

February 1, 2019

Mr. Michael Boulay New Mexico Environment Department 2905 Rodeo Park Drive East Building 1 Santa Fe, NM 87505

#### Subject: Limited Final Remediation Plan – Revision 1 Climate Roofing, 2700 Isleta SW, Albuquerque, New Mexico Facility ID #: 27427 Release ID #: 1028 Deliverable ID #: 4002-3

Dear Mr. Boulay:

EA Engineering, Science, and Technology, Inc., PBC (EA) is pleased to provide the attached Revision 1 of the Limited Final Remediation Plan for Climate Roofing, Albuquerque, New Mexico. NMED PSTB comments have been incorporated.

Please review and issue Deliverable Acceptance Letters to allow EA to submit a reimbursement claim for the completed work.

Please feel free to contact me, if you have any questions or comments.

Respectfully,

#### EA Engineering, Science, and Technology, Inc., PBC

V. Mustafin

Vener Mustafin, P.E. Project Manager/Engineer

Jay Snyder, P.G. Senior Hydrogeologist

Cc: Ms. Katherine MacNeil, NMED PSTB

File Attachments: Report



### LIMITED FINAL REMEDIATION PLAN CLIMATE ROOFING – REVISION 1 2700 ISLETA BOULEVARD SW ALBUQUERQUE, NEW MEXICO PSTB FACILITY #27427 RELEASE ID #1028 CONTRACT #18 667 3200 0021 DELIVERABLE ID # 4002-3

Submitted to: NMED PSTB

Submitted by: EA Engineering, Science, and Technology, Inc., PBC 320 Gold Avenue SW, Suite 1300 Albuquerque, NM 87102



EA Project No. 6331801

Distribution:

1 CopyMr. Michael Boulay, NMED PSTB1 CopyMs. Katherine McNeil, NMED PSTB

February 2019

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## **1.0 INTRODUCTION**

### 1.1. Contractual

EA Engineering, Science, and Technology, Inc. PBC (EA) has prepared this Limited Final Remediation Plan (LFRP) to inject hydrogen peroxide (HP) solution to remediate recalcitrant contamination at Climate Roofing, New Mexico. This LFRP has been prepared in accordance with the Request for Bid Solicitation RID 2568 issued by New Mexico Environment Department Petroleum Storage Tank Bureau (NMED PSTB) under a One-Year Small Purchase Contract 18 667 3200 0021 and a Work Plan ID 4002 approved by the NMED PSTB on October 3, 2018. This document represents a Deliverable ID 4002-3.

### **1.2.** Site Description

The site is located in the Albuquerque South Valley at 2700 Isleta Boulevard, approximately one-half mile north of Rio Bravo Boulevard (Figure 1). The site is located within the Rio Grande flood plain. The surrounding land use is mixed commercial and residential. The facility is currently "Los Solecitos Academy Childcare Center" (Los Solecitos).

The former USTs were removed in 1990. The date of initial release and volume of product lost to the environment is unknown. The tank pit was located adjacent to the northeastern corner of the former office building and approximately 20 feet west of MW-4. Six domestic wells within 700 feet of the site are permitted by the New Mexico Office of the State Engineer.

### **1.3.** Site Geology and Hydrogeology

The site is located within the Rio Grande flood plain at approximately 1,000 feet west of the present-day river channel. Sediments underlying the site consist of primarily fine to medium clayey and silty sands extending from the surface to approximately 7-8 feet below ground surface (bgs) and tapering to 2 feet bgs or less westwards. A prominent 2-foot thick carbonate-cemented silt-rich interval is present across the site at approximately 3-5 feet bgs. A mixture of fine to coarse sands and some gravel extends from approximately 8 feet bgs to at least 17 feet bgs; sand fines upward. Shallow soils have been deposited by fluvial processes associated with the nearby Rio Grande and represent a combination of axial channel deposits and over-bank deposits. Within excavation limits, saturated zone backfill consists of pit run gravelly sand that also extends into the vadose zone to approximately 7.5 feet bgs. Compacted clean native and imported backfill overlay the pit run.

Groundwater on site is unconfined and is encountered at approximately 7-8 feet bgs (Table 1). The predominant groundwater flow direction is to the east (Figure 1). The groundwater is in communication with the nearby irrigation ditches, field drains, and the Rio Grande. The shallow aquifer is used primarily for domestic irrigation. Groundwater conditions in the Rio Grande Flood plain are generally anoxic due to the large number of septic systems and other contributing factors. Water levels have risen approximately 0.8 foot when compared to 2016.

### **1.4.** History of Corrective Actions

A summary of corrective action activities that have occurred at the Site follows:

- UST system removed in 1990.
- A sparge and vent system was operated at the Site from January 1993 to June 1996. Approximately 4,500 pounds of hydrocarbons were removed during system operation.
- In November 2005, 1,100 cubic yards of contaminated soil was removed from the Site.
- In August 2007, 400 gallons of 15% solution of sodium persulfate was injected into monitoring wells MW-11RR, MW-15 and horizontal injection screen IW-1.
- In October 2007, wells MW-2, MW-4, MW-5, MW-8, MW-9, MW-10, MW-12, MW-14, and FTW-14 were plugged and abandoned.
- Groundwater monitoring continues.

#### **1.5.** Contaminants in Groundwater

Contaminants of concern (COCs) in groundwater include benzene, toluene, ethylbenzene, and xylenes (BTEX) and naphthalenes (Table 2). In 2018, naphthalene concentrations exceeded the standard of 30 micrograms per liter ( $\mu$ g/L) in MW-11RR and MW-15. Manganese has been historically detected above the standard of 0.2 milligrams per liter (mg/L) in several wells. Total dissolved solids (TDS) exceeded the standard of 1,000 mg/L in MW-11RR in October 2018.

# 2.0 **REMEDIATION APPROACH**

### 2.1. Remediation Approach and Monitoring During Injection

Total naphthalenes remain above the standard in MW-11RR and MW-15 (Table 2). These wells were installed in the excavation backfill, which consists of silty sands in the vadose zone and gravelly sands in the saturated zone (Appendix A). The coarse-grain nature of the saturated zone backfill and low silt and clay content indicate that the mass and extent of sorbed and dissolved contamination are limited.

To oxidize the residual naphthalene in groundwater, HP solution will be injected into IW-1 drain line, which is located immediately upgradient of MW-15 and MW-11RR (Appendix B). The drain was constructed using 4-inch diameter Schedule 40 PVC 60-foot long drainpipe that was installed within pit run gravelly sand backfill at 7.5 feet bgs. The IW-1 riser was constructed using 4-inch diameter Schedule 40 PVC blank that was capped with a 4-inch J-Plug at the top. The As-Built drawings are provided in the Appendix C.

Rationale for selecting HP for injection was based on effectiveness, established practice with the NMED PSTB, benign products of reaction, ease of injecting and distributing in the subsurface. Dosage details are provided below (Appendix D):

- The volume of the injection influence was based on the dimension of the drain and assumptions about width and depth of influence. The length of the drain determined the length factor. The width was assumed 30 feet wide or 15 feet in each direction away from the drain. The depth of mixing in the water was assumed 4 feet.
- Soil naphthalene concentrations near MW-11RR were calculated based on October 2018 naphthalene concentrations in groundwater using a soil-water partitioning equation.
- TPH-gasoline concentrations were then calculated using a linear correlation between TPH-gasoline and naphthalene concentrations in confirmation soil samples collected during the 2005 removal action.
- Stoichiometric demand of HP was based on the calculated mass of TPH-gasoline in soil. A safety factor of three was applied to the calculated demand.
- HP will be mixed with water to arrive with a strength of approximately 5% to be injected into the drain. Solution strength could be adjusted based on field conditions.
- Solution could be either injected by gravity or using a pump.

Approximately 4-7 days prior to injection, the NMED PSTB, NM GWQB, and Raquel Villegas, site owner, and the Los Solecitos management will be notified of the scheduled activities. Site access for the activities has been granted by Raquel Villegas (Appendix E).

EA will request site owner to communicate the activities to the Los Solecitos manager. EA will then follow up with the manager of Los Solecitos to further explain and coordinate activities. EA will continue communicating with the Los Solecitos supervisor on daily basis during project execution to relate activities, schedule, and to minimize Los Solecitos personnel and children presence outside of the building during execution of work. In addition, the working area will be delineated with barrels, flagging, and tape and access to unauthorized personnel will not be allowed (Appendix B). EA will try to schedule most of the activities to occur during the weekend.

Product will be delivered on a truck in 55-gallon plastic drums that are pre-labeled by the manufacturer. Drums will be unloaded using a lift gate and moved around using a dolly, pallet jack, drum truck, or other means. Work will be scheduled to occur the day of product delivery or the next day, if possible. Drums will be stored onsite near well FRW-15R, approximately 100 feet away from the building and within a temporary fenced lockable enclosure, lockable storage container enclosure, or under private security custody precluding unauthorized access (Appendix B). The storage and work areas will be delineated with traffic cones, flagging, and tape to keep vehicular and pedestrian traffic away from the area. The southern gate will be closed during work; site access will be still available through the northern gate. All unauthorized personnel will be kept out of the working area.

All on-site personnel will follow the HASP provisions (Appendix F). A Health and Safety meeting will be held prior to starting work to discuss scope, approach, schedule, hazards, hospital location and route, and other aspects of conducting the work and maintaining site safety. SDS will be provided to Los Solecitos manager and HASP will be available onsite.

During HP transfer from drums into the mixing vessel and during mixing, personnel will wear air purifying respirators with VOC cartridge, protective suit, rubber over-gloves over nitrile gloves, over-boots, protective eye goggles, and face shield. HP remains in solution form and does not volatize due to low vapor pressure; therefore, exposure to in in the outdoor conditions is not a concern. Respirators will be worn during mixing as a precaution. Once mixing is complete, wearing of the respirators will not be required.

HP solution will be injected into subsurface through the wellhead of IW-1, which is located approximately 60 feet away from the nearest corner of the building. HP will be delivered at a concentration of approximately to 30% - 32% in plastic drums. It will be transferred into a mixing vessel containing water and mixed to arrive with the design solution strength of 5%. For comparison purposes, an over-the-counter HP available to public comes in 3% solution strength.

Monitoring will include the following: volume of HP, HP concentration, and volume of water in each batch will be measured and recorded on the forms provided in the Appendix G. Potable water will be obtained and contained in the mixing vessel. A transfer pump will be used to transfer HP from the drums into the mixing vessel. A pump will be used to mix HP to achieve homogeneous consistency. A discharge hose from the mixing vessel will be attached to IW-1 wellhead. Injection will start under gravity drain conditions and injection rate will be observed. Injection rate of 5 - 10 gpm would be considered sufficient for application. If the design injection rate could not be achieved under gravity draining conditions, a transfer pump could be used to inject the solution instead, and injection pressure will be monitored and recorded. During application, mixing tank volume will be monitored to calculate the injection rate.

In addition to monitoring injection parameters, water levels will be monitored using a water level meter in the adjacent monitoring wells MW-11RR, MW-15, FTW-15R and FMW-16R. The baseline water levels will be assessed prior to injection and later used to determine the climb in the wells during injection. The surrounding area will also be visually inspected for signs of surfacing. Any surfacing will be diluted and rinsed with water; HP rapidly degrades to water and oxygen. Injection rate will be reduced or injection stopped, if water levels in the observation wells begin approaching surface level. Injection will be re-started once water levels decrease.

Personal protective equipment, general garbage, and materials used during injection will placed into plastic trash bags and disposed off-site in a municipal waste receptacle. HP plastic drums will be rinsed with water and disposed of at a municipal landfill or a recycling facility.

Upon completion of the injection, EA will prepare a Letter Report documenting completed activities.

#### 2.2. Permits

On November 21, 2018, EA submitted to the NMED Groundwater Quality Bureau (GWQB) an Underground Injection Control (UIC) Discharge Permit (DP) (Appendix H). The NMED PSTB was copied on the submittal. At the time of this report submittal, EA was awaiting GWQB response letter. EA will proceed with the Public Notice for the Discharge Permit once permit instructions are received.

#### 2.3. LFRP Public Notice

Upon receipt of the LFRP, NMED PSTB will publish and post the public notice for the LFRP.

#### 2.4. Schedule

After submittal of the LFRP and 21 days after the second Public Notice, injection could be implemented. The injection schedule will be coordinated with the site owner and NMED PSTB. Injection is expected to take 1 to 2 days.

Several weeks after the injection, EA will conduct a post-injection groundwater monitoring event and report the findings to NMED PSTB in a one-page report. The event will include gauging and collecting of groundwater samples from monitoring wells MW-11RR and MW-15 and analyzing them for VOCs by EPA Method 8260 and dissolved iron and manganese by EPA Method 200.7. Samples will be submitted to the Hall Environmental Analysis Laboratory, Inc.

All work will be completed within the period of performance of the Professional Service Contract #18 667 3200 0021, which ends in May 2019.

# TABLES

		Casing Elevation	Depth to Water	Groundwater Elevation
Monitoring	_	(feet above	(feet below	(feet above
Well	Date	mean sea level)	top of well casing)	mean sea level)
MW-1	20-Apr-12		Well Destroyed	
	4-Dec-07	4933.99	7.75	4926.24
	5-Oct-07	4933.99	7.81	4926.18
	6-Jun-07	4933.99	7.74	4926.25
	15-Mar-07	4933.99	7.96	4926.03
	7-Dec-06	4933.99	8.32	4925.67
	14-Sep-06	4933.99	8.40	4925.59
	7-Mar-06	4933.99	8.70	4925.29
	29-Aug-05	4933.99	8.51	4925.48
	28-Jan-04	4933.86	8.67	4925.19
	7-Aug-03	4933.86	8.33	4925.53
	22-Nov-02	4933.86	8.45	4925.41
	29-Aug-02	4933.86	8.61	4925.25
	28-May-02	4933.86	8.35	4925.51
	29-Mar-02	4933.86	8.29	4925.57
	12-Dec-01	4933.86	8.15	4925.71
	6-Aug-01	4933.86	8.35	4925.51
	30-Apr-01	4933.86	7.96	4925.90
	12-Sep-00	4933.86	8.28	4925.58
	28-Jun-96	4933.86	8.40	4925.46
	16-Apr-96	4933.86	8.00	4925.86
	19-Dec-95	4933.86	7.99	4925.87
	20-Sep-95	4933.86	8.08	4925.78
[	20-Jun-95	4933.86	8.22	4925.64
	30-Mar-95	4933.86	8.18	4925.68
[	8-Dec-94	4933.86	7.96	4925.90
	26-Aug-94	4933.86	8.18	4925.68
[	5-May-94	4933.86	8.15	4925.71
	2-Mar-94	4933.86	8.40	4925.46
ſ	15-Nov-93	4933.86	7.91	4925.95
ſ	25-Aug-93	4933.86	8.40	4925.46
Ī	25-May-93	4933.86	7.91	4925.95
ſ	29-Apr-92	4933.86	7.78	4926.08
Ī	30-May-91	4933.86	7.88	4925.98
Ī	18-Dec-90	4933.86	8.13	4925.73
MW-2	10-Oct-07		Plugged & Abandoned	d
Ī	5-Oct-07	4935.01	9.01	4926.00
ſ	6-Jun-07	4935.01	8.90	4926.11
Ē	15-Mar-07	4935.01	9.19	4925.82
ſ	7-Dec-06	4935.01	9.59	4925.42
ľ	14-Sep-06	4935.01	9.70	4925.31
ľ	7-Mar-06	4935.01	9.55	4925.46
ľ	29-Aug-05	4935.01	9.36	4925.65

