0.00195 ^b	0.0042

¹ Identified as “hazardous” in 20.9.9.20 NMAC

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

bold text indicates concentrations that exceed the AML

GWPS - groundwater protection standard

CAL - corrective action level, 75 percent of the GWPS

AML - assessment monitoring level

mg/L - milligrams per liter

na - no GWPS for this parameter

The AML of 0.0025 mg/L for trichloroethene (TCE) was exceeded by less than 0.0013 mg/L in MW-1, MW-4, and MW-7, the AML of 0.0025 mg/L for methylene chloride was exceeded by 0.0115 mg/L in MW-4, and the AML of 0.00195 mg/L for trichlorofluoromethane was exceeded by 0.00225 mg/L in MW-7. These are the same constituents of concern observed in the same monitor wells as in previous monitoring events at Las Cruces Foothills Landfill (see Figs. 2 through 5). These constituents of concern have been below detection limits in MW-9, which is located down-gradient of the landfill.

The second semi-annual groundwater monitoring report for the 2017 monitoring period will include the results of this first semi-annual monitoring event and the second semi-annual event, as well as analysis and interpretation of 2017 results, historical trends, and a discussion of the nature and extent of groundwater contaminants and contaminant transport mechanisms, as have been included in the second semi-annual reports in 2013 through 2016.

Please let me know if you have any questions or comments.

Sincerely,

JOHN SHOMAKER & ASSOCIATES, INC.



Annie McCoy
Senior Hydrogeologist

AMM:am

Enc: Figures 1 through 5

Appendix A. Summary of water-level measurements

Appendix B. Baseline and background monitoring data

Appendix C. Copy of laboratory reports for the June 27 and 28, 2017 sampling event

cc + enc: Carl Clark, Las Cruces Utilities (two complete bound copies)

Josh Rosenblatt, Las Cruces Utilities (one complete bound copy)

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. Graph showing tetrachloroethene (PCE) concentrations versus time for monitor wells MW-1 through MW-9, Las Cruces Foothills Landfill, New Mexico.
- Figure 3. Graph showing trichloroethene (TCE) concentrations versus time for monitor wells MW-1 through MW-9, Las Cruces Foothills Landfill, New Mexico.
- Figure 4. Graph showing methylene chloride concentrations versus time for monitor wells MW-1 through MW-9, Las Cruces Foothills Landfill, New Mexico.
- Figure 5. Graph showing trichlorofluoromethane concentrations versus time for monitor wells MW-2, MW-4 and MW-7, Las Cruces Foothills Landfill, New Mexico.

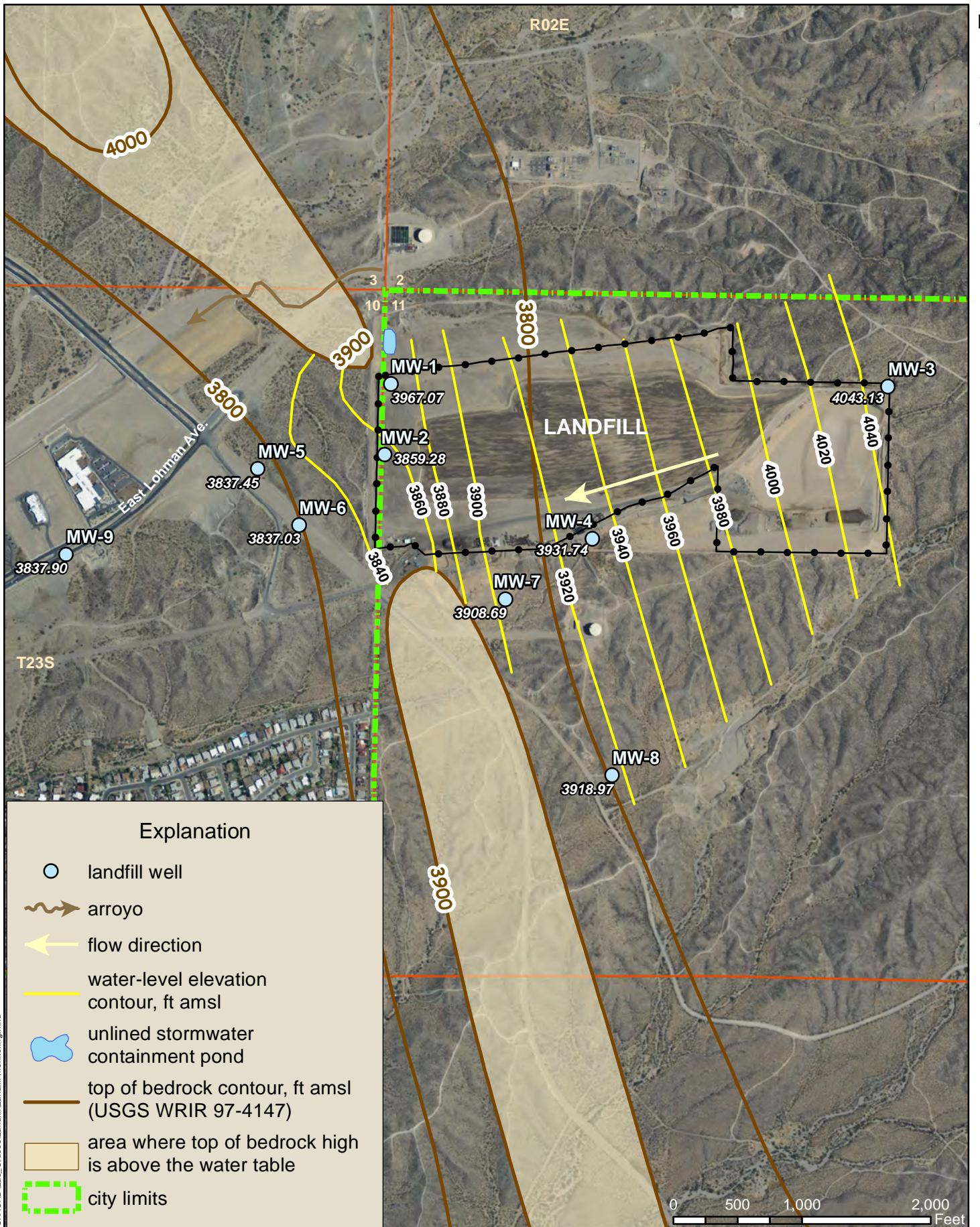


Figure 1. Aerial photograph showing locations of Las Cruces Foothills Landfill monitor wells, groundwater-elevation contours, and direction of groundwater flow in June 2017.

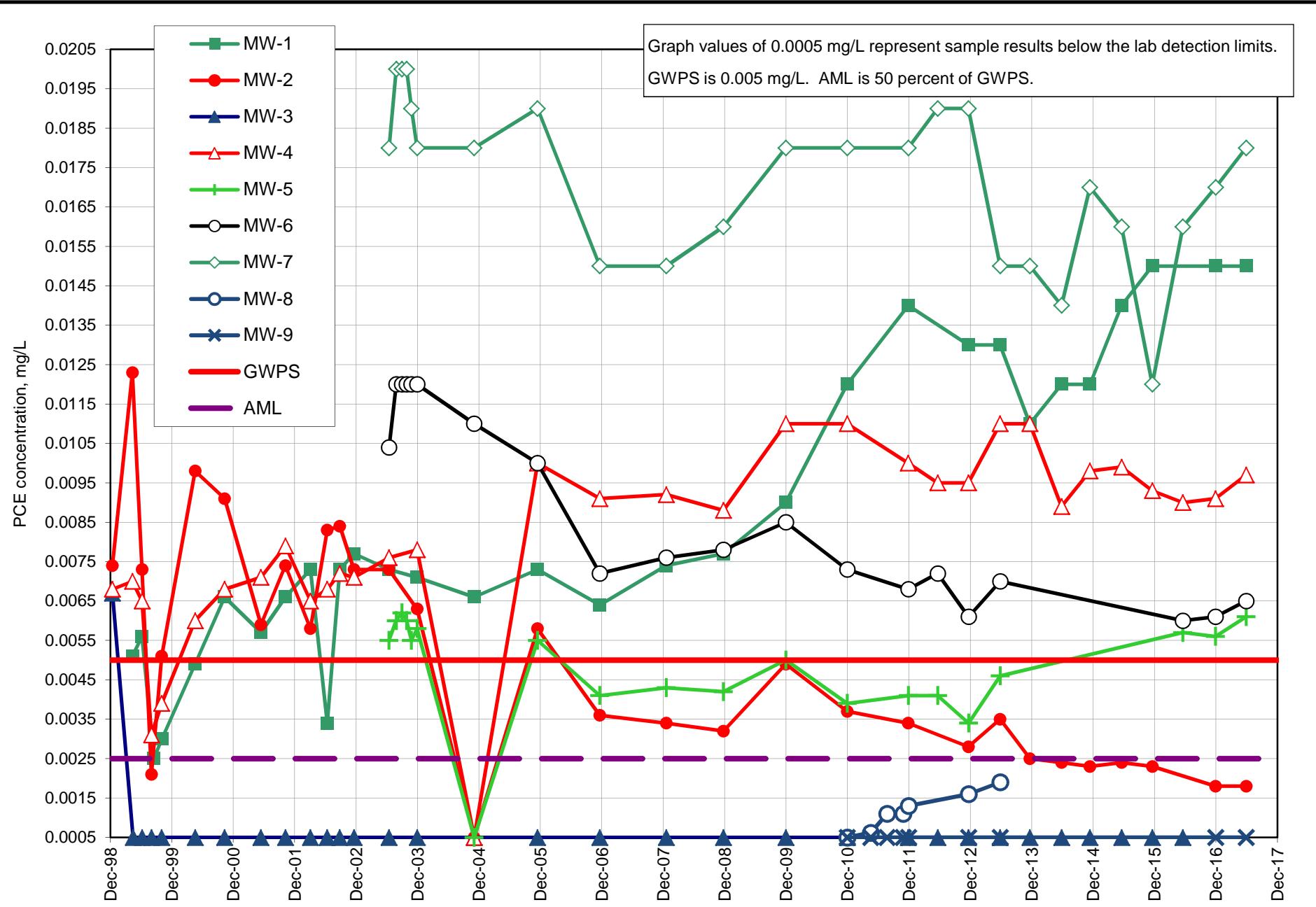


Figure 2. Graph showing tetrachloroethene (PCE) concentrations versus time for monitor wells MW-1 through MW-9, Las Cruces Foothills Landfill, New Mexico.

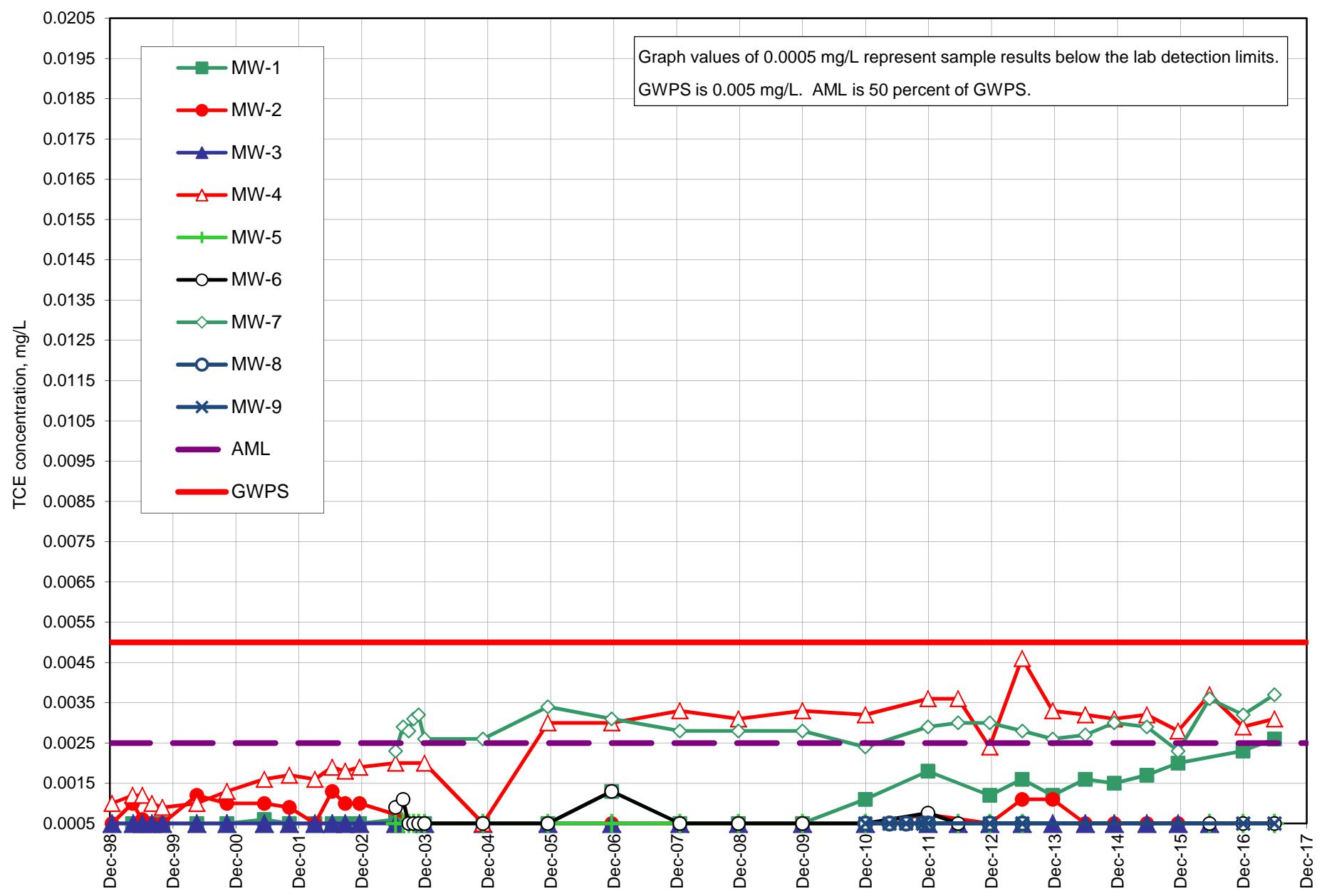


Figure 3. Graph showing trichloroethene (TCE) concentrations versus time for monitor wells MW-1 through MW-9, Las Cruces Foothills Landfill, New Mexico.

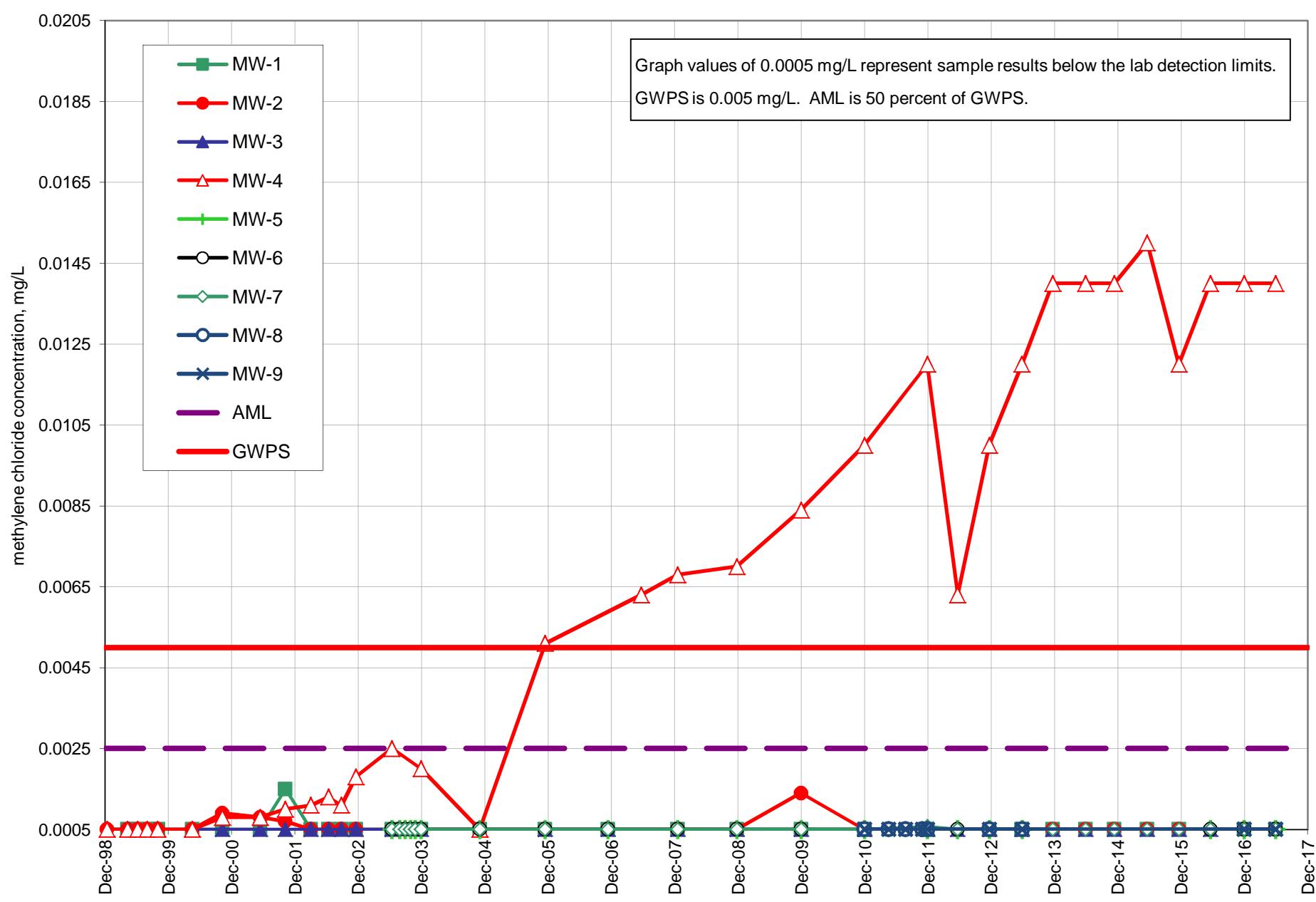
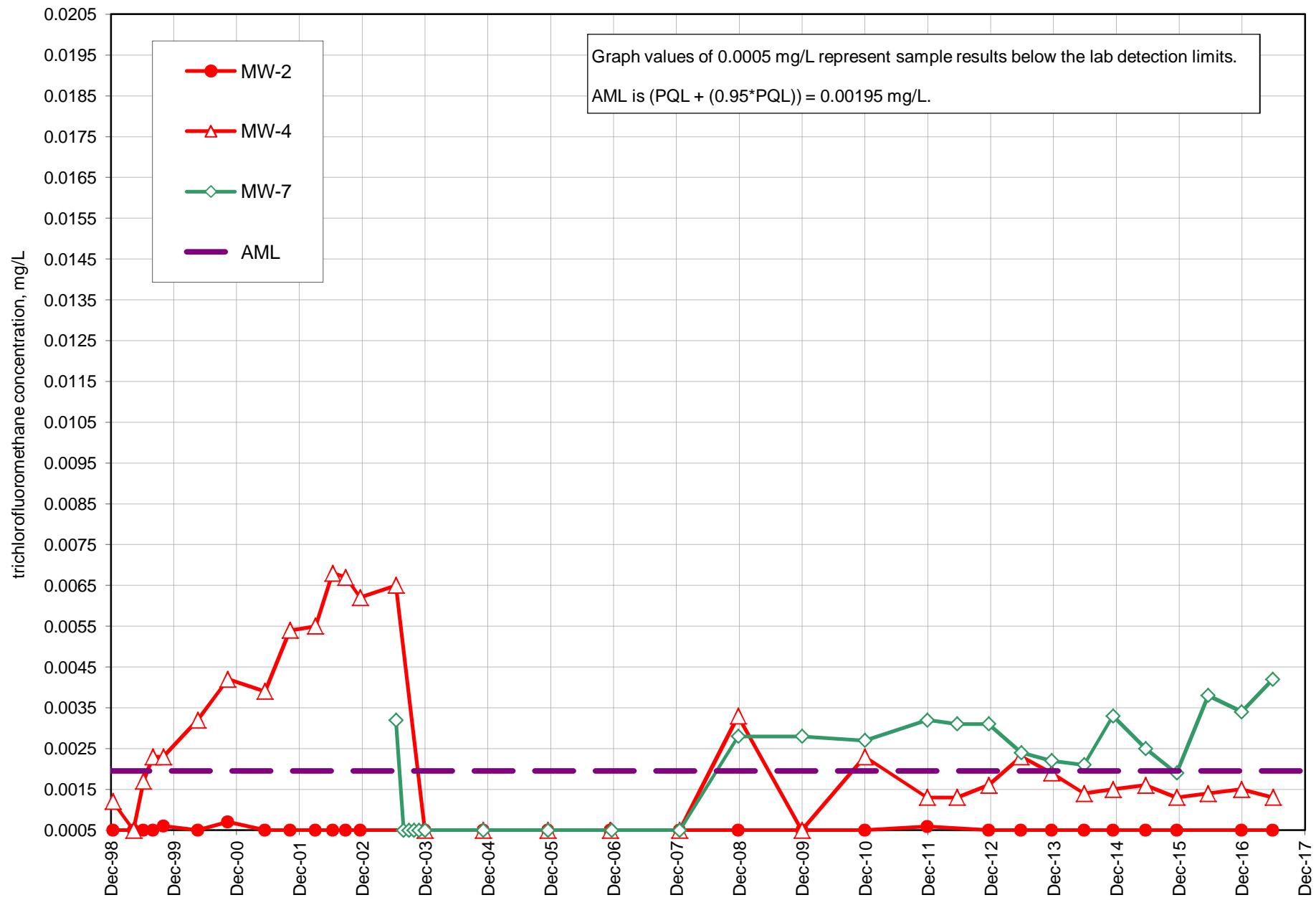


Figure 4. Graph showing methylene chloride concentrations versus time for monitor wells MW-1 through MW-9, Las Cruces Foothills Landfill, New Mexico.



Appendix A.

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

**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	12/02/04	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	06/18/13	4,261.61	394.20	3,867.41
MW-1	12/12/13	4,261.61	395.24	3,866.37
MW-1	06/19/14	4,261.61	392.50	3,869.11
MW-1	12/11/14	4,261.61	393.45	3,868.16
MW-1	06/18/15	4,261.61	395.45	3,866.16
MW-1	12/17/15	4,261.61	396.25	3,865.36
MW-1	06/09/16	4,261.61	395.50	3,866.11
MW-1	12/20/16	4,261.61	396.35	3,865.26
MW-1	06/21/17	4,261.61	394.54	3,867.07
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

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	07/07/99	4,265.70	413.00	3,852.70
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	12/02/04	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	06/19/13	4,265.36	405.60	3,859.76
MW-2	12/12/13	4,265.36	406.50	3,858.86
MW-2	06/19/14	4,265.36	405.55	3,859.81
MW-2	12/11/14	4,265.36	403.25	3,862.11
MW-2	06/18/15	4,265.36	405.58	3,859.78
MW-2	12/17/15	4,265.36	407.70	3,857.66
MW-2	06/09/16	4,265.36	405.95	3,859.41
MW-2	12/20/16	4,265.36	407.28	3,858.08
MW-2	06/21/17	4,265.36	406.08	3,859.28
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 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-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	12/02/04	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	06/12/12	4,356.06	307.21	4,048.85
MW-3	12/12/12	4,356.06	307.75	4,048.31
MW-3	06/18/13	4,356.06	308.65	4,047.41
MW-3	12/12/13	4,356.06	306.00	4,050.06
MW-3	06/19/14	4,356.06	306.40	4,049.66
MW-3	12/04/14	4,356.06	308.81	4,047.25
MW-3	06/18/15	4,356.06	309.00	4,047.06
MW-3	12/17/15	4,356.06	309.30	4,046.76
MW-3	06/09/16	4,356.06	309.80	4,046.26
MW-3	12/20/16	4,356.06	310.72	4,045.34
MW-3	08/02/17	4,356.06	312.93	4,043.13
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 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-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	12/02/04	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	06/12/12	4,313.20	375.83	3,937.37
MW-4	12/12/12	4,313.20	376.08	3,937.12
MW-4	06/19/13	4,313.20	380.30	3,932.90
MW-4	12/12/13	4,313.20	381.00	3,922.20
MW-4	06/19/14	4,313.20	381.30	3,931.90
MW-4	12/04/14	4,313.20	381.27	3,931.93
MW-4	06/18/15	4,313.20	381.30	3,931.90
MW-4	12/17/15	4,313.20	381.50	3,931.70
MW-4	06/09/16	4,313.20	381.30	3,931.90
MW-4	12/20/16	4,313.20	381.34	3,931.86
MW-4	06/22/17	4,313.20	381.46	3,931.74
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
MW-5	12/29/03	4,235.55	404.54	3,831.01

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-5	12/02/04	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	06/12/12	4,235.55	392.08	3,843.47
MW-5	12/13/12	4,235.55	394.44	3,841.11
MW-5	06/19/13	4,235.55	394.40	3,841.15
MW-5	08/06/14	4,235.55	394.45	3,841.10
MW-5	12/11/14	4,235.55	398.18	3,837.37
MW-5	07/23/15	4,235.55	397.59	3,837.96
MW-5	02/12/16	4,235.55	398.46	3,837.09
MW-5	06/09/16	4,235.55	397.70	3,837.85
MW-5	12/20/16	4,235.55	398.83	3,836.72
MW-5	06/21/17	4,235.55	398.10	3,837.45
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	12/02/04	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	06/12/12	4,258.32	413.25	3,845.07
MW-6	12/13/12	4,258.32	415.69	3,842.63
MW-6	06/18/13	4,258.32	420.10	3,838.22
MW-6	08/06/14	4,258.32	421.47	3,836.85
MW-6	12/11/14	4,258.32	420.80	3,837.52
MW-6	07/23/15	4,258.32	420.55	3,837.77
MW-6	02/12/16	4,258.32	421.24	3,837.08

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-6	06/09/16	4,258.32	421.20	3,837.12
MW-6	12/21/16	4,258.32	421.72	3,836.60
MW-6	06/21/17	4,258.32	421.29	3,837.03
MW-7	07/15/03	4,292.86	378.29	3,914.57
MW-7	08/27/03	4,292.86	378.72	3,914.14
MW-7	09/29/03	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	12/02/04	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	01/11/08	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	06/12/12	4,292.86	378.79	3,914.07
MW-7	12/13/12	4,292.86	379.04	3,913.82
MW-7	06/19/13	4,292.86	383.40	3,909.46
MW-7	12/12/13	4,292.86	384.70	3,908.16
MW-7	06/19/14	4,292.86	384.10	3,908.76
MW-7	12/11/14	4,292.86	384.15	3,908.71
MW-7	06/18/15	4,292.86	384.10	3,908.76
MW-7	12/11/15	4,292.86	384.05	3,908.81
MW-7	06/09/16	4,292.86	384.10	3,908.76
MW-7	12/21/16	4,292.86	384.18	3,908.68
MW-7	06/21/17	4,292.86	384.17	3,908.69
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	06/18/13	4,286.00	361.33	3,924.67
MW-8	08/06/14	4,286.00	359.76	3,926.24
MW-8	12/11/14	4,286.00	367.85	3,918.15
MW-8	07/23/15	4,286.00	367.53	3,918.47
MW-8	02/12/16	4,286.00	367.71	3,918.29