Monitoring		Casing Elevation	Depth to Water	Groundwater Elevation
Well	Date	(feet above mean sea level)	(feet below top of well casing)	(feet above mean sea level)
MW-2	28-Jan-04	4934.89	9.66	4925.23
141 44 -2	7-Aug-03	4934.89	9.26	4925.63
-	22-Nov-02	4934.89	9.44	4925.45
-	22-N0V-02 29-Aug-02	4934.89	9.55	4925.34
	23-Aug-02 28-May-02	4934.89	9.33	4925.56
-	29-Mar-02	4934.89	9.27	4925.62
-	12-Dec-01	4934.89	9.17	4925.72
-	6-Aug-01	4934.89	9.31	4925.58
-	30-Apr-01	4934.89	8.92	4925.97
-	12-Sep-00	4934.89	9.23	4925.66
-	28-Jun-96	4934.89	9.23	4925.41
-	16-Apr-96	4934.89	9.08	4925.81
-	19-Dec-95		9.08	
-		4934.89	9.12	4925.77
-	20-Sep-95	4934.89		4925.75
-	20-Jun-95	4934.89	9.26	4925.63
-	30-Mar-95	4934.89	9.26	4925.63
-	8-Dec-94	4934.89	9.10	4925.79
-	26-Aug-94	4934.89	9.26	4925.63
-	5-May-94	4934.89	9.04	4925.85
-	2-Mar-94	4934.89	9.52	4925.37
-	15-Nov-93	4934.89	9.05	4925.84
-	25-Aug-93	4934.89	9.49	4925.40
-	25-May-93	4934.89	9.04	4925.85
-	29-Apr-92	4934.89	8.86	4926.03
-	30-May-91	4934.89	8.97	4925.92
	18-Dec-90	4934.89	9.31	4925.58
MW-3	20-Apr-12		Well Destroyed	
	4-Dec-07	4934.20	8.18	4926.02
	5-Oct-07	4934.20	8.28	4925.92
	6-Jun-07	4934.20	8.19	4926.01
-	15-Mar-07	4934.20	8.47	4925.73
-	7-Dec-06	4934.20	8.87	4925.33
	14-Sep-06	4934.20	8.99	4925.21
-	12-Jun-06	4934.20	8.80	4925.40
	7-Mar-06	4934.20	8.84	4925.36
	29-Aug-05	4934.20	8.75	4925.45
	28-Jan-04	4934.07	8.94	4925.13
	7-Aug-03	4934.07	8.56	4925.51
	22-Nov-02	4934.07	8.73	4925.34
	29-Aug-02	4934.07	8.85	4925.22
	28-May-02	4934.07	8.61	4925.46
	29-Mar-02	4934.07	8.55	4925.52
	12-Dec-01	4934.07	8.43	4925.64

Monitoring		Casing Elevation (feet above	Depth to Water (feet below	Groundwater Elevation (feet above
Well	Date	mean sea level)	top of well casing)	mean sea level)
MW-3	6-Aug-01	4934.07	8.61	4925.46
-	30-Apr-01	4934.07	8.23	4925.84
	12-Sep-00	4934.07	8.54	4925.53
	28-Jun-96	4934.07	8.72	4925.35
	17-Apr-96	4934.07	8.28	4925.79
	19-Dec-95	4934.07	8.30	4925.77
	20-Sep-95	4934.07	8.38	4925.69
	20-Jun-95	4934.07	8.64	4925.43
	30-Mar-95	4934.07	8.46	4925.61
	8-Dec-94	4934.07	8.28	4925.79
	26-Aug-94	4934.07	8.48	4925.59
	5-May-94	4934.07	8.38	4925.69
	2-Mar-94	4934.07	8.70	4925.37
	15-Nov-93	4934.07	8.22	4925.85
-	25-Aug-93	4934.07	8.72	4925.35
-	25-May-93	4934.07	8.23	4925.84
-	29-Apr-92	4934.07	8.09	4925.98
-	30-May-91	4934.07	8.18	4925.89
-	18-Dec-90	4934.07	8.47	4925.60
MW-4	10-Oct-07		Plugged & Abandoned	
-	5-Oct-07	4934.13	8.04	4926.09
	6-Jun-07	4934.13	7.96	4926.17
	15-Mar-07	4934.13	8.21	4925.92
	7-Dec-06	4934.13	8.60	4925.53
	14-Sep-06	4934.13	8.72	4925.41
	12-Jun-06	4934.13	8.55	4925.58
	7-Mar-06	4934.13	8.59	4925.54
	16-Dec-05	4934.13	8.19	4925.94
	29-Aug-05	4934.57	9.01	4925.56
	28-Jan-04	4934.39	9.21	4925.18
	7-Aug-03	4934.39	8.85	4925.54
	22-Nov-02	4934.39	8.97	4925.42
	29-Aug-02	4934.39	9.15	4925.24
	28-May-02	4934.39	8.90	4925.49
	29-Mar-02	4934.39	8.80	4925.59
	12-Dec-01	4934.39	8.68	4925.71
	6-Aug-01	4934.39	8.86	4925.53
	30-Apr-01	4934.39	8.49	4925.90
	12-Sep-00	4934.39	8.80	4925.59
	28-Jun-96	4934.39	8.82	4925.57
	17-Apr-96	4934.39	8.39	4926.00

		Quine Election	Dentlete Weter	
Monitoring		Casing Elevation (feet above	Depth to Water (feet below	Groundwater Elevation (feet above
Well	Date	mean sea level)	top of well casing)	mean sea level)
MW-4	19-Dec-95	4934.39	8.42	4925.97
1 <b>v1 vv -</b> -+	20-Sep-95	4934.39	8.46	4925.93
	20-Jun-95	4934.39	8.86	4925.53
	30-Mar-95	4934.39	8.58	4925.81
	8-Dec-94	4934.39	8.38	4926.01
	26-Aug-94	4934.39	8.56	4925.83
	5-May-94	4934.39	8.54	4925.85
	2-Mar-94	4934.39	8.82	4925.57
	15-Nov-93	4934.39	8.34	4926.05
	25-Aug-93	4934.39	9.43	4924.96
	25-May-93	4934.39	8.33	4926.06
	10-Mar-93	4934.39	8.53	4925.86
	23-Feb-93	4934.39	8.64	4925.75
	8-Feb-93	4934.39	8.41	4925.98
	29-Apr-92	4934.39	8.21	4926.18
	30-May-91	4934.39	8.33	4926.06
	18-Dec-90	4934.39	8.61	4925.78
MW-5	10-Oct-07		Plugged & Abandoned	d
	5-Oct-07	4932.60	6.65	4925.95
	6-Jun-07	4932.60	6.61	4925.99
	15-Mar-07	4932.60	6.84	4925.76
	7-Dec-06	4932.60	7.25	4925.35
	14-Sep-06	4932.60	7.45	4925.15
	7-Mar-06	4932.60	7.14	4925.46
	29-Aug-05	4932.60	7.23	4925.37
	28-Jan-04	4932.49	7.45	4925.04
	7-Aug-03	4932.49	7.06	4925.43
	22-Nov-02	4932.49	7.22	4925.27
	29-Aug-02	4932.49	7.35	4925.14
	28-May-02	4932.49	7.08	4925.41
	29-Mar-02	4932.49	7.05	4925.44
	12-Dec-01	4932.49	6.89	4925.60
	6-Aug-01	4932.49	7.10	4925.39
	30-Apr-01	4932.49	6.72	4925.77
	12-Sep-00	4932.49	7.03	4925.46
	28-Jun-96	4932.49	7.18	4925.31
	17-Apr-96	4932.49	6.76	4925.73
	19-Dec-95	4932.49	6.82	4925.67
	20-Sep-95	4932.49	6.88	4925.61
	20-Jun-95	4932.49	7.02	4925.47
	30-Mar-95	4932.49	6.76	4925.73
	8-Dec-94	4932.49	6.96	4925.53

		Casing Elevation	Depth to Water	Groundwater Elevation
Monitoring		(feet above	(feet below	(feet above
Well	Date	mean sea level)	top of well casing)	mean sea level)
MW-5	26-Aug-94	4932.49	6.98	4925.51
_	5-May-94	4932.49	6.76	4925.73
	2-Mar-94	4932.49	7.20	4925.29
	15-Nov-93	4932.49	6.72	4925.77
	25-Aug-93	4932.49	7.15	4925.34
	25-May-93	4932.49	6.68	4925.81
	29-Apr-92	4932.49	6.54	4925.95
MW-6	10-Oct-07		Plugged & Abandoned	1
	28-Jun-96	99.37	8.96	90.41
	17-Apr-96	99.37	8.54	90.83
	19-Dec-95	99.37	8.56	90.81
	20-Sep-95	99.37	8.60	90.77
	20-Jun-95	99.37	8.82	90.55
	30-Mar-95	99.37	8.74	90.63
	8-Dec-94	99.37	8.54	90.83
	26-Aug-94	99.37	8.72	90.65
	5-May-94	99.37	8.56	90.81
	2-Mar-94	99.37	8.98	90.39
	15-Nov-93	99.37	8.50	90.87
	25-May-93	99.37	8.48	90.89
	10-Mar-93	99.37	8.66	90.71
	23-Feb-93	99.37	8.78	90.59
	8-Feb-93	99.37	8.74	90.63
	25-Jan-93	99.37	8.76	90.61
-	29-Apr-92	99.37	8.32	91.05
_	30-May-91	99.37	8.44	90.93
-	18-Dec-90	99.37	8.76	90.61
MW-7	10-Oct-07		Plugged & Abandoned	
-	28-Jun-96	99.15	8.78	90.37
-	17-Apr-96	99.15	8.34	90.81
-	19-Dec-95	99.15	8.36	90.79
-	20-Sep-95	99.15	8.42	90.73
	20-Jun-95	99.15	8.90	90.25
	30-Mar-95	99.15	8.50	90.65
	8-Dec-94	99.15	8.32	90.83
	26-Aug-94	99.15	8.50	90.65
	5-May-94	99.15	8.52	90.63
	2-Mar-94	99.15	8.78	90.37
	15-Nov-93	99.15	8.28	90.87
	25-Aug-93	99.15	9.33	89.82
-	25-May-93	99.15	8.28	90.87
F	10-Mar-93	99.15	8.48	90.67

		Casing Elevation	Depth to Water	Groundwater Elevation
Monitoring		(feet above	(feet below	(feet above
Well	Date	mean sea level)	top of well casing)	mean sea level)
MW-7	23-Feb-93	99.15	8.58	90.57
	8-Feb-93	99.15	8.21	90.94
	25-Jan-93	99.15	8.56	90.59
	29-Apr-92	99.15	8.63	90.52
MW-8	10-Oct-07		Plugged & Abandoned	<u> </u>
	5-Oct-07	4934.17	8.26	4925.91
	6-Jun-07	4934.17	8.13	4926.04
	15-Mar-07	4934.17	8.46	4925.71
	7-Dec-06	4934.17	8.92	4925.25
	14-Sep-06	4934.17	9.07	4925.10
	7-Mar-06	4934.17	8.76	4925.41
	29-Aug-05	4934.17	8.73	4925.44
	7-Aug-03	4934.05	8.54	4925.51
	22-Nov-02	4934.05	8.72	4925.33
	29-Aug-02	4934.05	8.83	4925.22
	28-May-02	4934.05	8.59	4925.46
	29-Mar-02	4934.05	8.56	4925.49
Γ	12-Dec-01	4934.05	8.44	4925.61
	6-Aug-01	4934.05	8.59	4925.46
Γ	30-Apr-01	4934.05	8.23	4925.82
	12-Sep-00	4934.05	8.50	4925.55
	28-Jun-96	4934.05	8.70	4925.35
	16-Apr-96	4934.05	8.32	4925.73
	19-Dec-95	4934.05	8.34	4925.71
	20-Sep-95	4934.05	8.36	4925.69
	20-Jun-95	4934.05	8.48	4925.57
	5-May-94	4934.05	8.24	4925.81
	25-Aug-93	4934.05	8.68	4925.37
	25-May-93	4934.05	8.24	4925.81
	29-Apr-92	4934.05	8.07	4925.98
Γ	30-May-91	4934.05	8.18	4925.87
Γ	18-Dec-90	4934.05	8.49	4925.56
MW-9	10-Oct-07		Plugged & Abandoned	
Γ	15-Mar-07	4934.26	8.49	4925.77
Γ	7-Dec-06	4934.26	8.91	4925.35
Γ	14-Sep-06	4934.26	8.99	4925.27
Γ	7-Mar-06	4934.26	8.83	4925.43
Γ	29-Aug-05	4934.26	8.76	4925.50
Γ	28-Jan-04	4934.15	Obstructed b	by roots @ 9.03'
F	7-Aug-03	4934.15		by roots @ 8.00'
F	22-Nov-02	4934.15		by roots @ 8.68'
F	29-Aug-02	4934.15	8.49	4925.66

		Casing Elevation	Depth to Water	Groundwater Elevation
Monitoring	<b>D</b> .	(feet above	(feet below	(feet above
Well	Date	mean sea level)	top of well casing)	mean sea level)
MW-9	28-May-02	4934.15	8.64	4925.51
_	29-Mar-02	4934.15	8.59	4925.56
Ļ	12-Dec-01	4934.15	8.47	4925.68
_	6-Aug-01	4934.15	8.58	4925.57
_	30-Apr-01	4934.15	8.26	4925.89
Ļ	12-Sep-00	4934.15	8.53	4925.62
	28-Jun-96	4934.15	8.74	4925.41
	17-Apr-96	4934.15	8.34	4925.81
	19-Dec-95	4934.15	8.35	4925.80
	20-Sep-95	4934.15	8.40	4925.75
	20-Jun-95	4934.15	8.68	4925.47
	30-Mar-95	4934.15	8.50	4925.65
	8-Dec-94	4934.15	8.34	4925.81
	26-Aug-94	4934.15	8.50	4925.65
	5-May-94	4934.15	8.38	4925.77
	2-Mar-94	4934.15	8.78	4925.37
Γ	15-Nov-93	4934.15	8.30	4925.85
Γ	25-Aug-93	4934.15	8.80	4925.35
Γ	25-May-93	4934.15	8.28	4925.87
Γ	10-Mar-93	4934.15	8.46	4925.69
Γ	23-Feb-93	4934.15	8.58	4925.57
Γ	8-Feb-93	4934.15	8.51	4925.64
MW-10	10-Oct-07		Plugged & Abandone	d
Γ	5-Oct-07	4934.42	8.35	4926.07
Γ	6-Jun-07	4934.42	8.25	4926.17
Γ	15-Mar-07	4934.42	9.51	4924.91
Γ	7-Dec-06	4934.42	8.92	4925.50
Γ	14-Sep-06	4934.42	9.01	4925.41
Γ	7-Mar-06	4934.42	8.89	4925.53
Γ	29-Aug-05	4934.39	8.96	4925.43
	7-Aug-03	4934.29	8.78	4925.51
Γ	22-Nov-02	4934.29	8.94	4925.35
F	29-Aug-02	4934.29	Obstructed	d by roots @ 8'
F	28-May-02	4934.29	8.83	4925.46
F	29-Mar-02	4934.29	8.78	4925.51
F	12-Dec-01	4934.29	8.66	4925.63
F	6-Aug-01	4934.29	6.83	4927.46
F	30-Apr-01	4934.29	8.45	4925.84
F	12-Sep-00	4934.29	8.76	4925.53
F	28-Jun-96	4934.29	8.96	4925.33
F	17-Apr-96	4934.29	8.55	4925.74
ŀ	19-Dec-95	4934.29	8.56	4925.73

		Casing Elevation	Depth to Water	Groundwater Elevation
Monitoring		(feet above	(feet below	(feet above
Well	Date	mean sea level)	top of well casing)	mean sea level)
MW-10	20-Sep-95	4934.29	8.80	4925.49
	20-Jun-95	4934.29	8.86	4925.43
	30-Mar-95	4934.29	8.70	4925.59
	8-Dec-94	4934.29	8.52	4925.77
	26-Aug-94	4934.29	8.70	4925.59
	5-May-94	4934.29	8.62	4925.67
	2-Mar-94	4934.29	8.94	4925.35
	15-Nov-93	4934.29	8.47	4925.82
	25-Aug-93	4934.29	8.98	4925.31
	25-May-93	4934.29	8.45	4925.84
	29-Apr-92	4934.29	8.31	4925.98
MW-11		Well De	estroyed	
	29-Aug-05	4933.99	8.54	4925.45
	28-Jan-04	4933.85	8.73	4925.12
	7-Aug-03	4933.85	8.35	4925.50
	22-Nov-02	4933.85	8.50	4925.35
	29-Aug-02	4933.85	8.64	4925.21
	28-May-02	4933.85	8.39	4925.46
	29-Mar-02	4933.85	8.34	4925.51
	12-Dec-01	4933.85	8.21	4925.64
	6-Aug-01	4933.85	8.39	4925.46
	30-Apr-01	4933.85	8.00	4925.85
	12-Sep-00	4933.85	8.33	4925.52
	28-Jun-96	4933.85	8.46	4925.39
	17-Apr-96	4933.85	8.08	4925.77
	19-Dec-95	4933.85	8.08	4925.77
	20-Sep-95	4933.85	8.14	4925.71
	20-Jun-95	4933.85	8.44	4925.41
	30-Mar-95	4933.85	8.23	4925.62
	8-Dec-94	4933.85	8.04	4925.81
	26-Aug-94	4933.85	8.24	4925.61
	5-May-94	4933.85	8.38	4925.47
	2-Mar-94	4933.85	8.48	4925.37
	15-Nov-93	4933.85	7.49	4926.36
	25-Aug-93	4933.85	8.49	4925.36
MW-11R	7-Mar-06	ļ	Well Destroyed	
	16-Dec-05	4933.46	7.59	4925.87
MW-11RR	12-Oct-18	4933.78	7.55	4926.23
	16-Apr-18	4933.78	6.98	4926.80
	19-Dec-17	4933.78	6.96	4926.82
	27-Jul-16	4933.78	7.74	4926.04
Г	23-Jun-14	4933.78	7.53	4926.25