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 (concluded)**

well	date	top of casing elevation (ft amsl)	depth to water (ft bmp)	water-level elevation (ft amsl)
MW-8	06/09/16	4,286.00	367.50	3,918.50
MW-8	12/21/16	4,286.00	367.39	3,918.61
MW-8	08/02/17	4,286.00	367.03	3,918.97
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	06/26/13	4,212.58	373.70	3,838.88
MW-9	08/06/14	4,212.58	374.03	3,838.55
MW-9	12/11/14	4,212.58	378.85	3,833.73
MW-9	07/23/15	4,212.58	369.75	3,842.83
MW-9	02/12/16	4,212.58	367.76	3,844.82
MW-9	06/09/16	4,212.58	374.70	3,837.88
MW-9	12/21/16	4,212.58	374.85	3,837.73
MW-9	06/22/17	4,212.58	374.68	3,837.90

ft bmp - feet below measuring point

ft amsl - feet above mean sea level

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												
date				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	
Field Parameters																
water level elevation	-	ft amsl	-	x	x	x	x	x	3872.77	3874.41	3873.71	3870.41	3872.54	x	3873.61	
conductivity	-	µS/cm	-	328	310	x	300	x	360	386	446	451	376	378	408	
pH	-	pH units	6-9	7.67	7.57	7.36	7.92	x	7.91	7.12	6.64	6.55	7.56	7.90	6.74	
temperature	-	deg F	-	130.0	119.0	128.0	108.0	113.0	117.0	124.0	113.8	116.5	118.6	116.1	116.2	
Major Ions																
calcium	7440-70-2	mg/L	-	23.1	23.3	x	24.7	x	35.9	32.5	33.6	36.3	34.6	34	48.7	
chloride	16887-00-6	mg/L	250	10.8	14.7	x	16.1	x	18.5	15.9	15.6	15.8	15.6	17.3	9.6	
fluoride ¹	16984-48-8	mg/L	1.6	0.87	0.58	x	0.62	x	0.7	0.67	0.66	0.63	0.65	0.65	0.58	
magnesium	7439-95-4	mg/L	-	5.1	4.9	x	5.7	x	5.9	6	6.6	7.1	7.1	7.0	5.8	
potassium	7440-09-7	mg/L	-	1.5	1.4	x	1.6	x	1.5	2.8	2.3	2.1	2.8	2.5	1.6	
sodium	82115-62-6	mg/L	-	42.7	26.8	x	31.9	x	30.2	30.2	28.5	30.4	32.6	31	29.8	
sulfate	18785-72-3	mg/L	600	37	25.2	x	34.6	x	57	49	45	41	40	46	32	
alkalinity	-	mg/L	-	127	95	x	96.5	x	100.5	101.4	106.4	114.7	108.5	108.0	146.4	
bicarbonate alkalinity	71-52-3	mg/L	-	155	115.9	x	117.8	x	100.5	123.8	129.9	140	132.4	131.8	178.7	
carbonate alkalinity	3812-32-6	mg/L	-	<1.0	<1.0	x	<1.0	x	<1.0	<1.0	<1.0	<1.0	<1.0	0.0	0.0	
total dissolved solids	-	mg/L	1,000	207	170	x	213	x	190	252	242	234	241	186	236	
Nitrogen Species																
ammonia as N	1331-21-6	mg/L	-	x	1.08	x	0.27	x	0.8	0.49	0.36	0.61	0.35	0.25	<0.01	
Kjeldahl nitrogen	7727-37-9	mg/L	-	x	1.1	x	0.8	x	1.4	0.9	0.7	0.2	0.5	0.3	0.3	
nitrate as N	14797-55-8	mg/L	10	x	1.21	x	3.22	x	3.6	4.2	4.8	4.8	4.6	4.9	1.72	
nitrite	14797-65-0	mg/L	-	<0.01	1.21	x	3.22	x	3.6	0.23	<0.05	<0.05	0.12	<0.05	<0.05	
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	x	0.28	x	0.025	x	2.1	0.34	<0.05	<0.05	<0.05	0.1	<0.05	
antimony ¹	7440-36-0	mg/L	0.006	x	x	x	x	<0.0004	0.001	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	
arsenic ¹	7440-38-2	mg/L	0.01	0.0005	0.001	x	0.001	x	0.0135	0.004	0.000545	0.0009	0.0008	0.0017	0.0014	
barium ¹	7440-39-3	mg/L	1.0	0.12	0.17	x	0.09	x	1.132	0.1644	0.0822	0.0651	0.0712	0.104	0.0919	
beryllium ¹	7440-41-7	mg/L	0.004	x	x	x	x	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
boron	7440-42-8	mg/L	0.75	x	0.1	x	0.05	x	0.05	0.11	0.04	0.05	<0.01	0.05	0.01	
cadmium ¹	7440-43-9	mg/L	0.005	<0.005	<0.005	x	<0.005	x	0.00013	0.0002	<0.0001	<0.0001	<0.0001	0.0003	<0.0001	
chromium ¹	7440-47-3	mg/L	0.05	0.01	0.01	x	0.005	x	0.0096	0.0039	<0.0001	<0.0001	<0.0001	0.0011	0.0022	
cobalt ¹	7440-48-4	mg/L	0.05	x	<0.01	x	<0.01	x	<0.01	0.1	<0.01	<0.01	<0.01	<0.01	<0.01	
copper ¹	7440-50-8	mg/L	1.0	x	0.03	x	0.0015	x	1.692	0.1095	0.0015	<0.01	<0.04	0.0335	0.0067	
iron	7439-89-6	mg/L	1.0	8.85	17.86	x	4.86	x	459.4	46.24	0.25	0.06	<0.01	6.58	3.23	
lead ¹	7439-92-1	mg/L	0.05	0.012	0.021	x	0.006	x	0.292	0.0328	0.0002	0.0002	<0.0001	0.0071	0.0031	
manganese	7439-96-5	mg/L	0.2	0.25	0.13	x	0.05	x	3.62	0.41	0.05	0.07	0.049	0.203	<0.005	
mercury ¹	7439-97-6	mg/L	0.002	<0.0002	<0.0002	x	<0.0002	x	<0.0002	0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	
molybdenum	7439-98-7	mg/L	1.0	x	<0.05	x	<0.05	x	<0.05	<0.05	<0.05	<0.05	0.003	0.003	0.003	
nickel ¹	7440-02-0	mg/L	0.2	x	<0.05	x	<0.05	x	0.0705	0.01422	0.0026	0.0019	0.00151	0.00395	0.00471	
selenium ¹	7782-49-2	mg/L	0.05	<0.001	0.001	x	0.001	x	0.0024	<0.001	0.0013	<0.001	0.0026	0.0014	0.0026	
silver ¹	7440-22-4	mg/L	0.05	<0.02	<0.02	x	<0.02	x	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
thallium ¹	7440-28-0	mg/L	0.002	x	x	x	x	x	0.00026	0.00006	0.00007	<0.00003	<0.00003	<0.00003	<0.00003	
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	
uranium ¹	7440-61-1	mg/L	0.03	x	x	x	0.025	x	0.0086	0.00209	0.00142	0.00085	0.00074	<0.02	0.00046	
vanadium ¹	7440-62-2	mg/L	-	x	x	x	x	x	<0.05	0.08	<0.05	<0.05	<0.05	<0.05	<0.05	
zinc ¹	7440-66-6	mg/L	10.0	x	0.86	x	0.14	x	12.92	1.71	0.01	0.005	x	0.21	<0	

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	
date																
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	x	x	x	x	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
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	x	x	<0.005	x	x	<0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
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	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Styrene ¹	100-42-5	mg/L	0.1	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	x	x	<0.005	x	x	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	x	x	0.0034	x	x	0.0051	0.0056	0.0025	0.003	0.0049	0.0066	0.0057	
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	<0.005	x	x	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
Toluene ¹	108-88-3	mg/L	0.75	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
Total Xylenes (m&p and o) ¹	-	mg/L	0.62	x	x	<0.001	x	x	<0.001	0.0007	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	x	x	<0.002	x	x	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	
Trichloroethene (TCE)	79-01-6	mg/L	0.005	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
Trichlorofluoromethane ¹	75-69-4	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
Vinyl acetate ¹	108-05-4	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
Vinyl Chloride ¹	75-01-4	mg/L	0.001	x	x	x	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
Trihalomethanes (THM)																
Bromodichloromethane ¹	75-27-4	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Bromoform ¹	75-25-2	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Chloroform ¹	67-66-3	mg/L	0.1	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Dibromochloromethane ¹	124-48-1	mg/L	-	x	x	<0.001	x	x	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
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	-	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	x
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	x
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											

APPENDIX B

Las Cruces Foothills Landfill MW-1

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-1											
date				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	<0.0025	<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															
2,3,4,6-Tetrachloropheno ¹	58-90-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4,5-Trichloropheno ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4,6-Trichloropheno ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,4-Dichloropheno 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-Dinitropheno ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2,6-Dichloropheno ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
2-Chloropheno 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
Pentachloropheno ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Pheno 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															
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															
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-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														

o,o-Diethyl o-Xylylene

✓ hazardous
✗ parameter not analyzed

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

(AA) 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 sample.

(") This concentration attributed to laboratory contamination of method blank

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	12/23/08
date															
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	3,870.08
conductivity	-	µS/cm	-	349	360	358	387	394	380	360	306	325	300	310	280
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	8.26
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	87.8
Major Ions															
calcium	7440-70-2	mg/L	-	35.3	x	31	30	30	26.1	27	23	25	21	22	17
chloride	16887-00-6	mg/L	250	15.1	x	17	17	19	16	16	15	15	16	17	16
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	0.54
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	4.8
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	2
sodium	82115-62-6	mg/L	-	23	x	31	31	33	30.8	30	30	35	32	32	29
sulfate	18785-72-3	mg/L	600	41	x	50	33	66	43	42	40	38	40	39	37
alkalinity	-	mg/L	-	113.0	x	97	92	110	97	100	84	86	80	77	73
bicarbonate alkalinity	71-52-3	mg/L	-	137.9	x	97	92	110	96	100	84	86	80	77	73
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	<2.0
total dissolved solids	-	mg/L	1,000	218	x	220	250	230	200	190	190	230	200	190	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	<0.50
Kjeldahl nitrogen	7727-37-9	mg/L	-	0.2	x	0.09	0.52	0.52	2	<1.0	x	x	1.1	x	<1.0
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	0.14
nitrite	14797-65-0	mg/L	-	<0.05	x	<0.10	2	<0.10	<0.1	<1.0	x	x	x	x	x
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	<1.0
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	<0.02
antimony ¹	7440-36-0	mg/L	0.006	<0.0004	<0.05	<0.050	0.006 (")	<0.004	<0.004	<0.003	x	x	x	x	<0.001
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	<0.006
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	0.073
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	<0.003
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	<0.04
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	<0.002
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	<0.006
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	<0.006
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	<0.006
iron	7439-89-6	mg/L	1.0	0.39	x	0.55	0.3	0.26	0.42	0.16	0.13	0.24	0.14	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	<0.005
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	<0.004
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	<0.0002
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	<0.008
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	<0.01
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	0.001
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	<0.005
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	<0.001
tin ¹	7440-31-5	mg/L	-	x	<0.01	x	x	x	x	x	x	x	x	x	<0.1
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	<0.001
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	<0.05
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	<0.02
total organic carbon	-	mg/L													

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	12/23/08
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	<0.005
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	<0.03
Methylene Chloride ¹	75-09-2	mg/L	0.005	0.0015	<0.001	<0.001	<0.0001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
n-Butylbenzene ¹	104-51-8	mg/L	-	<0.0005	x	<0.001	x	<0.001	<0.0005	x	x	x	x	x	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	<0.06
Propylbenzene ¹	103-65-1	mg/L	-	<0.0005	x	<0.001	x	<0.001	x	x	x	x	x	x	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	<0.0005	x	<0.001	x	<0.001	<0.0005	x	x	x	x	x	x
Styrene ¹	100-42-5	mg/L	0.1	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	<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	<0.002	x	<0.001	x	<0.001	<0.005	x	x	x	x	x	<0.001
tert-Butylbenzene ¹	98-06-6	mg/L	-	<0.0005	x	<0.001	x	<0.001	<0.0005	x	x	x	x	x	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0066	0.0073	0.0034	0.0073	0.0077	0.0073	0.0071	0.0066	0.0073	0.0064	0.0074	0.0077
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	<0.002	x	x	x	x	<0.010	x	x	x	x	x	x
Toluene ¹	108-88-3	mg/L	0.75	<0.0005	<0.001	<0.001	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Total Xylenes (m&p and o) ¹	-	mg/L	0.62	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.001	<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	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.0005	<0.001	<0.001	<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	-	<0.002	<0.001	<0.001	<0.001	<0.001	<0.010	<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	0.0006	<0.001	<0.001	0.0036	<0.001	<0.001	<0.001
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.0005	<0.001	<0.001	<0.0001	<0.001	<0.001	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01
Vinyl acetate ¹	108-05-4	mg/L	-	<0.002	<0.001	<0.001	<0.001	<0.001	<0.025	<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	<0.001	<0.0004	<0.001	<0.0005	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
Trihalomethanes (THM)															
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Bromoform ¹	75-25-2	mg/L	-	<0.0005	<0.001	<0.001	<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	<0.001	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.0005	<0.001	<0.001	<0.001	<0.001	<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	-	x	x	x	x	x	x	x	x	x	x	x	<0.001
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	<0.001
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	<0.001
1-Chloronaphthalene	-	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	x	x	x	<0.0001	<0.0001	<0.005	<0.01	x	x	x	x	<0.001
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	<0.001
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	<0.0002
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	<0.001
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	<0.001
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	<0.001
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	x	x	<0.0001	<0.0001	<0.010	<0.01	x	x	x	x	<0.001
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	<0.001
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	<0.001
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	<0.001
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	<0.001
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	<0.001
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	<0.001
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	<0.001
4-Aminobiphenyl ¹	92-6														

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	12/23/08	
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.001
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.001
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.001
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.001
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.001
n-Nitrosomethylbenzylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.001
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.001
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.001
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.001
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.001
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.001
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.001
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.001
Phenanthrene ¹	85-01-8	mg/L	-	<0.0001	<0.02	<0.0001	<0.0001	<0.0001	<0.0001	<0.005	x	x	x	x	x	<0.001
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.001
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.001
Pyrene ¹	129-00-0	mg/L	-	<0.00025	<0.02	<0.0001	<0.0001	<0.0001	<0.005	x	x	x	x	x	x	<0.001
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.001
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.001
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.001
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	<0.0001
Semi Volatile Organic Compounds - Phenolics																
2,3,4,6-Tetrachloropheno ¹	58-90-2	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x	x	<0.001
2,4,5-Trichloropheno ¹	95-95-4	mg/L	-	x	<0.1	x	x	x	x	x	x	x	x	x	x	<0.001
2,4,6-Trichloropheno ¹	88-06-2	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x	x	<0.001
2,4-Dichloropheno ¹	120-83-2	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x	x	<0.001
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x	x	<0.001
2,4-Dinitropheno ¹	51-28-5	mg/L	-	x	<0.1	x	x	x	x	x	x	x	x	x	x	<0.001
2,6-Dichloropheno ¹	87-65-0	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x	x	<0.001
2-Chloropheno ¹	95-57-8	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x	x	<0.001
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x	x	<0.001
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	<0.02	x	x	x	x	x	x	x	x	x	x	<0.001
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	x	<0.001
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	x	<0.001
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	x	<0.001
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	<0.1	x	x	x	x	x	x	x	x	x	x	<0.001
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.001
Pentachloropheno ¹	87-86-5	mg/L	-	x	<0.1	x	x	x	x	x	x	x	x	x	x	<0.001
Pheno ¹ (a)	108-95-2	mg/L	0.005	x	<0.00078	x	x	x	x	x	x	x	x	x	x	<0.001
Radium 226 and 228		pCi/L	5	0.69		1.33	0.247	0.564	0.8	<2.5						-0.47
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	x	-0.07
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	x	-0.4
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	x	<0.00004
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	x	<0.00004
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	x	<0.00004
aldrin ¹	309-00-2	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x	x	<0.00004
alpha-BHC ¹	319-84-6	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x	x	<0.00004
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	<0.00005	<0.000050	x	x	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	x	<0.00004
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	x	x	x	x	<0.0002
delta-BHC ¹	319-86-8	mg/L	-	x	<0.00005	<0.000050	x	x	x	x	x	x	x	x	x	<0.00004
Dieldrin ¹	60-57-1	mg/L	-	x	<0.00005	<0.000050	x	x								

APPENDIX B

Las Cruces Foothills Landfill MW-1

RESULTS FOR MW-1															baseline	standard	
constituent	CAS Number	unit	GWPS	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	12/17/15	12/27/16	6/27/17	5/11/99 to 5/18/00	5/11/99 to 5/18/00
date																	
Field Parameters																	
water level elevation	-	ft amsl	-	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	3,865.36	3,865.26	3,867.07	3872.77	1.52
conductivity	-	µS/cm	-	357	390	457	380	390	384	400	403	398	439	453	478	403.80	41.88
pH	-	pH units	6-9	7.34	7.93	7.81	6.83	7.02	7.20	7.32	7.42	7.57	7.78	7.80	8.07	7.16	0.58
temperature	-	deg F	-	92.7	102.6	104.7	72.5	112.6	105.8	105.1	107.4	103.8	104.4	104.7	109.4	117.98	3.78
Major Ions																	
calcium	7440-70-2	mg/L	-	18	26	27	26	25	26	28	28	31	31	33	36	34.58	1.58
chloride	16887-00-6	mg/L	250	18	46	59	40	34	34	46	46	55	61	60	66	16.28	1.25
fluoride ¹	16984-48-8	mg/L	1.6	x	0.52	x	x	x	x	0.45	x	x	x	x	0.66	0.03	
magnesium	7439-95-4	mg/L	-	5.4	7.2	7.5	6.7	6.1	6.1	6.8	6.4	7.1	7.2	7.4	8.2	6.54	0.58
potassium	7440-09-7	mg/L	-	2.2	2.6	2.8	2.6	2.7	2.8	2.4	2.7	2.5	2.6	2.7	2.9	2.30	0.54
sodium	82115-62-6	mg/L	-	32	36	37	36	36	34	36	34	38	38	38	42	30.38	1.46
sulfate	18785-72-3	mg/L	600	41	34	30	33	35	36	33	32	33	31	29	30	46.40	6.91
alkalinity	-	mg/L	-	74	69	73	78	84	84	83	86	78.48	79.8	79.24	72.28	106.30	5.77
bicarbonate alkalinity	71-52-3	mg/L	-	74	69	73	78	84	84	83	86	78.48	79.8	79.24	72.28	125.32	15.04
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	<2.0	<1.0	x
total dissolved solids	-	mg/L	1,000	189	237	238	233	231	233	248	232	252	273	280	268	231.80	24.23
Nitrogen Species																	
ammonia as N	1331-21-6	mg/L	-	<1.0	<1.0	0.56	0.56	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.52	0.19
Kjeldahl nitrogen	7727-37-9	mg/L	-	x	x	x	x	x	x	<1.0	x	x	x	x	0.74	0.45	
nitrate as N	14797-55-8	mg/L	10	<0.1	<0.1	0.03	0.029	<0.10	0.14	0.10	<0.1	<0.1	0.11	0.96	4.40	0.51	
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	1.32	1.98
total nitrogen	-	mg/L	-	x	x	x	x	x	x	<1.0	x	x	x	x	x	x	
Metals																	
aluminum	7429-90-5	mg/L	5.0	x	<0.02	x	x	x	x	x	<0.02	x	x	x	x	1.22	1.24
antimony ¹	7440-36-0	mg/L	0.006	<0.001	<0.001	<0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00	x
arsenic ¹	7440-38-2	mg/L	0.01	<0.002	<0.001	<0.0025	<0.001	0.0013	<0.001	<0.001	0.0011	<0.001	<0.005	<0.005	<0.001	0.00	0.01
barium ¹	7440-39-3	mg/L	1.0	0.092	0.13	0.13	0.11	0.12	0.11	0.12	0.12	0.12	0.12	0.12	0.13	0.30	0.47
beryllium ¹	7440-41-7	mg/L	0.004	x	<0.001	0.00053	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.002	<0.002	<0.0002	x
boron	7440-42-8	mg/L	0.75	x	<0.04	x	x	x	x	<0.04	x	x	x	x	0.06	0.03	
cadmium ¹	7440-43-9	mg/L	0.005	<0.002	<0.002	<0.00015	<0.002	<0.002	<0.002	<0.002	<0.002	<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	0.00082	<0.006	<0.006	<0.006	<0.006	<0.006	<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	0.00061	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.1
copper ¹	7440-50-8	mg/L	1.0	<0.006	<0.006	0.0014	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.60	0.95
iron	7439-89-6	mg/L	1.0	0.23	0.11	0.84	0.14	0.12	0.12	0.11	0.10	0.17	0.15	0.22	0.14	126.43	223.04
lead ¹	7439-92-1	mg/L	0.05	<0.005	<0.005	0.0024	0.0018	<0.001	<0.001	<0.005	<0.001	<0.005	<0.005	<0.005	<0.005	0.08	0.14
manganese	7439-96-5	mg/L	0.2	0.0042	0.017	0.0086	0.0059	0.0061	0.0077	0.0082	0.0093	0.0081	0.0074	0.010	0.0086	0.84	1.56
mercury ¹	7439-97-6	mg/L	0.002	x	<0.0002	x	x	x	x	<0.0002	x	x	x	x	x	0.00	0.00
molybdenum	7439-98-7	mg/L	1.0	x	x	x	x	x	x	<0.008	x	x	x	x	x	0.00	x
nickel ¹	7440-02-0	mg/L	0.2	<0.01	<0.01	0.0007	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03
selenium ¹	7782-49-2	mg/L	0.05	<0.001	<0.001	<0.0025	<0.001	0.0033	0.0014	0.0017	<0.01	<0.005	<0.005	<0.005	<0.0020	0.00	0.00
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	<0.005	<0.005	<0.02	x
thallium ¹	7440-28-0	mg/L	0.002	<0.001	<0.001	<0.0025	<0.001	<0									

APPENDIX B

Las Cruces Foothills Landfill MW-1

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-1												baseline average	standard deviation	
				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	12/17/15	12/27/16	6/27/17			
																5/11/99 to 5/18/00	5/11/99 to 5/18/00	
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	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	<0.01	<0.002	x	
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	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	0.00038	<0.001	<0.001	<0.001	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0005	x	
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.0005	x	
Propionitrile ¹	107-12-0	mg/L	-	x	x	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	x	x	<0.0005	x	
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	x	x	x	x	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	<0.001	<0.001	<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	x	x	x	x	x	x	x	x	<0.002	x	
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.0005	x	
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.009	0.012	0.014	0.013	0.013	0.011	0.012	0.012	0.014	0.015	0.015	0.015	0.0042	0.0014	
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.002	x	
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.001	0.00023	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<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	0.00034	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<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	0.00026	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<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	<0.001	<0.001	<0.001	<0.001	<0.001	<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	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.002	x
Trichloroethene (TCE)	79-01-6	mg/L	0.005	<0.001	0.0011	0.0018	0.0012	0.0016	0.0012	0.0016	0.0015	0.0017	0.0020	0.0023	0.0026	0.0005	x	
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	<0.001	0.00084	0.00073	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0011	<0.001	
Vinyl acetate ¹	108-05-4	mg/L	-	0.026	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<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	<0.0004	<0.0004	<0.0005	<0.0004	<0.0004	<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	<0.001	<0.001	<0.001	<0.001	<0.001	<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	<0.001	<0.001	<0.001	<0.001	<0.001	<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	<0.001	<0.001	<0.001	<0.001	<0.001	<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	<0.001	<0.001	<0.001	<0.001	<0.001	<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	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	x	
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
1-Chloronaphthalene	-	mg/L	-	x	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	<0.002	x	x	x	x	
1-Naphthylamine ¹	134-32-7	mg/L	-	x	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	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	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	x	
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.002	x	x	x	x	
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	x	x	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	x	x	x	
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x														

APPENDIX B

Las Cruces Foothills Landfill MW-1

¹ hazardous

x parameter not analyzed

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

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

(") This concentration attributed to laboratory contamination of method blank

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

JOHN SHOMAKER & ASSOCIATES, INC.

WATER-RESOURCE AND ENVIRONMENTAL CONSULTANTS

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
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
conductivity	NA	µS/cm	-	398	345	381	431	392	366	364	364	358	375
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
temperature	NA	deg F	-	109	108	107	105.0	109.0	108.7	101.5	104.5	81.0	101.7
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
chloride	16887-00-6	mg/L	250	19.5	10.1	9	9	9.8	9.2	9.2	15.2	9.5	x
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
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
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
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
sulfate	18785-72-3	mg/L	600	44	30	38	32	31	29	31	39	31	x
alkalinity	NA	mg/L	-	165.0	130.0	125.4	130	128.5	133	131.9	98.0	129.0	x
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
carbonate alkalinity	3812-32-6	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	x	x	x	x	x
total dissolved solids	NA	mg/L	1,000	268	222	251	233	237	231	217	196	229	x
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
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
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
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
total nitrogen	-	mg/L	-	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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
nickel ¹	7440-02-0	mg/L	0.2	0.0217	0.006	0.0186	0.0027	0.0027	0.0026	0.00252	0.00211	0.00206	<0.005
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
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
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
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.01
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
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
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
total organic carbon	-	mg/L	-	5.6	0.56	<0.5	<0.5	<0.5	0.7	0.9	4.5	2.3	x
phosphate	14265-44-2	mg/L	-	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
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
perchlorate ¹	14797-73-0	mg/L	-	x	x								

APPENDIX B

Las Cruces Foothills Landfill MW-2

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-2										
date				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	
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	<0.002	<0.005
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	
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	<0.0005
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	<0.0005	<0.0005
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
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	<0.0005
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	0.0021	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
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	
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	<0.002	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	<0.0005	<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	<0.002
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
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
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
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	
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	<0.001	<0.0005	<0.0005	<0.0005	0.0006	0.001	0.0007	0.0005	<0.0005	<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
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
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
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
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
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
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	x	<0.02
Acenaphthylene ¹	208-96-8	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02
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	<0.02
Benzidine ¹	92-87-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x
Benz (a) anthracene ¹	56-55-3	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02
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	<0.0001	<0.0001
Benzo (g,h,i) perylene ¹	205-99-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02
Benzo (k) fluoranthene ¹	191-24-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02
Benzo[a]pyrene ¹	207-08-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	<0.02
Benzoic acid ¹	65-85-0	mg/L	-											<0.1
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										

APPENDIX B

Las Cruces Foothills Landfill MW-2

Las Cruces Foothills Landfill monitoring well MW-2

o,o-Diethyl o-

¹ hazardous

x parameter not analyzed

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

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

(") This concentration attributed to laboratory contamination of method blank

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	7/12/02	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
date														
Field Parameters														
water level elevation	NA	ft amsl	-	3857.93	3856.54	3856.69	3,858.72	3858.76	3858.84	3858.11	3859.36	3861.71	3861.82	3866.83
conductivity	NA	µS/cm	-	363	393	414	377	345	387	380	370	350	414	380
pH	NA	pH units	6-9	6.58	6.63	6.46	7.40	7.68	7.60	7.70	7.05	7.63	6.72	7.22
temperature	NA	deg F	-	107.0	102.6	106.2	101.8	96.8	90.1	94.8	89.1	89.6	88.2	91.4
Major Ions														
calcium	7440-70-2	mg/L	-	37	38	37	35	36	40	38	40	34	38	38
chloride	16887-00-6	mg/L	250	12	11	15	11	9.6	9	9.6	9.3	8.1	8.9	8.0
fluoride ¹	16984-48-8	mg/L	1.6	0.6	0.73	0.67	0.58	x	x	x	x	0.57	x	0.57
magnesium	7439-95-4	mg/L	-	5.4	5.5	5.5	5.1	5.5	5.8	5.6	5.8	5	5.6	5.7
potassium	7440-09-7	mg/L	-	1.8	1.8	1.9	1.4	1.7	2.2	1.2	1.8	1.4	1.6	1.9
sodium	82115-62-6	mg/L	-	29	30	30	25	28	32	29	29	26	29	30
sulfate	18785-72-3	mg/L	600	35	34	40	35	38	33	35	33	31	34	32
alkalinity	NA	mg/L	-	130	120	130	140	130	130	120	130	130	130	130
bicarbonate alkalinity	71-52-3	mg/L	-	130	120	130	140	130	130	120	130	130	130	130
carbonate alkalinity	3812-32-6	mg/L	-	<1.0	<2.0	<2.0	<2.0	<4.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
total dissolved solids	NA	mg/L	1,000	230	260	230	200	230	250	240	230	240	235	242
Nitrogen Species														
ammonia as N	1331-21-6	mg/L	-	x	<0.05	<0.05	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0
Kjeldahl nitrogen	7727-37-9	mg/L	-	0.89	<0.5	0.57	<1.0	x	x	x	x	<1.0	x	x
nitrate as N	14797-55-8	mg/L	10	1.9	2.2	2.2	<1.0	0.12	<1.0	1.4	1.1	1.7	1.8	1.2
nitrite	14797-65-0	mg/L	-	<0.10	<0.1	<0.10	<1.0	x	x	x	x	x	x	x
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	x	1.7	x	x
Metals														
aluminum	7429-90-5	mg/L	5.0	<0.10	<0.03	0.04	<3.0	<3.0	x	x	x	<0.02	x	<0.02
antimony ¹	7440-36-0	mg/L	0.006	<0.050	0.005 (")	<0.004	<0.003	x	x	x	x	<0.001	<0.001	<0.001
arsenic ¹	7440-38-2	mg/L	0.01	<0.0050	<0.004	<0.004	<0.01	x	x	x	x	0.007	0.003	0.00143
barium ¹	7440-39-3	mg/L	1.0	0.03	0.031	0.03	0.03	x	x	x	x	0.027	0.033	0.034
beryllium ¹	7440-41-7	mg/L	0.004	<0.0030	<0.001	<0.001	<0.002	x	x	x	x	<0.003	x	<0.001
boron	7440-42-8	mg/L	0.75	<0.10	0.036	0.034	<0.5	x	x	x	x	<0.04	x	<0.04
cadmium ¹	7440-43-9	mg/L	0.005	<0.0010	<0.001	<0.001	<0.002	x	x	x	x	<0.002	<0.002	<0.002
chromium ¹	7440-47-3	mg/L	0.05	<0.0050	<0.002	0.02	<0.01	x	x	x	x	<0.006	<0.006	<0.006
cobalt ¹	7440-48-4	mg/L	0.05	<0.010	<0.001	<0.001	<0.03	x	x	x	x	<0.006	<0.006	<0.006
copper ¹	7440-50-8	mg/L	1.0	<0.010	<0.001	0.007	<0.06	x	x	x	x	<0.006	<0.006	<0.006
iron	7439-89-6	mg/L	1.0	<0.10	0.009	0.2	0.15	0.29	0.38	0.19	<0.10	<0.05	<0.05	<0.05
lead ¹	7439-92-1	mg/L	0.05	<0.0050	<0.002	0.002	<0.01	x	x	x	x	<0.005	<0.005	<0.005
manganese	7439-96-5	mg/L	0.2	<0.010	<0.001	0.0030	<0.03	<0.03	<0.03	<0.03	<0.03	<0.02	<0.002	<0.002
mercury ¹	7439-97-6	mg/L	0.002	<0.00020	<0.07	<0.20	<0.001	x	x	x	x	<0.0002	x	<0.0002
molybdenum	7439-98-7	mg/L	1.0	<0.010	0.003	0.003	<0.75	x	x	x	x	<0.008	x	<0.008
nickel ¹	7440-02-0	mg/L	0.2	<0.0050	<0.002	0.012	<0.05	x	x	x	x	<0.01	<0.01	<0.01
selenium ¹	7782-49-2	mg/L	0.05	<0.010	0.004	<0.003	<0.005	x	x	x	x	0.001	<0.001	<0.001
silver ¹	7440-22-4	mg/L	0.05	<0.0050	<0.002	<0.002	<0.01	x	x	x	x	<0.005	<0.005	<0.005
thallium ¹	7440-28-0	mg/L	0.002	<0.010	<0.003	<0.003	<0.001	x	x	x	x	<0.001	<0.001	<0.001
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	x	x	x	<0.1	x	x
uranium ¹	7440-61-1	mg/L	0.03	<0.02	0.00219	0.00237	<2.5	x	x	x	x	0.002	x	x
vanadium ¹	7440-62-2	mg/L	-	<0.010	0.01	0.003	<0.08	x	x	x	x	<0.05	<0.05	<0.05
zinc	7440-66-6	mg/L	10.0	<0.020	<0.008	0.018	<0.05	x	x	x	x	<0.02	<0.02	<0.02
total organic carbon	-	mg/L	-	1.1	2.7	<1.0	0.65	1	0.7	<1.0	2.6	<1.0	<1.0	<1.0
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	x	<0.50	x	<0.50
sulfide ¹	18496-25-8	mg/L	-	x	x	x	x	x	x	x	x	3	x	x
cyanide ¹	57-12-5	mg/L	0.2	<0.0050	<0.005	<0.005	<0.1	x	x	x	x	<0.005	x	x
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
total phen														

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	7/12/02	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
date														
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	x	x	x	<0.005	x	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.001	<0.005	<0.005	<0.001	<0.04	<0.04	<0.04	<0.04	<0.001	<0.01	<0.01
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	x	x	x	<0.03	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.001	<0.0001	<0.001	<0.015	<0.001	<0.001	<0.001	<0.001	<0.015	0.0014	<0.001
n-Butylbenzene ¹	104-51-8	mg/L	-	<0.001	x	<0.001	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	x	x
Propylbenzene ¹	103-65-1	mg/L	-	<0.001	x	<0.001	x	x	x	x	x	x	x	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	<0.001	x	<0.001	x	x	x	x	x	x	x	x
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	<0.001	x	<0.001	x	x	x	x	x	<0.001	x	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	<0.001	x	<0.001	x	x	x	x	x	x	x	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0083	0.0084	0.0073	0.0063	<0.0005	0.0058	0.0036	0.0034	0.0032	0.0049	0.0037
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	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.001	<0.002	<0.002	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.001	<0.001	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.001	<0.001	<0.001	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.01	<0.01
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.0013	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001
Vinyl acetate ¹	108-05-4	mg/L	-	<0.001	<0.001	<0.001	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01
Vinyl Chloride ¹	75-01-4	mg/L	0.001	<0.001	<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	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.001	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.001	<0.001
Chloroform ¹	67-66-3	mg/L	0.1	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.001	<0.001	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<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
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	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	<0.0001	<0.0001	<0.01	x	x	x	x	<0.001	x	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x	x	<0.0002	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
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	<0.0001	<0.0001	<0.01	x	x	x	x	<0.001	x	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	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	7/12/02	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
date														
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
n-Nitrosodinpropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
Phenanthrone ¹	85-01-8	mg/L	-	<0.0001	<0.0001	<0.0001	x	x	x	x	x	<0.001	x	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
Pyrene ¹	129-00-0	mg/L	-	<0.0001	<0.0001	<0.0001	x	x	x	x	x	<0.001	x	x
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	<0.0001	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	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
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
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	88-39-4/106-44	mg/L	-	x	x	x	x	x	x	x	x	<0.001	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
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
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	x	<0.001	x	x
Radium 226 and 228	NA	pCi/L	5	1.084	1.651	1.737	<2.5					0.24		
Ra-226, total	NA	pCi/L	-	0.121	0.698	0.367	<2.5	x	x	x	x	0.2	x	x
Ra-228 ¹ , total	NA	pCi/L	-	0.963	0.953	1.37	<2.5	x	x	x	x	0.04	x	x
Chlorinated Pesticides														
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	<0.00005	x	x	x	x	x	x	x	<0.00004	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	<0.00005	x	x	x	x	x	x	x	<0.00004	x	x
4,4'DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	<0.00005	x	x	x	x	x	x	x	<0.00004	x	x
aldrin ¹	309-00-2	mg/L	-	<0.00005	x	x	x	x	x	x	x	<0.00004	x	x
alpha-BHC ¹	319-84-6	mg/L	-	<0.00005	x	x	x	x	x	x	x	<0.00004	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	<0.00005	x	x	x	x	x	x	x	<0.00004	x	x
beta-BHC ¹	319-85-7	mg/L	-	<0.00005	x	x	x	x	x	x	x	<0.00004	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	<0.0002	x	x
delta-BHC ¹	319-86-8	mg/L	-	<0.00005	x	x	x	x	x	x	x	<0.00004	x	x
Dieldrin ¹	60-57-1	mg/L	-	<0.00005	x	x	x	x	x	x	x	<0.00004	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	<0.00005	x	x	x	x	x	x	x	<0.00004	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	<0.00005	x	x	x	x	x	x	x	<0.00004	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	<0.00005	x	x	x	x	x	x	x	<0.00004	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	<0.00005	x	x	x	x	x	x	x	<0.00004	x	x
Endrin ketone	53494-70-5	mg/L	-	<0.00005	x	x	x	x	x	x	x	<0.00004	x	x
Endrin ¹	72-20-8	mg/L	-	<0.00005	x	x	x	x	x	x	x	<0.00004	x	x
gamma-BHC ¹	319-86-8	mg/L	-	<0.00005	x	x	x	x	x	x	x	<0.00004	x	x
gamma-Chlordane ¹	5103-74-2													

APPENDIX B

Las Cruces Foothills Landfill MW-2

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-2										baseline	standard
				12/27/11	12/19/12	6/25/13	12/19/13	6/26/14	12/11/14	6/18/15	12/17/15	12/27/16	6/27/17	1/12/99 to 5/18/00	1/12/99 to 5/18/00
Field Parameters															
water level elevation	NA	ft amsl	-	3866.03	3864.52	3859.76	3858.86	3859.81	3862.11	3859.78	3857.66	3858.08	3859.28	3858.71	5.46
conductivity	NA	µS/cm	-	390	384	380	386	369	373	358	382	381	386	385.50	29.36
pH	NA	pH units	6-9	7.03	7.62	6.40	6.98	6.61	6.64	6.82	7.26	7.34	7.39	7.30	0.45
temperature	NA	deg F	-	91.2	75.4	112.6	107.4	109.8	109.4	110.8	107.4	112.1	108.5	107.78	1.57
Major Ions															
calcium	7440-70-2	mg/L	-	39	37	37	38	38	36	38	37	42	42	38.02	2.19
chloride	16887-00-6	mg/L	250	8.1	8.1	8.4	8.7	8.7	9.0	9.4	9.3	8.9	10	11.10	4.14
fluoride ¹	16984-48-8	mg/L	1.6	x	x	x	x	x	0.51	x	x	x	x	0.71	0.07
magnesium	7439-95-4	mg/L	-	5.8	5.5	5.5	5.4	5.5	5.1	5.4	5.8	6.0	5.9	5.97	1.11
potassium	7440-09-7	mg/L	-	1.9	1.6	2.0	1.9	1.6	1.7	1.5	1.7	1.9	1.8	4.02	4.90
sodium	82115-62-6	mg/L	-	31	29	29	28	29	26	28	30	31	30	31.95	7.15
sulfate	18785-72-3	mg/L	600	32	31	32	32	32	32	34	33	32	32	34.00	5.83
alkalinity	NA	mg/L	-	130	130	140	130	130	140	130.8	134.6	132.2	130.9	135.32	14.75
bicarbonate alkalinity	71-52-3	mg/L	-	130	130	140	130	130	140	130.8	134.6	132.2	130.9	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	<2.0	<1.0	x
total dissolved solids	NA	mg/L	1,000	231	237	238	239	245	229	242	258	251	243	240.33	16.54
Nitrogen Species															
ammonia as N	1331-21-6	mg/L	-	<1.0	0.42	<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	x	x	<1.0	x	x	x	x	0.68	0.97
nitrate as N	14797-55-8	mg/L	10	1.3	1.5	1.7	1.8	1.7	1.8	2.0	2.1	2.3	2.5	2.20	0.11
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	2.24	0.06
total nitrogen	-	mg/L	-	x	x	x	x	x	1.8	x	x	x	x	x	x
Metals															
aluminum	7429-90-5	mg/L	5.0	x	x	x	x	x	0.027	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	<0.001	<0.0004	x
arsenic ¹	7440-38-2	mg/L	0.01	0.0015	0.0017	0.0019	0.0017	0.0019	0.0015	0.0017	0.0016	0.0018	0.0014	0.0021	0.0005
barium ¹	7440-39-3	mg/L	1.0	0.033	0.032	0.036	0.031	0.029	0.031	0.028	0.030	0.037	0.036	0.0741	0.0527
beryllium ¹	7440-41-7	mg/L	0.004	0.00029	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.002	<0.002	0.0006	x
boron	7440-42-8	mg/L	0.75	x	x	x	x	x	<0.04	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	<0.002	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	<0.006	0.0042	0.0028
cobalt ¹	7440-48-4	mg/L	0.05	0.00059	<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	<0.006	0.013	0.0121
iron	7439-89-6	mg/L	1.0	<0.02	<0.02	0.026	<0.02	<0.05	<0.02	<0.05	<0.02	<0.02	<0.02	0.23	1.9368
lead ¹	7439-92-1	mg/L	0.05	<0.005	0.0022	<0.001	<0.001	<0.005	<0.001	<0.005	<0.0005	<0.0005	<0.0005	0.003	0.0040
manganese	7439-96-5	mg/L	0.2	0.0007	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0032	0.0709
mercury ¹	7439-97-6	mg/L	0.002	x	x	x	x	x	<0.0002	x	x	x	x	0.001	0.0005
molybdenum	7439-98-7	mg/L	1.0	x	x	x	x	x	<0.008	x	x	x	x	<0.05	x
nickel ¹	7440-02-0	mg/L	0.2	0.00036	0.001	<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	<0.001	<0.001	0.0013	<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	<0.005	<0.02	x
thallium ¹	7440-28-0	mg/L	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	0.0006	0.0003
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
uranium ¹	7440-61-1	mg/L	0.03	x	x	x	x	x	0.0021	x	x	x	x	0.0030	0.0008
vanadium ¹	7440-62-2	mg/L	-	0.0078	0.00										

APPENDIX B

Las Cruces Foothills Landfill MW-2

Las Cruces Foothills Landfill monitoring well MW-2														baseline	standard
constituent	CAS Number	unit	GWPS	RESULTS FOR MW-2										average	deviation
date				12/27/11	12/19/12	6/25/13	12/19/13	6/26/14	12/11/14	6/18/15	12/17/15	12/27/16	6/27/17	1/12/99 to	1/12/99 to
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	x	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	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<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	0.0034	0.0028	0.0035	0.0025	0.0024	0.0023	0.0024	0.0023	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	x	<0.01	x
Toluene ¹	108-88-3	mg/L	0.75	0.0002	<0.001	<0.001	<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	0.00032	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001
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	<0.001
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	<0.001
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	0.00072	<0.001	0.0011	0.0011	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
Trichlorofluoromethane ¹	75-69-4	mg/L	-	0.00059	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
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	<0.0004	<0.0004	<0.0004	<0.0004	<0.0005	<0.0005	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.001
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	<0.001
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	x	x	x	<0.002	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	x	x	x	<0.002	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	50-32-8	mg/L	0.0002	x	x	x	x	x	x	x	x	x	x	<0.1	x
Benzo (g,h,i) perlylene ¹	205-99-2	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x
Benzo (k) fluoranthene ¹	191-24-2	mg													

APPENDIX B

Las Cruces Foothills Landfill MW-2

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-2										baseline average	standard deviation
				12/27/11	12/19/12	6/25/13	12/19/13	6/26/14	12/11/14	6/18/15	12/17/15	12/27/16	6/27/17	1/12/99 to 5/18/00	1/12/99 to 5/18/00
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-Nitrosomethylmethylenamine 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	<0.1	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	<0.25	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	08-39-4/106-44	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												9.15
Ra-226, total	NA	pCi/L	-	x	x	x	x	x	x	0.532	x	x	x	x	3.32
Ra-228 ¹ , total	NA	pCi/L	-	x	x	x	x	x	x	0.729	x	x	x	x	5.83
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							

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
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
conductivity		µS/cm	-	1040	433	421	385	396	355	351	341	325	331	312
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
temperature		deg F	-	76.0	77.0	84.0	75.9	76.6	77.0	76.5	75.8	71.1	77.5	78
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
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
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
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
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
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
sulfate	18785-72-3	mg/L	600	215	60	67	43	39	35	48	36	41	x	38
alkalinity	NA	mg/L	-	148.5	141.0	140.9	132.5	130.4	128.5	128.5	111.0	117.5	x	110
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
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
total dissolved solids	NA	mg/L	1,000	706	279	289	235	233	232	207	193	181	x	200
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
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
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
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
total nitrogen	-	mg/L	-	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
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
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
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
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
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
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
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
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	0.0083	0.037	0.0732	0.0022	0.0043	<0.04	0.0038	0.0128	0.0508	0.062	0.025
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
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
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
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
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
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
selenium ¹	7782-49-2	mg/L	0.05	0.0028	0.001	0.0001	0.0011	0.0011	0.0011	0.0011	0.0017	<0.011	<0.01	<0.01
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
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
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	0.0225	0.013	0.01517	0.00555	0.00547	0.00272	0.00359	0.00399	0.00341	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	<0.05	<0.010
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	

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
date														
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	<0.005
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	<0.0005	<0.0005	<0.0005	<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	<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	<0.0005	<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	<0.0005	<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	<0.0005	<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	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	0.0067	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001
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	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	<0.001	<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
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	<0.002	<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
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
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
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	<0.0004
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	<0.001	<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	<0.001	<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	<0.001	<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	<0.001	<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						

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
date														
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-Nitrosodinpropylamine 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
Phenanthere 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
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	<0.001	<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														x
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	5.72	2.77	12.00	1.22	0.90	0.66	0.61	0.26	0.33		1.057
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
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
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
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
4,4DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
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	<0.000050
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
Endrin ¹	72-20-8	mg/L	-	x	x	x	x	x	x	x	x	x	<0.00005	<0.000050
gamma-BHC<sup														

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										
date				9/25/02	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
Field Parameters														
water level elevation		ft amsl	-	4048.06	4048.19	4048.08	4048.14	4048.07	4047.89	4044.77	4047.06	4046.86	4047.46	4045.52
conductivity		µS/cm	-	339	361	406	290	309	327	300	270	260	295	290
pH		pH units	6-9	6.83	6.87	8.22	8.30	8.05	8.40	8.70	8.56	8.51	7.55	8.29
temperature		deg F	-	77	74.5	81.0	72.5	74.8	67.6	74.8	72.3	60.8	74.7	pumped dry
Major Ions														
calcium	7440-70-2	mg/L	-	23	27	26.7	26	27	25	24	22	17	24	20
chloride	16887-00-6	mg/L	250	7.4	8.7	7	6.6	6.3	6	6.7	6.7	6.3	7	6.2
fluoride ¹	16984-48-8	mg/L	1.6	0.95	0.89	0.7	0.86	x	x	x	x	0.76	x	0.71
magnesium	7439-95-4	mg/L	-	3.5	4	3.8	3.5	4	4.2	4	4.2	3.3	4.4	3.6
potassium	7440-09-7	mg/L	-	1.7	1.8	1.9	1.4	1.5	2	1.1	1.8	1.4	1.7	1.7
sodium	82115-62-6	mg/L	-	38	37	34.6	30	31	35	33	33	30	32	35
sulfate	18785-72-3	mg/L	600	44	39	35	36	36	33	34	34	33	36	35
alkalinity	NA	mg/L	-	100	110	107	110	110	92	96	85	85	92	91
bicarbonate alkalinity	71-52-3	mg/L	-	99	110	105	110	110	92	94	81	83	93	91
carbonate alkalinity	3812-32-6	mg/L	-	x	x	<20	<2.0	<4.0	<2.0	2	4	2	<2.0	<2.0
total dissolved solids	NA	mg/L	1,000	210	200	190	170	190	210	190	170	180	189	189
Nitrogen Species														
ammonia as N	1331-21-6	mg/L	-	<0.05	<0.05	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50	<1.0	<1.0
Kjeldahl nitrogen	7727-37-9	mg/L	-	<0.5	<0.5	<1	<1.0	x	x	x	x	<1.0	x	x
nitrate as N	14797-55-8	mg/L	10	1.2	1.4	1	1.1	1	<1.0	<1.0	1	0.94	1.1	0.9
nitrite	14797-65-0	mg/L	-	<0.1	<0.1	<0.1	1.1	x	x	x	x	x	x	x
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	x	<1.0	x	x
Metals														
aluminum	7429-90-5	mg/L	5.0	0.11	0.16	0.08	<3.0	<3.0	x	x	x	0.04	x	0.085
antimony ¹	7440-36-0	mg/L	0.006	0.004 ("")	<0.004	<0.0004	<0.003	x	x	x	<0.001	<0.001	<0.001	<0.001
arsenic ¹	7440-38-2	mg/L	0.01	<0.004	<0.004	0.0021	<0.01	x	x	x	0.006	0.003	0.0017	
barium ¹	7440-39-3	mg/L	1.0	0.019	0.023	0.021	<0.02	x	x	x	0.014	0.024	0.014	
beryllium ¹	7440-41-7	mg/L	0.004	<0.001	<0.001	<0.0002	<0.002	x	x	x	<0.003	x	<0.001	
boron	7440-42-8	mg/L	0.75	0.042	0.04	<0.1	<0.5	x	x	x	<0.04	x	x	
cadmium ¹	7440-43-9	mg/L	0.005	<0.001	<0.001	0.0004	<0.002	x	x	x	<0.002	<0.002	<0.002	
chromium ¹	7440-47-3	mg/L	0.05	0.013	0.015	0.0165	<0.01	x	x	x	0.0083	0.017	0.013	
cobalt ¹	7440-48-4	mg/L	0.05	<0.001	<0.001	0.00156	<0.03	x	x	x	<0.006	<0.006	<0.006	
copper ¹	7440-50-8	mg/L	1.0	0.019	0.028	0.0284	<0.06	x	x	x	0.017	0.029	0.041	
iron	7439-89-6	mg/L	1.0	0.12	0.17	<0.10	<0.1	0.13	0.18	<0.10	0.30	0.11	0.41	0.13
lead ¹	7439-92-1	mg/L	0.05	0.004	0.003	0.0005	<0.01	x	x	x	<0.005	<0.005	<0.005	
manganese	7439-96-5	mg/L	0.2	0.004	0.007	<0.010	<0.03	<0.03	<0.03	<0.03	0.0069	0.018	0.012	
mercury ¹	7439-97-6	mg/L	0.002	<0.07	<0.2	<0.0002	<0.001	x	x	x	<0.002	x	<0.002	
molybdenum	7439-98-7	mg/L	1.0	0.003	0.003	<0.010	<0.75	x	x	x	<0.008	x	<0.008	
nickel ¹	7440-02-0	mg/L	0.2	0.028	0.029	0.06936	<0.05	x	x	x	0.016	0.022	0.021	
selenium ¹	7782-49-2	mg/L	0.05	<0.003	<0.003	0.0012	<0.005	x	x	x	<0.001	<0.001	<0.001	
silver ¹	7440-22-4	mg/L	0.05	<0.002	<0.002	<0.010	<0.01	x	x	x	<0.005	<0.0050	<0.005	
thallium ¹	7440-28-0	mg/L	0.002	<0.003	<0.003	0.00021	<0.001	x	x	x	<0.001	<0.001	<0.001	
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	x	x	<0.1	x	x	
uranium ¹	7440-61-1	mg/L	0.03	0.00259	0.00238	0.002	<2.5	x	x	x	0.002	x	x	
vanadium ¹	7440-62-2	mg/L	-	0.01	0.01	<0.050	<0.08	x	x	x	<0.05	<0.050	<0.05	
zinc	7440-66-6	mg/L	10.0	0.47	0.99	0.515	0.24	x	x	x	0.52	0.63	0.75	
total organic carbon	-	mg/L	-	1.3	<1.0	1	<0.5	<0.5	<0.5	<0.5	<1.0	<1.0	<1.0	
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	<0.50	x	<0.50	
sulfide ¹	18496-25-8	mg/L	-	x	x	x	x	x	x	x	3	x	x	
cyanide ¹	57-12-5	mg/L	0.2	<0.005	<0.005	<0.01	<0.1	x	x	x	<0.005	x	x	
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	<0.001	x	x	
total phenolics ¹	-	mg/L	0.005	0.0088	<0.003	<0.005	<0.003	<0.003	<0.003					

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										
				9/25/02	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
date														
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	x	x	x	<0.005	x	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.005	<0.005	<0.005	<0.001	<0.04	<0.04	<0.04	<0.04	<0.001	<0.01	<0.01
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	x	x	x	<0.03	x	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.001	<0.001	<0.0005	<0.015	<0.001	<0.001	<0.001	<0.001	<0.015	<0.001	<0.001
n-Butylbenzene ¹	104-51-8	mg/L	-	x	<0.001	<0.0005	x	x	x	x	x	<0.06	x	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	x	x	x	x	x	<0.06	x	x
Propylbenzene ¹	103-65-1	mg/L	-	x	<0.001	<0.0005	x	x	x	x	x	x	x	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	<0.001	<0.0005	x	x	x	x	x	x	x	x
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.001	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	x	<0.001	<0.005	x	x	x	x	x	<0.001	x	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	<0.001	<0.0005	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	<0.0005
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	<0.010	x	x	x	x	x	x	x	x
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.002	<0.002	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.001	<0.0005	<0.005						<0.002	<0.001
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.001	<0.001	<0.010	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.001	<0.001
Trichloroethene (TCE)	79-01-6	mg/L	0.005	<0.001	<0.001	<0.0005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	<0.001	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001
Vinyl acetate ¹	108-05-4	mg/L	-	<0.001	<0.001	<0.025	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01
Vinyl Chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0004	<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	-	<0.001	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.001	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.001	<0.001
Chloroform ¹	67-66-3	mg/L	0.1	<0.001	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.001	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<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
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	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	-	<0.0001	<0.0001	<0.005	<0.01	x	x	x	x	<0.001	x	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	x	x	x	x	x	x	x	x	<0.0002	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
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	<0.0001	<0.0001	<0.010	<0.01	x	x	x	x	<0.001	x	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
4-Aminobiphenyl ¹	92-67-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	

APPENDIX B

Las Cruces Foothills Landfill MW-3

Las Cruces Foothills Landfill monitoring well MW-3

o,o-Diethyl o-2

¹ hazardous

x parameter not analyzed

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

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

(") This concentration attributed to laboratory contamination of method blank.

APPENDIX B

Las Cruces Foothills Landfill MW-3

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-3												baseline	standard
				5/18/11	12/27/11	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	1/12/99 to 5/18/00	1/12/99 to 5/18/00	
Field Parameters																	
water level elevation		ft amsl	-	4048.00	4047.33	4048.85	4048.31	4047.41	4050.06	4049.66	4047.25	4047.06	4046.76	4046.26	4051.16	2.73	
conductivity		µS/cm	-	286	289	267	300	310	311	293	280	263	283	267	505.00	263.53	
pH		pH units	6-9	8.46	8.25	8.02	7.42	8.02	7.12	7.95	8.18	7.81	8.59	8.35	7.56	0.59	
temperature		deg F	-	70.9	67.1	71.2	64.9	77.5	68.9	79.9	70.2	73.4	68.0	72.1	77.75	3.10	
Major Ions																	
calcium	7440-70-2	mg/L	-	x	20	20	25	25	26	25	20	23	22	23	36.05	3.42	
chloride	16887-00-6	mg/L	250	x	6.2	6.0	6.0	6.0	6.1	6.0	6.2	6.6	6.1	25.23	34.19		
fluoride ¹	16984-48-8	mg/L	1.6	x	x	x	x	x	x	x	0.76	x	x	x	0.99	0.09	
magnesium	7439-95-4	mg/L	-	x	3.5	3.8	4.1	3.9	4.0	4.1	3.6	4.3	4.1	4.3	4.38	0.53	
potassium	7440-09-7	mg/L	-	x	1.8	1.6	1.6	1.8	1.9	1.8	1.7	1.6	1.6	1.7	2.25	1.00	
sodium	82115-62-6	mg/L	-	x	33	31	31	29	29	29	26	29	31	65.92	55.90		
sulfate	18785-72-3	mg/L	600	x	34	34	34	35	35	35	34	36	34	33	76.50	68.99	
alkalinity	NA	mg/L	-	x	88	88	99	100	100	100	93	87.52	91.32	89.32	136.97	7.74	
bicarbonate alkalinity	71-52-3	mg/L	-	x	87	86	99	99	100	96	90	87.52	89.96	87.40	159.95	15.08	
carbonate alkalinity	3812-32-6	mg/L	-	x	<2.0	<2.0	<2.0	2.0	<2.0	5.5	2.6	<2.0	<2.0	<2.0	3.00	x	
total dissolved solids	NA	mg/L	1,000	x	173	181	192	192	201	185	176	183	197	168	329.00	186.38	
Nitrogen Species																	
ammonia as N	1331-21-6	mg/L	-	x	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.12	0.20	
Kjeldahl nitrogen	7727-37-9	mg/L	-	x	x	x	x	x	x	x	<1.0	x	x	x	0.42	0.45	
nitrate as N	14797-55-8	mg/L	10	x	0.93	0.95	0.91	1.0	<1.0	1.0	1.0	1.1	1.1	1.0	0.57	0.33	
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	0.33	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	x	x	x	x	x	x	x	<0.02	x	x	x	1.93	1.286	
antimony ¹	7440-36-0	mg/L	0.006	x	<0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.00	0.001	
arsenic ¹	7440-38-2	mg/L	0.01	x	0.0015	0.0014	0.0012	0.0014	0.0012	0.0012	0.0012	0.0012	0.0012	0.0014	0.00	0.001	
barium ¹	7440-39-3	mg/L	1.0	x	0.013	0.016	0.017	0.018	0.018	<0.02	0.016	<0.02	0.018	0.018	0.07	0.045	
beryllium ¹	7440-41-7	mg/L	0.004	x	0.00023	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.002	<0.002	0.000	
boron	7440-42-8	mg/L	0.75	x	x	x	x	x	x	x	<0.04	x	x	x	0.130	0.095	
cadmium ¹	7440-43-9	mg/L	0.005	x	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000	
chromium ¹	7440-47-3	mg/L	0.05	x	0.0069	<0.006	0.0047	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.007	
cobalt ¹	7440-48-4	mg/L	0.05	x	0.0004	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.010	
copper ¹	7440-50-8	mg/L	1.0	x	0.0082	0.0089	0.02	0.015	0.018	0.017	0.018	0.009	0.01	<0.006	0.025	0.030	
iron	7439-89-6	mg/L	1.0	x	<0.02	<0.02	<0.02	0.021	<0.02	<0.05	<0.02	<0.05	<0.02	<0.02	2.228	1.810	
lead ¹	7439-92-1	mg/L	0.05	x	0.0018	<0.005	0.0037	0.0031	0.0028	<0.005	0.0035	<0.005	0.0019	0.0025	0.006	0.006	
manganese	7439-96-5	mg/L	0.2	x	0.00043	<0.002	0.0024	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.193	0.222	
mercury ¹	7439-97-6	mg/L	0.002	x	x	x	x	x	x	x	<0.002	x	x	x	0.004	0.000	
molybdenum	7439-98-7	mg/L	1.0	x	x	x	x	x	x	x	<0.008	x	x	x	<0.05	x	
nickel ¹	7440-02-0	mg/L	0.2	x	0.0011	<0.01	0.0039	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.029	
selenium ¹	7782-49-2	mg/L	0.05	x	<0.0025	<0.001	<0.001	0.0011	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001		
silver ¹	7440-22-4	mg/L	0.05	x	<0.005	<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	x	<0.0025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	<0.0005	<0.0005	0.00006	0.00005	
tin ¹	7440-31-																

APPENDIX B

Las Cruces Foothills Landfill MW-3

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-3												baseline	standard		
				5/18/11	12/27/11	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	1/12/99 to 5/18/00	1/12/99 to 5/18/00			
date																			
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x		
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	x	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	x			
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x		
Methylene Chloride ¹	75-09-2	mg/L	0.005	x	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.002	x		
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	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	x	x		
Propylbenzene ¹	103-65-1	mg/L	-	x	x	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	x	x	<0.001	x		
Styrene ¹	100-42-5	mg/L	0.1	x	<0.001	<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	x	x	<0.01	x		
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.001	x		
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	x	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0067	x	
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.001	x		
Toluene ¹	108-88-3	mg/L	0.75	x	<0.001	<0.001	<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	x	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.001	x	
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	x	<0.001	<0.001	<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	-	x	<0.001	<0.001	<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	-	x	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002	x	
Trichloroethene (TCE)	79-01-6	mg/L	0.005	x	<0.001	<0.001	<0.001	<0.001	<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	-	x	<0.001	<0.001	<0.001	<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	-	x	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	x	
Vinyl Chloride ¹	75-01-4	mg/L	0.001	x	<0.0004	<0.0004	<0.0004	<0.0004	<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	-	x	<0.001	<0.001	<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	-	x	<0.001	<0.001	<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	x	<0.001	<0.001	<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	-	x	<0.001	<0.001	<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	x	x		
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	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	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	-	x	x	x	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	x	x	x		
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	<0.0002	x	x	x	x	x	x	x	x	x	x	x	x	x		
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	<0.0001	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	-	<0.0002	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	x		
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	x	x	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	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	x		
2-Picoline	109-06-8	mg/L	-	x	x														