		Coging Elevation	Douth to Water	Groundwater Elevation
Monitoring		Casing Elevation (feet above	Depth to Water (feet below	(feet above
Well	Date	mean sea level)	top of well casing)	mean sea level)
MW-11R	20-Apr-12	4933.78	7.16	4926.62
Γ	4-Dec-07	4933.78	7.67	4926.11
Γ	5-Oct-07	4933.78	7.75	4926.03
Γ	6-Jun-07	4933.78	7.68	4926.10
Γ	15-Mar-07	4933.78	7.94	4925.84
Γ	7-Dec-06	4933.78	8.33	4925.45
Γ	14-Sep-06	4933.78	8.49	4925.29
Γ	12-Jun-06	4933.78	8.29	4925.49
MW-12	10-Oct-07		Plugged & Abandone	d
Γ	5-Oct-07	4933.30	7.44	4925.86
Γ	6-Jun-07	4933.30	7.30	4926.00
Γ	15-Mar-07	4933.30	7.63	4925.67
Γ	7-Dec-06	4933.30	8.98	4924.32
Γ	14-Sep-06	4933.30	8.27	4925.03
Γ	7-Mar-06	4933.30	7.94	4925.36
Γ	29-Aug-05	4933.16	7.92	4925.24
Γ	28-Jan-04	4933.16	8.09	4925.07
Γ	7-Aug-03	4933.16	7.73	4925.43
Γ	22-Nov-02	4933.16	7.91	4925.25
Γ	29-Aug-02	4933.16	8.03	4925.13
Γ	28-May-02	4933.16	7.77	4925.39
Γ	29-Mar-02	4933.16	7.76	4925.40
Γ	12-Dec-01	4933.16	7.60	4925.56
Γ	6-Aug-01	4933.16	7.78	4925.38
Γ	30-Apr-01	4933.16	7.41	4925.75
Γ	12-Sep-00	4933.16	7.68	4925.48
Γ	28-Jun-96	4933.16	8.46	4924.70
Γ	17-Apr-96	4933.16	7.48	4925.68
Γ	19-Dec-95	4933.16	7.48	4925.68
Γ	20-Sep-95	4933.16	7.52	4925.64
Γ	20-Jun-95	4933.16	7.64	4925.52
Γ	30-Mar-95	4933.16	7.64	4925.52
Γ	8-Dec-94	4933.16	7.42	4925.74
Γ	26-Aug-94	4933.16	7.60	4925.56
Γ	5-May-94	4933.16	7.42	4925.74
Γ	2-Mar-94	4933.16	7.86	4925.30
Γ	15-Nov-93	4933.16	7.40	4925.76
Γ	25-Aug-93	4933.16	7.84	4925.32
Γ	25-May-93	4933.16	7.37	4925.79
F	29-Apr-92	4933.16	7.23	4925.93
MW-13		Well De	estroyed	
Γ	28-Jun-96	98.95	8.55	90.40

Monitoring		Casing Elevation (feet above	Depth to Water (feet below	Groundwater Elevation (feet above
Well	Date	mean sea level)	top of well casing)	mean sea level)
MW-13	17-Apr-96	98.95	8.12	90.83
ľ	19-Dec-95	98.95	12.78	86.17
ľ	20-Sep-95	98.95	8.18	90.77
	20-Jun-95	98.95	8.96	89.99
	30-Mar-95	98.95	8.30	90.65
	8-Dec-94	98.95	8.12	90.83
	26-Aug-94	98.95	8.30	90.65
	5-May-94	98.95	8.28	90.67
	2-Mar-94	98.95	8.56	90.39
	15-Nov-93	98.95	8.04	90.91
	25-Aug-93	98.95	8.92	90.03
	25-May-93	98.95	8.08	90.87
-	10-Mar-93	98.95	8.27	90.68
	23-Feb-93	98.95	8.36	90.59
MW-14	10-Oct-07		Plugged & Abandoned	1
	15-Mar-07	4933.80	7.86	4925.94
	7-Dec-06	4933.80	8.22	4925.58
	14-Sep-06	4933.80	8.30	4925.50
	7-Mar-06	4933.80	8.19	4925.61
	16-Dec-05	4933.80	7.84	4925.96
MW-15	12-Oct-18	4933.71	7.52	4926.19
	16-Apr-18	4933.71	6.94	4926.77
	19-Dec-17	4933.71	6.93	4926.78
	27-Jul-16	4933.71	7.72	4925.99
	23-Jun-14	4933.71	7.44	4926.27
	20-Apr-12	4933.71	7.11	4926.60
	4-Dec-07	4933.71	7.62	4926.09
	5-Oct-07	4933.71	7.69	4926.02
	6-Jun-07	4933.71	7.61	4926.10
	15-Mar-07	4933.71	7.84	4925.87
	7-Dec-06	4933.71	8.23	4925.48
	14-Sep-06	4933.71	8.37	4925.34
	12-Jun-06	4933.71	8.20	4925.51
	7-Mar-06	4933.71	8.20	4925.51
	16-Dec-05	4933.71	7.80	4925.91
FTW-13		Well De	estroyed	
	29-Aug-05	4933.55	8.07	4925.48
	28-Jan-04	4933.43	8.27	4925.16
	7-Aug-03	4933.43	7.90	4925.53
	22-Nov-02	4933.43	8.04	4925.39
	29-Aug-02	4933.43	8.18	4925.25
	28-May-02	4933.43	7.94	4925.49

		Casing Elevation	Depth to Water	Groundwater Elevation
Monitoring		(feet above	(feet below	(feet above
Well	Date	mean sea level)	top of well casing)	mean sea level)
FTW-13R	29-Mar-02	4933.43	7.88	4925.55
Γ	12-Dec-01	4933.43	7.75	4925.68
Γ	6-Aug-01	4933.43	7.94	4925.49
Γ	30-Apr-01	4933.43	7.55	4925.88
Γ	16-Apr-18	4933.74	7.27	4926.47
Γ	19-Dec-17	4933.74	7.28	4926.46
Γ	27-Jul-16	4933.74	8.04	4925.70
Γ	23-Jun-14	4933.74	7.82	4925.92
FTW-13R	20-Apr-12	4933.74	7.45	4926.29
Γ	4-Dec-07	4933.74	7.63	4926.11
Γ	5-Oct-07	4933.74	7.68	4926.06
Γ	6-Jun-07	4933.74	7.60	4926.14
Γ	15-Mar-07	4933.74	7.85	4925.89
Γ	7-Dec-06	4933.74	8.24	4925.50
Γ	14-Sep-06	4933.74	8.39	4925.35
-	12-Jun-06	4933.74	8.20	4925.54
	7-Mar-06	4933.74	8.22	4925.52
	16-Dec-05	4933.74	7.77	4925.97
FTW-14	10-Oct-07		Plugged & Abandone	d
	15-Mar-07	4933.76	7.85	4925.91
	7-Dec-06	4933.76	8.23	4925.53
	14-Sep-06	4933.76	8.35	4925.41
	12-Jun-06	4933.76	8.23	4925.53
	7-Mar-06	4933.76	8.20	4925.56
	29-Aug-05	4933.78	8.28	4925.50
	28-Jan-04	4933.65	8.50	4925.15
Γ	7-Aug-03	4933.65	8.11	4925.54
	22-Nov-02	4933.65	8.27	4925.38
	29-Aug-02	4933.65	8.39	4925.26
	28-May-02	4933.65	8.15	4925.50
	29-Mar-02	4933.65	8.09	4925.56
	12-Dec-01	4933.65	7.96	4925.69
Γ	6-Aug-01	4933.65	8.15	4925.50
Γ	30-Apr-01	4933.65	7.76	4925.89
FTW-15	7-Mar-06		Well Destroyed	
Γ	16-Dec-05	4933.50	7.75	4925.75
Γ	29-Aug-05	4933.50	8.04	4925.46
Γ	28-Jan-04	4933.35	8.26	4925.09
Γ	7-Aug-03	4933.35	7.86	4925.49
Γ	22-Nov-02	4933.35	8.02	4925.33
F	29-Aug-02	4933.35	8.15	4925.20
F	28-May-02	4933.35	7.91	4925.44

Monitoring		Casing Elevation (feet above	Depth to Water (feet below	Groundwater Elevation (feet above
Well	Date	mean sea level)	top of well casing)	mean sea level)
FTW-15	29-Mar-02	4933.35	7.85	4925.50
	12-Dec-01	4933.35	7.72	4925.63
	6-Aug-01	4933.35	7.90	4925.45
	30-Apr-01	4933.35	7.52	4925.83
FTW-15R	16-Apr-18	4933.67	7.32	4926.35
	19-Dec-17	4933.67	7.31	4926.36
	27-Jul-16	4933.67	8.10	4925.57
	23-Jun-14	4933.67	7.80	4925.87
	20-Apr-12	4933.67	7.55	4926.12
	4-Dec-07	4933.67	7.67	4926.00
	5-Oct-07	4933.67	7.72	4925.95
	6-Jun-07	4933.67	7.63	4926.04
	15-Mar-07	4933.67	7.89	4925.78
	7-Dec-06	4933.67	8.28	4925.39
[	14-Sep-06	4933.67	8.45	4925.22
	12-Jun-06	4933.67	8.23	4925.44
FTW-16	7-Mar-06		Well Destroyed	
	16-Dec-05	4933.70	7.95	4925.75
ſ	29-Aug-05	4933.70	8.26	4925.44
[	28-Jan-04	4933.58	8.46	4925.12
[	7-Aug-03	4933.58	8.09	4925.49
	22-Nov-02	4933.58	8.24	4925.34
	29-Aug-02	4933.58	8.36	4925.22
	28-May-02	4933.58	8.13	4925.45
[	29-Mar-02	4933.58	8.09	4925.49
[	12-Dec-01	4933.58	7.95	4925.63
	6-Aug-01	4933.58	8.13	4925.45
	30-Apr-01	4933.58	7.74	4925.84
FTW-16R	16-Apr-18	4933.52	6.59	4926.93
	19-Dec-17	4933.52	6.59	4926.93
	27-Jul-16	4933.52	7.37	4926.15
	23-Jun-14	4933.52	7.15	4926.37
	20-Apr-12	4933.52	7.82	4925.70
[	4-Dec-07	4933.52	7.49	4926.03
[	5-Oct-07	4933.52	7.57	4925.95
	6-Jun-07	4933.52	7.48	4926.04
	15-Mar-07	4933.52	7.73	4925.79
	7-Dec-06	4933.52	8.14	4925.38
[	14-Sep-06	4933.52	8.30	4925.22
	12-Jun-06	4933.52	8.09	4925.43

									Total
Well ID	Sample Date	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	EDB	EDC	Naphthalenes
Standards	•	10	750	750	620	100	0.1	10	30
MW-1	20-Apr-12				Well D	estroyed			
	15-Mar-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
	7-Mar-06	<1.0	<1.0	<1.0	<3.0	<1.5	<1.0	<1.0	<4.0
	29-Mar-02	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<5.0
	12-Dec-01	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<5.0
	6-Aug-01	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<5.0
	30-Apr-01	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
	12-Sep-00	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
	28-Jun-96	< 0.5	< 0.5	< 0.5	< 0.5	<2.5	NA	NA	NA
	17-Apr-96	< 0.5	< 0.5	< 0.5	< 0.5	<2.5	NA	NA	NA
	19-Dec-95	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	30-Mar-95	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	5-May-94	< 0.5	< 0.5	<0.5	< 0.5	<1.0	NA	NA	NA
	2-Mar-94	< 0.5	< 0.5	< 0.5	< 0.5	<2.5	NA	NA	NA
	15-Nov-93	< 0.5	< 0.5	< 0.5	< 0.5	<2.5	NA	NA	NA
	25-Aug-93	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	25-May-93	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	29-Apr-92	ND	ND	ND	ND	15.0	NA	NA	NA
	30-May-91	ND	0.5	ND	ND	ND	NA	NA	NA
	18-Dec-90	ND	ND	NS	0.5	ND	NA	NA	NA
MW-2	10-Oct-07				Plugged &	Abandoned			
	15-Mar-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
	7-Mar-06	<1.0	<1.0	<1.0	<3.0	<1.5	<1.0	<1.0	<4.0
	12-Sep-00	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<4.0
	19-Dec-96	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	28-Jun-96	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	30-Mar-95	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	5-May-94	< 0.5	< 0.5	<0.5	< 0.5	<1.0	NA	NA	NA
	2-Mar-94	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	15-Nov-93	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	25-Aug-93	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	25-May-93	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	29-Apr-92	ND	ND	ND	ND	20	NA	NA	NA
	30-May-91	ND	0.4	ND	ND	ND	NA	NA	NA
	18-Dec-90	0.4	0.4	ND	0.6	ND	NA	NA	NA
MW-3	20-Apr-12					estroyed			Г
	4-Dec-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
	5-Oct-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
	6-Jun-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
	15-Mar-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
	7-Dec-06	<1.0	<1.0	<1.0	<3.0	<1.5	<1.0	<1.0	<4.0
	14-Sep-06	<1.0	<1.0	<1.0	<3.0	<1.5	<1.0	<1.0	<4.0

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Well ID	Samula Data	Benzene	Taluana	Etherlih an man a	Xylenes	MTDE	EDD	EDC	Total
MW-3	Sample Date 12-Jun-06	<1.0	Toluene <1.0	Ethylbenzene <1.0	<3.0	MTBE <1.5	EDB <1.0	EDC <1.0	Naphthalenes <4.0
101 00 -5	7-Mar-06	<1.0	<1.0	<1.0	<3.0	<1.5	<1.0	<1.0	<4.0
	29-Aug-05	<1.0	<1.0	<1.0	<1.0	<1.3	<1.0	<1.0	<4.0
	29-Aug-03 28-Jan-04	<1.0	<1.0	2.6	3.6	<1.0	<1.0	<1.0	<5.0
		<0.5	<0.5	<0.5	<1.0	<1.0	NA	NA	NA
	7-Aug-03 22-Nov-02	<0.3	<1.0	4.1	3.2	<1.0	<1.0	<1.0	5.6
	22-Nov-02 29-Aug-02	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	10.0
	29-Aug-02 28-May-02	<1.0	<1.0	1.6	2.8	<1.0	<1.0	<1.0	1.6
	28-May-02 29-Mar-02	<1.0	<1.0	1.6	2.8	<1.0	<1.0	<1.0	70
	12-Dec-01	<1.0	<1.0	23	2.9	<1.0	<1.0	<1.0	53
	6-Aug-01	<1.0	<1.0	7.2	3.7	<1.0	<1.0	<1.0	12.4
	30-Apr-01	<1.0	<1.0	2.0	1.4	<1.0	<1.0	<1.0	<1.0
	12-Sep-00	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
	29-Dec-98	7.1	3.5	71	< <u>2:0</u> 74	6.5	NA	NA	NA
	3-Sep-98	1.9	<0.5	4.0	1.2	<2.5	NA	NA	NA
	17-Apr-98	<0.5	41.4	9.6	4.2	7.6	NA	NA	NA
	22-Jan-98	< 0.5	4.3	5.2	74	8.4	NA	NA	NA
	19-Dec-96	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
	7-Nov-96	<0.5	<0.5	2.3	2.1	<2.5	NA	NA	NA
	28-Jun-96	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
	17-Apr-96	<0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	20-Sep-95	1.5	1.6	98	40	6.6	NA	NA	NA
	20-Jun-95	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	30-Mar-95	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	8-Dec-94	0.5	1.2	54	190	<2.5	NA	NA	NA
	26-Aug-94	< 0.5	< 0.5	<0.5	< 0.5	<1.0	NA	NA	NA
	5-May-94	< 0.5	< 0.5	< 0.5	< 0.5	<1.0	NA	NA	NA
	2-Mar-94	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	15-Nov-93	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	25-Aug-93	76	1.0	42	3.8	<2.5	NA	NA	NA
	25-May-93	350	22	120	930	29	NA	NA	NA
	29-Apr-92	4,300	2,300	ND	5,700	ND	NA	NA	NA
	30-May-91	6,300	4,600	1,100	3,800	39	NA	NA	NA
	18-Dec-90	9,800	2,000	520	5,400	ND	NA	NA	NA
MW-4	10-Oct-07				Plugged &	Abandoned	1		
	15-Mar-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
	7-Dec-06	<1.0	<1.0	<1.0	<3.0	<1.5	<1.0	<1.0	<4.0
	14-Sep-06	<1.0	<1.0	<1.0	<3.0	<1.5	<1.0	<1.0	<4.0
	12-Jun-06	<1.0	<1.0	<1.0	<3.0	<1.5	<1.0	<1.0	<4.0
	7-Mar-06	<1.0	<1.0	<1.0	<3.0	<1.5	<1.0	<1.0	<4.0
	29-Aug-05	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0
	28-Jan-04	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<3.0
	7-Aug-03	< 0.5	< 0.5	<0.5	<1.0	<2.5	NA	NA	NA