APPENDIX B

Las Cruces Foothills Landfill MW-3

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-3												baseline	standard
				5/18/11	12/27/11	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	1/12/99 to 5/18/00	1/12/99 to 5/18/00	
date																	
n-Nitrosodiemethylamine ¹	55-18-5	mg/L	-	x	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	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	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	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x
n-Nitrosomethylethlamine ¹	10595-95-6	mg/L	-	x	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	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	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	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	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	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	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	x
Phenanthrene ¹	85-01-8	mg/L	-	x	x	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	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	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	x	x	0.00025	x
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	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	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	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	-	<0.0001	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	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	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	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	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	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	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	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	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	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	83-39-4/106-44	mg/L	-	x	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	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	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	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	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	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Radium 226 and 228	NA	pCi/L	5													0.641	
Ra-226, total	NA	pCi/L	-	x	x	x	x	x	x	x	x	x	x	x	x	3.88	3.88
Ra-228 ¹ , total	NA	pCi/L	-	x	x	x	x	x	x	x	x	x	x	x	x	1.06	1.06
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	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	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	x
aldrin ¹	309-00-2	mg/L	-	x	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	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	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	x
Chlordane ¹	57-74-9	mg/L	0.002	x	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	x
Dieldrin ¹	60-57-1	mg/L	-	x	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	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Endosulfan sulfate ¹	1031-07-8																

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											
date				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		ft amsl	-	3950.09	3945.49	3947.36	3947.78	3947.95	3945.52	3924.98	3944.79	3943.20	3942.52	3942.01	
conductivity		µS/cm	-	414	415	434	486	478	445	461	501	491	522	500	
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	
temperature		deg F	-	90.3	91.4	95	88.1	91.4	91.4	77.2	91.6	89.8	91.7	92.0	
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	
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	
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	
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	
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	
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	
sulfate	18785-72-3	mg/L	600	31	32	35	31	31	33	32	32	33	x	35	
alkalinity	NA	mg/L	-	175.4	178.5	179	183	182.5	189.4	196.4	207.5	218.0	x	230	
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	
carbonate alkalinity	3812-32-6	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	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	
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	
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	
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	
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	
total nitrogen	-	mg/L	-	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	
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	0.0008	0.0008	0.0008	0.0007	0.0009	0.001	0.0008	0.0008	0.0009	<0.005	<0.0050	
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	
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	<0.0002	<0.003	<0.0030
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	
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	<0.0001	<0.005	<0.0010
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	
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	0.0006	<0.0004	<0.0004	0.0008	<0.0004	<0.0004	<0.0004	0.0005	0.0007	<0.01	<0.010	
iron	7439-89-6	mg/L	1.0	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01	<0.01	<0.01	<0.10	
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	
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	
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	
molybdenum	7439-98-7	mg/L	1.0	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.002	0.001	0.011	x	<0.010	
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	
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	
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	
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	
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	0.0049	0.0052	0.00495	0.00505	0.00524	0.00571	0.00512	0.00728	0.00748	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	<0.01	<0.01	<0.01	<								

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
date														
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	<0.005
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	0.0008	0.0008	0.001	0.0011	0.0013
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	<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	<0.0005	<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	<0.0005	<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	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	0.0068	0.007	0.0065	0.0031	0.0039	0.006	0.0068	0.0071	0.0079	0.0065	0.0068
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	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
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
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
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
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
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	0.0019
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
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
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
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
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
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</													

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
date														
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-Nitrosodinpropylamine 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	<0.0001	<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	08-39-4/106-44	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
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
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
Pheno 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	1.15	1.43	1.74	1.79	1.34	0.72	1.64	0.89	1.14	x	3.114
Ra-226, total	NA	pCi/L	-	0.15	0.16	0.54	0.17	0.16	0.16	0.12	0.14	0.17	x	0.254
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
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<sup														

APPENDIX B

Las Cruces Foothills Landfill MW-4

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

Las Cruces Foothills Landfill monitoring well MW-4

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-4												
date				9/25/02	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	
Field Parameters																
water level elevation	ft amsl	-		3941.25	3940.80	3939.63	3939.00	3937.17	3936.34	3935.21	3935.00	3936.25	3934.85	3938.34	3938.32	
conductivity	µS/cm	-		551	578	625	540	601	676	690	720	690	869	790	827	
pH	pH units	6-9		7.15	7.14	7.26	7.30	7.39	8.20	6.82	6.82	7.23	6.70	7.40	6.71	
temperature	deg F	-		90.2	93.5	95.0	90.9	92.5	89.4	93.6	91.8	87.8	89.4	90.1	89.1	
Major Ions																
calcium	7440-70-2	mg/L	-	70	72	78.9	79	87	100	92	100	96	110	120	120	
chloride	16887-00-6	mg/L	250	7.7	10	7	7.3	6.9	6.3	6.7	6.6	6.3	7.8	6.1	6.3	
fluoride ¹	16984-48-8	mg/L	1.6	0.52	0.49	0.3	<0.4	x	x	x	x	0.31	x	0.29	x	
magnesium	7439-95-4	mg/L	-	9	9.5	10.1	9.7	12	13	12	14	13	15	16	15	
potassium	7440-09-7	mg/L	-	2.5	2.7	2.8	2.3	2.4	3.1	2.4	2.9	2.5	2.6	2.9	3.0	
sodium	82115-62-6	mg/L	-	30	31	32.1	28	31	36	33	38	31	35	35	37	
sulfate	18785-72-3	mg/L	600	41	35	33	33	32	31	32	31	34	33	33	33	
alkalinity	NA	mg/L	-	240	240	263	280	300	320	330	340	350	350	370	380	
bicarbonate alkalinity	71-52-3	mg/L	-	240	240	262	280	300	320	330	340	350	350	370	380	
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	
total dissolved solids	NA	mg/L	1,000	350	320	350	340	370	430	440	450	454	472	468		
Nitrogen Species																
ammonia as N	1331-21-6	mg/L	-	<0.05	<0.05	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50	<1.0	<1.0	
Kjeldahl nitrogen	7727-37-9	mg/L	-	<0.5	0.52	<1	<1.0	x	x	x	x	<1.0	x	x	x	
nitrate as N	14797-55-8	mg/L	10	1.2	1.3	0.8	<1.0	1	<1.0	0.85	0.88	0.84	0.92	0.96	0.95	
nitrite	14797-65-0	mg/L	-	<0.1	<0.1	<1.0	x	x	x	x	x	x	x	x	x	
total nitrogen	-	mg/L	-	x	x	x	x	x	x	x	x	<1.0	x	x	x	
Metals																
aluminum	7429-90-5	mg/L	5.0	<0.03	<0.03	<0.03	<3.0	<3.0	x	x	x	<0.02	x	<0.02	x	
antimony ¹	7440-36-0	mg/L	0.006	0.007 ("")	<0.004	<0.0004	<0.003	x	x	x	x	<0.001	<0.001	<0.001	<0.0025	
arsenic ¹	7440-38-2	mg/L	0.01	<0.004	<0.004	0.0008	<0.01	x	x	x	x	0.004	0.002	<0.001	<0.0025	
barium ¹	7440-39-3	mg/L	1.0	0.06	0.063	0.0683	0.06	x	x	x	x	0.079	0.085	0.094	0.093	
beryllium ¹	7440-41-7	mg/L	0.004	<0.001	<0.001	<0.0002	<0.002	x	x	x	x	<0.003	x	<0.001	0.00041	
boron	7440-42-8	mg/L	0.75	0.045	0.048	<0.1	<0.5	x	x	x	x	0.05	x	0.053	x	
cadmium ¹	7440-43-9	mg/L	0.005	<0.001	<0.001	<0.0001	<0.002	x	x	x	x	<0.002	<0.0020	<0.002	<0.002	
chromium ¹	7440-47-3	mg/L	0.05	<0.002	<0.002	0.0043	<0.01	x	x	x	x	<0.006	<0.0060	<0.006	0.0028	
cobalt ¹	7440-48-4	mg/L	0.05	<0.001	<0.001	0.00011	<0.03	x	x	x	x	<0.006	<0.0060	<0.006	0.0011	
copper ¹	7440-50-8	mg/L	1.0	0.001	0.001	0.001	<0.06	x	x	x	x	<0.006	<0.0060	<0.006	0.0035	
iron	7439-89-6	mg/L	1.0	<0.007	<0.007	<0.10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.050	<0.05	0.099
lead ¹	7439-92-1	mg/L	0.05	<0.002	<0.002	0.0007	<0.01	x	x	x	x	<0.005	<0.0050	<0.005	0.0068	
manganese	7439-96-5	mg/L	0.2	0.005	0.005	<0.010	<0.03	<0.030	<0.03	<0.03	<0.03	0.003	0.006	0.002	0.0057	
mercury ¹	7439-97-6	mg/L	0.002	<0.07	<0.2	<0.0002	<0.001	x	x	x	x	<0.0002	x	<0.0002	x	
molybdenum	7439-98-7	mg/L	1.0	<0.002	<0.002	<0.010	<0.75	x	x	x	x	<0.008	x	<0.008	x	
nickel ¹	7440-02-0	mg/L	0.2	<0.002	<0.002	0.00273	<0.05	x	x	x	x	<0.01	<0.010	<0.01	<0.0003	
selenium ¹	7782-49-2	mg/L	0.05	<0.003	<0.003	0.0011	<0.005	x	x	x	x	0.002	<0.001	<0.001	<0.0025	
silver ¹	7440-22-4	mg/L	0.05	<0.002	<0.002	<0.010	<0.01	x	x	x	x	<0.005	<0.0050	<0.005	<0.005	
thallium ¹	7440-28-0	mg/L	0.002	<0.003	<0.003	0.00005	<0.001	x	x	x	x	<0.001	<0.001	<0.001	<0.0025	
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	x	x	x	<0.1	x	x	x	
uranium ¹	7440-61-1	mg/L	0.03	0.00759	0.00766	0.009	<2.5	x	x	x	x	0.012	x	x	x	
vanadium ¹	7440-62-2	mg/L	-	0.004	0.003	<0.050	<0.08	x	x	x	x	<0.05	<0.050	<0.05	0.0046	
zinc	7440-66-6	mg/L	10.0	0.008	<0.008	<0.020	<0.05	x	x	x	x	<0.02	<0.020	<0.02	0.026	
total organic carbon	-	mg/L	-	1												

APPENDIX B

Las Cruces Foothills Landfill MW-4

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

Las Cruces Foothills Landfill monitoring well MW-4

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-4											
				9/25/02	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
date															
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	x	x	x	x	x	<0.005	x	x	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.005	<0.005	<0.005	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<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
Methylene Chloride ¹	75-09-2	mg/L	0.005	0.0011	0.0018	0.0025	0.002	<0.001	0.0051	0.0063	0.0068	0.007	0.0084	0.010	0.012
n-Butylbenzene ¹	104-51-8	mg/L	-	x	<0.001	<0.0005	x	x	x	x	x	<0.06	<0.01	x	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	x	x	x	x	x	<0.06	<0.01	x	x
Propylbenzene ¹	103-65-1	mg/L	-	x	<0.001	<0.0005	x	x	x	x	x	x	x	x	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	<0.001	<0.0005	x	x	x	x	x	x	x	x	x
Styrene ¹	100-42-5	mg/L	0.1	<0.001	<0.001	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	x	<0.001	<0.005	x	x	x	x	x	<0.001	x	x	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	<0.001	<0.0005	x	x	x	x	x	x	x	x	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0072	0.0071	0.0076	0.0078	<0.0005	0.01	0.0091	0.0092	0.0088	0.011	0.011	0.010
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	<0.010	x	x	x	x	x	x	x	x	x
Toluene ¹	108-88-3	mg/L	0.75	<0.001	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001
Total Xylenes (m&p and o) ¹	NA	mg/L	0.62	<0.002	<0.002	<0.001	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.002	<0.002	0.00085
trans-1,2-Dichloroethene ¹	156-60-5	mg/L	0.1	<0.001	<0.001	<0.0005	<0.005	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	0.00039	
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.001	<0.001	<0.001	<0.010	<0.1	<0.1	<0.1	<0.1	<0.1	<0.01	<0.001	<0.001
trans-1,4-Dichloro-2-butene ¹	110-57-6	mg/L	-	<0.001	<0.001	<0.010	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.01	<0.01	<0.01
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.0018	0.0019	0.002	0.002	<0.001	0.003	0.003	0.0033	0.0031	0.0033	0.0032	0.0036
Trichlorofluoromethane ¹	75-69-4	mg/L	-	0.0067	0.0062	0.0065	<0.01	<0.01	<0.01	<0.01	<0.01	<0.0033	<0.001	0.0023	0.0013
Vinyl acetate ¹	108-05-4	mg/L	-	<0.001	<0.001	<0.025	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.01	<0.01
Vinyl Chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0004	<0.0005	<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	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<0.001	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.001	<0.001	<0.001
Chloroform ¹	67-66-3	mg/L	0.1	<0.001	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.001	<0.001	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<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
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	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
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	<0.0001	<0.005	<0.01	x	x	x	x	<0.001	x	x	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	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
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	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
2-Chloronaphthalene ¹	91-58-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	<0.0001	<0.0001	<0.010	<0.01	x	x	x	x	<0.001	x	x	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	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
2-Picoline	109-06-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	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
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
3-Methylcholanthrene ¹	56-49-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	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
4-Aminobiphenyl ^{1</sup}															

APPENDIX B

Las Cruces Foothills Landfill MW-4

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

Las Cruces Foothills Landfill monitoring well MW-4

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-4											
				9/25/02	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
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	x	x	x	x	x	<0.001	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
n-Nitrosodinpropylamine ¹	621-64-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
n-Nitrosomethylethylenimine ¹	10595-95-6	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	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
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	<0.0001	<0.0001	<0.005	x	x	x	x	x	<0.001	x	x	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
Pyrene ¹	129-00-0	mg/L	-	<0.0001	<0.0001	<0.005	x	x	x	x	x	<0.001	x	x	x
Pyridine	110-86-1	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	x	x	x	x	x	<0.0001	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	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	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
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	x	x	x	x	x	<0.001	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
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	x	x	x	x	x	<0.001	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
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	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
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	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
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	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	<0.001	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
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
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	x	x	x	x	x	<0.001	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
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	x	<0.001	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
Radium 226 and 228	NA	pCi/L	5	1.648	2.564	0.8	<2.5	x	x	x	x	1.53			
Ra-226, total	NA	pCi/L	-	0.268	0.844	0.7	<2.5	x	x	x	x	0.13	x	x	x
Ra-228 ¹ , total	NA	pCi/L	-	1.38	1.72	0.1	<2.5	x	x	x	x	1.4	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
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
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
aldrin ¹	309-00-2	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x
alpha-BHC ¹	319-84-6	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	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
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	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
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	x	x	x	x	x	<0.00004	x	x	x
Endrin ketone	53494-70-5	mg/L													

APPENDIX B

Las Cruces Foothills Landfill MW-4

RESULTS FOR MW-4														baseline	standard		
constituent	CAS Number	unit	GWPS	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	12/27/16	6/28/17	1/12/99 to 5/18/00	1/12/99 to 5/18/00	
date																	
Field Parameters																	
water level elevation		ft amsl	-	3937.37	3937.12	3932.90	3932.20	3931.90	3931.93	3931.90	3931.70	3931.90	3931.86	3931.74	3947.37	1.72	
conductivity		µS/cm	-	750	790	780	800	761	753	717	752	722	741	741	445.33	30.83	
pH		pH units	6-9	6.73	6.45	6.41	6.60	6.09	6.20	6.27	6.64	6.73	6.75	6.75	7.22	0.17	
temperature		deg F	-	86.5	88.3	93.9	92.1	91.6	102.0	91.2	92.7	92.3	92.3	91.27	2.23		
Major Ions																	
calcium	7440-70-2	mg/L	-	95	110	110	100	110	110	120	110	120	110	110	55.38	3.25	
chloride	16887-00-6	mg/L	250	6.4	6.3	6.7	6.9	6.9	7.1	7.1	7.2	6.7	6.6	6.5	6.08	0.29	
fluoride ¹	16984-48-8	mg/L	1.6	x	x	x	x	x	0.25	x	x	x	x	0.64	0.04		
magnesium	7439-95-4	mg/L	-	12	13	15	14	15	13	15	15	15	15	15	6.87	0.33	
potassium	7440-09-7	mg/L	-	3.0	2.9	3.1	3.0	2.8	2.7	2.6	2.6	2.7	2.8	2.7	2.28	0.53	
sodium	82115-62-6	mg/L	-	62	54	32	33	32	30	32	32	33	32	31	27.08	2.51	
sulfate	18785-72-3	mg/L	600	35	34	34	34	34	35	35	33	34	33	32	32.17	1.60	
alkalinity	NA	mg/L	-	390	390	380	370	370	370	355.5	360.8	359.2	353.8	350.8	181.30	4.86	
bicarbonate alkalinity	71-52-3	mg/L	-	390	390	380	370	370	370	355.5	360.8	359.2	353.8	350.8	214.70	18.63	
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	<1.0	x	
total dissolved solids	NA	mg/L	1,000	490	484	471	473	463	458	463	472	443	463	466	270.50	7.71	
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	<0.01	x	
Kjeldahl nitrogen	7727-37-9	mg/L	-	x	x	x	x	x	<1.0	x	x	x	x	<0.1	x		
nitrate as N	14797-55-8	mg/L	10	0.28	0.49	0.83	<1.0	0.34	0.86	0.96	1.2	0.94	0.97	0.99	0.97	0.04	
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	0.97	0.08	
total nitrogen	-	mg/L	-	x	x	x	x	x	<1.0	x	x	x	x	x	x		
Metals																	
aluminum	7429-90-5	mg/L	5.0	x	x	x	x	x	<0.02	x	x	x	x	x	<0.05	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	<0.0004	x	
arsenic ¹	7440-38-2	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	0.0008	0.0001	
barium ¹	7440-39-3	mg/L	1.0	0.077	0.075	0.095	0.093	0.09	0.086	0.093	0.090	0.095	0.097	0.091	0.046	0.0015	
beryllium ¹	7440-41-7	mg/L	0.004	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.0002	x	
boron	7440-42-8	mg/L	0.75	x	x	x	x	x	0.049	x	x	x	x	x	0.0525	0.0150	
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	<0.0001	x	
chromium ¹	7440-47-3	mg/L	0.05	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.0019	0.0016	
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	<0.01	x	
copper ¹	7440-50-8	mg/L	1.0	0.015	0.023	<0.006	0.011	0.013	0.014	0.016	0.016	0.018	0.024	0.017	0.0007	0.0001	
iron	7439-89-6	mg/L	1.0	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.05	x	
lead ¹	7439-92-1	mg/L	0.05	0.015	0.012	0.0018	0.0025	<0.005	0.0012	<0.005	0.0011	0.0014	0.0011	0.0012	0.0001	x	
manganese	7439-96-5	mg/L	0.2	0.022	0.016	<0.002	0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.0300	x	
mercury ¹	7439-97-6	mg/L	0.002	x	x	x	x	x	<0.002	x	x	x	x	x	0.0003	x	
molybdenum	7439-98-7	mg/L	1.0	x	x	x	x	x	<0.008	x	x	x	x	x	<0.05	x	
nickel ¹	7440-02-0	mg/L	0.2	<0.01	0.0042	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.0029	0.0009
selenium ¹	7782-49-2	mg/L	0.05	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0011	0.0002	
silver ¹	7440-22-4	mg/L	0.05	<0.005	<0.005	0.0067	<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	<0.001	<0.0005	<0.0005	<0.0005	<0.0005	&				

APPENDIX B

Las Cruces Foothills Landfill MW-4

ing

baseline	standard
average	deviation
5/18/00	5/18/00
1/12/99 to 1/12/99 to	1/12/99 to 1/12/99 to

Las Cruces Foothills Landfill monitoring well MW-4

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-4												baseline average	standard 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	12/27/16	6/28/17	1/12/99 to 5/18/00	1/12/99 to 5/18/00		
date																		
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	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<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	x	x	x	x	x	x	x		
Methylene Chloride ¹	75-09-2	mg/L	0.005	0.0063	0.010	0.012	0.014	0.014	0.014	0.015	0.012	0.014	0.014	0.014	0.014	<0.002	x	
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	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	x		
Propylbenzene ¹	103-65-1	mg/L	-	x	x	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	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	<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	x	x	<0.01	x	
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	x	x	x	x	x	x	x	x	<0.001	x	
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0095	0.0095	0.011	0.011	0.0089	0.0098	0.0099	0.0093	0.0090	0.0091	0.0097	0.0056	0.0016		
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	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	<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	<0.002	<0.002	<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	<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	<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	<0.01	<0.002	x	
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.0036	0.0024	0.0046	0.0033	0.0032	0.0031	0.0032	0.0028	0.0037	0.0029	0.0031	0.0011	0.0001		
Trichlorofluoromethane ¹	75-69-4	mg/L	-	0.0013	0.0016	0.0023	0.0019	0.0014	0.0015	0.0016	0.0013	0.0014	0.0015	0.0013	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	<0.01	<0.002	x	
Vinyl Chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0004	0.00048	<0.0004	<0.0005	<0.0005	<0.0005	<0.0004	<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	<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	<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	<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	<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	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	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	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	-	x	x	x	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	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	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-</td														

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
date				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	12/27/16	6/28/17	1/12/99 to 5/18/00	1/12/99 to 5/18/00	
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-Nitrosomethylmethamphetamine 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	
Phanthrene ¹	85-01-8	mg/L	-	x	x	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	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	x	<0.25	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	68-39-4/106-44	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	x	x	x	0.548	x	x	x	x	x	0.223	0.155
Ra-228 ¹ , total	NA	pCi/L	-	x	x	x	x	x	x	1.18	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	x	x	x	<0.00025	x	x	x	x	x	x	
Arochlor-1221	11104-28-2	mg/L	-	x	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	x	<0.00025	x	x	x	x	x	x	
Arochlor-1242	53469-21-9	mg/L	-	x	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	x	<0.00025	x	x	x	x	x	x	
Arochlor-1254	11097-69-1	mg/L	-	x	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	x	<0.00025	x	x	x	x	x	x	
Other Pesticides and Herbicides¹																	

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

* baseline ave

¹ hazardous

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

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

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

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

MW-5

APPENDIX B
Las Cruces Foothills Landfill monitoring well MW-5

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-5							
date				7/15/03	8/27/03	9/29/03	10/29/03	11/25/03	12/29/03	12/2/04	
Field Parameters											
water level elevation		ft amsl	-	3830.57	3830.29	3830.57	3830.69	3830.84	3831.01	3831.29	
conductivity		µS/cm	-	552	370	410	420	410	400	419	
pH		pH units	6-9	7.83	7.90	7.60	7.80	7.80	7.60	8.19	
temperature		deg F	-	114.8	111.2	106.2	107.6	108.0	107.4	113.7	
Major Ions											
calcium	7440-70-2	mg/L	-	34.1	34	33	34	35	35	34	
chloride	16887-00-6	mg/L	250	30	34	36	37	35	35	28	
fluoride ¹	16984-48-8	mg/L	1.6	0.5	0.6	0.6	0.6	0.6	0.6	x	
magnesium	7439-95-4	mg/L	-	4.72	4.3	4.4	4.3	4.4	4.7	4.6	
potassium	7440-09-7	mg/L	-	2.9	2.2	2.4	2.4	2.4	2.2	2.2	
sodium	82115-62-6	mg/L	-	47.3	45	42	45	45	42	42	
sulfate	18785-72-3	mg/L	600	42	42	44	46	43	44	43	
alkalinity	NA	mg/L	-	116	120	130	120	120	120	120	
bicarbonate alkalinity	71-52-3	mg/L	-	115	120	130	120	120	120	120	
carbonate alkalinity	3812-32-6	mg/L	-	<20	<2	<2.0	<2.0	<2.0	<2.0	<4.0	
total dissolved solids	NA	mg/L	1,000	270	280	270	280	300	260	270	
Nitrogen Species											
ammonia as N	1331-21-6	mg/L	-	<0.1	<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	
nitrate as N	14797-55-8	mg/L	10	2.3	2	2.1	2.1	2.0	2.2	2.4	
nitrite	14797-65-0	mg/L	-	<0.1	2	2.1	2.1	2.0	2.2	x	
total nitrogen	-	mg/L	-	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	
antimony ¹	7440-36-0	mg/L	0.006	<0.0004	<0.003	<0.003	<0.003	<0.003	<0.003	x	
arsenic ¹	7440-38-2	mg/L	0.01	0.0026	<0.01	<0.01	<0.01	<0.01	<0.01	x	
barium ¹	7440-39-3	mg/L	1.0	0.0649	0.06	0.06	0.05	0.06	0.06	x	
beryllium ¹	7440-41-7	mg/L	0.004	<0.0002	<0.002	<0.002	<0.002	<0.002	<0.002	x	
boron	7440-42-8	mg/L	0.75	<0.1	<0.5	<0.5	<0.5	<0.5	<0.5	x	
cadmium ¹	7440-43-9	mg/L	0.005	<0.0001	<0.002	<0.002	<0.002	<0.002	<0.002	x	
chromium ¹	7440-47-3	mg/L	0.05	0.0037	<0.01	<0.01	<0.01	<0.01	<0.01	x	
cobalt ¹	7440-48-4	mg/L	0.05	0.00012	<0.03	<0.03	<0.03	<0.03	<0.03	x	
copper ¹	7440-50-8	mg/L	1.0	0.0009	<0.06	<0.06	<0.06	<0.06	<0.06	x	
iron	7439-89-6	mg/L	1.0	0.45	<0.1	<0.1	<0.1	<0.1	<0.1	x	
lead ¹	7439-92-1	mg/L	0.05	0.0004	<0.01	<0.01	<0.01	<0.01	<0.01	x	
manganese	7439-96-5	mg/L	0.2	<0.010	<0.03	<0.03	<0.03	<0.03	<0.03	x	
mercury ¹	7439-97-6	mg/L	0.002	<0.0002	<0.001	<0.001	<0.001	<0.001	<0.001	x	
molybdenum	7439-98-7	mg/L	1.0	<0.010	<0.75	<0.75	<0.75	<0.75	<0.75	x	
nickel ¹	7440-02-0	mg/L	0.2	0.00171	<0.05	<0.05	<0.05	<0.05	<0.05	x	
selenium ¹	7782-49-2	mg/L	0.05	0.0021	<0.005	<0.005	<0.005	<0.005	<0.005	x	
silver ¹	7440-22-4	mg/L	0.05	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	
thallium ¹	7440-28-0	mg/L	0.002	0.00005	<0.001	<0.001	<0.001	<0.001	<0.001	x	
tin ¹	7440-31-5	mg/L	-	<0.10	x	x	x	x	<0.4	x	
uranium ¹	7440-61-1	mg/L	0.03	<0.002	<2.5	<2.5	<2.5	<2.5	<2.5	x	
vanadium ¹	7440-62-2	mg/L	-	<0.050	<0.08	<0.08	<0.08	<0.08	<0.08	x	
zinc	7440-66-6	mg/L	10.0	0.024	<0.05	<0.05	<0.05	<0.05	<0.05	x	
total organic carbon	-	mg/L	-	1	<1.0	<1.0	<1.0	<1.0	<0.5	0.51	<0.5
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x	x	
sulfide ¹	18496-25-8	mg/L	-	<0.1	x	x	x	x	<4.0	x	
cyanide ¹	57-12-5	mg/L	0.2	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	x	
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	x	x	x	x	
total phenolics ¹	-	mg/L	0.005	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	
Polychlorinated Biphenyls (PCBs) ¹	1336-36-3	mg/L	0.0005	(^)	(^)	(^)	(^)	(^)	(^)	x	
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	
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	
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	
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	
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	
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	
1,1-Dichloropropene ¹	563-58-6	mg/L	-	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	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	
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	<0.0005	x	x	x	x	x	x	
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.0005	<						

APPENDIX B
Las Cruces Foothills Landfill monitoring well MW-5

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-5							
date				7/15/03	8/27/03	9/29/03	10/29/03	11/25/03	12/29/03	12/2/04	
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	<0.1	x
Acrolein ¹	107-02-8	mg/L	-	<0.025	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	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	<0.01	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
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	<0.05	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	<0.02	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	<0.005	x
Ethyl methacrylate ¹	97-63-2	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	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	<0.01	x
Isobutyl alcohol ¹	78-83-1	mg/L	-	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	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	<0.005	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	<0.03	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	<0.06	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
Tetrachloroethylene (PCE) ¹	127-18-4	mg/L	0.005	0.0055	0.006	0.0062	0.006	0.0055	0.0058	<0.005	
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
Trichloroethylene (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
Bromoform ¹	75-25-2	mg/L	-	<0.001	<0.001	<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
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.0005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

APPENDIX B
Las Cruces Foothills Landfill monitoring well MW-5

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-5							
date				7/15/03	8/27/03	9/29/03	10/29/03	11/25/03	12/29/03	12/2/04	
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Acenaphthene ¹	83-32-9	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Acenaphthylene ¹	208-96-8	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Acetophenone ¹	98-86-2	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	<0.01	x	x	x	x	x	x	
Aniline ¹	62-53-3	mg/L	-	<0.01	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	
Benzidine ¹	92-87-5	mg/L	-	<0.05	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	
Benzo (a) pyrene ¹	205-99-2	mg/L	-	<0.005	<0.02	<0.02	<0.02	<0.02	<0.02	x	
Benzo (b) fluoranthene ¹	191-24-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	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	
Benzo (k) fluoranthene ¹	50-32-8	mg/L	0.0002	<0.005	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	
Benzoic acid ¹	65-85-0	mg/L		<0.05	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	
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	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	x	
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	<0.005	<0.02	<0.02	<0.02	<0.02	<0.02	x	
Butylbenzylphthalate ¹	85-68-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Carbazole	86-74-8	mg/L	-	<0.005	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	x	
Chrysene ¹	218-01-9	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Diallate ¹	2303-16-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Dibenz (a,j) acridine	224-42-0	mg/L	-	<0.01	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	x	
Dibenzofuran ¹	132-64-9	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<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	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Dimethylphthalate ¹	131-11-3	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Di-n-butylphthalate ¹	84-74-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Di-n-octylphthalate ¹	117-84-0	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Diphenylamine ¹	122-39-4	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	
Fluoranthene ¹	206-44-0	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Fluorene ¹	86-73-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Hexachlorobenzene ¹	118-74-1	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Hexachloroethane ¹	67-72-1	mg/L	-	<0.005	<0.05	<0.05	<0.05	<0.05	<0.05	x	
Hexachloropropene ¹	1888-71-7	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<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	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Isophorone ¹	78-59-1	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Isosafrole ¹	120-58-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	<0.02	<0.02	<0.02	<0.02	<0.02	x	
Methapyrilene ¹	91-80-5	mg/L	-	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	x	
Methyl methanesulfonate ¹	66-27-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Naphthalene ¹	91-20-3	mg/L	0.03	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Nitrobenzene ¹	98-95-3	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	x	
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	
n-Nitrosodinpropylamine ¹	621-64-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	x	
n-Nitrosomethylbenzylamine ¹	10595-95-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	<0.02	<0.04	<0.04	<0.04	<0.04	<0.04	x	
o-Toluidine ¹	95-53-4	mg/L	-	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	x	
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Pentachlorobenzene ¹	608-93-5	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	
Phenacetin ¹	62-44-2	mg/L	-	<0.02	<0.						

APPENDIX B
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	
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	<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	x	x	
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	<0.005	<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	x	x	
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	108-39-4/106-44	mg/L	-	<0.005	<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	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	x	
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	<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	x	x	
Phenol ¹ (a)	108-95-2	mg/L	0.005	<0.005	<0.01	<0.01	<0.01	<0.01	x	x	
Radium 226 and 228	NA	pCi/L	5	1.0							
Ra-226, total	NA	pCi/L	-	0.6	<2.5	<2.5	<2.5	<2.5	<2.5	x	
Ra-228¹, total	NA	pCi/L	-	0.4	<2.5	<2.5	<2.5	<2.5	<2.5	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	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	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	x	
aldrin ¹	309-00-2	mg/L	-	<0.0001	<0.01	<0.01	<0.01	<0.01	<0.01	x	
alpha-BHC ¹	319-84-6	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	
alpha-Chlordane ¹	5103-71-9	mg/L	-	<0.0001	alpha +	x					
beta-BHC ¹	319-85-7	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<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	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	
Dieldrin ¹	60-57-1	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Endosulfan sulfate ¹	1031-07-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Endrin aldehyde ¹	7421-93-4	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Endrin ketone	53494-70-5	mg/L	-	<0.00002	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	x	
gamma-BHC ¹	319-86-8	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	
gamma-Chlordane ¹	5103-74-2	mg/L	-	<0.0001	see above	x					
Heptachlor epoxide ¹	1024-57-3	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Heptachlor ¹	76-44-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	
Isodrin ¹	465-73-6	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	
Kepone ¹	143-50-0	mg/L	-	<0.025	<0.02	<0.02	<0.02	<0.02	<0.02	x	
Methoxychlor ¹	72-43-5	mg/L	-	<0.001	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Toxaphene ¹	8001-35-2	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	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	x	
Arochlor-1221	11104-28-2	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	
Arochlor-1232	11141-16-5	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	
Arochlor-1242	53469-21-9	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	
Arochlor-1248	12672-29-6	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	
Arochlor-1254	11097-69-1	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	x	
Arochlor-1260	11096-82-5	mg/L	-	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<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	-	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	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	x	
Dimethoate ¹	60-51-5	mg/L	-	<0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	x	
Dinoseb ¹	88-85-7	mg/L	-	<0.005	<0.02	<0.02	<0.02	<0.02	<0.02	x	
Disulfoton ¹	298-04-4	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Famphur ¹	52-58-7	mg/L	-	<0.0005	<0.02	<0.02	<0.02	<0.02	<0.02	x	
Methyl parathion ¹	298-00-0	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Parathion (Ethyl) ¹	56-38-2	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Phorate ¹	298-02-2	mg/L	-	<0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	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	x	

APPENDIX B

Las Cruces Foothills Landfill MW-5

Las Cruces Foothills Landfill monitoring well MW-5

constituent	CAS Number	unit	GWPS	12/14/05	12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	RESU 6/19/12
date											
Field Parameters											
water level elevation		ft amsl	-	3831.96	3832.49	3834.95	3837.62	3838.38	3844.08	3843.72	3843.47
conductivity		µS/cm	-	472	430	430	410	539	500	468	420
pH		pH units	6-9	7.90	7.70	7.46	7.82	7.40	7.67	7.28	7.43
temperature		deg F	-	102.0	108.0	97.3	104.2	95.7	104.9	100.6	83.3
Major Ions											
calcium	7440-70-2	mg/L	-	39	37	37	31	36	41	37	34
chloride	16887-00-6	mg/L	250	32	32	29	28	27	35	28	26
fluoride ¹	16984-48-8	mg/L	1.6	x	x	x	0.59	x	0.58	x	x
magnesium	7439-95-4	mg/L	-	5.2	5	5	4.3	4.8	5.6	4.9	4.8
potassium	7440-09-7	mg/L	-	2.8	2.8	2.5	2.1	2.4	2.6	2.5	2.6
sodium	82115-62-6	mg/L	-	50	48	46	41	44	51	46	47
sulfate	18785-72-3	mg/L	600	41	43	43	41	46	48	47	47
alkalinity	NA	mg/L	-	120	110	110	120	110	120	120	120
bicarbonate alkalinity	71-52-3	mg/L	-	120	110	110	120	110	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	300	290	280	280	272	310	289	288
Nitrogen Species											
ammonia as N	1331-21-6	mg/L	-	<0.5	<0.5	<0.5	<0.50	<1.0	<1.0	<1.0	<1.0
Kjeldahl nitrogen	7727-37-9	mg/L	-	x	x	x	<1.0	x	x	x	x
nitrate as N	14797-55-8	mg/L	10	2.3	3	2.8	2.7	3.3	2.8	3.4	3.4
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	x	x	x
total nitrogen	-	mg/L	-	x	x	x	2.7	x	x	x	x
Metals											
aluminum	7429-90-5	mg/L	5.0	x	x	x	<0.02	x	0.02	x	x
antimony ¹	7440-36-0	mg/L	0.006	x	x	x	<0.001	<0.001	<0.001	<0.001	<0.001
arsenic ¹	7440-38-2	mg/L	0.01	x	x	x	0.008	0.004	0.00187	0.002	0.0021
barium ¹	7440-39-3	mg/L	1.0	x	x	x	0.054	0.057	0.067	0.059	0.061
beryllium ¹	7440-41-7	mg/L	0.004	x	x	x	<0.003	x	<0.001	0.0003	<0.002
boron	7440-42-8	mg/L	0.75	x	x	x	0.041	x	0.047	x	x
cadmium ¹	7440-43-9	mg/L	0.005	x	x	x	<0.002	<0.0020	<0.002	<0.002	<0.002
chromium ¹	7440-47-3	mg/L	0.05	x	x	x	<0.006	0.026	<0.006	0.00062	<0.006
cobalt ¹	7440-48-4	mg/L	0.05	x	x	x	<0.006	<0.0060	<0.006	0.00081	<0.006
copper ¹	7440-50-8	mg/L	1.0	x	x	x	<0.006	<0.0060	<0.006	<0.006	<0.006
iron	7439-89-6	mg/L	1.0	<0.1	<0.1	<0.1	<0.05	0.31	<0.05	<0.02	0.028
lead ¹	7439-92-1	mg/L	0.05	x	x	x	<0.005	<0.0050	<0.005	<0.005	<0.005
manganese	7439-96-5	mg/L	0.2	<0.03	<0.03	<0.03	<0.002	0.0045	<0.002	0.00035	<0.002
mercury ¹	7439-97-6	mg/L	0.002	x	x	x	<0.0002	x	<0.0002	x	x
molybdenum	7439-98-7	mg/L	1.0	x	x	x	<0.008	x	<0.008	x	x
nickel ¹	7440-02-0	mg/L	0.2	x	x	x	<0.01	0.04	<0.01	<0.01	<0.01
selenium ¹	7782-49-2	mg/L	0.05	x	x	x	0.001	<0.001	<0.001	0.0012	0.0015
silver ¹	7440-22-4	mg/L	0.05	x	x	x	<0.005	<0.0050	<0.005	<0.005	<0.005
thallium ¹	7440-28-0	mg/L	0.002	x	x	x	<0.001	<0.001	<0.001	<0.001	<0.001
tin ¹	7440-31-5	mg/L	-	x	x	x	<0.1	x	x	x	x
uranium ¹	7440-61-1	mg/L	0.03	x	x	x	0.002	x	x	x	x
vanadium ¹	7440-62-2	mg/L	-	x	x	x	<0.05	<0.050	<0.05	0.0088	<0.05
zinc	7440-66-6	mg/L	10.0	x	x	x	<0.02	<0.020	<0.02	0.00064	<0.01
total organic carbon	-	mg/L	-	<0.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
phosphate	14265-44-2	mg/L	-	x	x	x	<0.50	x	<0.50	x	x
sulfide ¹	18496-25-8	mg/L	-	x	x	x	2	x	x	x	x
cyanide ¹	57-12-5	mg/L	0.2	x	x	x	<0.005	x	x	x	x
perchlorate ¹	14797-73-0	mg/L	-	x	x	x	<0.001	x	x	x	x
total phenolics ¹	-	mg/L	0.005	<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
Volatile Organic Compounds											
1,1,1,2-Tetrachloroethane ¹	630-20-6	mg/L	-	<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	<0.005	<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	<0.005	<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	<0.002	<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	<0.005	<0.005	<0.005	<0.005	<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	x	<0.001	<0.001	<0.001	<0.001	<0.001
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	x	x	<0.005	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	<0.01	<0.001	<0.001	<0.001	<0.001
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	x	x	x	<0.001	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	12/14/05	12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	RESU 6/19/12
date											
Acetone ¹	67-64-1	mg/L	-	<0.1	<0.1	<0.1	<0.1	<0.01	<0.01	0.0021	<0.01
Acetonitrile ¹	75-05-8	mg/L	-	x	x	x	<0.1	x	x	x	x
Acrolein ¹	107-02-8	mg/L	-	x	x	x	<0.1	x	x	x	x
Acrylonitrile ¹	107-13-1	mg/L	-	<0.2	<0.2	<0.2	<0.2	<0.01	<0.01	<0.01	<0.01
Allyl chloride ¹	107-05-1	mg/L	-	x	x	x	<0.01	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	<0.002	<0.002	<0.002
Bromomethane (methyl bromide) ¹	74-83-9	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.002	<0.002	<0.002	<0.002
Carbon Disulfide ¹	75-15-00	mg/L	-	<0.1	<0.1	<0.1	<0.1	<0.01	<0.01	<0.01	<0.01
Carbon Tetrachloride ¹	56-23-5	mg/L	0.005	<0.002	<0.002	<0.002	<0.002	<0.001	<0.001	<0.001	<0.001
Chlorobenzene ¹	108-90-7	mg/L	0.1	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001
Chloroethane ¹	75-03-3	mg/L	-	<0.01	<0.01	<0.01	<0.01	<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
Chloroprene (2-Chloro-1,3-butadiene) ¹	126-99-8	mg/L	-	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	<0.005	<0.001	<0.001	0.00028	<0.001
cis-1,3-Dichloropropene ¹	542-75-6	mg/L	-	x	x	x	<0.02	<0.001	<0.001	<0.001	<0.001
Dibromomethane (methylene bromide) ¹	74-95-3	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.001	<0.001	<0.001	<0.001
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	x	x	<0.005	0.0024	0.002	<0.001	0.0016	0.0016
Ethyl methacrylate ¹	97-63-2	mg/L	-	x	x	x	<0.01	x	x	x	x
Ethylbenzene ¹	100-41-4	mg/L	0.7	<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	<0.000025	<0.000025	<0.000025	<0.00001	<0.00001	<0.00001	0.000005	<0.00001
Hexachlorobutadiene ¹	87-68-3	mg/L	-	x	x	x	<0.001	x	x	x	x
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	x	x	<0.05	x	x	x	x
Isopropylbenzene ¹	98-82-8	mg/L	-	x	x	x	x	x	x	x	x
Methacrylonitrile ¹	126-98-7	mg/L	-	x	x	x	<0.005	x	x	x	x
Methyl Iodide (Iodomethane) ¹	74-88-4	mg/L	-	<0.04	<0.04	<0.04	<0.04	<0.01	<0.01	<0.01	<0.01
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	<0.03	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
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	x	x	x	x	x	x
Propionitrile ¹	107-12-0	mg/L	-	x	x	x	<0.06	x	x	x	x
Propylbenzene ¹	103-65-1	mg/L	-	x	x	x	x	x	x	x	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	x	x	x	x	x	x	x
Styrene ¹	100-42-5	mg/L	0.1	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	<0.001	<0.001
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	x	x	x	<0.001	x	x	x	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	x	x	x	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0055	0.0041	0.0043	0.0042	0.005	0.0039	0.0041	0.0041
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	x	x	x	x	x	x	x	x
Toluene ¹	108-88-3	mg/L	0.75	<0.005	<0.005	<0.005	<0.005	<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	<0.005	<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	<0.002	<0.001	<0.001	<0.001	<0.001
trans-1,3-Dichloropropene ¹	10061-02-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<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	<0.1	<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	0.00044	<0.001
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.001	<0.001	0.00034	<0.001
Vinyl acetate ¹	108-05-4	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	<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
Trihalomethanes (THM)											
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001
Bromoform ¹	75-25-2	mg/L	-	<0.015	<0.015	<0.015	<0.015	<0.001	<0.001	<0.001	<0.001
Chloroform ¹	67-66-3	mg/L	0.1	<0.005	<0.005	<0.005	<0.005	<0.001	<0.001	<0.001	<0.001
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.005	<0.005	<0.005	<0.005	<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	<0.001	x	x	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	x	x	<0.001	x	x	x	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	x	x	x	<0.001	x	x	x	x
1-Choronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	x
1-Methylnaphthalene	86-52-2	mg/L	-	x	x	x	<0.001	x	x	x	x
1-Naphthylamine ¹	134-32-7	mg/L	-	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	12/14/05	12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	RESU 6/19/12
date											
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	x	x	x	<0.001	x	x	x	x
Acenaphthene ¹	83-32-9	mg/L	-	x	x	x	<0.001	x	x	x	x
Acenaphthylene ¹	208-96-8	mg/L	-	x	x	x	<0.001	x	x	x	x
Acetophenone ¹	98-86-2	mg/L	-	x	x	x	<0.001	x	x	x	x
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	x	x	x	<0.001	x	x	x	x
Aniline ¹	62-53-3	mg/L	-	x	x	x	<0.001	x	x	x	x
Anthracene ¹	120-12-7	mg/L	-	x	x	x	<0.001	x	x	x	x
Benzidine ¹	92-87-5	mg/L	-	x	x	x	<0.001	x	x	x	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	x	x	x	<0.00005	x	x	x	x
Benzo (a) pyrene ¹	205-99-2	mg/L	-	x	x	x	<0.00005	x	x	x	x
Benzo (b) fluoranthene ¹	191-24-2	mg/L	-	x	x	x	<0.001	x	x	x	x
Benzo (g,h,i) perylene ¹	207-08-9	mg/L	-	x	x	x	<0.00005	x	x	x	x
Benzo (k) fluoranthene ¹	50-32-8	mg/L	0.0002	x	x	x	<0.00005	x	x	x	x
Benzoic acid ¹	65-85-0	mg/L		x	x	x	x	x	x	x	x
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x	x	<0.001	x	x	x	x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x	x	<0.001	x	x	x	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	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	<0.001	x	x	x	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x	x	<0.001	x	x	x	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x	x	<0.001	x	x	x	x
Carbazole	86-74-8	mg/L	-	x	x	x	<0.001	x	x	x	x
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x	x	<0.001	x	x	x	x
Chrysene ¹	218-01-9	mg/L	-	x	x	x	<0.00005	x	x	x	x
Diallate ¹	2303-16-4	mg/L	-	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
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	x	x	x	<0.00005	x	x	x	x
Dibenzofuran ¹	132-64-9	mg/L	-	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
Diethylphthalate ¹	84-66-2	mg/L	-	x	x	x	<0.001	x	x	x	x
Dimethylphthalate ¹	131-11-3	mg/L	-	x	x	x	<0.001	x	x	x	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	x	x	x	<0.001	x	x	x	x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	x	x	x	<0.001	x	x	x	x
Diphenylamine ¹	122-39-4	mg/L	-	x	x	x	<0.001	x	x	x	x
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x	x	<0.001	x	x	x	x
Fluoranthene ¹	206-44-0	mg/L	-	x	x	x	<0.001	x	x	x	x
Fluorene ¹	86-73-7	mg/L	-	x	x	x	<0.001	x	x	x	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x	x	<0.0001	x	x	x	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x	x	<0.001	x	x	x	x
Hexachloroethane ¹	67-72-1	mg/L	-	x	x	x	<0.001	x	x	x	x
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x	x	<0.001	x	x	x	x
HMX ¹	2691-41-0	mg/L	-	x	x	x	<0.0001	x	x	x	x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	x	x	<0.00005	x	x	x	x
Isophorone ¹	78-59-1	mg/L	-	x	x	x	<0.001	x	x	x	x
Isosafrole ¹	120-58-1	mg/L	-	x	x	x	<0.001	x	x	x	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x	x	<0.0001	x	x	x	x
Methapyrilene ¹	91-80-5	mg/L	-	x	x	x	<0.001	x	x	x	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	<0.001	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	x	x	x	<0.001	x	x	x	x
Nitrobenzene ¹	98-95-3	mg/L	-	x	x	x	<0.001	x	x	x	x
n-Nitrosodiemethylamine ¹	55-18-5	mg/L	-	x	x	x	<0.001	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x	x	<0.001	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x	x	<0.001	x	x	x	x
n-Nitrosodinpropylamine ¹	621-64-7	mg/L	-	x	x	x	<0.001	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x	x	<0.001	x	x	x	x
n-Nitrosomethylalkylamine ¹	10595-95-6	mg/L	-	x	x	x	<0.001	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x	x	<0.001	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x	x	<0.001	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	x	x	x	<0.001	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	<0.001	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	<0.001	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	<0.001	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	<0.001	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	x	x	x	<0.001	x	x	x	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x	x	<0.001	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	<0.001	x	x	x	x
Pyrene ¹	129-00-0	mg/L	-	x	x	x	<0.001	x	x	x	x
Pyridine	110-86-1	mg/L	-	x	x	x	<0.001	x	x	x	x
RDX ¹	121-82-4	mg/L	-	x	x	x	<0.0001	x	x	x	x
Safrole ¹	94-59-7	mg/L	-	x	x	x	<0.001	x	x	x	x
sym-Trinitrobenzene ¹ (1,3,5-TNB)	99-35-4	mg/L	-	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	<0.001	x	x	x	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x	x	<0.001	x	x	x	x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x	x	<0.001	x	x	x	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x	x	<0.001	x	x	x	x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x</td							

APPENDIX B

Las Cruces Foothills Landfill monitoring well MW-5

Las Cruces Foothills Landfill monitoring well MW-5

constituent	CAS Number	unit	GWPS	12/14/05	12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	RESU 6/19/12
date											
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x	x	<0.001	x	x	x	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x	x	<0.001	x	x	x	x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x	x	<0.001	x	x	x	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	<0.001	x	x	x	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	108-39-4/106-44	mg/L	-	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	<0.001	x	x	x	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x	x	<0.001	x	x	x	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x	x	<0.001	x	x	x	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	<0.001	x	x	x	x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x	x	<0.001	x	x	x	x
Radium 226 and 228	NA	pCi/L	5				0.3				
Ra-226, total	NA	pCi/L	-	x	x	x	0.14	x	x	x	x
Ra-228 ¹ , total	NA	pCi/L	-	x	x	x	0.16	x	x	x	x
Chlorinated Pesticides											
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x	x	<0.00004	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x	x	<0.00004	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x	x	<0.00004	x	x	x	x
aldrin ¹	309-00-2	mg/L	-	x	x	x	<0.00004	x	x	x	x
alpha-BHC ¹	319-84-6	mg/L	-	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
beta-BHC ¹	319-85-7	mg/L	-	x	x	x	<0.00004	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	<0.0002	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	x	x	<0.00004	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	x	x	<0.00004	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	x	<0.00004	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	x	<0.00004	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	x	<0.00004	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	x	<0.00004	x	x	x	x
Endrin ketone	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	x	x	x	<0.00004	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	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
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	x	<0.00004	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	x	x	<0.00004	x	x	x	x
Isodrin ¹	465-73-6	mg/L	-	x	x	x	<0.001	x	x	x	x
Kepone ¹	143-50-0	mg/L	-	x	x	x	<0.001	x	x	x	x
Methoxychlor ¹	72-43-5	mg/L	-	x	x	x	<0.00004	x	x	x	x
Toxaphene ¹	8001-35-2	mg/L	-	x	x	x	<0.001	x	x	x	x
Polychlorinated Biphenyls (PCBs)¹			0.001								
Arochlor-1016	12674-11-2	mg/L	-	x	x	x	<0.00025	x	x	x	x
Arochlor-1221	11104-28-2	mg/L	-	x	x	x	<0.00025	x	x	x	x
Arochlor-1232	11141-16-5	mg/L	-	x	x	x	<0.00025	x	x	x	x
Arochlor-1242	53469-21-9	mg/L	-	x	x	x	<0.00025	x	x	x	x
Arochlor-1248	12672-29-6	mg/L	-	x	x	x	<0.00025	x	x	x	x
Arochlor-1254	11097-69-1	mg/L	-	x	x	x	<0.00025	x	x	x	x
Arochlor-1260	11096-82-5	mg/L	-	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	<0.000934	x	x	x	x
2,4,5-T ¹	93-76-5	mg/L	-	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	<0.00005	x	x	x	x
Dimethoate ¹	60-51-5	mg/L	-	x	x	x	<0.001	x	x	x	x
Dinoseb ¹	88-85-7	mg/L	-	x	x	x	<0.00005	x	x	x	x
Disulfoton ¹	298-04-4	mg/L	-	x	x	x	<0.001	x	x	x	x
Famphur ¹	52-58-7	mg/L	-	x	x	x	<0.001	x	x	x	x
Methyl parathion ¹	298-00-0	mg/L	-	x	x	x	<0.001	x	x	x	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	x	<0.001	x	x	x	x
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	x	<0.001	x	x	x	x
Phorate ¹	298-02-2	mg/L	-	x	x	x	<0.001	x	x	x	x
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	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	<0.001	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	LTS FOR MW-5				average	deviation
date				12/20/12	6/26/13	6/16/16	12/27/16	6/27/17	7/15/03 to 12/2/04
								7/15/03 to 12/2/04	7/15/03 to 12/2/04
Field Parameters									
water level elevation		ft amsl	-	3841.11	3841.15	3837.85	3836.72	3837.45	3,830.75
conductivity		µS/cm	-	440	440	418	449	459	425.86
pH		pH units	6-9	7.23	6.92	7.37	7.45	7.56	7.82
temperature		deg F	-	91.4	111.0	115.0	115.0	111.0	109.85
Major Ions									
calcium	7440-70-2	mg/L	-	36	34	37	39	39	34.16
chloride	16887-00-6	mg/L	250	26	26	24	25	26	33.57
fluoride ¹	16984-48-8	mg/L	1.6	x	x	x	x	0.58	0.04
magnesium	7439-95-4	mg/L	-	4.8	4.4	4.7	5.1	4.9	4.49
potassium	7440-09-7	mg/L	-	2.5	2.5	2.4	2.6	2.4	2.39
sodium	82115-62-6	mg/L	-	48	45	47	48	47	44.04
sulfate	18785-72-3	mg/L	600	45	46	47	50	44	43.43
alkalinity	NA	mg/L	-	110	110	108.9	106.6	107.7	120.86
bicarbonate alkalinity	71-52-3	mg/L	-	110	110	108.9	106.6	107.7	120.71
carbonate alkalinity	3812-32-6	mg/L	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
total dissolved solids	NA	mg/L	1,000	274	289	265	301	289	275.71
Nitrogen Species									
ammonia as N	1331-21-6	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5
Kjeldahl nitrogen	7727-37-9	mg/L	-	x	x	x	x	x	x
nitrate as N	14797-55-8	mg/L	10	3.4	3.6	4.7	4.9	5.1	2.16
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	2.08
total nitrogen	-	mg/L	-	x	x	x	x	x	x
Metals									
aluminum	7429-90-5	mg/L	5.0	x	x	x	x	x	<3.0
antimony ¹	7440-36-0	mg/L	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.003
arsenic ¹	7440-38-2	mg/L	0.01	0.0019	0.0027	0.0022	0.0025	0.0021	0.0026
barium ¹	7440-39-3	mg/L	1.0	0.057	0.059	0.060	0.064	0.062	0.06
beryllium ¹	7440-41-7	mg/L	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
boron	7440-42-8	mg/L	0.75	x	x	x	x	x	<0.5
cadmium ¹	7440-43-9	mg/L	0.005	<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	<0.006	<0.006	0.0037
cobalt ¹	7440-48-4	mg/L	0.05	<0.006	<0.006	<0.006	<0.006	<0.006	0.0001
copper ¹	7440-50-8	mg/L	1.0	<0.006	<0.006	<0.006	<0.006	<0.006	0.0009
iron	7439-89-6	mg/L	1.0	<0.02	<0.02	<0.02	0.023	<0.02	0.45
lead ¹	7439-92-1	mg/L	0.05	<0.005	<0.001	<0.0005	<0.0005	<0.0005	0.0004
manganese	7439-96-5	mg/L	0.2	<0.002	<0.002	<0.002	<0.002	<0.002	<0.03
mercury ¹	7439-97-6	mg/L	0.002	x	x	x	x	x	<0.001
molybdenum	7439-98-7	mg/L	1.0	x	x	x	x	x	<0.75
nickel ¹	7440-02-0	mg/L	0.2	<0.01	<0.01	<0.01	<0.01	<0.01	0.0017
selenium ¹	7782-49-2	mg/L	0.05	<0.001	0.0022	<0.005	<0.005	0.0013	0.0021
silver ¹	7440-22-4	mg/L	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01
thallium ¹	7440-28-0	mg/L	0.002	<0.001	<0.001	<0.0005	<0.0005	<0.0005	0.0001
tin ¹	7440-31-5	mg/L	-	x	x	x	x	x	<0.4
uranium ¹	7440-61-1	mg/L	0.03	x	x	x	x	x	<2.5
vanadium ¹	7440-62-2	mg/L	-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.08
zinc	7440-66-6	mg/L	10.0	<0.01	<0.01	<0.01	<0.01	<0.01	0.02
total organic carbon	-	mg/L	-	<1.0	3.1	<1.0	<1.0	<1.0	0.76
phosphate	14265-44-2	mg/L	-	x	x	x	x	x	x
sulfide ¹	18496-25-8	mg/L	-	x	x	x	x	x	<4.0
cyanide ¹	57-12-5	mg/L	0.2	x	x	x	x	x	<0.1
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	<0.0025	<0.003
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	<0.001	<0.005
1,1,1-Trichloroethane ¹	71-56-6	mg/L	0.06	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
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
1,1,2-Trichloroethane ¹	79-00-5	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.001	<0.001	<0.001	<0.001	<0.001	<0.005
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
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	x	x	x	x	<0.005
1,2 Dibromo-3-chloropropane (DBCP) ¹	96-12-8	mg/L	0.0002	<0.0001	<0.0001	<0.00002	<0.00002	<0.000019	<0.0001
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	x	x	x	x	x	<0.0005
1,2,3-Trichloropropane ¹	96-18-4	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.01
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	x	x	x	x	x	<0.0005
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
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L	0.005	<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
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	x	x	x	x	x	<0.01
1,3-Dichloropropane ¹	142-28-9	mg/L	-	x	x	x	x	x	<0.01
1,4-Dichlorobenzene (p-Dichlorobenzene) ¹	106-46-7	mg/L	0.075	<0.001	<0.001	<0.001	<0.001	<0.	