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W-11 ID	Samula Data	D	Taluana	Etherlihensen	Valence	MTDE	EDD	EDC	Total
Well ID MW-4	Sample Date		Toluene	Ethylbenzene	Xylenes	MTBE	EDB	EDC	Naphthalenes
101 00 -4	28-May-02	<1.0	<1.0	<1.0	<2.0 <2.0	<1.0	<1.0	<1.0 <1.0	4.1
	12-Sep-00	<1.0	<1.0	<1.0		<1.0	<1.0		<1.0
	28-Jun-96	<0.5	0.5	0.6	0.9	<2.5	NA	NA	NA
	20-Jun-95	<0.5	0.6	0.8	1.2	NS	NA	NA	NA
	30-Mar-95	<0.5	<0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	5-May-94	<0.5	< 0.5	< 0.5	< 0.5	<1.0	NA	NA	NA
	2-Mar-94	<0.5	< 0.5	0.6	0.9	4.9	NA	NA	NA
	15-Nov-93	<0.5	< 0.5	< 0.5	0.6	<2.5	NA	NA	NA
	25-Aug-93	<0.5	< 0.5	0.5	0.9	<2.5	NA	NA	NA
	25-May-93	<0.5	< 0.5	2.1	2.3	<2.5	NA	NA	NA
	10-Mar-93	<0.5	<0.5	4.4	4.3	<2.5	NA	NA	NA
	23-Feb-93	<0.5	<2.5	4.5	3.9	<12	NA	NA	NA
	8-Feb-93	<0.5	< 0.5	6.7	5.5	<2.5	NA	NA	NA
	25-Jan-93	<0.5	<0.5	4.5	3.8	<2.5	NA	NA	NA
	29-Apr-92	0.7	0.7	14	12	2.3	NA	NA	NA
	13-Jun-91	6.0	55	340	730	95	NA	NA	NA
	30-May-91	ND	14	420	810	21	NA	NA	NA
	30-May-91	410	1,300	1,600	2,300	73	NA	NA	NA
1017.5	18-Dec-90	470	7,700	1,500	6,300	19	NA	NA	NA
MW-5	10-Oct-07	1.0	1.0	1.0		Abandoned		1.0	1.0
	15-Mar-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
	7-Mar-06	<1.0	<1.0	<1.0	<3.0	<1.5	<1.0	<1.0	<4.0
	29-Aug-05	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0
	29-Mar-02	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<5.0
	12-Dec-01	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<5.0
	6-Aug-01	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<5.0
	12-Sep-00	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
	30-Apr-00	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
	28-Jun-96	<0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	17-Apr-96	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
	19-Dec-95	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
	30-Mar-95	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
	5-May-94	<0.5	<0.5	<0.5	<0.5	<1.0	NA	NA	NA
	2-Mar-94	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
	15-Nov-93	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
	25-Aug-93	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
	25-May-93	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
MW-6	29-Apr-92	ND	ND	ND	ND Diversed &	ND	NA	NA	NA
IVI W -0	10-Oct-07	-0.5	-0.5	-0.5		Abandoned		<b>N</b> T 4	<b>N</b> T 4
	28-Jun-96	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
	17-Apr-96	<0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	19-Dec-95	<0.5	<0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	30-Mar-95	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA

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Well ID	Sample Date	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	EDB	EDC	Total Naphthalenes
MW-6	5-May-94	<0.5	<0.5	<0.5	<0.5	<1.0	NA	NA	NA
101 00	15-Nov-93	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
	25-May-93	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
	10-Mar-93	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
	23-Feb-93	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
	8-Feb-93	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
		<0.5	<0.5	<0.5	<0.5			NA	NA
	25-Jan-93 29-Apr-92	<0.3 ND	2.1	<0.3 ND	<0.3 ND	<2.5 1.8	NA NA	NA	NA
	30-May-91	ND ND	ND	ND	ND	ND	NA	NA	NA
	18-Dec-90	0.5	0.9	ND	1.6	ND	NA	NA	NA
MW-7	10-Oct-07	0.5	0.9	ND		Abandoned		INA	INA
141 44 - 1	28-Jun-96	5.9	50	180	360	25	NA	NA	NA
	17-Apr-96	5.9	52	160	470	<25	NA	NA	NA
	19-Dec-95	3.8	19	120	220	17	NA	NA	NA
	20-Sep-95	13	34	220	420	64	NA	NA	NA
	20-3cp-95 20-Jun-95	6.6	42	180	170	ND	NA	NA	NA
	30-Mar-95	<2.5	25	160	120	<13	NA	NA	NA
	8-Dec-94	<2.5	<25	240	95	<125	NA	NA	NA
	26-Aug-94	9.4	4.7	280	101	<123	NA	NA	NA
	5-May-94	7.4	5.3	240	160	<1.0	NA	NA	NA
	15-Nov-93	<0.5	<0.5	110	64	<25.0	NA	NA	NA
	25-Aug-93	<1.0	6.4	160	78	<5.0	NA	NA	NA
	25-May-93	60	84	260	670	27.0	NA	NA	NA
	10-Mar-93	540	2,500	1,200	3,600	<120	NA	NA	NA
	23-Feb-93	310	1,300	620	1,900	<120	NA	NA	NA
	8-Feb-93	380	1,700	810	2,400	<120	NA	NA	NA
	25-Jan-93	110	470	250	560	<120	NA	NA	NA
	29-Apr-92	250	2,000	730	1,500	ND	NA	NA	NA
MW-8	10-Oct-07				Plugged &	Abandoned	l	•	
	15-Mar-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
	7-Mar-06	<1.0	<1.0	<1.0	<3.0	<1.5	<1.0	<1.0	<4.0
	12-Sep-00	<1.0	<1.0	<1.0	<2.0	<1.0	NA	NA	NA
	28-Jun-96	< 0.5	< 0.5	< 0.5	< 0.5	<2.5	NA	NA	NA
	17-Apr-96	< 0.5	< 0.5	< 0.5	< 0.5	<2.5	NA	NA	NA
	19-Dec-95	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	20-Sep-95	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	5-May-94	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	15-Nov-93	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	25-Aug-93	2.9	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	25-May-93	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	29-Apr-92	ND	ND	ND	ND	ND	NA	NA	NA
	30-May-91	ND	ND	ND	0.5	ND	NA	NA	NA
	18-Dec-90	1.0	4.8	1.3	3.9	ND	NA	NA	NA

									Total
Well ID	Sample Date	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	EDB	EDC	Naphthalenes
MW-9	10-Oct-07				Plugged &	Abandoned	1		
	15-Mar-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
	7-Mar-06	<1.0	<1.0	<1.0	<3.0	<1.5	<1.0	<1.0	<4.0
	29-Mar-02	<1.0	<1.0	15	8.6	<1.0	<1.0	<1.0	4.9
	12-Dec-01	<1.0	2.4	260	480	<1.0	<1.0	<1.0	91
	30-Apr-01	<1.0	<1.0	18	1.6	<1.0	<1.0	<1.0	4.6
	12-Sep-00	<1.0	<1.0	15	<2.1	<1.0	<1.0	<1.0	2.7
	29-Dec-98	< 0.5	0.8	2	2.1	<2.5	NA	NA	NA
	3-Sep-98	1.0	< 0.5	82	< 0.5	5.5	NA	NA	NA
	17-Apr-98	< 0.5	0.7	1.3	1.2	3.4	NA	NA	NA
	22-Jan-98	< 0.5	0.6	2.5	3.3	<2.5	NA	NA	NA
	28-Jun-96	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	17-Apr-96	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	19-Dec-95	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	20-Sep-95	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	20-Jun-95	< 0.5	< 0.5	<0.5	< 0.5	NS	NA	NA	NA
	30-Mar-95	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	5-May-94	< 0.5	< 0.5	<0.5	< 0.5	<1.0	NA	NA	NA
	2-Mar-94	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	15-Nov-93	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	25-Aug-93	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	25-May-93	< 0.5	< 0.5	<0.5	0.8	7.3	NA	NA	NA
	10-Mar-93	12	910	700	2,300	<62	NA	NA	NA
	23-Feb-93	3.3	510	510	1,400	18	NA	NA	NA
	8-Feb-93	<5.0	500	570	1,600	<25	NA	NA	NA
MW-10	10-Oct-07				Plugged &	Abandoned			
	15-Mar-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
	7-Mar-06	<1.0	<1.0	<1.0	<3.0	<1.5	<1.0	<1.0	<4.0
	29-Mar-02	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<5.0
	12-Sep-00	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
	28-Jun-96	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	17-Apr-96	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	19-Dec-95	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	30-Mar-95	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	5-May-94	< 0.5	< 0.5	<0.5	< 0.5	<1.0	NA	NA	NA
	15-Nov-93	<5.0	18	67	740	<25	NA	NA	NA
	25-Aug-93	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	25-May-93	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	29-Apr-92	1.5	2.4	0.7	2.4	ND	NA	NA	NA
MW-11					ell Destroye		1	1	T
	29-Aug-05	<1.0	<1.0	710	1,300	<10	<10	<10	670
	28-Jan-04	<1.0	69	440	1,240	<1.0	<1.0	<1.0	172
	7-Aug-03	25	190	670	2,100	<25	NA	NA	NA

					22-				<b>T</b> 1
Well ID	Sample Date	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	EDB	EDC	Total Naphthalenes
MW-11	22-Nov-02	<1.0	110	580	1,790	<1.0	<1.0	<1.0	242
	29-Aug-02	<1.0	6.9	98	182	<1.0	<1.0	<1.0	100
	29 Mag 02 28-May-02	<1.0	93	610	2,050	<1.0	<1.0	<1.0	207
	12-Dec-01	<10	100	880	2,560	<10	<10	<10	306
	6-Aug-01	<10	<10	310	<u>2,300</u> 870	<10	<10	<10	346
	30-Apr-01	<5.0	13	930	2,720	<5.0	<5.0	<5.0	280
	12-Sep-00	<5.0	10	680	2,140	<5.0	<5.0	<5.0	270
	29-Dec-98	<0.5	13	790	2,600	25.0	NA	NA	NA
	3-Sep-98	15	16	1,100	3,800	7.1	NA	NA	NA
	17-Apr-98	<10	10	590	1,600	<50	NA	NA	NA
	22-Jan-98	< 0.5	0.5	3.9	7.7	<2.58	NA	NA	NA
	7-Nov-96	<2.5	26	300	1,100	<13	NA	NA	NA
	28-Jun-96	< 0.5	23	160	810	8.2	NA	NA	NA
	17-Apr-96	< 5.0	23	260	1,100	<25	NA	NA	NA
	19-Dec-95	<5	20	130	650	<2.5	NA	NA	NA
	20-Sep-95	< 5.0	64	250	1,900	31.0	NA	NA	NA
	20-Jun-95	<5.0	20	150	540	NS	NA	NA	NA
	30-Mar-95	<2.5	22	150	720	<13	NA	NA	NA
	8-Dec-94	<50	<50	150	790	<250	NA	NA	NA
	26-Aug-94	<13	23	230	750	<63	NA	NA	NA
	5-May-94	< 0.5	7.4	42	180	<1.0	NA	NA	NA
	2-Mar-94	<1.0	<1.0	48	74	44.0	NA	NA	NA
	15-Nov-93	< 0.5	< 0.5	< 0.5	< 0.5	<2.5	NA	NA	NA
	25-Aug-93	<10	96	950	2,600	<50	NA	NA	NA
MW-11R	7-Mar-06				Well D	estroyed			
	12-Dec-05	<10	<10	300	7300	<10	<100	<10	1,120
MW-11RR	12-Oct-18	<1.0	<1.0	1.9	<1.5	<1.0	<1.0	<1.0	124
	16-Apr-18	<1.0	<1.0	1.8	<1.5	<1.0	<1.0	<1.0	57
	19-Dec-17	<1.0	<1.0	2.3	<1.5	<1.0	<1.0	<1.0	103
	27-Jul-16	<1.0	<1.0	2.3	<1.5	<1.0	< 0.010	<1.0	53
	23-Jun-14	<1.0	<1.0	6.6	<1.5	<1.0	< 0.010	<1.0	125
	20-Apr-12	<1.0	<1.0	22	<1.5	<1.0	<1.0	<1.0	89
	4-Dec-07	<5.0	<5.0	200	290	<5.0	<5.0	<5.0	960
	5-Oct-07	<5.0	<5.0	94	190	<5.0	<5.0	<5.0	590
	6-Jun-07	<5.0	<5.0	290	550	<5.0	<5.0	<5.0	660
	15-Mar-07	<10	<10	310	660	<10	<10	<10	700
	7-Dec-06	<10	<10	390	730	<15	<10	<10	1,020
	14-Sep-06	<10	<10	690	1,200	<15	<10	<10	1,200
	12-Jun-06	<10	<10	420	990	<15	<10	<10	860
MW-12	10-Oct-07					Abandoned		1	T
	15-Mar-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
	7-Mar-06	<1.0	<1.0	<1.0	<3.0	<1.5	<1.0	<1.0	<4.0
	29-Mar-02	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<5.0

				ING, ALDU	22-				
		D	T 1	F(1 1)	<b>N</b> 7 1	MTDE	EDD	FDC	Total
Well ID MW-12	Sample Date		Toluene	Ethylbenzene	Xylenes	MTBE	EDB	EDC	Naphthalenes
IVI VV - 1 Z	12-Dec-01	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<5.0
	6-Aug-01	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<5.0
	30-Apr-01	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
	12-Sep-00	<1.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
	29-Dec-98	<0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	3-Sep-98	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	28-Jun-96	< 0.5	<0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	17-Apr-96	< 0.5	<0.5	< 0.5	< 0.5	<2.5	NA	NA	NA
	19-Dec-95	< 0.5	<0.5	< 0.5	< 0.5	<2.5	NA	NA	NA
	20-Sep-95	<0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	20-Jun-95	<0.5	<0.5	<0.5	< 0.5	NA	NA	NA	NA
	30-Mar-95	<0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	8-Dec-94	<0.5	<0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	26-Aug-94	< 0.5	< 0.5	< 0.5	< 0.5	<2.5	NA	NA	NA
	5-May-94	470	1.1	110	12	<1.0	NA	NA	NA
	15-Nov-93	<0.5	< 0.5	82	110	<25.0	NA	NA	NA
	25-Aug-93	< 0.5	<0.5	<0.5	< 0.5	<2.5	NA	NA	NA
	25-May-93	710	2.1	200	1.6	<2.5	NA	NA	NA
MW-13	29-Sep-92	ND	ND	ND	ND	ND	NA	NA	NA
IVI VV - 1.5	29 I	<0.5	<0.5		ell Destroye		NT A	NIA	NIA
	28-Jun-96	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
	17-Apr-96	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
	19-Dec-95	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
	30-Mar-95	<0.5	<0.5	<0.5	<0.5	<2.5	NA	NA	NA
	8-Dec-94 26-Aug-94	<0.5	<0.5	<0.5 <0.5	<0.5 <0.5	<2.5	NA	NA	NA
	-	<0.5 <0.5	<0.5 <0.5	<0.5	< 0.5	<2.5 <1.0	NA	NA	NA
	5-May-94	<0.5	0.7	<0.5	< 0.5	<1.0	NA	NA	NA NA
	15-Nov-93 25-Aug-93	<0.3	1.0	210	390		NA NA	NA NA	NA
		<5	36	460	1,600	<5.0 84	NA NA	NA	NA
	25-May-93 10-Mar-93	<12	170	400	1,600	<62	NA	NA	NA
	23-Feb-93	<25	220	520	2,100	<120	NA	NA	NA
MW-14	10-Oct-07	~23	220	520	/	Abandoned		INA	INA
171 77 17	10-0ct-07 15-Mar-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
	7-Mar-06	<1.0	<1.0	<1.0	<3.0	<1.5	<1.0	<1.0	<4.0
	12-Dec-05	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0 <4.0
MW-15	12-Dec-03	<1.0	<1.0	1.1	<1.5	<1.0	<1.0	<1.0	28.2
1,1,1,1,1,2	12-0ct-18 16-Apr-18	<1.0	<1.0	1.1	<1.5	<1.0	<1.0	<1.0	33.3
	10-Apr-18 19-Dec-17	<1.0	<1.0	1.1	<1.5	<1.0	<1.0	<1.0	33.6
	27-Jul-16	<1.0	<1.0	1.2	<1.5	<1.0	<0.010	<1.0	24.7
	27-Jui-10 23-Jun-14	<1.0	<1.0	2.3	<1.5	<1.0	< 0.010	<1.0	36.4
	23-Juli-14 20-Apr-12	<1.0	<1.0	7.1	<1.5	<1.0	<1.0	<1.0	40.0
	4-Dec-07	<1.0	<1.0	19	31	<1.0	<1.0	<1.0	55.3

				IIIG, ALDO		,			Tatal
Well ID	Sample Date	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	EDB	EDC	Total Naphthalenes
MW-15	5-Oct-07	<1.0	<1.0	14	12	<1.0	<1.0	<1.0	48.9
	6-Jun-07	<5.0	<5.0	50	88	<5.0	<5.0	<5.0	107
	15-Mar-07	<10	<10	41	54	<10	<10	<10	91
	7-Dec-06	<1.0	<1.0	5.1	7.4	<1.5	<1.0	<1.0	12.5
	14-Sep-06	<10	<10	62	94	<15	<10	<10	174
	12-Jun-06	<10	<10	62	71	<15	<10	<10	128
	7-Mar-06	<10	<10	220	70	<15	<10	<10	262
	12-Dec-05	<1.0	<100	160	750	<1.0	<100	<1.0	330
FTW-13					ell Destroye			-	
	29-Aug-05	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0
	28-Jan-04	<1.0	<1.0	6.4	5.1	<1.0	<1.0	<1.0	<5.0
	7-Aug-03	< 0.5	< 0.5	31	81	<2.5	NA	NA	NA
	22-Nov-02	<1.0	<1.0	44	73	<1.0	<1.0	<1.0	37.3
	29-Aug-02	<1.0	<1.0	14	5.5	<1.0	<1.0	<1.0	<5.0
	28-May-02	<1.0	1.3	63	110	<1.0	<1.0	<1.0	47
	12-Dec-01	<1.0	1.2	37	70	<1.0	<1.0	<1.0	7.5
	6-Aug-01	<1.0	3.2	140	164	<1.0	<1.0	<1.0	154
	30-Apr-01	<1.0	2.0	58	77.6	<1.0	<1.0	<1.0	13
FTW-13R	16-Apr-18	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
	19-Dec-17	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
	27-Jul-16	<1.0	<1.0	<1.0	<1.5	<1.0	< 0.010	<1.0	<4.0
	23-Jun-14	<1.0	<1.0	<1.0	<1.5	<1.0	< 0.010	<1.0	8.6
	20-Apr-12	<1.0	<1.0	<1.0	1.8	<1.0	<1.0	<1.0	<4.0
	4-Dec-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
	5-Oct-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
	6-Jun-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	7.5
	15-Mar-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	9.1
	7-Dec-06	<1.0	<1.0	<1.0	<3.0	<1.5	<1.0	<1.0	6.7
	14-Sep-06	<1.0	<1.0	<1.0	<3.0	<1.5	<1.0	<1.0	21.9
	12-Jun-06	<1.0	<1.0	<1.0	<3.0	<1.5	<1.0	<1.0	34
	7-Mar-06	<5.0	<5.0	<5.0	<15	<7.5	<5.0	<5.0	152
	12-Dec-05	<10	<100	<100	740	<10	<100	<10	270
FTW-14	10-Oct-07					Abandoned			
	15-Mar-07	<1.0	<1.0	3.1	<1.5	<1.0	<1.0	<1.0	<4.0
	7-Dec-06	<1.0	<1.0	2.1	<3.0	<1.5	<1.0	<1.0	<4.0
	14-Sep-06	<1.0	<1.0	5.3	3.9	<1.5	<1.0	<1.0	<4.0
	12-Jun-06	<1.0	<1.0	<1.0	<3.0	<1.5	<1.0	<1.0	<4.0
	7-Mar-06	<1.0	<1.0	3.1	<3.0	<1.5	<1.0	<1.0	<4.0
	29-Aug-05	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0
	28-Jan-04	<1.0	<1.0	73	14.1	<1.0	<1.0	<1.0	15
	7-Aug-03	< 0.5	< 0.5	23	11	<2.5	NA	NA	NA
	22-Nov-02	<1.0	<1.0	14	6.9	<1.0	<1.0	<1.0	<5.0
	29-Mar-02	<1.0	<1.0	11	5.6	<1.0	<1.0	<1.0	<5.0

				ING, ALDU	<u>(</u> (-	,	I		
	Comple Data	D	Talaana	E4111	V-1	MTDE	EDD	EDC	Total
Well ID FTW-14	Sample Date	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	EDB	EDC	Naphthalenes
1 1 VV - 14	12-Dec-01	<1.0	<1.0	180	74	<1.0	<10	<10	41
	6-Aug-01	<1.0	<1.0	27	6.5	<1.0	<1.0	<1.0	1.4
FTW-15	30-Apr-01	<1.0	<1.0	38	18 W.11 D	<1.0 estroyed	<1.0	<1.0	2.3
F1W-13	7-Mar-06	-1.0	-1.0	-1.0					
	29-Aug-05	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<4.0
	28-Jan-04	<1.0	1.3	51	80	<1.0	<1.0	<1.0	29.9
	7-Aug-03	<0.5	< 0.5	< 0.5	<1.0	<2.5	NA	NA	NA
	22-Nov-02	<1.0	<1.0	61	151	<1.0	<1.0	<1.0	33.3
	28-Aug-02	<1.0	<1.0	8.3	6.4	<1.0	<1.0	<1.0	6.0
	28-May-02	<1.0	3.2	65	286	<1.0	<1.0	<1.0	76
	29-Mar-02	<1.0	14	110	312	<1.0	<1.0	<1.0	27.2
	12-Dec-01	<1.0	22	240	798	<1.0	<1.0	<1.0	136
	6-Aug-01	<1.0	<1.0	30	21	<1.0	<1.0	<1.0	20.5
FTW-15R	30-Apr-01	<1.0	8.5	68	208	<1.0	<1.0	<1.0	28
F1W-13K	16-Apr-18	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
	19-Dec-17	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
	27-Jul-16	<1.0	<1.0	<1.0	<1.5	<1.0	<0.010	<1.0	<4.0
	23-Jun-14	<1.0	<1.0	<1.0	<1.5	<1.0	< 0.010	<1.0	<4.0
	20-Apr-12	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
	4-Dec-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
	5-Oct-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
	6-Jun-07	<1.0	<1.0	2.2	<1.5	<1.0	<1.0	<1.0	<4.0
	15-Mar-07	<1.0	<1.0	1.8	<1.5	<1.0	<1.0	<1.0	<4.0
	7-Dec-06	<1.0	<1.0	8.5	33	<1.5	<1.0	<1.0	41
	14-Sep-06 12-Jun-06	<1.0	<1.0	<1.0	<3.0 <3.0	<1.5	<1.0	<1.0	<4.0
FTW-16		<1.0	<1.0	<1.0		<1.5	<1.0	<1.0	<4.0
1 1 vv-10	7-Mar-06	<1.0	<1.0	29		estroyed	<1.0	<1.0	24.4
	29-Aug-05 28-Jan-04	<1.0 <1.0	<1.0 4.4	120	61 198	<1.0 <1.0	<1.0 <1.0	<1.0 <1.0	24.4 <b>31.3</b>
		<1.0	4.4		210			<1.0 NA	
	7-Aug-03 22-Nov-02	<1.0	7.8	170 180	308	<13 <1.0	NA <1.0	<1.0	NA 41
	22-Nov-02 29-Aug-02	<1.0	13	290	708	<1.0	<1.0	<1.0	41 187
	29-Aug-02 28-May-02	<1.0	6.7	130	403	<1.0	<1.0	<1.0	187 84
	28-May-02 29-Mar-02	<1.0	4.3	130	321	<1.0	<1.0	<1.0	84 30.3
	12-Dec-01	<1.0	<10	120	400	<1.0	<1.0	<1.0	54
	6-Aug-01	<5.0	<5.0	200	1,000	<5.0	<5.0	<5.0	<u> </u>
	30-Apr-01	<1.0	< <u>-</u> 3.0 7.1	230	1,405	<1.0	<1.0	<1.0	190
FTW-16R	16-Apr-18	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
1101	10-Api-18 19-Dec-17	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0 <4.0
	27-Jul-16	<1.0	<1.0	<1.0	<1.5	<1.0	<0.010	<1.0	<4.0 <4.0
	27-Jul-16 23-Jun-14	<1.0	<1.0	<1.0	<1.5	<1.0	< 0.010	<1.0	<4.0
									<4.0 <4.0
	20-Apr-12	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	
	4-Dec-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0

Well ID	Sample Date	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	EDB	EDC	Total Naphthalenes
FTW-16R	5-Oct-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
	6-Jun-07	<1.0	<1.0	18	7.4	<1.0	<1.0	<1.0	8.1
	15-Mar-07	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<4.0
	7-Dec-06	<1.0	<1.0	15	26	<1.5	<1.0	<1.0	21.7
	14-Sep-06	<1.0	<1.0	4.1	7.5	<1.5	<1.0	<1.0	2.4
	12-Jun-06	<1.0	<1.0	1.2	<3.0	<1.5	<1.0	<1.0	<4.0
Mr. Luna's	5-May-94	< 0.5	< 0.5	<0.5	< 0.5	<1.0	NA	NA	NA
Well	25-May-93	< 0.5	< 0.5	<0.5	< 0.5	<2.5	NA	NA	NA

NOTES:

Standards = NMAC 20.6.2.3103 Human Health Standards and Environmental Improvement Board Standard for MTBE

**Bold** values indicate concentration above standards

All concentrations are in micrograms per liter

Total naphthalenes = sum of naphalene, 1-methylnaphthalene, and 2-methylnaphthalene

EDB = ethylene dibromide

EDC = ethylene dichloride

EIB = Environmental Improvement Board

MTBE = methyl-tert-butyl ether

NA = not analyzed

NMWQCC = New Mexico Water Quality Control Commission

	Date		SpC	Temp	DO	ORP	Iron	Lead	Manganese	TDS
Well Number	Sampled	pН	(µS/cm)	°C	(mg/L)	(mV)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
Standards		6-9					1.0	0.05	0.2	1,000
MW-1	20-Apr-12					ell Destroyed		1	1	1
	03-15-07	7.48	899	15.0	0.69	14.60	< 0.02		< 0.002	
	03-29-02	7.64	1,130	17.6	NS	NA	< 0.05	0.0021	0.114	
	12-12-01	7.49	1,537	15.8	NS	NA	NA	NA	NA	
	08-06-01	7.72	1,637	23.1	NS	NA	NA	NA	NA	
	04-30-01	7.06	1,874	18.2	NS	NA	NA	NA	NA	
	09-12-00	6.95	2,333	22.9	NS	NA	NA	NA	NA	
	11-15-93	NA	NA	NA	1.20	NA	NA	NA	NA	
	08-25-93	NA	NA	NA	0.80	NA	NA	NA	NA	
	05-25-93	NA	NA	NA	0.60	NA	NA	NA	NA	
MW-2	10-Oct-07	7.20	474	14.2		ged & Abando		r	0.016	
	03-15-07	7.30	474	14.3	0.39	25.5	< 0.02		0.016	
	03-07-06	7.43	522	14.4	0.58	234.6	<0.020		0.019	
	09-12-00 11-15-93	6.71 NA	573 NA	23.6	NS 1.10	NA NA	NA NA	NA NA	NA NA	
				NA						
	08-25-93 05-25-93	NA NA	NA NS	NA NA	0.40 0.60	NA NA	NA NA	NA NA	NA NA	
MW-3	05-25-93 20-Apr-12	INA	IND	INA		NA /ell Destroyed		INA	INA	L
IVI VV - 5	12-04-07	7.06	940	18.3	0.00	-88.8				
	10-05-07	7.06	973	20.1	0.00	-47.1				
	06-06-07	7.00	1,011	16.2	0.00	-47.1				
	03-15-07	7.25	668	14.2	0.00	25.2	0.61		0.45	
	12-07-06	7.00	686	14.2	0.00	-38.7	0.01		0.45	
	09-14-06	7.29	771	20.9	0.15	-44.9				
	06-12-06	7.05	713	18.0	0.00	-104.9	3.1	NA	1.7	
	03-07-06	7.33	882	13.8	0.00	-30.2	2.5	NA	0.98	
	08-29-05	7.27	715	21.1	0.64	-118.9	NA	NA	NA	
	01-28-04	7.34	695	14.9	NA	NA	NA	NA	NA	
	08-07-03	7.93	451	23.2	NA	NA	NA	NA	NA	
	11-22-02	7.20	419	18.0	NA	NA	0.21	< 0.0056	0.25	
	08-29-02	8.17	716	21.4	NA	NA	0.29	< 0.0056	0.29	
	05-28-02	7.78	747	18.0	NA	NA	0.20	< 0.010	0.236	
	03-29-02	7.85	529	14.7	NA	NA	0.20	< 0.0002	0.315	
	12-12-01	7.64	731	16.3	NA	NA	NA	NA	NA	
	08-06-01	7.66	845	21.9	NA	NA	NA	NA	NA	
	04-30-01	7.07	830	17.3	NA	NA	NA	NA	NA	
	09-12-00	6.81	1,135	22.9	NA	NA	NA	NA	NA	
	11-15-93	NA	NA	NA	0.60	NA	NA	NA	NA	
	08-25-93	NA	NA	NA	0.12	NA	NA	NA	NA	
	05-25-93	NA	NA	NA	2.65	NA	NA	NA	NA	
MW-4	10-Oct-07				00	ged & Abando	ned			
	06-06-07	7.33	680	16.6	0.00	46.3				
	03-15-07	6.82	682	15.5	0.05	20.1	0.048		0.22	
	12-07-06	7.09	728	17.5	0.06	-44.8				
	09-14-06	7.43	700	20.4	0.14	-23.5				
	06-12-06	7.25	697	17.1	0.00	-219.9	0.13	NA	0.39	
	03-07-06	7.44	764	15.9	0.00	-33.2	0.12	NA	0.27	
	08-29-05	7.44	655	19.3	0.00	-132.3	NA	NA	NA	
	01-28-04	7.30	684	15.1	NA	NA	0.049	< 0.005	0.18	
	08-07-03	7.91	497	21.0	NA	NA	0.049	< 0.005	0.18	
	05-28-02	7.57	945	18.0	NA	NA	0.40	< 0.010	0.296	
	09-12-00	7.14	1,167	20.0	NA	NA	NA	NA	NA	
	11-15-93	NA	NA	NA	1.00	NA	NA	NA	NA	
	08-25-93	NA	NA	NA	2.40	NA	NA	NA	NA	
	05-25-93	NA	NA	NA	0.20	NA	NA	NA	NA	
	03-10-93	NA	NA	NA	NA	NA	NA	NA	NA	
	02-23-93	NA	NA	NA	0.40	NA	NA	NA	NA	