APPENDIX B

Las Cruces Foothills Landfill MW-5

constituent	CAS Number	unit	GWPS	LTS FOR MW-5						baseline	standard	
				12/20/12	6/26/13	6/16/16	12/27/16	6/27/17	7/15/03 to 12/2/04	7/15/03 to 12/2/04		
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	<0.001	<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	x		
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	<0.001	<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	-	0.0018	0.0018	0.0025	0.0021	0.0022	<0.005	x		
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	<0.00001	<0.00001	<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	<0.005	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	<0.001	<0.0025	<0.0025	<0.0025	<0.001	x		
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	x	x	x	<0.005	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	<0.005	x		
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	x	x	x	x	<0.005	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	<0.005	x		
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.0034	0.0046	0.0057	0.0056	0.0061	0.0058	0.0003		
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	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	0.019	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)	79-01-6	mg/L	0.005	<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	<0.01	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	<0.005	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		

APPENDIX B

Las Cruces Foothills Landfill MW-5

constituent	CAS Number	unit	GWPS	LTS FOR MW-5						baseline	standard	
				12/20/12	6/26/13	6/16/16	12/27/16	6/27/17	7/15/03 to			
										12/2/04	12/2/04	
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		
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		
Dibenofuran 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	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	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-Nitrosodinpropylamine 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-Nitrosomethylalkylamine 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	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	<			

APPENDIX B

Las Cruces Foothills Landfill MW-5

constituent	CAS Number	unit	GWPS	LTS FOR MW-5						baseline	standard	
				12/20/12	6/26/13	6/16/16	12/27/16	6/27/17	7/15/03 to			
date										7/15/03 to	7/15/03 to	
										12/2/04	12/2/04	
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	08-39-4/106-44	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	NA	pCi/L	5									
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	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		
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	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 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									
date				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	-	3832.03	3831.47	3831.47	3831.72	3831.96	3832.09	3832.52	3832.98	3833.46	
conductivity		µS/cm	-	pumped dr	410	440	530	440	430	438	481	440	
pH		pH units	6-9	7.59	7.80	7.80	7.21	7.70	7.50	8.00	7.60	7.60	
temperature		deg F	-	pumped dr	105.4	103.1	108.0	107.8	100.9	93.38	100.0	103.5	
Major Ions													
calcium	7440-70-2	mg/L	-	46.5	44	46	50	43	47	45	47	41	
chloride	16887-00-6	mg/L	250	19.0	17	18	18	17	18	15	15	13	
fluoride ¹	16984-48-8	mg/L	1.6	0.6	0.5	0.5	0.6	0.5	0.48	x	x	x	
magnesium	7439-95-4	mg/L	-	5.48	4.9	5.3	5.2	4.6	5	5.3	5.3	4.9	
potassium	7440-09-7	mg/L	-	3.2	2.3	2.5	2.8	2.3	2.4	2.3	2.7	2.2	
sodium	82115-62-6	mg/L	-	45.6	34	37	44	37	39	39	41	38	
sulfate	18785-72-3	mg/L	600	87	94	88	88	76	85	77	68	64	
alkalinity	NA	mg/L	-	110	120	110	110	110	110	110	110	110	
bicarbonate alkalinity	71-52-3	mg/L	-	110	120	110	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	<2.0	
total dissolved solids	NA	mg/L	1,000	330	330	310	330	320	310	300	320	290	
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	-	2	<1.0	<1.0	<1.0	<1.0	<1.0	x	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	3	
nitrite	14797-65-0	mg/L	-	<0.1	3.4	3.8	3.8	3.8	3.8	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	0.09	<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	0.0005	<0.01	<0.01	<0.01	<0.01	<0.01	x	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	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	0.0004	<0.01	<0.01	<0.01	<0.01	<0.01	x	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	x	
copper ¹	7440-50-8	mg/L	1.0	0.0005	<0.06	<0.06	<0.06	<0.06	<0.06	x	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	<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	0.032	<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	<0.0002	<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	0.00162	<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	<0.002	<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	0.024	<0.05	<0.05	<0.05	<0.05	<0.05	x	x	x	
total organic carbon	-	mg/L	-	<0.5	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<0.5	2.6	
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	0.030	<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								

APPENDIX B

Las Cruces Foothills Landfill monitoring well MW-6

Las Cruces Foothills Landfill monitoring well MW-6

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-6									
date				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	
Bis(chloromethyl) ether ¹	542-88-1	mg/L	-	x	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	<0.002
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	<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	<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	<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	<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	<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	<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	<0.05	x	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	<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	<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	<0.02
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	0.0052	0.0068	<0.005	0.0079	0.0074	0.0068	x	0.005	<0.005	<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	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	<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	<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	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	x
Isopropylbenzene ¹	98-82-8	mg/L	-	<0.0005	x	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	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	<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	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	<0.001
n-Butylbenzene ¹	104-51-8	mg/L	-	<0.0005	x	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	x
Propylbenzene ¹	103-65-1	mg/L	-	<0.0005	x	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	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	<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	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	<0.0005	x	x	x	x	x	x	x	x	x
Tetrachloroethylene (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	0.0072	
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	<0.010	x	x	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	<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	<0.005
trans-1,2-Dichloroethylene 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	<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	<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	<0.1	<0.1
Trichloroethylene (TCE)	79-01-6	mg/L	0.005	0.0009	0.0011	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.0013
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.001	<0.01	<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	<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	<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	<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	<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	<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	<0.005
Semi Volatile Organic Compounds													

APPENDIX B

Las Cruces Foothills Landfill monitoring well MW-6

Las Cruces Foothills Landfill monitoring well MW-6

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-6									
date				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	
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	x	x
Benzoic acid ¹	65-85-0	mg/L	-	<0.050	x	x	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	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	x	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	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	x	x	x	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	<0.005	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x	x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Carbazole	86-74-8	mg/L	-	<0.005	x	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	x	x	x	x
Chrysene ¹	218-01-9	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Diallate ¹	2303-16-4	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Dibenz (a,j) acridine	224-42-0	mg/L	-	<0.010	x	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	x	x	x	x
Dibenzofuran ¹	132-64-9	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	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	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Dimethylphthalate ¹	131-11-3	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Diphenylamine ¹	122-39-4	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	<0.020	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x	x
Fluoranthene ¹	206-44-0	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Fluorene ¹	86-73-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x	x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Hexachloroethane ¹	67-72-1	mg/L	-	<0.005	<0.05	<0.05	<0.05	<0.05	<0.05	x	x	x	x
Hexachloropropene ¹	1888-71-7	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
HMX ¹	2691-41-0	mg/L	-	x	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	x	x	x	x
Isophorone ¹	78-59-1	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Iosafrole ¹	120-58-1	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x	x
Methapyrilene ¹	91-80-5	mg/L	-	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x	x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Naphthalene ¹	91-20-3	mg/L	0.03	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Nitrobenzene ¹	98-95-3	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	<0.010	<0.002	<0.002	<0.002	<0.002	<0.002	x	x	x	x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
n-Nitrosodinpropylamine ¹	621-64-7	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	x	x	x	x
n-Nitrosomethylmethyldamine ¹	10595-95-6	mg/L	-	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	<0.020	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	<0.02	<0.04	<0.04	<0.04	<0.04	<0.04	x	x	x	x
o-Toluidine ¹	95-53-4	mg/L	-	<0.01	<0.002	<0.002	<0.002	<0.002	<0.002	x	x	x	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	<0.020	<0.02	<0.02	<0.02	<0.02	<0.02	x	x	x	x
Phenacetin ¹	62-44-2	mg/L	-	<0.020	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Phenanthrene ¹	85-01-8	mg/L	-	<0.005	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x	x
p-Phenylenediamine ¹	106-50-3	mg/L	-	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Pronamide ¹	23950-58-5	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	x	x
Pyrene ¹	129												

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	12/12/06	
date													
alpha-Chlordane ¹	5103-71-9	mg/L	-	<0.0001	alpha +	x	x	x					
beta-BHC ¹	319-85-7	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	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	x	x	x	
Dieldrin ¹	60-57-1	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x	
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x	
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x	
Endosulfan sulfate ¹	1031-07-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x	
Endrin aldehyde ¹	7421-93-4	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	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	x	x	x	
gamma-BHC ¹	319-86-8	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x	x	
gamma-Chlordane ¹	5103-74-2	mg/L	-	<0.0001	see above	x	x	x					
Heptachlor epoxide ¹	1024-57-3	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	x	
Heptachlor ¹	76-44-8	mg/L	-	<0.0001	<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	x	x	x	
Kepone ¹	143-50-0	mg/L	-	<0.025	<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	x	x	x	
Toxaphene ¹	8001-35-2	mg/L	-	<0.005	<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	x	x	x	
Arochlor-1221	11104-28-2	mg/L	-	<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	x	x	x	
Arochlor-1242	53469-21-9	mg/L	-	<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	x	x	x	
Arochlor-1254	11097-69-1	mg/L	-	<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	x	x	x	
Other Pesticides and Herbicides ¹													
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	x	x	x	x	x	<1.30	x	x	
2,4,5-T ¹	93-76-5	mg/L	-	<0.001	<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	x	x	x	
Dimethoate ¹	60-51-5	mg/L	-	<0.0005	<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	x	x	x	
Disulfoton ¹	298-04-4	mg/L	-	<0.0005	<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	x	x	x	
Methyl parathion ¹	298-00-0	mg/L	-	<0.0005	<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	x	x	x	
Parathion (Ethyl) ¹	56-38-2	mg/L	-	<0.0005	<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	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	x	x	x	
o,o-Diethyl o-pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	<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-6

Las Cruces Foothills Landfill monitoring well MW-6

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-6									
date				1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/20/12	6/26/13	6/16/16	
Field Parameters													
water level elevation		ft amsl	-	3835.92	3838.67	3847.07	3844.37	3844.53	3845.07	3842.63	3838.22	3837.12	
conductivity		µS/cm	-	420	390	532	420	403	380	400	400	385	
pH		pH units	6-9	7.41	7.69	7.28	7.68	7.33	7.29	6.99	7.56	7.15	
temperature		deg F	-	103.1	105.1	102.6	105.8	102.6	81.3	81.5	107.4	115.0	
Major Ions													
calcium	7440-70-2	mg/L	-	40	36	40	40	40	37	39	38	40	
chloride	16887-00-6	mg/L	250	13	11	13	11	12	11	11	11	12	
fluoride ¹	16984-48-8	mg/L	1.6	x	0.56	x	0.55	x	x	x	x	x	
magnesium	7439-95-4	mg/L	-	4.7	4.2	4.7	4.7	4.6	4.5	4.5	4.3	4.6	
potassium	7440-09-7	mg/L	-	2.3	2	2.3	2.3	2.4	2.2	2.4	2.3	2.3	
sodium	82115-62-6	mg/L	-	36	34	37	37	37	36	37	35	37	
sulfate	18785-72-3	mg/L	600	62	52	57	48	45	50	49	49	45	
alkalinity	NA	mg/L	-	110	120	110	120	120	120	120	120	120.8	
bicarbonate alkalinity	71-52-3	mg/L	-	110	120	110	120	120	120	120	120	120.8	
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	
total dissolved solids	NA	mg/L	1,000	280	280	276	277	269	261	257	266	256	
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	
Kjeldahl nitrogen	7727-37-9	mg/L	-	x	<1.0	x	x	x	x	x	x	x	
nitrate as N	14797-55-8	mg/L	10	3	2.5	2.7	2.7	2.9	2.9	3.2	3.3	3.5	
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	x	x	x	x	
total nitrogen	-	mg/L	-	x	2.5	x	x	x	x	x	x	x	
Metals													
aluminum	7429-90-5	mg/L	5.0	x	<0.02	x	<0.020	x	x	x	x	x	
antimony ¹	7440-36-0	mg/L	0.006	x	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
arsenic ¹	7440-38-2	mg/L	0.01	x	0.007	0.003	0.00164	0.0016	0.0016	0.0015	0.002	0.0016	
barium ¹	7440-39-3	mg/L	1.0	x	0.055	0.055	0.057	0.058	0.057	0.055	0.061	0.057	
beryllium ¹	7440-41-7	mg/L	0.004	x	<0.003	x	<0.001	0.00038	<0.002	<0.002	<0.002	<0.002	
boron	7440-42-8	mg/L	0.75	x	<0.04	x	<0.04	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	
chromium ¹	7440-47-3	mg/L	0.05	x	<0.006	<0.0060	<0.006	<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	0.00079	<0.006	<0.006	<0.006	<0.006	
copper ¹	7440-50-8	mg/L	1.0	x	0.0084	<0.0060	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	
iron	7439-89-6	mg/L	1.0	<0.1	<0.05	<0.05	<0.05	0.012	<0.02	<0.02	<0.02	<0.02	
lead ¹	7439-92-1	mg/L	0.05	x	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001	<0.0005	
manganese	7439-96-5	mg/L	0.2	<0.03	0.0059	0.0057	0.0057	0.0064	0.0059	0.0054	0.0081	0.0035	
mercury ¹	7439-97-6	mg/L	0.002	x	<0.0002	x	<0.0002	x	x	x	x	x	
molybdenum	7439-98-7	mg/L	1.0	x	<0.008	x	<0.008	x	x	x	x	x	
nickel ¹	7440-02-0	mg/L	0.2	x	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
selenium ¹	7782-49-2	mg/L	0.05	x	0.001	<0.001	<0.001	0.0011	0.0011	<0.001	0.0018	<0.001	
silver ¹	7440-22-4	mg/L	0.05	x	<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	x	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0005	
tin ¹	7440-31-5	mg/L	-	x	<0.1	x	x	x	x	x	x	x	
uranium ¹	7440-61-1	mg/L	0.03	x	0.002	x	x	x	x	x	x	x	
vanadium ¹	7440-62-2	mg/L	-	x	<0.05	<0.05	<0.05	0.0087	<0.05	<0.05	<0.05	<0.05	
zinc	7440-66-6	mg/L	10.0	x	<0.02	<0.02	<0.02	0.012	<0.01	<0.01	<0.01	<0.01	
total organic carbon	-	mg/L	-	<1.0	3.5	1.2	1.0	1.1	<1.0	<1.0	1.6	<1.0	
phosphate	14265-44-2	mg/L	-	x	<0.50	x	<0.50	x	x	x	x	x	
sulfide ¹	18496-25-8	mg/L	-	x	3	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	
perchlorate ¹	14797-73-0	mg/L	-	x	<0.001	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	
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	<0.001	<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	
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	
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	
1,1-Dichloroethane ¹	75-34-3	mg/L	0.025	<0.005	<0.005	<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	
1,1-Dichloropropene ¹	563-58-6	mg/L	-	x	<0.005	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	<0.00002	
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	<0.001	<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	
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	
1,2-Dichloroethane (EDC) ¹	107-06-2	mg/L											

APPENDIX B

Las Cruces Foothills Landfill monitoring well MW-6

Las Cruces Foothills Landfill monitoring well MW-6

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-6									
date				1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/20/12	6/26/13	6/16/16	
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	0.001	<0.002	<0.002	<0.002	<0.002	<0.002
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
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
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
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
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
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
Chloroprene (2-Chloro-1,3-butadiene) ¹	126-99-8	mg/L	-	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	<0.001	<0.001	0.00045	<0.001	<0.001	<0.001	<0.001	<0.001
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
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
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	<0.005	0.0045	0.0043	0.0037	0.0031	0.0030	0.0036	0.0042	0.0041	
Ethyl methacrylate ¹	97-63-2	mg/L	-	x	<0.01	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
Ethylene Dibromide (1,2-Dibromoethane) (EDB) ¹	106-93-4	mg/L	0.00005	<0.000025	<0.00001	<0.00001	<0.00001	<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
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	<0.05	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
Methacrylonitrile ¹	126-98-7	mg/L	-	x	<0.005	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
Methyl methacrylate ¹	80-62-6	mg/L	-	x	<0.03	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	<0.001	<0.001	<0.001	<0.001	<0.001	<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	-	x	<0.06	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	<0.01	<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
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	x	x	x	x	x	x
Tetrachloroethylene (PCE) ¹	127-18-4	mg/L	0.005	0.0076	0.0078	0.0085	0.0073	0.0068	0.0072	0.0061	0.0070	0.0060	
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	<0.005	<0.001	<0.001	0.00016	<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	0.0003	<0.002	<0.002	<0.002	<0.002	<0.002
trans-1,2-Dichloroethylene ¹	156-60-5	mg/L	0.1	<0.002	<0.002	<0.001	<0.001	<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
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
Trichloroethylene (TCE)	79-01-6	mg/L	0.005	<0.001	<0.001	<0.001	<0.001	0.00076	<0.001	<0.001	<0.001	<0.001	<0.001
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.01	<0.01	<0.001	<0.001	0.00074	<0.001	<0.001	<0.001	<0.001	<0.001
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
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
Trihalomethanes (THM)													
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.005	<0.005	<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	<0.015	<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	<0.005	<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	<0.005	<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	-	x	<0.001	x	x	x	x	x	x	x	x
1,2-Diphenylhydrazine	122-66-7	mg/L											

APPENDIX B

Las Cruces Foothills Landfill monitoring well MW-6

Las Cruces Foothills Landfill monitoring well MW-6

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-6									
				1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/20/12	6/26/13	6/16/16	
date													
Benzo (k) fluoranthene ¹	50-32-8	mg/L	0.0002	x	<0.00005	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
Benzyl alcohol ¹	100-51-6	mg/L	-	x	<0.001	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
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	<0.001	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	<0.001	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
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	<0.001	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
Chlorobenzilate ¹	510-15-6	mg/L	-	x	<0.001	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
Diallate ¹	2303-16-4	mg/L	-	x	<0.001	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
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	x	<0.00005	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
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	-	x	<0.001	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
Di-n-butylphthalate ¹	84-74-2	mg/L	-	x	<0.001	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
Diphenylamine ¹	122-39-4	mg/L	-	x	<0.001	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
Fluoranthene ¹	206-44-0	mg/L	-	x	<0.001	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
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	<0.0001	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
Hexachloroethane ¹	67-72-1	mg/L	-	x	<0.001	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
HMX ¹	2691-41-0	mg/L	-	x	<0.0001	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
Isophorone ¹	78-59-1	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x
Iosafrole ¹	120-58-1	mg/L	-	x	<0.001	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
Methapyrilene ¹	91-80-5	mg/L	-	x	<0.001	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
Naphthalene ¹	91-20-3	mg/L	0.03	x	<0.001	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
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	<0.001	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
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	<0.001	x	x	x	x	x	x	x	x
n-Nitrosodinpropylamine ¹	621-64-7	mg/L	-	x	<0.001	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
n-Nitrosomethylmethyldamine ¹	10595-95-6	mg/L	-	x	<0.001	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
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	<0.001	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
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	<0.001	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
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	<0.001	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
Phenanthrene ¹	85-01-8	mg/L	-	x	<0.001	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
Pronamide ¹	23950-58-5	mg/L	-	x	<0.001	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
Pyridine	110-86-1	mg/L	-	x	<0.001	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
Safrole ¹	94-59-7	mg/L	-	x	<0.001	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
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
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	<0.001	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
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	<0.001	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
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	<0.001	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
2-Chlorophenol ¹	95-57-8	mg/L	-	x	<0								

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									
				1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/20/12	6/26/13	6/16/16	
date													
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	-	x	<0.00004	x	x	x	x	x	x	x	x
Chlordane ¹	57-74-9	mg/L	0.002	x	<0.0002	x	x	x	x	x	x	x	x
delta-BHC ¹	319-86-8	mg/L	-	x	<0.00004	x	x	x	x	x	x	x	x
Dieldrin ¹	60-57-1	mg/L	-	x	<0.00004	x	x	x	x	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	<0.00004	x	x	x	x	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	<0.00004	x	x	x	x	x	x	x	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	<0.00004	x	x	x	x	x	x	x	x
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	<0.00004	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	-	x	<0.00004	x	x	x	x	x	x	x	x
gamma-BHC ¹	319-86-8	mg/L	-	x	<0.00004	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	-	x	<0.00004	x	x	x	x	x	x	x	x
Heptachlor ¹	76-44-8	mg/L	-	x	<0.00004	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
Kepone ¹	143-50-0	mg/L	-	x	<0.001	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
Toxaphene ¹	8001-35-2	mg/L	-	x	<0.001	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
Arochlor-1221	11104-28-2	mg/L	-	x	<0.00025	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
Arochlor-1242	53469-21-9	mg/L	-	x	<0.00025	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
Arochlor-1254	11097-69-1	mg/L	-	x	<0.00025	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
Other Pesticides and Herbicides ¹													
2,3,7,8-TCDD	1746-01-6	ng/L	0.03	x	<0.000717	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
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	<0.00005	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
Dinoseb ¹	88-85-7	mg/L	-	x	<0.00005	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
Famphur ¹	52-58-7	mg/L	-	x	<0.001	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
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	<0.001	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
Phorate ¹	298-02-2	mg/L	-	x	<0.001	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
o,o-Diethyl o-pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	<0.001	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 Environ

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**

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

APPENDIX B**Las Cruces Foothills Landfill MW-6**

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

APPENDIX B**Las Cruces Foothills Landfill MW-6**

Las Cruces Foothills Landfill monitoring well MW-6	CAS Number	unit	GWPS	baseline	standard
constituent				average	deviation
date				12/27/16	6/27/17
				7/15/03 to 12/2/04	7/15/03 to 12/2/04
Benzo (k) fluoranthene ¹	50-32-8	mg/L	0.0002	x	x <0.0001 x
Benzoic acid ¹	65-85-0	mg/L	-	x	x <0.05 x
Benzyl alcohol ¹	100-51-6	mg/L	-	x	x <0.01 x
bis (2-Chloroethoxy) methane ¹	111-91-1	mg/L	-	x	x <0.01 x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	x	x <0.01 x
bis (2-Chloroisopropyl) ether (bis (2-chloro-1-methylethyl) ether) ¹	108-60-1	mg/L	-	x	x <0.01 x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	x	x <0.02 x
Butylbenzylphthalate ¹	85-68-7	mg/L	-	x	x <0.01 x
Carbazole	86-74-8	mg/L	-	x	x <0.005 x
Chlorobenzilate ¹	510-15-6	mg/L	-	x	x <0.01 x
Chrysene ¹	218-01-9	mg/L	-	x	x <0.01 x
Diallate ¹	2303-16-4	mg/L	-	x	x <0.01 x
Dibenz (a,j) acridine	224-42-0	mg/L	-	x	x <0.01 x
Dibenzo (a,h) anthracene ¹	226-36-8	mg/L	-	x	x <0.01 x
Dibenzofuran ¹	132-64-9	mg/L	-	x	x <0.01 x
Diethylene Glycol Monobutyl Ether	112-34-5	mg/L	-	x	x x x x
Diethylphthalate ¹	84-66-2	mg/L	-	x	x <0.01 x
Dimethylphthalate ¹	131-11-3	mg/L	-	x	x <0.01 x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	x	x <0.01 x
Di-n-octylphthalate ¹	117-84-0	mg/L	-	x	x <0.01 x
Diphenylamine ¹	122-39-4	mg/L	-	x	x <0.01 x
Ethyl methanesulfonate ¹	62-50-0	mg/L	-	x	x <0.02 x
Fluoranthene ¹	206-44-0	mg/L	-	x	x <0.01 x
Fluorene ¹	86-73-7	mg/L	-	x	x <0.01 x
Hexachlorobenzene ¹	118-74-1	mg/L	-	x	x <0.001 x
Hexachlorocyclopentadiene ¹	77-47-4	mg/L	-	x	x <0.01 x
Hexachloroethane ¹	67-72-1	mg/L	-	x	x <0.05 x
Hexachloropropene ¹	1888-71-7	mg/L	-	x	x <0.01 x
HMX ¹	2691-41-0	mg/L	-	x	x x x
Indeno (1,2,3-cd) pyrene ¹	193-39-5	mg/L	-	x	x <0.01 x
Isophorone ¹	78-59-1	mg/L	-	x	x <0.01 x
Isosafrole ¹	120-58-1	mg/L	-	x	x <0.01 x
m-Dinitrobenzene (1,3-DNB)	99-65-0	mg/L	-	x	x <0.02 x
Methapyriline ¹	91-80-5	mg/L	-	x	x <0.02 x
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x <0.01 x
Naphthalene ¹	91-20-3	mg/L	0.03	x	x <0.01 x
Nitrobenzene ¹	98-95-3	mg/L	-	x	x <0.01 x
n-Nitrosodiethylamine ¹	55-18-5	mg/L	-	x	x <0.02 x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	x <0.002 x
n-Nitrosodi-n-butylamine ¹	924-16-3	mg/L	-	x	x <0.01 x
n-Nitrosodinpropylamine ¹	621-64-7	mg/L	-	x	x <0.01 x
n-Nitrosodiphenylamine ¹	86-30-6	mg/L	-	x	x <0.005 x
n-Nitrosomethylamine ¹	10595-95-6	mg/L	-	x	x <0.01 x
n-Nitrosopiperidine ¹	100-75-4	mg/L	-	x	x <0.02 x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	x <0.04 x
o-Toluidine ¹	95-53-4	mg/L	-	x	x <0.002 x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x <0.01 x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x <0.01 x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x <0.02 x
Phenacetin ¹	62-44-2	mg/L	-	x	x <0.01 x
Phenanthrene ¹	85-01-8	mg/L	-	x	x <0.001 x
p-Phenylenediamine ¹	106-50-3	mg/L	-	x	x <0.01 x
Pronamide ¹	23950-58-5	mg/L	-	x	x <0.01 x
Pyrene ¹	129-00-0	mg/L	-	x	x <0.01 x
Pyridine	110-86-1	mg/L	-	x	x <0.01 x
RDX ¹	121-82-4	mg/L	-	x	x x x x
Safrole ¹	94-59-7	mg/L	-	x	x <0.01 x
sym-Trinitrobenzene ¹ (1,3,5-TNB)	99-35-4	mg/L	-	x	x <0.01 x
Semi Volatile Organic Compounds - Phenolics					
2,3,4,6-Tetrachlorophenol ¹	58-90-2	mg/L	-	x	x <0.01 x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	x <0.01 x
2,4,6-Trichlorophenol ¹	88-06-2	mg/L	-	x	x <0.01 x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	x <0.01 x
2,4-Dimethylphenol ¹	105-67-9	mg/L	-	x	x <0.01 x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	x <0.05 x
2,6-Dichlorophenol ¹	87-65-0	mg/L	-	x	x <0.01 x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	x <0.01 x
2-Methylphenol (o-Cresol) ¹	95-48-7	mg/L	-	x	x <0.01 x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x <0.01 x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	88-39-4/106-44	mg/L	-	x	x <0.02 x
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol) ¹	534-52-1	mg/L	-	x	x <0.05 x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	x <0.005 x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	x	x <0.05 x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x <0.02 x
Phenol ¹ (a)	108-95-2	mg/L	0.005	x	x <0.01 x
Radium 226 and 228	NA	pCi/L	5		
Ra-226, total	NA	pCi/L	-	x	x <2.5 x
Ra-228 ¹ , total	NA	pCi/L	-	x	x <2.5 x
Chlorinated Pesticides					
4,4'-DDD (p,p'-DDD) ¹	72-54-8	mg/L	-	x	x <0.001 x
4,4'-DDE (p,p'-DDE) ¹	72-55-9	mg/L	-	x	x <0.001 x
4,4'-DDT (p,p'-DDT) ¹	50-29-3	mg/L	-	x	x <0.001 x
aldrin ¹	309-00-2	mg/L	-	x	x <0.1 x
alpha-BHC ¹	319-84-6	mg/L	-	x	x <0.0001 x

APPENDIX B

Las Cruces Foothills Landfill monitoring well MW-6							baseline	standard
constituent	CAS Number	unit	GWPS				average	deviation
date				12/27/16	6/27/17	7/15/03 to 12/2/04	7/15/03 to 12/2/04	
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	alpha +	x	
beta-BHC ¹	319-85-7	mg/L	-	x	x	<0.0001	x	
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	
delta-BHC ¹	319-86-8	mg/L	-	x	x	<0.0001	x	
Dieldrin ¹	60-57-1	mg/L	-	x	x	<0.001	x	
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	x	x	<0.001	x	
Endosulfan II (beta-Endosulfan) ¹	33213-65-9	mg/L	-	x	x	<0.001	x	
Endosulfan sulfate ¹	1031-07-8	mg/L	-	x	x	<0.001	x	
Endrin aldehyde ¹	7421-93-4	mg/L	-	x	x	<0.001	x	
Endrin ketone	53494-70-5	mg/L	-	x	x	<0.00002	x	
Endrin ¹	72-20-8	mg/L	-	x	x	<0.001	x	
gamma-BHC ¹	319-86-8	mg/L	-	x	x	<0.0001	x	
gamma-Chlordane ¹	5103-74-2	mg/L	-	x	x	see above	x	
Heptachlor epoxide ¹	1024-57-3	mg/L	-	x	x	<0.001	x	
Heptachlor ¹	76-44-8	mg/L	-	x	x	<0.001	x	
Isodrin ¹	465-73-6	mg/L	-	x	x	<0.02	x	
Kepone ¹	143-50-0	mg/L	-	x	x	<0.02	x	
Methoxychlor ¹	72-43-5	mg/L	-	x	x	<0.01	x	
Toxaphene ¹	8001-35-2	mg/L	-	x	x	<0.001	x	
Polychlorinated Biphenyls (PCBs)¹			0.001					
Arochlor-1016	12674-11-2	mg/L	-	x	x	<0.0005	x	
Arochlor-1221	11104-28-2	mg/L	-	x	x	<0.0005	x	
Arochlor-1232	11141-16-5	mg/L	-	x	x	<0.0005	x	
Arochlor-1242	53469-21-9	mg/L	-	x	x	<0.0005	x	
Arochlor-1248	12672-29-6	mg/L	-	x	x	<0.0005	x	
Arochlor-1254	11097-69-1	mg/L	-	x	x	<0.0005	x	
Arochlor-1260	11096-82-5	mg/L	-	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	
2,4,5-T ¹	93-76-5	mg/L	-	x	x	<0.002	x	
2,4-Dichlorophenoxyacetic acid (2,4-D) ¹	94-75-7	mg/L	-	x	x	<0.01	x	
Dimethoate ¹	60-51-5	mg/L	-	x	x	<0.02	x	
Dinoseb ¹	88-85-7	mg/L	-	x	x	<0.02	x	
Disulfoton ¹	298-04-4	mg/L	-	x	x	<0.01	x	
Famphur ¹	52-58-7	mg/L	-	x	x	<0.02	x	
Methyl parathion ¹	298-00-0	mg/L	-	x	x	<0.01	x	
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	x	x	<0.01	x	
Parathion (Ethyl) ¹	56-38-2	mg/L	-	x	x	<0.01	x	
Phorate ¹	298-02-2	mg/L	-	x	x	<0.01	x	
Silvex ¹ (2,4,5-TP)	93-72-1	mg/L	-	x	x	<0.002	x	
o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	x	x	<0.02	x	

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

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								
date				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	-	3914.57	3914.14	3914.10	3914.13	3914.16	3913.83	3912.61	3911.55	
conductivity		µS/cm	-	402	300	330	330	320	320	341	382	
pH		pH units	6-9	7.80	7.80	7.90	7.70	7.80	7.70	7.83	7.90	
temperature		deg F	-	102.0	97.3	99.7	100.9	100.0	98.1	96.3	95.5	
Major Ions												
calcium	7440-70-2	mg/L	-	35.2	34	36	37	36	39	41	45	
chloride	16887-00-6	mg/L	250	11	10	10	11	10	10	11	12	
fluoride ¹	16984-48-8	mg/L	1.6	0.7	0.8	0.8	0.8	0.7	0.74	x	x	
magnesium	7439-95-4	mg/L	-	4.64	4	4.4	4.4	4.2	4.8	5.2	5.4	
potassium	7440-09-7	mg/L	-	2.8	1.8	1.9	1.8	1.8	1.9	1.9	2.2	
sodium	82115-62-6	mg/L	-	38.4	24	26	27	25	25	26	28	
sulfate	18785-72-3	mg/L	600	40	39	40	41	39	39	40	39	
alkalinity	NA	mg/L	-	123	130	120	120	120	120	130	120	
bicarbonate alkalinity	71-52-3	mg/L	-	122	130	120	120	120	120	130	120	
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	230	250	230	240	240	210	210	250	
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	0.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.54	
nitrite	14797-65-0	mg/L	-	<0.1	<1.0	<1.0	<1.0	<1.0	<1.0	x	x	
total nitrogen	-	mg/L	-	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	
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	0.0016	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	
barium	7440-39-3	mg/L	1.0	0.0286	<0.02	0.04	0.03	0.04	0.04	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	0.007	<0.01	<0.01	<0.01	<0.01	<0.01	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	
copper	7440-50-8	mg/L	1.0	0.0012	<0.06	<0.06	<0.06	<0.06	<0.06	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	
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	0.086	<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	
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	0.00686	<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	<0.0003	<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	0.003	<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	0.088	<0.05	<0.05	<0.05	<0.05	<0.05	x	x	
total organic carbon	-	mg/L	-	4.6	<1.0	<1.0	<1.0	2.4	<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	<0.005	<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										

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								
date				7/15/03	8/27/03	9/29/03	10/27/03	11/25/03	12/29/03	12/2/04	12/14/05	
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	0.018	0.02	0.02	0.02	0.019	0.018	0.018	0.019	
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	0.0073	0.03	<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	-	<0.01	<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	
Trichlorofluoromethane ¹	75-69-4	mg/L	-	0.0032	<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	-	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	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	<0.0						

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								
date				7/15/03	8/27/03	9/29/03	10/27/03	11/25/03	12/29/03	12/2/04	12/14/05	
Methyl methanesulfonate ¹	66-27-3	mg/L	-	<0.010	<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	x	x	
Nitrobenzene ¹	98-95-3	mg/L	-	<0.005	<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	x	x	
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	<0.010	<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	x	x	
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	<0.005	<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	x	x	
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	<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	x	x	
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	<0.02	<0.04	<0.04	<0.04	<0.04	<0.04	x	x	
o-Tolidine ¹	95-53-4	mg/L	-	<0.01	<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	x	x	
Pentachlorobenzene ¹	608-93-5	mg/L	-	<0.010	<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	x	x	
Phenacetin ¹	62-44-2	mg/L	-	<0.020	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	
Phenanthere ¹	85-01-8	mg/L	-	<0.005	<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	x	x	
Pronamide ¹	23950-58-5	mg/L	-	<0.010	<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	x	x	
Pyridine	110-86-1	mg/L	-	<0.010	x	x	x	x	x	x	x	
RDX ¹	121-82-4	mg/L	-	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	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	x	x	
Semi Volatile Organic Compounds - Phenolics												
2,3,4,6-Tetrachloropheno ¹	58-90-2	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	x	x	x	
2,4,5-Trichloropheno ¹	95-95-4	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	x	x	x	
2,4,6-Trichloropheno ¹	88-06-2	mg/L	-	<0.005	<0.01	<0.01	<0.01	<0.01	x	x	x	
2,4-Dichloropheno ¹	120-83-2	mg/L	-	<0.005	<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	x	x	x	
2,4-Dinitropheno ¹	51-28-5	mg/L	-	<0.050	<0.05	<0.05	<0.05	<0.05	x	x	x	
2,6-Dichloropheno ¹	87-65-0	mg/L	-	<0.010	<0.01	<0.01	<0.01	<0.01	x	x	x	
2-Chloropheno ¹	95-57-8	mg/L	-	<0.005	<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	x	x	x	
2-Nitropheno ¹ (o-Nitropheno ¹)	88-75-5	mg/L	-	<0.005	<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	-	<0.005	<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	-	<0.050	<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	x	x	
4-Nitropheno ¹ (p-Nitropheno ¹)	100-02-7	mg/L	-	<0.050	<0.05	<0.05	<0.05	<0.05	x	x	x	
Pentachloropheno ¹	87-86-5	mg/L	-	<0.020	<0.02	<0.02	<0.02	<0.02	x	x	x	
Pheno ¹ (a)	108-95-2	mg/L	0.005	<0.005	<0.01	<0.01	<0.01	<0.01	x	x	x	
Radium 226 and 228	NA	pCi/L	5	1.0								
Ra-226, total	NA	pCi/L	-	0.4	<2.5	<2.5	<2.5	<2.5	<2.5	x	x	
Ra-228 ¹ , total	NA	pCi/L	-	0.6	<2.5	<2.5	<2.5	<2.5	<2.5	x	x	
Chlorinated Pesticides												
4,4'-DDD (p,p'-DDD) ¹	309-00-2	mg/L	-	<0.0001	<0.01	<0.01	<0.01	<0.01	<0.01	x	x	
4,4'-DDE (p,p'-DDE) ¹	319-84-6	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x	
4,4'-DDT (p,p'-DDT) ¹	319-85-7	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x	
aldrin ¹	319-86-8	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x	
alpha-BHC ¹	319-86-8	mg/L	-	<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 +	x	x					
beta-BHC ¹	5103-74-2	mg/L	-	<0.0001	see above	x	x					
Chlordane ¹	57-74-9	mg/L	0.002	x	x	x	x	x	x	x	x	
delta-BHC ¹	72-54-8	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	
Dieldrin ¹	72-55-9	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	
Endosulfan I (alpha-Endosulfan) ¹	50-29-3	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	
Endosulfan II (beta-Endosulfan) ¹	60-57-1	mg/L	-	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	x	x	
Endosulfan sulfate ¹	959-98-8	mg/L	-	<0.0001	<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								
date			12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/19/12	6/26/13	
Field Parameters												
water level elevation		ft amsl	-	3910.82	3910.66	3912.28	3911.91	3914.58	3915.19	3914.07	3913.82	3909.46
conductivity		µS/cm	-	370	400	390	532	460	448	430	430	470
pH		pH units	6-9	7.50	7.45	7.84	7.35	7.82	7.72	7.41	6.86	6.43
temperature		deg F	-	93.2	99.0	95.2	95.4	99.0	96.3	78.4	82.6	100.6
Major Ions												
calcium	7440-70-2	mg/L	-	45	49	43	51	53	55	53	53	57
chloride	16887-00-6	mg/L	250	14	16	18	20	19	20	19	19	18
fluoride ¹	16984-48-8	mg/L	1.6	x	x	0.69	x	0.65	x	x	x	x
magnesium	7439-95-4	mg/L	-	5.5	5.9	5.4	6.3	6.7	6.5	6.6	6.6	6.7
potassium	7440-09-7	mg/L	-	1.8	2.1	1.8	2.1	2.1	2.2	2.2	2.2	2.3
sodium	82115-62-6	mg/L	-	26	26	24	27	28	28	28	28	28
sulfate	18785-72-3	mg/L	600	44	48	51	62	62	64	65	65	67
alkalinity	NA	mg/L	-	120	120	120	120	120	120	120	120	130
bicarbonate alkalinity	71-52-3	mg/L	-	120	120	120	120	120	120	120	120	130
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	260	260	270	280	296	295	288	288	310
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	1	1.2	1.1	1.2	0.73	0.52	0.63	0.63	0.87
nitrite	14797-65-0	mg/L	-	x	x	x	x	x	x	x	x	x
total nitrogen	-	mg/L	-	x	x	1.1	x	x	x	x	x	x
Metals												
aluminum	7429-90-5	mg/L	5.0	x	x	<0.02	x	0.04	x	x	x	x
antimony ¹	7440-36-0	mg/L	0.006	x	x	<0.001	<0.001	<0.001	0.00024	<0.0025	<0.0025	<0.001
arsenic ¹	7440-38-2	mg/L	0.01	x	x	0.006	<0.002	<0.001	0.0007	<0.0025	<0.0025	0.0011
barium ¹	7440-39-3	mg/L	1.0	x	x	0.035	0.039	0.042	0.042	0.044	0.044	0.049
beryllium ¹	7440-41-7	mg/L	0.004	x	x	<0.003	x	<0.001	0.00035	<0.002	<0.002	<0.002
boron	7440-42-8	mg/L	0.75	x	x	<0.04	x	<0.04	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	<0.0060	<0.006	0.00036	<0.006	<0.006	<0.006
cobalt ¹	7440-48-4	mg/L	0.05	x	x	<0.006	<0.0060	<0.006	0.0009	<0.006	<0.006	<0.006
copper ¹	7440-50-8	mg/L	1.0	x	x	0.0061	0.027	0.016	<0.006	<0.006	<0.006	<0.006
iron	7439-89-6	mg/L	1.0	<0.1	<0.1	<0.05	0.29	0.091	0.018	0.087	0.087	<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	0.0032	0.0076	0.0044	0.0033	0.0039	0.0042	
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	0.02	<0.01	0.0011	<0.01	<0.01	<0.01
selenium ¹	7782-49-2	mg/L	0.05	x	x	0.002	<0.001	0.00106	0.0016	<0.0025	<0.0025	0.0028
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	<0.0025	<0.0025	<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	0.003	x	x	x	x	x	x
vanadium ¹	7440-62-2	mg/L	-	x	x	<0.05	<0.050	<0.05	0.0044	<0.05	<0.05	<0.05
zinc	7440-66-6	mg/L	10.0	x	x	<0.02	<0.020	<0.02	0.0068	<0.01	<0.01	<0.01
total organic carbon	-	mg/L	-	<0.5	<1.0	<1.0	<1.0	<1.0	0.38	<1.0	<1.0	<1.0
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	&								

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								
date				12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/19/12	6/26/13
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	0.00057	<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	0.015	0.015	0.016	0.018	0.018	0.018	0.019	0.019	0.015
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	0.00034	<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	0.00029	<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	0.0031	0.0028	0.0028	0.0028	0.0024	0.0029	0.0030	0.0030	0.0028
Trichlorofluoromethane ¹	75-69-4	mg/L	-	<0.01	<0.01	0.0028	0.0028	0.0027	0.0032	0.0031	0.0031	0.0024
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	0.00058	<0.0004	<0.0004	0.00041
Trihalomethanes (THM)												
Bromodichloromethane ¹	75-27-4	mg/L	-	<0.005	<0.005	<0.005	<0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Bromoform ¹	75-25-2	mg/L	-	<0.015	<0.015	<0.015	<0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Chloroform ¹	67-66-3	mg/L	0.1	<0.005	<0.005	<0.005	<0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.005	<0.005	<0.005	<0.001	<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	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</			

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								
				12/12/06	1/18/08	12/23/08	12/29/09	12/29/10	12/28/11	6/19/12	12/19/12	6/26/13
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-Nitrosomethylbenzylamine 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	108-39-4/106-44	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
Pheno 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			2.02						
Ra-226, total	NA	pCi/L	-	x	x	0.12	x	x	x	x	x	x
Ra-228 ¹ , total	NA	pCi/L	-	x	x	1.9	x	x	x	x	x	x
Chlorinated Pesticides												
4,4'-DDD (p,p'-DDD) ¹	309-00-2	mg/L	-	x	x	<0.0004	x	x	x	x	x	x
4,4'-DDE (p,p'-DDE) ¹	319-84-6	mg/L	-	x	x	<0.0004	x	x	x	x	x	x
4,4'-DDT (p,p'-DDT) ¹	319-85-7	mg/L	-	x	x	<0.0004	x	x	x	x	x	x
aldrin ¹	319-86-8	mg/L	-	x	x	<0.0004	x	x	x	x	x	x
alpha-BHC ¹	319-86-8	mg/L	-	x	x	<0.0004	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	5103-74-2	mg/L	-	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
delta-BHC ¹	72-54-8	mg/L	-	x	x	<0.0004	x	x	x	x	x	x
Dieldrin ¹	72-55-9	mg/L	-	x	x	<0.0004	x	x	x	x	x	x
Endosulfan I (alpha-Endosulfan) ¹	50-29-3	mg/L	-	x	x	<0.0004	x	x	x	x	x	x
Endosulfan II (beta-Endosulfan) ¹	60-57-1	mg/L	-	x	x	<0.0004	x	x	x	x	x	x
Endosulfan sulfate ¹	959-98-8	mg/L	-	x	x	<0.0004	x	x	x	x	x	x
Endrin aldehyde ¹	33213-65-9	mg/L	-	x	x	<0.0004	x	x	x	x	x	x
Endrin ketone	1031-07-8	mg/L	-	x	x	<0.0004	x	x	x	x	x	x
Endrin ¹	72-20-8	mg/L	-	x	x	<0.0004	x	x	x	x	x	x
gamma-BHC ¹	7421-93-4	mg/L	-	x	x	<0.0004	x	x	x	x	x	x
gamma-Chlordane ¹	53494-70-5	mg/L	-	x	x	x	x	x	x	x	x	x
Heptachlor epoxide ¹	76-44-8	mg/L	-	x	x	<0.0004	x	x	x	x	x	x
Heptachlor ¹	1024-57-3	mg/L	-	x	x	<0.0004	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	<0.0004	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	<0.00117	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
Diethyl 2-methylbutyl phosphorothioate (Thidiazoxin) ¹	207-97-0	"	"			<0.001						

o,o-Diethyl o-2pyrazinyl phosphorothioate (Thionazin)¹ 297-97-2 mg/L -

* baseline ave

¹ hazardous

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

(**) See section entitled 'Polychlorinated Biphenyls (PCBs)' for break-out of
(#) Scanned for and not detected - breaks down almost immediately in water

APPENDIX B

Las Cruces Foothills Landfill MW-7

APPENDIX B

Las Cruces Foothills Landfill MW-7

Las Cruces Foothills Landfill monitoring well MW-7											baseline	standard	
constituent	CAS Number	unit	GWPS	RESULTS FOR MW-7							average	deviation	
date				12/19/13	6/26/14	12/11/14	6/18/15	12/17/15	6/16/16	12/28/16	6/27/17	7/15/03 to 12/2/04	7/15/03 to 12/2/04
Isobutyl alcohol ¹	78-83-1	mg/L	-	x	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	<0.0005	x
Methacrylonitrile ¹	126-98-7	mg/L	-	x	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	<0.01	<0.04	x
Methyl methacrylate ¹	80-62-6	mg/L	-	x	x	x	x	x	x	x	x	<0.03	x
Methylene Chloride ¹	75-09-2	mg/L	0.005	<0.001	<0.001	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.001	x
n-Butylbenzene ¹	104-51-8	mg/L	-	x	x	x	x	x	x	x	x	<0.0005	x
Propionitrile ¹	107-12-0	mg/L	-	x	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	<0.0005	x
sec-Butylbenzene ¹	113-98-8	mg/L	-	x	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	<0.001	<0.01	x
tert-Butyl methyl ether (MTBE) (a) ¹	1634-04-4	mg/L	0.1	x	x	x	x	x	x	x	x	<0.005	x
tert-Butylbenzene ¹	98-06-6	mg/L	-	x	x	x	x	x	x	x	x	<0.0005	x
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	0.015	0.014	0.017	0.016	0.012	0.016	0.017	0.018	0.019	0.001
Tetrahydrofuran (THF) ¹	109-99-9	mg/L	-	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	0.019	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	<0.002	<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	<0.001	<0.001	<0.002
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	<0.01	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	<0.01	<0.1	x
Trichloroethene (TCE)	79-01-6	mg/L	0.005	0.0026	0.0027	0.0030	0.0029	0.0023	0.0036	0.0032	0.0037	0.0028	0.0003
Trichlorofluoromethane ¹	75-69-4	mg/L	-	0.0022	0.0021	0.0033	0.0025	0.0019	0.0038	0.0034	0.0042	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	<0.01	<0.05	x
Vinyl chloride ¹	75-01-4	mg/L	0.001	<0.0004	<0.0005	<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	-	<0.0010	<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	<0.0010	<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	<0.0010	<0.005	x
Dibromochloromethane ¹	124-48-1	mg/L	-	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<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	x	<0.01	x
1,2-Diphenylhydrazine	122-66-7	mg/L	-	x	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	x	<0.01	x
1-Chloronaphthalene	NA	mg/L	-	x	x	x	x	x	x	x	x	<0.005	x
1-Methylnaphthalene	86-52-2	mg/L	-	x	x	<0.002	x	x	x	x	x	<0.01	x
1-Naphthylamine ¹	134-32-7	mg/L	-	x	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	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	x	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	x	<0.005	x
2-Acetylaminofluorene ¹	53-96-3	mg/L	-	x	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	x	<0.01	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	x	x	<0.002	x	x	x	x	x	<0.01	x
2-Naphthylamine ¹	91-59-8	mg/L	-	x	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	x	<0.01	x
2-Picoline	109-06-8	mg/L	-	x	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	x	<0.01	x
3,3'-Dimethylbenzidine	119-93-7	mg/L	-	x	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	x	<0.01	x
3-Nitroaniline (m-Nitroaniline) ¹	99-09-2	mg/L	-	x	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	x	<0.02	x
4-Bromophenylphenyl ether	101-55-3	mg/L	-	x	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	x	<0.02	x
4-Chlorophenylphenyl ether ¹	7005-72-3	mg/L	-	x	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	x	<0.02	x
5-Nitro-o-toluidine ¹	99-55-8	mg/L	-	x	x	x	x	x	x	x	x	<0.01	x
7,12-Dimethylbenz (a)													

APPENDIX B

Las Cruces Foothills Landfill MW-7

Las Cruces Foothills Landfill monitoring well MW-7											baseline	standard	
constituent	CAS Number	unit	GWPS	RESULTS FOR MW-7							average	deviation	
date				12/19/13	6/26/14	12/11/14	6/18/15	12/17/15	6/16/16	12/28/16	6/27/17	7/15/03 to 12/2/04	7/15/03 to 12/2/04
Methyl methanesulfonate ¹	66-27-3	mg/L	-	x	x	x	x	x	x	x	x	<0.01	x
Naphthalene ¹	91-20-3	mg/L	0.03	x	x	<0.002	x	x	x	x	x	<0.01	x
Nitrobenzene ¹	98-95-3	mg/L	-	x	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	x	<0.02	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	x	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	x	<0.01	x
n-Nitrosodipropylamine ¹	621-64-7	mg/L	-	x	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	x	<0.005	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	x	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	x	<0.02	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	x	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	x	<0.002	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	x	x	x	x	x	x	x	x	<0.01	x
Pentachlorobenzene ¹	608-93-5	mg/L	-	x	x	x	x	x	x	x	x	<0.01	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	x	x	x	x	x	x	x	x	<0.02	x
Phenacetin ¹	62-44-2	mg/L	-	x	x	x	x	x	x	x	x	<0.01	x
Phenanthere ¹	85-01-8	mg/L	-	x	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	x	<0.01	x
Pronamide ¹	23950-58-5	mg/L	-	x	x	x	x	x	x	x	x	<0.01	x
Pyrene ¹	129-00-0	mg/L	-	x	x	x	x	x	x	x	x	<0.01	x
Pyridine	110-86-1	mg/L	-	x	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	x
Safrole ¹	94-59-7	mg/L	-	x	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	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	x	<0.01	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	x	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	x	<0.01	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	x	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	x	<0.01	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	x	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	x	<0.01	x
2-Chlorophenol ¹	95-57-8	mg/L	-	x	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	x	<0.01	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	x	x	x	x	x	x	x	x	<0.01	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	8-39-4/106-44-	mg/L	-	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	<0.05	x
p-Chloro-m-cresol (4-Chloro-3-methylphenol) ¹	59-50-7	mg/L	-	x	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	x	<0.05	x
Pentachlorophenol ¹	87-86-5	mg/L	-	x	x	x	x	x	x	x	x	<0.02	x
Pheno ¹ (a)	108-95-2	mg/L	0.005	x	x	x	x	x	x	x	x	<0.01	x
Radium 226 and 228	NA	pCi/L	5			2.47							
Ra-226, total	NA	pCi/L	-	x	x	0.411	x	x	x	x	x	<2.5	x
Ra-228 ¹ , total	NA	pCi/L	-	x	x	2.06	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	x	<0.01	x
4,4'-DDE (p,p'-DDE) ¹	319-84-6	mg/L	-	x	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	x	<0.0001	x
aldrin ¹	319-86-8	mg/L	-	x	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	x	<0.0001	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	x	x	x	x	x	x	x	x	alpha +	x
beta-BHC ¹	5103-74-2	mg/L	-	x	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	x
delta-BHC ¹	72-54-8	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x
Dieldrin ¹	72-55-9	mg/L	-	x	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	x	<0.001	x
Endosulfan II (beta-Endosulfan) ¹	60-57-1	mg/L	-	x	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	x	<0.001	x
Endrin aldehyde ¹	33213-65-9	mg/L	-	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	<0.001	x
Endrin ¹	72-20-8	mg/L	-	x	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	x	<0.001	x
gamma-Chlordane ¹	53494-70-5	mg/L	-	x	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	x	<0.001	x
Heptachlor ¹	1024-57-3	mg/L	-	x	x	x	x	x	x	x	x	<0.001	x
Isodrin ¹ </td													

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 average	standard deviation	
date				12/29/10	5/18/11	8/23/11	11/28/11	12/29/11	12/20/12	6/26/13	12/29/10 to 12/29/11	12/29/11	12/29/11	
Field Parameters														
water level elevation		ft amsl	-	3925.93	3925.68	3925.15	3924.71	3925.33	3923.05	3924.67	3,925.36	0.47		
conductivity		µS/cm	-	380	510	325	339	317	310	310	374	80		
pH		pH units	6-9	7.75	7.69	7.39	7.25	7.51	6.67	6.39	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	28	2		
chloride	16887-00-6	mg/L	250	14	8.7	8.1	8.4	7.7	7.5	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	0.64	0.02		
magnesium	7439-95-4	mg/L	-	2.6	2.4	1.9	1.9	2.0	1.8	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	2.5	0.2		
sodium	82115-62-6	mg/L	-	41	40	37	38	40	38	40	39	2		
sulfate	18785-72-3	mg/L	600	41	32	33	35	32	32	33	35	4		
alkalinity	NA	mg/L	-	120	120	110	110	110	110	110	114	5		
bicarbonate alkalinity	71-52-3	mg/L	-	120	120	110	110	110	110	110	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	x		
total dissolved solids	NA	mg/L	1,000	249	227	216	237	234	212	226	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	x		
Kjeldahl nitrogen	7727-37-9	mg/L	-	<1.0	<1.0	<1.0	<1.0	<1.0	x	x	<1.0	x		
nitrate as N	14797-55-8	mg/L	10	0.42	x	x	x	x	0.92	0.86	x	x		
nitrite	14797-65-0	mg/L	-	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	<1.0	x		
Metals														
aluminum	7429-90-5	mg/L	5.0	0.026	1.3	0.038	0.026	0.067	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	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	0.0001		
barium ¹	7440-39-3	mg/L	1.0	0.055	0.042	0.030	0.027	0.029	0.025	0.026	0.04	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	<0.001	x		
boron	7440-42-8	mg/L	0.75	<0.04	<0.04	<0.04	<0.04	<0.04	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	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	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	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	x		
iron	7439-89-6	mg/L	1.0	<0.05	0.94	<0.05	<0.05	<0.05	<0.02	0.078	0.94	x		
lead ¹	7439-92-1	mg/L	0.05	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<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	0.057	0.079		
mercury ¹	7439-97-6	mg/L	0.002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	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	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	x		
selenium ¹	7782-49-2	mg/L	0.05	<0.001	<0.001	<0.001	<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	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	x		
tin ¹	7440-31-5	mg/L	-	<0.01	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	<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	x		
zinc	7440-66-6	mg/L	10.0	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	x	
total organic carbon	-	mg/L	-	2.4	3.9	1.2	1.2	1.2	2.1	2.6	2.0	1.2		
phosphate	14265-44-2	mg/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	x	x	<0.5	x		
sulfide ¹	18496-25-8	mg/L	-	<0.1	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	<0.02	x		
perchlorate ¹	14797-73-0	mg/L	-	0.000376	0.000388	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	<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	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	<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	x	
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	-	<0.001	<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	<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	<0.001	x		
1,3-Dichloropropane ¹	142-28-9	mg/L	-	<0.001	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	<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	

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 average	standard deviation	
date				12/29/10	5/18/11	8/23/11	11/28/11	12/29/11	12/20/12	6/26/13	12/29/10 to 12/29/11	12/29/11	12/29/11	
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	
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	(#)	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	<0.001	<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	<0.00001	<0.00001	<0.00001	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	<0.001	<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	
Tetrachloroethene (PCE) ¹	127-18-4	mg/L	0.005	<0.0005	0.00062	0.0011	0.0011	0.0013	0.0016	0.0019	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)	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	<0.002	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	<0.0002	<0.0002	<0.0002	x	x	<0.0002	x	
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x	<0.0001	x	
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	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	<0.002	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	