	Date		SpC	Temp	DO	ORP	Iron	Lead	Manganese	TDS	
Well Number	Sampled	pН	(µS/cm)	°C	(mg/L)	(mV)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	
MW-4	02-08-93	NA	NA	NA	0.40	NA	NA	NA	NA		
	01-25-93	NA	NA	NA	0.15	NA	NA	NA	NA		
MW-5	10-Oct-07	Plugged & Abandoned									
	03-15-07	7.30	779	14.6	1.38	67.2	0.069		0.011		
	03-07-06	7.37	963	15.1	1.30	198.2	< 0.020		0.0080		
	08-29-05	7.16	866	24.0	4.56	163.3					
	03-29-02	7.66	1,200	16.8	NA	NA	0.39	0.0018	0.137		
	12-12-01	7.06	1,386	17.2	NA	NA	NA	NA	NA		
	08-06-01	7.64	1,595	25.4	NA	NA	NA	NA	NA		
	04-30-01	6.92	1,576	19.3	NA	NA	NA	NA	NA		
-	09-12-00	6.78	1,941	26.5	NA	NA	NA	NA	NA		
	11-15-93	NA	NA	NA	0.25	NA	NA	NA	NA		
ľ	08-25-93	NA	NA	NA	0.40	NA	NA	NA	NA	<u> </u>	
-	05-25-93	NA	NA	NA	0.40	NA	NA	NA	NA		
MW-6	10-Oct-07					ed & Abando				L	
	11-15-93	NA	NA	NA	1.10	NA	NA	NA	NA		
ŀ	05-25-93	NA	NA	NA	1.50	NA	NA	NA	NA		
-	03-10-93	NA	NA	NA	NA	NA	NA	NA	NA		
	02-23-93	NA	NA	NA	1.50	NA	NA	NA	NA		
-	02-23-93	NA	NA	NA	1.50	NA	NA	NA	NA		
-	02-08-93	NA	NA	NA	1.10	NA	NA	NA	NA		
MW-7		INA	NA	INA	-			INA	INA		
IVI W - /	10-Oct-07	NTA	NT A	NIA	~~	ed & Abando		NIA		1	
-	11-15-93	NA	NA	NA	0.10	NA	NA	NA	NA		
-	08-25-93	NA	NA	NA	0.30	NA	NA	NA	NA		
-	05-25-93	NA	NA	NA	0.20	NA	NA	NA	NA		
	03-10-93	NA	NA	NA	NS	NA	NA	NA	NA		
	02-23-93	NA	NA	NA	0.20	NA	NA	NA	NA		
	02-08-93	NA	NA	NA	0.30	NA	NA	NA	NA		
	01-25-93	NA	NA	NA	0.25	NA	NA	NA	NA		
MW-8	10-Oct-07					ged & Abando					
	03-15-07	7.27	513	15.0	1.68	51.8	< 0.02		0.0039		
	03-07-06	7.42	593	14.7	0.42	271.5	< 0.020		0.022		
	09-12-00	7.33	873	23.3	0.24	NA	NA	NA	NA		
	11-15-93	NA	NA	NA	NA	NA	NA	NA	NA		
	08-25-93	NA	NA	NA	0.50	NA	NA	NA	NA		
	05-25-93	NA	NA	NA	0.50	NA	NA	NA	NA		
MW-9	10-Oct-07				Plugg	ed & Abando	ned				
WI W - 9	03-15-07	7.17	583	14.5	0.00	22.1	< 0.02		0.25		
	03-07-06	7.33	233	14.7	0.14	189.9	0.022		0.29		
-	03-29-02	7.70	478	15.4	NA	NA	0.3	0.0	0.215		
	12-12-01	7.59	611	16.4	NA	NA	NA	NA	NA		
	08-06-01	7.72	670	22.7	NA	NA	NA	NA	NA		
	04-30-01	7.02	743	18.5	NA	NA	NA	NA	NA	1	
	09-12-00	7.40	790	21.8	NA	NA	NA	NA	NA	1	
	09-12-00	NA	NA	NA	1.40	NA	NA	NA	NA	<u> </u>	
	05-25-93	NA	NA	NA	0.50	NA	NA	NA	NA		
	03-23-93	NA	NA	NA	0.30	NA	NA	NA	NA		
	02-23-93	NA	NA	NA	0.40 NA	NA	NA	NA	NA	<u> </u>	
MW-10	02-08-93	NA	NA	NA	0.20	NA NA	NA	NA	NA	<u> </u>	
	10-Oct-07	7.20	(())	16.0	~~	ed & Abando			0.10	1	
	03-15-07	7.30	660	16.8	0.00	23.0	< 0.02		0.19		
	03-07-06	7.49	762	16.7	0.11	74.9	< 0.020		0.29	ļ	
	03-29-02	7.51	884	17	NA	NA	0.48	0.0011	0.518	ļ	
	09-12-00	6.70	1,654	19	NA	NA	NA	NA	NA		
	11-15-93	NA	NA	NA	1.30	NA	NA	NA	NA		
	08-25-93	NA	NA	NA	0.49	NA	NA	NA	NA		
	05-25-93	NA	NA	NA	0.30	NA	NA	NA	NA		
MW-11					Well Dest	troyed					

	Date		SpC	Temp	DO	ORP	Iron	Lead	Manganese	TDS	
Well Number	Sampled	pН	$(\mu S/cm)$	°C	(mg/L)	(mV)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	
MW-11	08-29-05	7.42	905	21.9	0.00	-209.7	NA	NA	NA		
	01-28-04	7.70	844	15.5	NA	NA	NA	NA	NA		
	08-07-03	7.87	534	22.5	NA	NA	NA	NA	NA		
	11-22-02	7.38	517	17.1	NA	NA	0.029	< 0.0056	0.16		
	08-29-02	7.91	931	22.3	NA	NA	0.027	< 0.0056	0.17		
	05-28-02	7.70	1,172	19.3	NA	NA	0.0334	< 0.010	0.212		
	12-12-01	7.81	1,016	16.9	NA	NA	NA	NA	NA		
	08-06-01	7.77	1,280	22.5	NA	NA	NA	NA	NA		
	04-30-01	7.33	860	17.2	NA	NA	NA	NA	NA		
-	09-12-00	7.45	1,734	23.2	NA	NA	NA	NA	NA		
-	11-15-93	NA	NA	NA	0.90	NA	NA	NA	NA		
101/110	08-25-93	NA	NA	NA	0.42	NA	NA	NA	NA		
MW-11R	7-Mar-06	7.01	2.0(1	165		Vell Destroyed			214	<u> </u>	
MW 11DD	12-12-05	7.01	2,061	16.5	0.00	-104.4	NA	NA	NA	1.020	
MW-11RR	10-12-18	6.87	3,542	24.0	NA 2 (8	NA	1.3	NA	1.4	1,020	
-	04-16-18 12-19-17	6.95 7.10	2,504 2,238	17.80 19.4	2.68 0.74	-137.5 202.6	NA NA	NA NA	NA NA		
∥ ⊦	07-27-16	7.05	2,238	23.3	0.74	202.6 NA	2.0	NA <0.00050	2.5	<u> </u>	
∥ ⊦	07-27-16 06-23-14	6.99	2,760	18.1	0.91	-3.3	2.0	<0.00050	2.5	+	
	06-23-14 04-20-12	7.02	2,331	15.3	0.00	-3.5				+	
-	12-04-07	6.34	4,200	20.6	0.00	-73.1					
-	10-05-07	6.30	5,690	22.0	0.16	13.6					
-	06-06-07	7.06	1,807	17.7	0.00	-45.3					
-	03-15-07	7.14	1,413	14.9	0.00	-8.9	3.4		3.7		
-	12-07-06	6.92	1,510	18.7	0.00	-94.2					
-	09-14-06	7.08	1,728	21.8	0.00	-105.8				1	
	06-12-06	7.18	1,317	18.2	0.00	-243.6	0.95		4.5		
MW-12	10-Oct-07	7.16 1,517 18.2 0.00 -245.0 0.55 4.5 Plugged & Abandoned									
	03-15-07	7.19	658	15.0	0.00	36.6	< 0.02		0.19		
	03-07-06	7.45	709	15.3	0.00	222.2	< 0.020		0.45		
	03-29-02	NS	555	17.1	NA	NA	0.16	0.0005	0.638		
_	12-12-01	7.40	689	17.1	NA	NA	NA	NA	NA		
	08-06-01	7.72	802	22.1	NA	NA	NA	NA	NA		
	04-30-01	6.95	841	18.7	NA	NA	NA	NA	NA		
	09-12-00	7.31	250	23.9	NA	NA	NA	NA	NA		
-	11-15-93	NA	NA	NA	0.05	NA	NA	NA	NA		
-	08-25-93	NA	NA	NA	0.25	NA	NA	NA	NA		
101110	05-25-93	NA	NA	NA	0.40	NA	NA	NA	NA		
MW-13	11 15 02	NT A	NT A	NIA	Well Dest		NIA	NIA	NT A		
∥⊦⊦	11-15-93	NA NA	NA	NA NA	0.20	NA	NA NA	NA NA	NA	<u> </u>	
MW-14	08-25-93 05-25-93	NA NA	NA NA	NA NA	0.08	NA NA	NA NA	NA NA	NA NA		
	03-23-93	NA NA	NA	NA	0.20	NA	NA	NA	NA	+	
	10-Oct-07	11/1	11/1	11/1		ged & Abando		11/1	11/1	<u>I</u>	
111 11 - 14	03-15-07	7.38	669	14.0	0.00	47.30	<0.02		0.036	<u> </u>	
	03-07-06	7.64	782	14.3	0.00	234.70	<0.02		0.030	<u> </u>	
	12-12-05	7.04	2,031	17.4	0.00	104.10	NA	NA	NA	<u> </u>	
MW-15	10-12-18	7.39	1,733	23.1	NA	NA	0.12	NA	0.46	650	
	04-16-18	7.45	1,125	17.43	2.79	-141.8	NA	NA	NA		
	12-19-17	7.32	1,140	19.3	0.52	223.3	NA	NA	NA	1	
	07-27-16	7.44	966.1	22.2	0.96	NA	0.048	< 0.00050	0.38	1	
	06-23-14	7.38	933	18.0	0.00	-22.2					
	04-20-12	7.51	898	15.3	0.00	-108.5					
	12-04-07	7.17	910	20.0	0.00	-60.1					
l t	10-05-07	7.12	949	21.6	0.46	-87.0					
	06-06-07	7.42	864	17.1	0.00	29.3				[	
	03-15-07	7.41	721	14.8	0.00	14.1	0.19		0.68		
ľ	12-07-06	7.13	789	18.7	0.00	-77.5					

	Date		SpC	Temp	DO	ORP	Iron	Lead	Manganese	TDS		
Well Number	Sampled	pН	(µS/cm)	°C	(mg/L)	(mV)	(mg/L)	(mg/L)	(mg/L)	(mg/L)		
MW-15	09-14-06	7.42	891	22.2	0.00	-96.4	(IIIg/L)	(III <u>5</u> /L)	(ing/L)	(IIIg/L)		
1111111	06-12-06	7.37	785	18.1	0.00	-267.2	0.21	NA	0.72			
	03-07-06	7.52	1,137	13.6	0.00	-52.0	0.15	NA	0.81			
	12-12-05	7.06	2,173	16.8	0.00	-129.8	NA	NA	NA			
FTW-13		Well Destroyed										
	01-28-04	7.31	714	15.1	NA	NA	NA	NA	NA			
	08-07-03	7.95	406	21.0	NA	NA	NA	NA	NA			
	11-22-02	7.19	448	18.1	NA	NA	< 0.011	< 0.0056	0.22			
	08-29-02	8.20	844	20.4	NA	NA	0.042	< 0.0056	0.31			
	05-28-02	7.63	967	18.1	NA	NA	0.0848	< 0.010	0.248			
_	03-29-02	7.76	578	15.5	NA	NA	0.20	0.0006	0.241			
_	12-12-01	7.66	961	16.2	NA	NA	NA	NA	NA			
	08-06-01	7.65	1,198	21.8	NA	NA	NA	NA	NA			
	04-30-01	7.06	1,239	18.7	NA	NA	NA	NA	NA			
FTW-13R	04-16-18	7.14	1,191	17.38	3.72	109.3	NA	NA	NA			
	12-19-17	7.40	1,064	20.4	0.27	222.9	NA	NA	NA			
∥ ⊦	07-27-16	7.25	1,274	23.7	0.93	NA	0.033	< 0.00050	0.29			
∥ ⊦	06-23-14	7.31	1,138	18.4	0.00	-14.7						
∥ ⊦	04-20-12	7.65	1,300	15.3	0.00	-101.7						
-	<u>12-04-07</u> 10-05-07	6.84 7.05	1,010 995	19.9 21.5	0.00	-113.3						
∥ ⊦	06-06-07	7.16	995 1,106	17.3	0.00	-119.0 50.5						
	03-15-07	7.08	1,068	17.3	0.00	19.0	0.83		1.7			
	12-07-06	6.93	912	13.8	0.00	-66.5	0.85					
-	09-14-06	7.16	921	22.1	0.00	-72.3						
	06-12-06	7.18	811	18.9	0.00	-242.5	1.0		1.2			
-	03-07-06	7.37	911	13.8	0.00	-57.2	0.80		1.1			
	12-12-05	7.12	2,064	17.0	0.00	41.3						
	08-29-05	7.39	756	20.1	0.00	-134.2						
FTW-14	10-Oct-07				Plugg	ged & Abando	ned					
	03-15-07	7.32	844	14.3	0.00	11.8	0.55		0.28			
	12-07-06	7.29	840	17.7	0.00	-44.8						
	09-14-06	7.45	722	20.2	0.00	-76.3						
	06-12-06	7.49	668	17.6	0.00	-216.9	0.32		0.21			
	03-07-06	7.66	858	14.7	0.00	-47.8	0.28		0.21			
	08-29-05	7.60	829	20.2	1.56	-60.1	NA	NA	NA			
	01-28-04	7.55	1,137	14.1	NA	NA	0.060	< 0.005	0.130			
	08-07-03	7.96	548	21.0	NA	NA	NA	NA	NA			
	11-22-02	7.14	588	17.8	NA	NA	0.00	< 0.0056	0.059			
	03-29-02	7.80	854	15.3	NA	NA	0.30	0.0006	0.083			
	12-12-01 08-06-01	7.63	1,126	15.9 21.3	NA NA	NA	NA NA	NA NA	NA			
∥ ⊦	08-06-01	7.73 6.47	1,298 1,787	17.8	NA NA	NA NA	NA NA	NA NA	NA NA			
FTW-15	7-Mar-06	0.47	1,/0/	1/.0		Vell Destroyed		INA	INA	1		
1 1 VV-13	08-29-05	7.39	868	21.1	1.33	-87.2						
	01-28-04	7.24	669	15.3	NA	-87.2 NA	NA	NA	NA			
	08-07-03	7.84	429	21.6	NA	NA	NA	NA	NA			
	11-22-02	7.17	406	17.5	NA	NA	0.07	<0.0056	0.18			
	08-29-02	8.07	717	20.9	NA	NA	0.14	< 0.0056	0.23			
	05-28-02	7.72	824	17.9	NA	NA	0.112	< 0.010	0.166			
	03-29-02	7.96	550	14.7	NA	NA	0.20	0.0003	0.192			
	12-12-01	7.63	832	16.2	NA	NA	NA	NA	NA			
	08-06-01	7.64	955	21.7	NA	NA	NA	NA	NA			
	04-30-01	7.06	1,049	17.0	NA	NA	NA	NA	NA			
FTW-15R	04-16-18	7.40	753	17.26	3.11	76.6	NA	NA	NA			
	12-19-17	7.20	831	18.2	0.55	224.9	NA	NA	NA			
	07-27-16	7.47	868.6	22.0	4.01	NA	< 0.020	< 0.00050	0.42			
	06-23-14	8.22	846	18.1	1.13	-16.6						