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 average	standard deviation
date				12/29/10	5/18/11	8/23/11	11/28/11	12/29/11	12/20/12	6/26/13	12/29/10 to 12/29/11	12/29/11	12/29/11
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
alpha,alpha-Dimethylphenethylamine	122-09-8	mg/L	-	<0.01	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	<0.01	x
Anthracene ¹	120-12-7	mg/L	-	<0.01	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	<0.01	x
Benzo (a) anthracene ¹	56-55-3	mg/L	-	<0.0001	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	<0.0001	x
Benzo (b) fluoranthene ¹	205-99-2	mg/L	-	<0.0001	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	<0.01	x
Benzo (k) fluoranthene ¹	207-08-9	mg/L	-	<0.0001	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
Benzyl alcohol ¹	100-51-6	mg/L	-	<0.01	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	<0.01	x
bis (2-Chloroethyl) ether ¹	111-44-4	mg/L	-	<0.01	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	<0.01	x
bis (2-Ethylhexyl) phthalate	117-81-7	mg/L	-	<0.005	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	<0.01	x
Carbazole	86-74-8	mg/L	-	<0.01	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	<0.01	x
Chrysene ¹	218-01-9	mg/L	-	<0.0001	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	<0.01	x
Dibenz (a,j) 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	-	<0.0001	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	<0.01	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	-	<0.01	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	<0.01	x
Di-n-butylphthalate ¹	84-74-2	mg/L	-	<0.01	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	<0.01	x
Diphenylamine ¹	122-39-4	mg/L	-	<0.01	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	<0.01	x
Fluoranthene ¹	206-44-0	mg/L	-	<0.01	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	<0.01	x
Hexachlorobenzene ¹	118-74-1	mg/L	-	<0.001	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	<0.01	x
Hexachloroethane ¹	67-72-1	mg/L	-	<0.01	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	<0.01	x
HMX ¹	2691-41-0	mg/L	-	0.00209	<0.0001	<0.0001	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	<0.0001	x
Isophorone ¹	78-59-1	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	x
Iosafrole ¹	120-58-1	mg/L	-	<0.01	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	<0.0001	x
Methapyrilene ¹	91-80-5	mg/L	-	<0.01	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	<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	<0.01	x
Nitrobenzene ¹	98-95-3	mg/L	-	<0.01	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	<0.01	x
n-Nitrosodimethylamine ¹	62-75-9	mg/L	-	<0.01	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	<0.01	x
n-Nitrosodinpropylamine ¹	621-64-7	mg/L	-	<0.01	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	<0.002	x
n-Nitrosomethylethylamine ¹	10595-95-6	mg/L	-	<0.002	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	<0.01	x
n-Nitrosopyrrolidine ¹	930-55-2	mg/L	-	<0.01	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	<0.002	x
p-(Dimethylamino) azobenzene ¹	60-11-7	mg/L	-	<0.01	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	<0.01	x
Pentachloronitrobenzene ¹	82-68-8	mg/L	-	<0.01	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	<0.01	x
Phenanthrene ¹	85-01-8	mg/L	-	<0.01	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	<0.01	x
Pronamide ¹	23950-58-5	mg/L	-	<0.01	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	<0.01	x
Pyridine	110-86-1	mg/L	-	<0.01	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	<0.0001	x
Safrole ¹	94-59-7	mg/L	-	<0.01	x	x	x	x	x	x	x	<0.01	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 average	standard deviation
date				12/29/10	5/18/11	8/23/11	11/28/11	12/29/11	12/20/12	6/26/13	12/29/10 to 12/29/11	12/29/11
sym-Trinitrobenzene ¹ (1,3,5-TNB)	99-35-4	mg/L	-	<0.0001	<0.0001	<0.0001	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	<0.01	x
2,4,5-Trichlorophenol ¹	95-95-4	mg/L	-	<0.01	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	<0.01	x
2,4-Dichlorophenol ¹	120-83-2	mg/L	-	<0.01	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	<0.01	x
2,4-Dinitrophenol ¹	51-28-5	mg/L	-	<0.01	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	<0.01	x
2-Chlorophenol ¹	95-57-8	mg/L	-	<0.01	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	<0.01	x
2-Nitrophenol (o-Nitrophenol) ¹	88-75-5	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
3-Methylphenol/4-Methylphenol (m&p-Cresol) ¹	08-39-4/106-44-1	mg/L	-	<0.01	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	<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	<0.005	x
4-Nitrophenol (p-Nitrophenol) ¹	100-02-7	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Pentachlorophenol ¹	87-86-5	mg/L	-	<0.01	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	<0.01	x
Radium 226 and 228	NA	pCi/L	5	0.752	1.29	2.41	0.507	0.199	x	x	1.03	0.87
Ra-226, total	NA	pCi/L	-	0.000	0.060	2.29	0.293	0.093	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	0.49	
Chlorinated Pesticides												
4,4'-DDD (p,p'-DDD) ¹	309-00-2	mg/L	-	<0.01	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	<0.0001	x
4,4'-DDT (p,p'-DDT) ¹	319-85-7	mg/L	-	<0.0001	x	x	x	x	x	x	<0.0001	x
aldrin ¹	319-86-8	mg/L	-	<0.0001	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	<0.0001	x
alpha-Chlordane ¹	5103-71-9	mg/L	-	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	<0.0001	x
Chlordane ¹	57-74-9	mg/L	0.002	<0.005	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	<0.0001	x
Dieldrin ¹	72-55-9	mg/L	-	<0.001	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	<0.001	x
Endosulfan II (beta-Endosulfan) ¹	60-57-1	mg/L	-	<0.001	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	<0.001	x
Endrin aldehyde ¹	33213-65-9	mg/L	-	<0.001	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
Endrin ¹	72-20-8	mg/L	-	<0.001	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	<0.0001	x
gamma-Chlordane ¹	53494-70-5	mg/L	-	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	<0.001	x
Heptachlor ¹	1024-57-3	mg/L	-	<0.001	x	x	x	x	x	x	<0.001	x
Isodrin ¹	465-73-6	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Kepone ¹	143-50-0	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Methoxychlor ¹	72-43-5	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Toxaphene ¹	8001-35-2	mg/L	-	<0.001	x	x	x	x	x	x	<0.001	x
Polychlorinated Biphenyls (PCBs)¹												
Arochlor-1016	12674-11-2	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	<0.00025	x
Arochlor-1221	11104-28-2	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	<0.00025	x
Arochlor-1232	11141-16-5	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	<0.00025	x
Arochlor-1242	53469-21-9	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	<0.00025	x
Arochlor-1248	12672-29-6	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	<0.00025	x
Arochlor-1254	11097-69-1	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	<0.00025	x
Arochlor-1260	11096-82-5	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	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	<0.000546	x
2,4,5-T ¹	93-76-5	mg/L	-	<0.0001	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	<0.0001	x
Dimethoate ¹	60-51-5	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Dinoseb ¹	88-85-7	mg/L	-	<0.0001	x	x	x	x	x	x	<0.0001	x
Disulfoton ¹	298-04-4	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x
Famphur ¹	52-58-7	mg/L	-	<0.005	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	<0.01	x
o,o,o-Triethyl phosphorothioate ¹	126-68-1	mg/L	-	<0.01	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	<0.01	x
Phorate ¹	298-02-2	mg/L	-	<0.01	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	<0.0001	x
o,o-Diethyl o-2-pyrazinyl phosphorothioate (Thionazin) ¹	297-97-2	mg/L	-	<0.01	x	x	x	x	x	x	<0.01	x

* 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

constituent	CAS Number	unit	GWPS	RESULTS FOR MW-9										baseline	standard
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	12/29/10 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	3,844.77	0.39	
conductivity		µS/cm	-	3700	4638	3150	3500	3320	3300	2800	3110	1877	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	6.57	0.40	
temperature		deg F	-	107.6	110.8	111.2	108.0	103.6	106.3	109.8	103.6	106.9	108.2	3.0	
Major Ions															
calcium	7440-70-2	mg/L	-	180	170	150	160	170	150	120	130	68	166	11	
chloride	16887-00-6	mg/L	250	770	700	680	740	810	670	490	640	250	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	1.42	0.08	
magnesium	7439-95-4	mg/L	-	37	33	30	32	35	32	24	29	14	33.4	2.7	
potassium	7440-09-7	mg/L	-	54	49	46	47	53	50	43	48	33	49.8	3.6	
sodium	82115-62-6	mg/L	-	510	490	430	450	470	450	390	430	260	470	32	
sulfate	18785-72-3	mg/L	600	240	210	200	220	210	190	170	150	130	216	15	
alkalinity	NA	mg/L	-	460	440	440	450	450	420	400	364.3	401.9	448	8	
bicarbonate alkalinity	71-52-3	mg/L	-	460	440	440	450	450	420	400	364.3	401.9	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	x	
total dissolved solids	NA	mg/L	1,000	2070	1930	1870	1950	2020	1910	1600	1780	1110	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	
Kjeldahl nitrogen	7727-37-9	mg/L	-	<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	x	x	
nitrite	14797-65-0	mg/L	-	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	<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	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	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	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	0.11	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	
boron	7440-42-8	mg/L	0.75	0.39	0.35	0.35	0.34	0.37	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	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	<0.006	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	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	<0.006	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	0.23	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	<0.005	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	0.27	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	<0.0002	x	
molybdenum	7439-98-7	mg/L	1.0	0.093	0.095	0.084	<0.008	<0.008	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	0.077	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	0.005	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	<0.005	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	<0.001	x	
tin ¹	7440-31-5	mg/L	-	<0.01	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	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	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	0.026	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	2.4	0.0	
phosphate	14265-44-2	mg/L	-	<0.5	<0.5	<0.5	<0.5	<0.5	x	x	x	x	<0.5	x	
sulfide ¹	18496-25-8	mg/L	-	<0.1	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	<0.02	x	
perchlorate ¹	14797-73-0	mg/L	-	<0.0001	<0.0001	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	
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	<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	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) 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	x	
1,1-Dichloropropene ¹	563-58-6	mg/L	-	<0.001	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	<0.00002	<0.000019	<0.0001	
1,2,3-Trichlorobenzene	87-61-6	mg/L	-	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	x	
1,2,4-Trichlorobenzene ¹	120-82-1	mg/L	-	<0.01	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	
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-Dichloropropene 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	
1,3-Dichlorobenzene (m-Dichlorobenzene) ¹	541-73-1	mg/L	-	<0.001	x	x	x	x	x	x	x	x	<0.001	x	
1,3-Dichloropropene ¹	142-28-9	mg/L	-	<0.001	x	x	x	x	x	x	x	x	<0.001	x	
1,4-Dichlorobenz															

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	
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	12/29/10 to 12/29/11	12/29/10 to 12/29/11
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	<0.01	x
4-Chlorotoluene ¹	106-43-4	mg/L	-	x	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	<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	<0.01	x
Acetonitrile ¹	75-05-8	mg/L	-	<0.1	x	x	x	x	x	x	x	x	<0.1	x
Acrolein ¹	107-02-8	mg/L	-	<0.1	x	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	<0.01	x
Allyl chloride ¹	107-05-1	mg/L	-	<0.01	x	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	<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	<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	<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	<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	<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	<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	<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	<0.001	x
Chloroprene (2-Chloro-1,3-butadiene) ¹	126-99-8	mg/L	-	<0.05	x	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	<0.001	<0.001
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	<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	<0.001	x
Dichlorodifluoromethane ¹	75-71-8	mg/L	-	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	x
Ethyl methacrylate ¹	97-63-2	mg/L	-	<0.01	x	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	<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	<0.00001
Hexachlorobutadiene ¹	87-68-3	mg/L	-	<0.01	x	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	x	<0.05	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	-	<0.005	x	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	x	<0.01	x
Methyl methacrylate ¹	80-62-6	mg/L	-	<0.03	x	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	<0.001	<0.001	<0.001	x
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	-	<0.06	x	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	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	<0.001	<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	<0.001	x	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	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
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	<0.001	<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-Dichloroethylene 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	<0.01	x
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	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	<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	<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	<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	<0.001	x
Bromform 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	-	<0.01	x	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	x	<0.01	x
1,4-Naphthoquinone ¹	130-15-4	mg/L	-	<0.01	x	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	x
1-Methylnaphthalene	86-52-2	mg/L	-	<0.01	<0.002	<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	x	<0.01	x
2,4,6-Trinitrotoluene (TNT)	118-96-7	mg/L	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	x	x	x	<0.0002	x
2,4-Dinitrotoluene (2,4-DNT)	121-14-2	mg/L	-	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	x	x	x	<0.0001	x
2,6-Dinitrotoluene ¹ (2,6-DNT)	606-20-2	mg/L	-	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	x	x	x	<0.0002	x
2-Acetylaminofluorene ¹	53-96-3	mg/L	-	<0.01	x	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	x	<0.01	x
2-Methylnaphthalene ¹	91-57-6	mg/L	-	<0.01	<0.002	<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	x	<0.01	x
2-Nitroaniline (o-Nitroaniline) ¹	88-74-4	mg/L	-	<0.01	x	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	x	<0.01	x
3,3'-Dichlorobenzidine ¹	91-94-1	mg/L	-	<0.01	x	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	x	<0.01	x
3-Methylcholanthrene ¹	56-4													

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
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	12/29/10 to 12/29/11	12/29/10 to 12/29/11
4-Aminobiphenyl ¹	92-67-1	mg/L	-	<0.01	x	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	x	<0.01	x
4-Chloroaniline (p-Chloroaniline) ¹	106-47-8	mg/L	-	<0.01	x	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	x	<0.01	x
4-Nitroaniline (p-Nitroaniline) ¹	100-01-6	mg/L	-	<0.01	x	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	x	<0.01	x
7,12-Dimethylbenz (a) anthracene ¹	57-97-6	mg/L	-	<0.01	x	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	x	<0.01	x
Acenaphthylene ¹	208-96-8	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
Acetophenone ¹	98-86-2	mg/L	-	<0.01	x	x	x	x	x	x	x	x	<0.01	x
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	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	<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
Diben (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	-	<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	-	0.00101	<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	-	<0.010	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-Nitrosomethylmethylenamine 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	-	0.000370	<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

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	12/29/10 to 12/29/11	12/29/10 to 12/29/11
date														
sym-Trinitrotoluene 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	108-39-4/106-44	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
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	10.24	8.74	6.51	5.73	3.78	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	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	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	<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	<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	<0.0001	x
aldrin ¹	309-00-2	mg/L	-	<0.01	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	<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	319-85-7	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	319-86-8	mg/L	-	<0.0001	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	<0.001	x
Endosulfan I (alpha-Endosulfan) ¹	959-98-8	mg/L	-	<0.001	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	<0.001	x
Endosulfan sulfate ¹	1031-07-8	mg/L	-	<0.001	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	<0.001	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	-	<0.001	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	<0.0001	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	-	<0.001	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	<0.001	x
Isodrin ¹	465-73-6	mg/L	-	<0.01	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	<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	-	<0.0001	x	x	x	x	x	x	x	x	<0.0001	x
Polychlorinated Biphenyls (PCBs)¹														
Arochlor-1016	12674-11-2	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	<0.00025	x
Arochlor-1221	11104-28-2	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	<0.00025	x
Arochlor-1232	11141-16-5	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	<0.00025	x
Arochlor-1242	53469-21-9	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	<0.00025	x
Arochlor-1248	12672-29-6	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	<0.00025	x
Arochlor-1254	11097-69-1	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	x	x	x	<0.00025	x
Arochlor-1260	11096-82-5	mg/L	-	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	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	<0.000394	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

* 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.

**Copy of laboratory reports for the
June 27 and 28, 2017 sampling event**



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".

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

Project: CLC Foothills Landfill Closure Monitori

Lab ID: 1706E83-001

Matrix: AQUEOUS

Client Sample ID: Foothills MW-6

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

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

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP							
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							
Total Organic Carbon	1.1		1.0	mg/L	1	7/1/2017 3:10:06 PM	R43956
EPA METHOD 300.0: ANIONS							
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							
Conductivity	400		5.0	µmhos/cm	1	7/3/2017 8:59:25 PM	R44003
SM2320B: ALKALINITY							
Bicarbonate (As CaCO ₃)	124.8		20.00	mg/L CaCO ₃	1	7/3/2017 8:59:25 PM	R44003
Carbonate (As CaCO ₃)	ND		2.000	mg/L CaCO ₃	1	7/3/2017 8:59:25 PM	R44003
Total Alkalinity (as CaCO ₃)	124.8		20.00	mg/L CaCO ₃	1	7/3/2017 8:59:25 PM	R44003
SM2540C MOD: TOTAL DISSOLVED SOLIDS							
Total Dissolved Solids	265		20.0	mg/L	1	6/29/2017 8:14:00 PM	32557
SM 4500 NH₃: AMMONIA							
Nitrogen, Ammonia	ND		1.0	mg/L	1	7/13/2017 2:48:00 PM	R44217
SM4500-H+B: PH							
pH	8.01		H	pH units	1	7/3/2017 8:59:25 PM	R44003
EPA METHOD 200.7: TOTAL METALS							
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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative 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 Page 1 of 30

P Sample pH Not In Range

RL Reporting Detection Limit

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

Project: CLC Foothills Landfill Closure Monitori

Lab ID: 1706E83-001

Client Sample ID: Foothills MW-6

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

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							
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							
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							
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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative 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 Page 2 of 30

P Sample pH Not In Range

RL Reporting Detection Limit

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

Project: CLC Foothills Landfill Closure Monitori

Lab ID: 1706E83-001

Client Sample ID: Foothills MW-6

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

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							
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							
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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative 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 Page 3 of 30

P Sample pH Not In Range

RL Reporting Detection Limit

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

Project: CLC Foothills Landfill Closure Monitori

Lab ID: 1706E83-002

Matrix: AQUEOUS

Client Sample ID: Foothills MW-7

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

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

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 504.1: EDB/DBCP							
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							
Total Organic Carbon	ND	1.0		mg/L	1	7/1/2017 2:53:15 PM	R43956
EPA METHOD 300.0: ANIONS							
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							
Conductivity	490	5.0		µmhos/cm	1	7/3/2017 9:08:12 PM	R44003
SM2320B: ALKALINITY							
Bicarbonate (As CaCO ₃)	128.3	20.00		mg/L CaCO ₃	1	7/3/2017 9:08:12 PM	R44003
Carbonate (As CaCO ₃)	ND	2.000		mg/L CaCO ₃	1	7/3/2017 9:08:12 PM	R44003
Total Alkalinity (as CaCO ₃)	128.3	20.00		mg/L CaCO ₃	1	7/3/2017 9:08:12 PM	R44003
SM2540C MOD: TOTAL DISSOLVED SOLIDS							
Total Dissolved Solids	336	20.0		mg/L	1	6/29/2017 8:14:00 PM	32557
SM 4500 NH₃: AMMONIA							
Nitrogen, Ammonia	ND	1.0		mg/L	1	7/13/2017 2:48:00 PM	R44217
SM4500-H+B: PH							
pH	7.96		H	pH units	1	7/3/2017 9:08:12 PM	R44003
EPA METHOD 200.7: TOTAL METALS							
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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative 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 Page 4 of 30

P Sample pH Not In Range

RL Reporting Detection Limit

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

Project: CLC Foothills Landfill Closure Monitori

Lab ID: 1706E83-002

Client Sample ID: Foothills MW-7

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

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							
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							
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							
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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative 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 Page 5 of 30

P Sample pH Not In Range

RL Reporting Detection Limit

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

Project: CLC Foothills Landfill Closure Monitori

Lab ID: 1706E83-002

Client Sample ID: Foothills MW-7

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

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							
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							
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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative 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 Page 6 of 30

P Sample pH Not In Range

RL Reporting Detection Limit

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

Project: CLC Foothills Landfill Closure Monitori

Lab ID: 1706E83-003

Client Sample ID: Foothills MW-2

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

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							
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							
Total Organic Carbon	ND	1.0		mg/L	1	7/1/2017 3:26:57 PM	R43956
EPA METHOD 300.0: ANIONS							
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							
Conductivity	380	5.0		µmhos/cm	1	7/3/2017 9:17:09 PM	R44003
SM2320B: ALKALINITY							
Bicarbonate (As CaCO ₃)	130.9	20.00		mg/L CaCO ₃	1	7/3/2017 9:17:09 PM	R44003
Carbonate (As CaCO ₃)	ND	2.000		mg/L CaCO ₃	1	7/3/2017 9:17:09 PM	R44003
Total Alkalinity (as CaCO ₃)	130.9	20.00		mg/L CaCO ₃	1	7/3/2017 9:17:09 PM	R44003
SM2540C MOD: TOTAL DISSOLVED SOLIDS							
Total Dissolved Solids	243	20.0		mg/L	1	6/29/2017 8:14:00 PM	32557
SM 4500 NH₃: AMMONIA							
Nitrogen, Ammonia	ND	1.0		mg/L	1	7/13/2017 2:48:00 PM	R44217
SM4500-H+B: PH							
pH	7.96		H	pH units	1	7/3/2017 9:17:09 PM	R44003
EPA METHOD 200.7: TOTAL METALS							
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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative 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 Page 7 of 30

P Sample pH Not In Range

RL Reporting Detection Limit

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

Project: CLC Foothills Landfill Closure Monitori

Lab ID: 1706E83-003

Client Sample ID: Foothills MW-2

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

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							
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							
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							
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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative 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 Page 8 of 30

P Sample pH Not In Range

RL Reporting Detection Limit

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

Project: CLC Foothills Landfill Closure Monitori

Lab ID: 1706E83-003

Matrix: AQUEOUS

Client Sample ID: Foothills MW-2

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

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

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							
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							
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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative 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 Page 9 of 30

P Sample pH Not In Range

RL Reporting Detection Limit

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

Project: CLC Foothills Landfill Closure Monitori

Lab ID: 1706E83-004

Client Sample ID: Foothills MW-1

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

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							
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							
Total Organic Carbon	ND	1.0		mg/L	1	7/1/2017 4:27:43 PM	R43956
EPA METHOD 300.0: ANIONS							
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							
Conductivity	480	5.0		µmhos/cm	1	7/3/2017 9:30:42 PM	R44003
SM2320B: ALKALINITY							
Bicarbonate (As CaCO ₃)	72.28	20.00		mg/L CaCO ₃	1	7/3/2017 9:30:42 PM	R44003
Carbonate (As CaCO ₃)	ND	2.000		mg/L CaCO ₃	1	7/3/2017 9:30:42 PM	R44003
Total Alkalinity (as CaCO ₃)	72.28	20.00		mg/L CaCO ₃	1	7/3/2017 9:30:42 PM	R44003
SM2540C MOD: TOTAL DISSOLVED SOLIDS							
Total Dissolved Solids	268	20.0		mg/L	1	6/29/2017 8:14:00 PM	32557
SM 4500 NH₃: AMMONIA							
Nitrogen, Ammonia	ND	1.0		mg/L	1	7/13/2017 2:48:00 PM	R44217
SM4500-H+B: PH							
pH	8.16		H	pH units	1	7/3/2017 9:30:42 PM	R44003
EPA METHOD 200.7: TOTAL METALS							
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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative 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

Page 10 of 30

P Sample pH Not In Range

RL Reporting Detection Limit

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

Project: CLC Foothills Landfill Closure Monitori

Lab ID: 1706E83-004

Client Sample ID: Foothills MW-1

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

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							
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							
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							
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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative 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

Page 11 of 30

P Sample pH Not In Range

RL Reporting Detection Limit

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

Project: CLC Foothills Landfill Closure Monitori

Lab ID: 1706E83-004

Matrix: AQUEOUS

Client Sample ID: Foothills MW-1

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

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

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							
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							
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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative 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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P Sample pH Not In Range

RL Reporting Detection Limit

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

Project: CLC Foothills Landfill Closure Monitori

Lab ID: 1706E83-005

Client Sample ID: Foothills MW-5

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

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							
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							
Total Organic Carbon	ND	1.0		mg/L	1	7/1/2017 2:00:58 PM	R43956
EPA METHOD 300.0: ANIONS							
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							
Conductivity	450	5.0		µmhos/cm	1	7/3/2017 9:37:57 PM	R44003
SM2320B: ALKALINITY							
Bicarbonate (As CaCO ₃)	107.7	20.00		mg/L CaCO ₃	1	7/3/2017 9:37:57 PM	R44003
Carbonate (As CaCO ₃)	ND	2.000		mg/L CaCO ₃	1	7/3/2017 9:37:57 PM	R44003
Total Alkalinity (as CaCO ₃)	107.7	20.00		mg/L CaCO ₃	1	7/3/2017 9:37:57 PM	R44003
SM2540C MOD: TOTAL DISSOLVED SOLIDS							
Total Dissolved Solids	289	20.0		mg/L	1	6/29/2017 8:14:00 PM	32557
SM 4500 NH3: AMMONIA							
Nitrogen, Ammonia	ND	1.0		mg/L	1	7/13/2017 2:48:00 PM	R44217
SM4500-H+B: PH							
pH	8.06		H	pH units	1	7/3/2017 9:37:57 PM	R44003
EPA METHOD 200.7: TOTAL METALS							
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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative 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

Page 13 of 30

P Sample pH Not In Range

RL Reporting Detection Limit

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

Project: CLC Foothills Landfill Closure Monitori

Lab ID: 1706E83-005

Client Sample ID: Foothills MW-5

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

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							
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							
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							
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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative 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

Page 14 of 30

P Sample pH Not In Range

RL Reporting Detection Limit

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

Project: CLC Foothills Landfill Closure Monitori

Lab ID: 1706E83-005

Matrix: AQUEOUS

Client Sample ID: Foothills MW-5

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

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

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							
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							
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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative 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

Page 15 of 30

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: 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	LLLCS-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	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	MSLLCS-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.
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-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.
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	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.
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 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.
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-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
Phenolics		ND	2.5							Qual

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
Phenolics		20	2.5	20.00	0	98.6	62.4	146		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#: 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
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC
Conductivity	380	5.0			LowLimit HighLimit %RPD RPDLimit Qual
					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.
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	1706e83-003d 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:	mblk	TestCode:	SM2320B: Alkalinity						
Client ID:	PBW	Batch ID:	R44003	RunNo:	44003						
Prep Date:		Analysis Date:	7/3/2017	SeqNo:	1387252						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO ₃)		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						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO ₃)		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						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO ₃)		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						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO ₃)		78.16	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#: 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.
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



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 *Sophia Campuzano*
Completed By: Ashley Gallegos 6/28/2017 9:54:15 AM *Ashley Gallegos*
Reviewed By: See 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 # of preserved bottles checked for pH: 15 (<2 or >12 unless noted)
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 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

Turn-Around Time:

Client: City of Las Cruas

Water Quality Laboratory

Mailing Address: P.O. Box 20000

Las Cruas, NM 87704

Phone #: 575-528-3630

email or Fax#: (575) 527-3630 / jurne@lascruas.org

QA/QC Package:

Standard Rush

Project Name:

City of Las Cruas
Foothills Landfill
Closure Monitoring Wells

Project #: Luis Guevara

POC: Joshua Bonhardt

Project Manager:
Luis Guevara

QA/QC Package:

Standard Level 4 (Full Validation)

Accreditation

NELAP Other

EDD (Type) Ex CEC

Sample Temperature: 1.3

Date

Time

Matrix

Sample Request ID

Container Type and #

Preservative Type

HEAL No. 83

1701E38

12-1-11

0951

Ground Water

Foothills mw-4

Various

Various

-001

12-1-11

0948

Ground Water

Foothills mw-17

Various

Various

-002

12-1-11

1030

Ground Water

Foothills mw-2

Various

Various

-003

12-1-11

1127

Ground Water

Foothills mw-1

Various

Various

-004

12-1-11

1305

Ground Water

Foothills mw-5

Various

Various

-005

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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
e								
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	n
potassium (total)	7440-09-7	6010B	-	1	-	-	mg/L	y
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	-	-	μ S/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

 μ S/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".

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

Project: CLC Foothills Landfill Closure Monitori

Lab ID: 1706F45-001

Client Sample ID: Foothills MW-9

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

Matrix: AQUEOUS

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

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 9060 TOC							
Total Organic Carbon	2.6	1.0		mg/L	1	6/30/2017 2:05:37 PM	R43945
EPA METHOD 300.0: ANIONS							
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							
Conductivity	1800	5.0		µmhos/cm	1	7/3/2017 2:07:43 PM	R44003
SM2320B: ALKALINITY							
Bicarbonate (As CaCO ₃)	401.9	20.00		mg/L CaCO ₃	1	7/3/2017 2:07:43 PM	R44003
Carbonate (As CaCO ₃)	ND	2.000		mg/L CaCO ₃	1	7/3/2017 2:07:43 PM	R44003
Total Alkalinity (as CaCO ₃)	401.9	20.00		mg/L CaCO ₃	1	7/3/2017 2:07:43 PM	R44003
SM2540C MOD: TOTAL DISSOLVED SOLIDS							
Total Dissolved Solids	1110	20.0	*	mg/L	1	7/2/2017 2:34:00 PM	32575
SM 4500 NH₃: AMMONIA							
Nitrogen, Ammonia	ND	1.0		mg/L	1	7/5/2017 3:00:00 PM	R44016
SM4500-H+B: PH							
pH	7.33		H	pH units	1	7/3/2017 2:07:43 PM	R44003
EPA METHOD 200.7: TOTAL METALS							
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.

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 Page 1 of 20

P Sample pH Not In Range

RL Reporting Detection Limit

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

Project: CLC Foothills Landfill Closure Monitori

Lab ID: 1706F45-001

Client Sample ID: Foothills MW-9

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

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							
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							
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							
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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative 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 Page 2 of 20

P Sample pH Not In Range

RL Reporting Detection Limit

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

Project: CLC Foothills Landfill Closure Monitori

Lab ID: 1706F45-001

Client Sample ID: Foothills MW-9

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

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							
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							
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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative 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 Page 3 of 20

P Sample pH Not In Range

RL Reporting Detection Limit

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

Project: CLC Foothills Landfill Closure Monitori

Lab ID: 1706F45-002

Matrix: AQUEOUS

Client Sample ID: Foothills MW-4

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

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

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 9060 TOC							
Total Organic Carbon	ND	1.0		mg/L	1	6/30/2017 3:10:06 PM	R43945
EPA METHOD 300.0: ANIONS							
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							
Conductivity	720	5.0		µmhos/cm	1	7/3/2017 2:25:49 PM	R44003
SM2320B: ALKALINITY							
Bicarbonate (As CaCO ₃)	350.8	20.00		mg/L CaCO ₃	1	7/3/2017 2:25:49 PM	R44003
Carbonate (As CaCO ₃)	ND	2.000		mg/L CaCO ₃	1	7/3/2017 2:25:49 PM	R44003
Total Alkalinity (as CaCO ₃)	350.8	20.00		mg/L CaCO ₃	1	7/3/2017 2:25:49 PM	R44003
SM2540C MOD: TOTAL DISSOLVED SOLIDS							
Total Dissolved Solids	466	20.0		mg/L	1	7/2/2017 2:34:00 PM	32575
SM 4500 NH₃: AMMONIA							
Nitrogen, Ammonia	ND	1.0		mg/L	1	7/5/2017 3:00:00 PM	R44016
SM4500-H+B: PH							
pH	7.15		H	pH units	1	7/3/2017 2:25:49 PM	R44003
EPA METHOD 200.7: TOTAL METALS							
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.

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 Page 4 of 20

P Sample pH Not In Range

RL Reporting Detection Limit

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

Project: CLC Foothills Landfill Closure Monitori

Lab ID: 1706F45-002

Client Sample ID: Foothills MW-4

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

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							
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							
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							
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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative 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 Page 5 of 20

P Sample pH Not In Range

RL Reporting Detection Limit

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

Project: CLC Foothills Landfill Closure Monitori

Lab ID: 1706F45-002

Matrix: AQUEOUS

Client Sample ID: Foothills MW-4

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

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

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8260B: VOLATILES, TABLE I							
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							
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.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative 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 Page 6 of 20

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: 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	LLLCS-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.
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 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:	Ics	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:	Ics	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.
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
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 <th data-cs="2" data-kind="parent">Batch ID: LF43892</th> <th data-kind="ghost"></th> <th data-cs="7" data-kind="parent">RunNo: 43892</th> <th data-kind="ghost"></th> <th data-kind="ghost"></th> <th data-kind="ghost"></th> <th data-kind="ghost"></th> <th data-kind="ghost"></th> <th data-kind="ghost"></th>	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.
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-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						
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						
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.
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:	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					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit
Total Alkalinity (as CaCO ₃)		ND	20.00							Qual

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					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit
Total Alkalinity (as CaCO ₃)		79.00	20.00	80.00	0	98.8	90	110		Qual

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					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit
Total Alkalinity (as CaCO ₃)		ND	20.00							Qual

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					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit
Total Alkalinity (as CaCO ₃)		78.16	20.00	80.00	0	97.7	90	110		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#: 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						
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						
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.
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: 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: *M* 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 # of preserved bottles checked for pH: *6* Adjusted? *No* (or >12 unless noted)
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 Checked by: *AS*

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 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	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	74-38-4	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	-	-	μ S/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

 μ Siemens - microSiemens per centimeter

S.U. - standard pH units

°F - degrees Fahrenheit

ft - feet