### **TABLE 3. SUMMARY OF FIELD PARAMETERS,** METALS, AND TDS ANALYTICAL RESULTS CLIMATE ROOFING, ALBUQUERQUE, NEW MEXICO

	Date		SpC	Temp	DO	ORP	Iron	Lead	Manganese	TDS
Well Number	Sampled	pН	(µS/cm)	°C	(mg/L)	(mV)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
FTW-15R	04-20-12	7.39	1,043	14.9	0.51	-101.1				
	12-04-07	7.16	890	18.4	0.00	-66.1				
	10-05-07	7.31	1,055	20.1	0.00	-106.7				
	06-06-07	7.35	827	16.6	0.00	-21.1				
	03-15-07	7.24	887	14.7	0.00	25.4	0.35		0.56	
	12-07-06	7.17	898	17.5	0.00	-30.1				
	09-14-06	7.38	794	20.7	0.00	-35.5				
	06-12-06	7.36	613	17.4	0.35	-69.4	0.43		0.63	
FTW-16	7-Mar-06				W	ell Destroyed			•	
	08-29-05	7.42	833	22.2	0.00	-147.1				
	01-28-04	7.39	849	15.2	NA	NA	0.07	< 0.005	0.26	
	08-07-03	7.96	441	22.9	NA	NA	NA	NA	NA	
-	11-22-02	7.18	494	17.5	NA	NA	< 0.011	< 0.0056	0.28	
	08-29-02	6.92	972	21.9	NA	NA	0.11	< 0.0056	0.36	
-	05-28-02	7.56	1,141	19.3	NA	NA	0.162	< 0.010	0.346	
-	03-29-02	7.74	787	15.8	NA	NA	0.2	0.0009	0.372	
	12-12-01	7.66	1,081	17.3	NA	NA	NA	NA	NA	
	08-06-01	7.62	1,416	22.1	NA	NA	NA	NA	NA	
	04-30-01	7.15	1,684	18.7	NA	NA	NA	NA	NA	
FTW-16R	04-16-18	7.48	938	17.59	3.45	113.9	NA	NA	NA	
	12-19-17	7.34	886	15.3	0.60	211.6	NA	NA	NA	
	07-27-16	7.38	1,027	22.9	3.34	NA	0.079	< 0.00050	0.64	
	06-23-14	8.22	931	18.6	0.00	-14.9				
	04-20-12	7.42	937	15.6	0.00	-79.1				
-	12-04-07	7.18	770	18.9	0.00	-71.6				
	10-05-07	7.09	1,149	20.9	0.00	-118.0				
	06-06-07	7.38	803	17.0	0.00	-18.4				
	03-15-07	7.22	822	15.8	0.00	22.1	0.14		0.74	
	12-07-06	7.04	846	18.0	0.00	-46.4				
	09-14-06	7.32	857	21.0	0.00	-39.4				
l t	06-12-06	7.36	741	17.7	0.00	-147.0	0.28		0.90	

NOTES:

Standards = NMAC 20.6.2.3103 Standards for Groundwater of 10,000 mg/L TDS Human Health Standards

 $\mu$ S/cm = microsiemens per centimeter

DO = Dissolved oxygen

mg/L = Milligrams per liter

NA = Not analyzed

C = degrees Celsius

SpC = Specific conductance

Temp = Temperature in degrees Celsius TDS = Total Dissolved Solids

# **APPENDIX A – WELL LOGS**

iant)	WHaller & Associates, In	MONITOR WELL LOG: MW-11R
	<i>Environmental Services &amp; GeoScience</i> 467 Highway 66, Suite 2 Tijeras, NM 87059	COMPLETION DATE: DECEMBER 8, 2005 TOTAL WELL DEPTH: 15 FT BGS
(382)	PROJECT INFORMATION	CONSTRUCTION DETAILS
•	LOCATIONCLIMATE ROOFINGADDRESS:2700 ISLETA SW, ALBUQUERQUE	CASING ELEVATION: 4933.46 FT MSL SCREEN INTERVAL: 5-15 FT BGS
	GEOLOGIST: TIMOTHY M. HALLER, CPG	BENTONITE INTERVAL: 1.5-3 FT BGS
	DRILLER: BRIAN HITCHCOCK - RODGERS & ( DRILL METHOD: 8" HOLLOW-STEM AUGERS	CO. SANDPACK INTERVAL: 3-15 FT BGS CASING TYPE: 2" SCH 40 PVC THREADED
أنسا	SAMPLE TYPE: DRILL CUTTINGS	SCREEN SIZE: 0.010-INCH SLOTS
E,	H LITHOLO	
1961)	0 6" COMPACTED BASE CO	
H	BROWN SILTY SAND FILI fine to fine grained, very sil	L (SC/SM); loose, slightly moist, very ty, no staining or odor.
	5 -	
(22)		
( <b>3</b> 5)	_              fine to coarse grained, very	LLY SAND FILL (SW); loose, wet, y poorly sorted, with gravel and eter, no staining, slight odor.
ليك		
ise)	- with minor gravel up to 1/2 odor.	loose, medium to coarse grained -inch diameter, no staining; slight 15
(1993)	Depth to Water: 7.70 FT B	TOC (DECEMBER 12, 2005)
-		- 20
(46)		
Ē		
(SEC)		

	WHaller & Ass	ociates, Inc.	MONITOR WELL	LOG:	FTW-	13R
ianu)	l	<i>vices &amp; GeoScience</i> y 66, Suite 2 M 87059	COMPLETION DATE: DECEMBER 8, 2005 TOTAL WELL DEPTH: 15 FT BGS			
	PROJECT INFORM	MATION	CONSTRUCTIO		S	
	GEOLOGIST: TIMOTHY N	A SW, ALBUQUERQUE I. HALLER, CPG CHCOCK - RODGERS & CO.	CASING ELEVATION: 4933.74 FT MSL SCREEN INTERVAL: 5-15 FT BGS BENTONITE INTERVAL: 1.5-3 FT BGS SANDPACK INTERVAL: 3-15 FT BGS CASING TYPE: 2" SCH 40 PVC THREADED			
(mai)	SAMPLE TYPE: DRILL CUT NOTES: FTW-13R DRILLED			10-INCH SI	_OTS Page 1 of 1	
(ज्म)	DID (PPM-V)	LITHOLOGIC	DESCRIPTION	GRAPHIC LOG	WELL DIAGRAM	DEPTH (FEET)
i ا	° -][-][][]	6" COMPACTED BASE COURS	SE )	07430743		- 0
		BROWN SILTY SAND FILL (SC fine to fine grained, very silty, no	/SM); loose, slightly moist, very o staining or odor.			-
( <b>19</b> 11)	- 5					- 5 -
(21)						
iæ)	- 10	BROWN PIT-RUN GRAVELLY fine to coarse grained, very poo cobbles up to 3 inch diameter, n	rly sorted, with gravel and			- - 10 -
1992)				000		-
( <del>12</del> 7)	- 15 -	BROWN SAND (SW); wet, loos with minor gravel up to 1/2-inch odor.	diameter, no staining; slight			- 15
		Depth to Water: 7.86 FT BTOC	(DECEMBER 12, 2005)			-
1999	20					- - 20
						-
	25					- 25
स्त्र						

(هه)	WHaller & Associ	ates, Inc.	MONITOR WELL	LOG:	MW-	14
	ENVIRONMENTAL SERVICES		COMPLETION DATE: DECEMBER 8, 2005			
ليسدا	467 Highway 66, Tijeras, NM 870		TOTAL WELL DEPTH: 15 FT BGS			
	PROJECT INFORMATIO	N	CONSTRUCTIO	N DETAI	_S	
(1996)	LOCATION CLIMATE ROOFING			33.80 FT M 5 FT BGS		
	ADDRESS: 2700 ISLETA SW, A GEOLOGIST: TIMOTHY M. HALLI		BENTONITE INTERVAL: 1.5			
(200)		K - RODGERS & CO.	SANDPACK INTERVAL: 3-1			
	DRILL METHOD: 8" HOLLOW-STEM SAMPLE TYPE: 3" OD SPLIT SPOO			10-INCH S	/C THREADI SLOTS	
(12)	NOTES: MW-14 DRILLED NORTHE		l		Page 1 of 1	
	E fi ≸ SAMPLE PID			U L U L U	WELL	ΞĒ
	H ( H SAMPLE PID H H H H H H H H H H H H H H H H H H H	LITHOLOGIC	DESCRIPTION	GRAPHIC LOG	DIAGRAM	DEPTH (FEET)
لعوا				<u> </u>		- 0
,,		N CLAYEY SILTY SAND e to fine grained, very cl	(SC/SM); loose, slightly moist, ayey/silty, slightly cohesive, no			.
ي. ا	staining	g or odor.				-
1-4	-					-
				·		-
	very fir	LTY SAND (SM); loose, e to fine grained, uniforn	slightly moist, wet at 8 feet, n appearance, no staining or			- 5
(362)	odor.					-
1-46-1						×
_			t modium to come avaired			-
	10 - 10 poorly	in SAND (SM); loose, we sorted, trace of pea grav ike odor.	et, medium to coarse grained, el, very faint gray staining,			- 10
(नद्य)	- XX Sewer-					-
1441	-					-
_						
لبيها	15 -					- 15
_	Depth	o Water: 7.92 FT BTOC	(DECEMBER 12, 2005)			-
(1961)						-
						-
						-
_	20 -					- 20
						-
-						-
						-
				I	]	- 25
		<u></u>				

<b>↓</b> _ <u>▼</u>	<u>o o c</u>	000 <b>C</b> 0 <b>Q</b> 1	<u> </u>	Vulgicos, Alles		. LUG:	: IVI VV -	<b>ID</b>
-4				RVICES & GEOSCIENCE	COMPLETION DATE: D	ECEMBE	EB 8. 2005	
	467 Highway 66, Suite 2 Tijeras, NM 87059				TOTAL WELL DEPTH: 15 FT BGS			
·		PROJECT	INFOR	MATION	CONSTRUCTIO	N DETAI	LS	
	RES	S: 270	0 ISLET	OOFING A SW, ALBUQUERQUE 1. HALLER, CPG		33.71 FT N 5 FT BGS -3 FT BGS	;	
	LLER			CHCOCK - RODGERS & CO.	SANDPACK INTERVAL: 3-1			
				-STEM AUGERS				ED
						10-INCH S		
		MW-15 DRI		NORTHWEST PORTION OF			Page 1 of 1	
DEPTH		SAMPLE ID	PID (PPM-V)	LITHOLOGIC	DESCRIPTION	GRAPHIC LOG	WELL DIAGRAM	DEPTH (FEET)
		[]	<b>[</b> ]	6" COMPACTED BASE COURS	xe		וגיאר גיאו	- o
	-			\	//////////////////////////////////////			-
5 -								- 5 - 5 -
10 -	-			BROWN PIT-RUN GRAVELLY fine to coarse grained, very poo cobbles up to 3 inch diameter, n	rly sorted, with gravel and			- <b>≭</b> - 10 - 10
15 -				BROWN SAND (SW); wet, loos with minor gravel up to 1/2-inch odor.				- - - 15
	-			Depth to Water: 7.85 FT BTOC	(DECEMBER 12, 2005)			-
20 -								- - 20 -
= 25 ·	-							- - 25

## **APPENDIX B - DRAWING**



### LEGEND:

<del>.</del>	MONITORING WELL
₩	INJECTION RISER
	DRAIN PIPE
-	GROUND WATER FLOW DIRECTION

NOTE: NAPHTHALENE CONCENTRATIONS ARE SHOWN IN RED REPORTED VALUES ARE IN MICROGRAMS PER LITER

CLIMATE ROOFING 2700 ISLETA BOULEVARD SW ALBUQUERQUE, NEW MEXICO, 87105

### **DRAWING C-1** SITE LAYOUT AND OCTOBER 2018 NAPHTHALENE CONCENTRATIONS

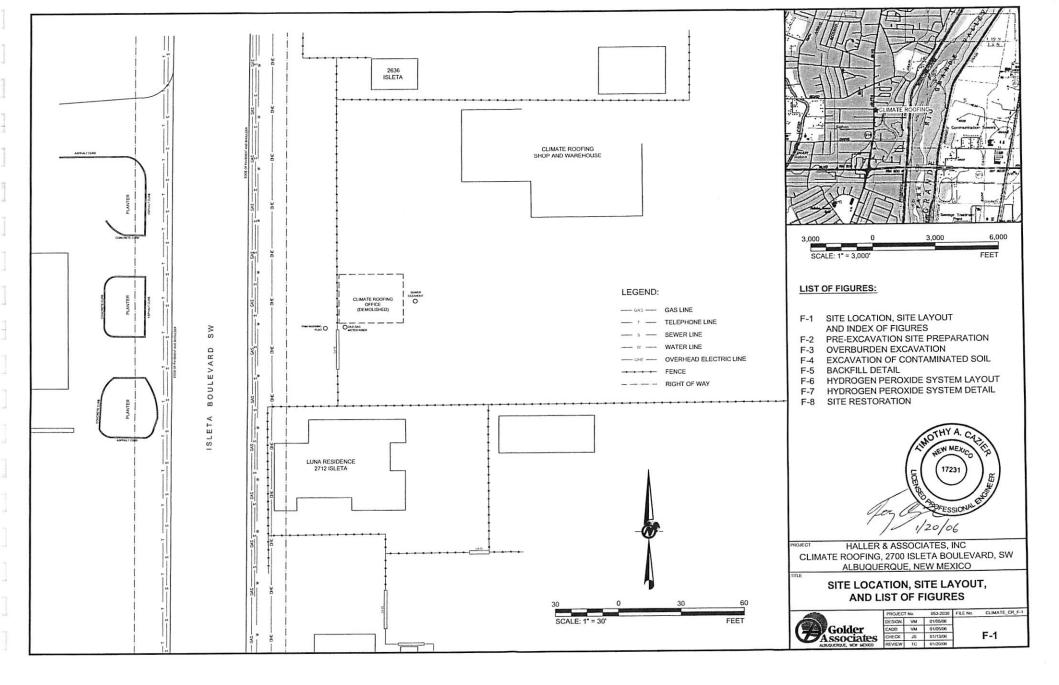


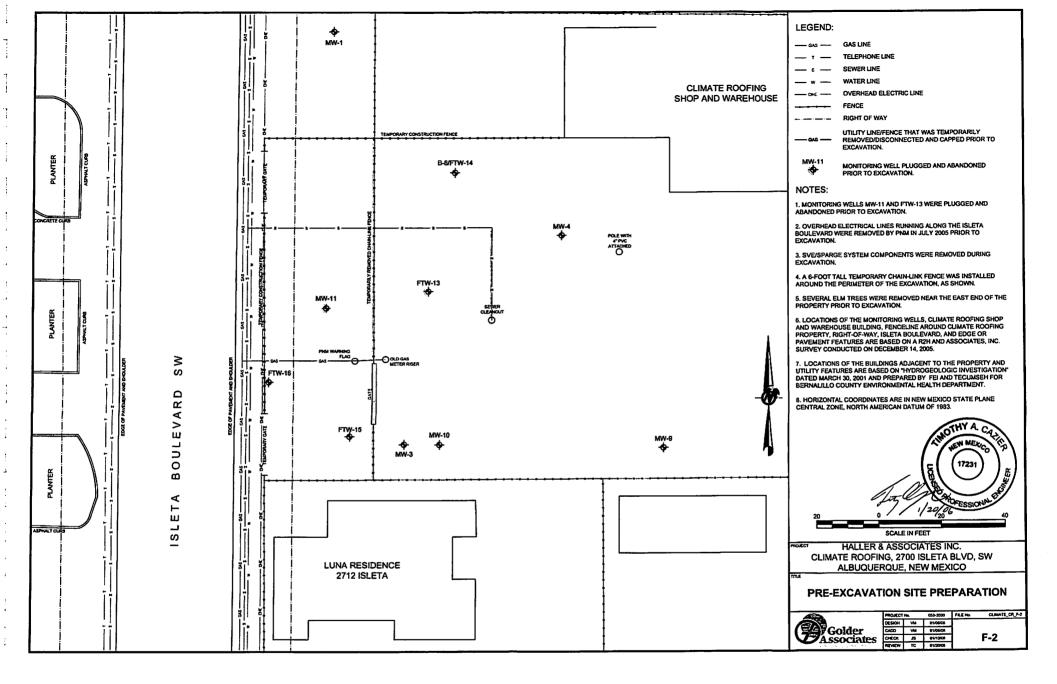
6331901 PROJECT PHASE:

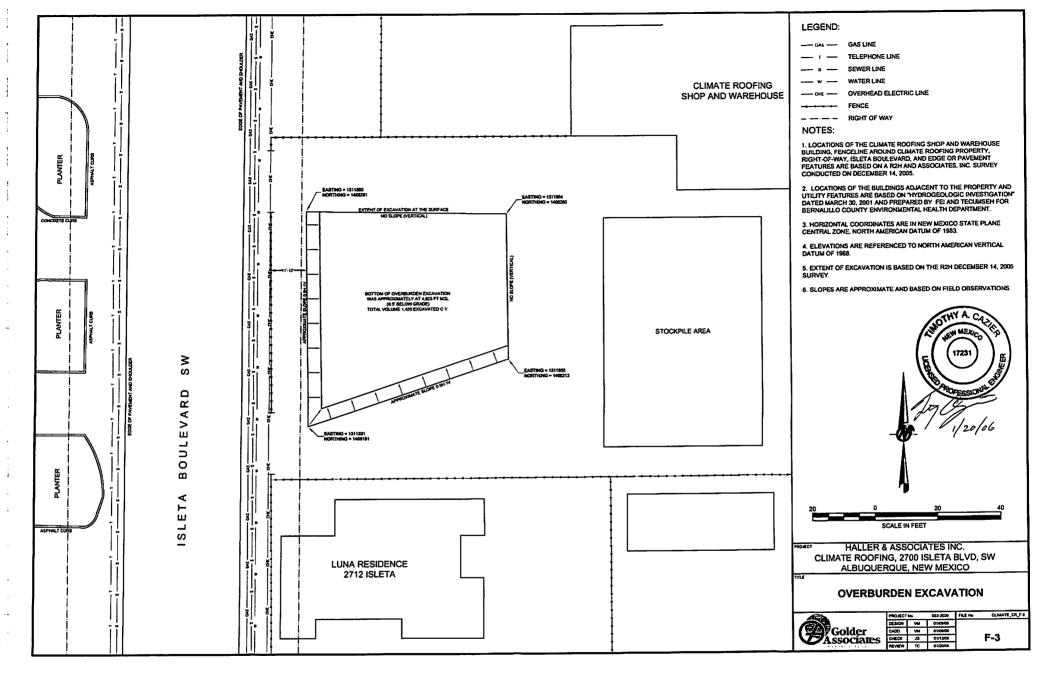
01 PROJECT MANAGER: Albuquerque, NM 8710 Phone: (505) 224-901

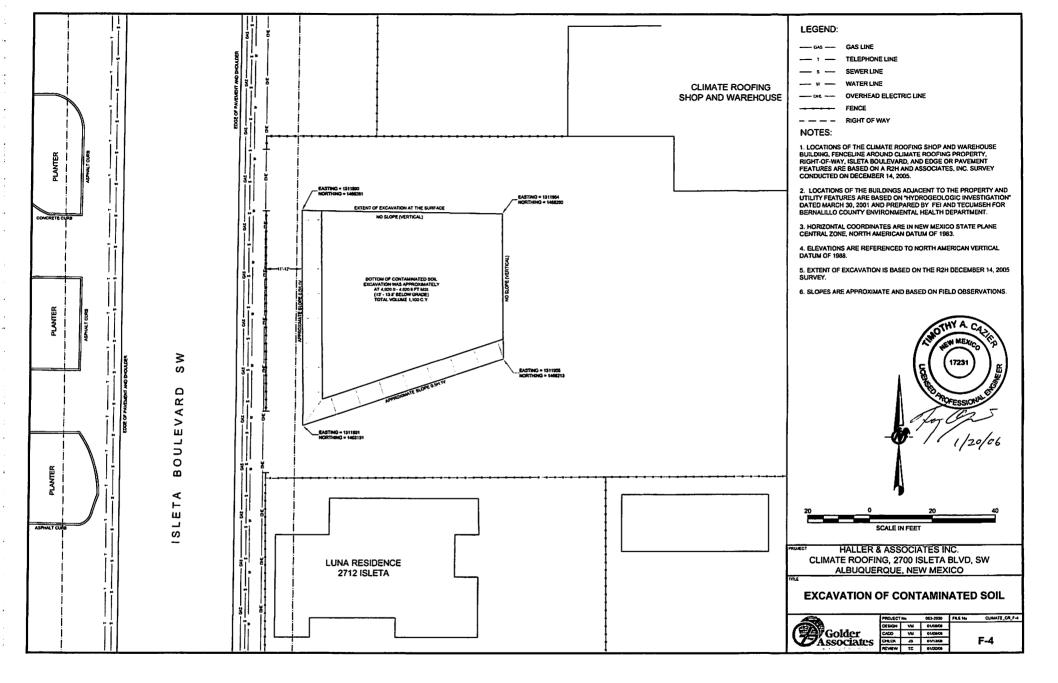


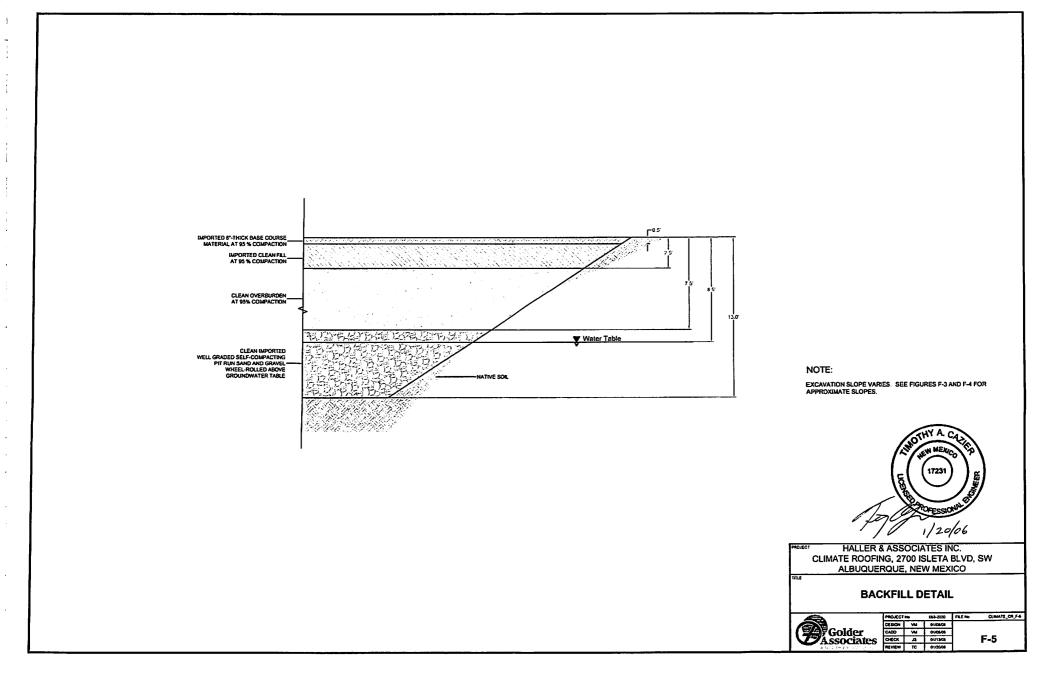
## **APPENDIX C – 2006 AS-BUILT DRAWINGS**

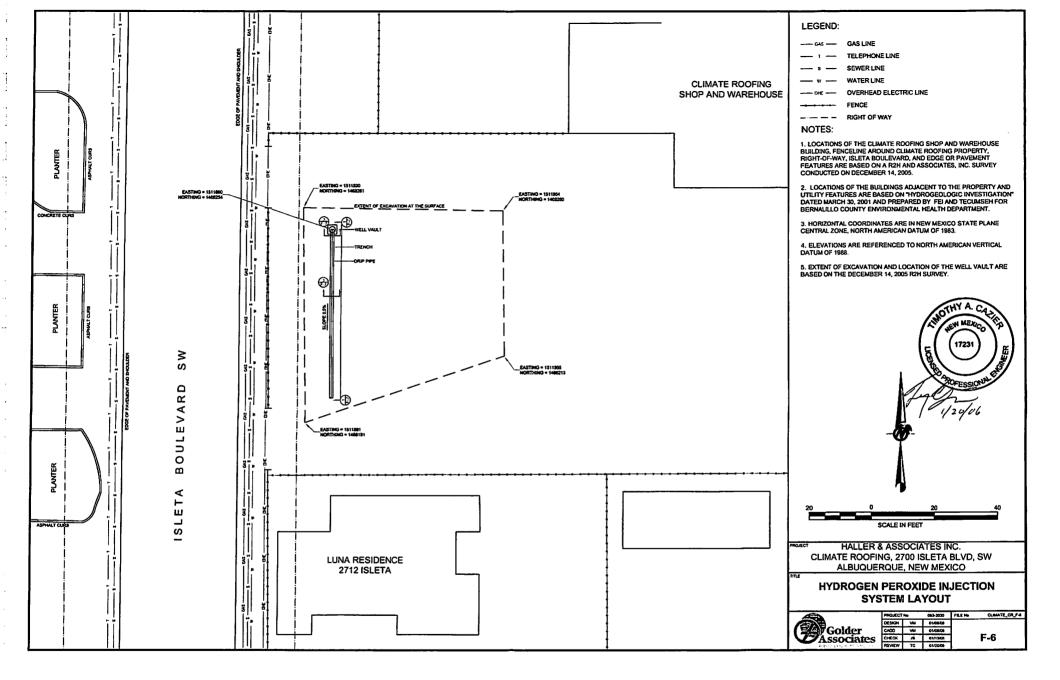


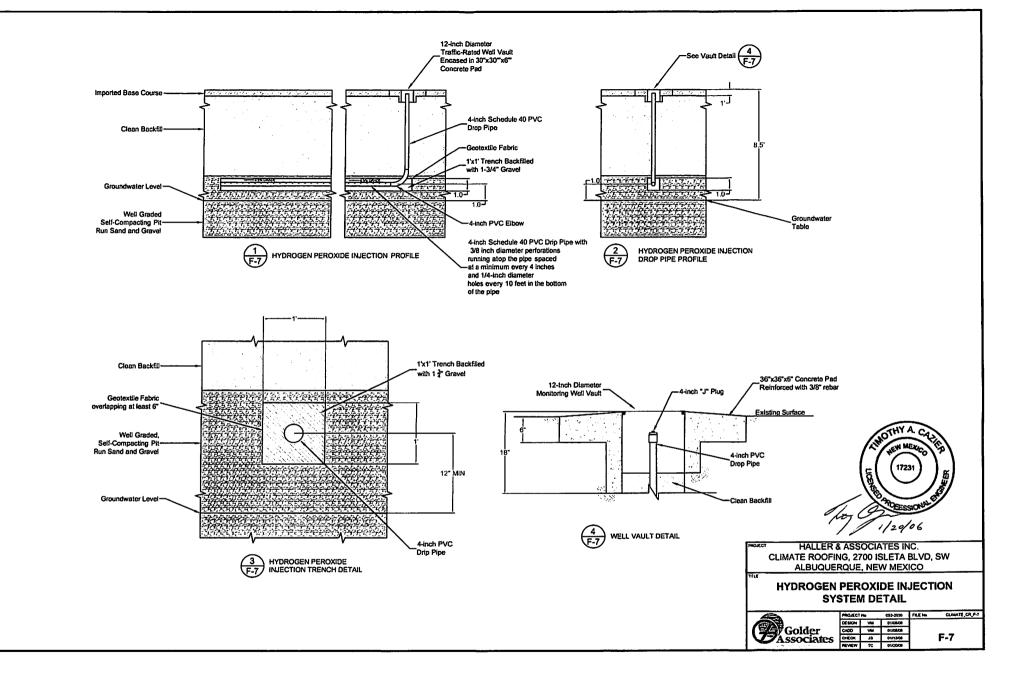












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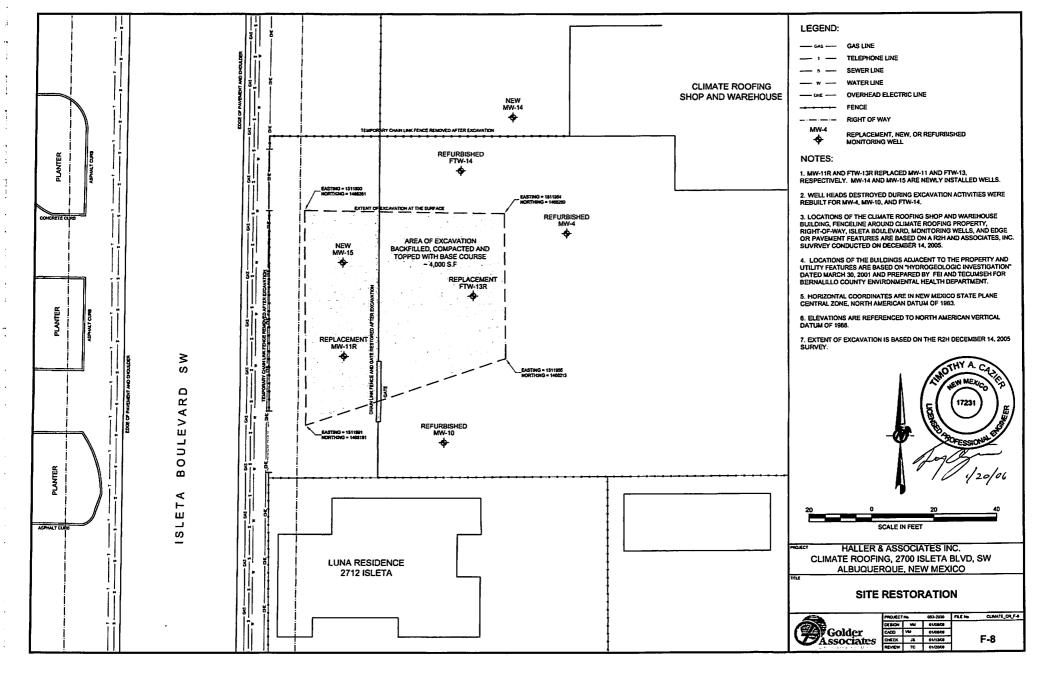
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# **APPENDIX D – CALCULATION**

INPUT

Drain Length	DL:= 60 <i>ft</i>	
Estimated Influence of Injection	W:= 30 <i>ft</i>	total width
Depth to Water	DTW:= 7 <i>ft</i>	December 2017
Aquifer Matrix	SW - medium to coar	se grained sand with gravel
Impacted Thickness	$T \coloneqq 4 ft$	Based on groundwater transport near water table
Unit Weight of Soil	Dsoil= $100 \frac{lb}{ft^3}$	
Safety Factor	SF:= 3	for oxidant application
Naphthalene Concentration	$Cn = 124 \cdot 10^{-6} \frac{g}{L}$	MW-11RR October 2018
Hydrogen Peroxide to Gasoiline	Rhp:= 3.8	mass H2O2 to mass of gasoline
Hydrogen Peroxide Density	$D = 1.2 \frac{g}{cm^3} = 10 \frac{lb}{gal}$	
Hydrogen Peroxide Concentration	Chp:= 32 %	Delivered
Drum Volume	Vdrum= 55 <i>gal</i>	
Soil Effective Porosity	n:= 25 %	
Injectate Solution	IS≔ 5 %	
Estimated Injection Rate	IR=10 $\frac{gal}{min}$	
Fraction Organic Carbon - Sand	foc:= 0.0005	ITRC
Octanol-Water Partition Coefficient	$\text{Koc} \coloneqq 2000  \frac{L}{kg}$	naphthalene

### CALCULATIONS

Treatment Volume

Mass of TPH in Soil

Hydrogen Peroxide Demand

Number of Drums Required

Design Number of Drums

Injectate Volume

Percent of Pore Volume

Hydrogen Peroxide Demand with Safety Factor

Mass of Hydrogen Peroxide in a Drum

Design Mass of Hydrogen Peroxide

Total Delivered Solution Volume

Pore Volume

Mass of Soil

Distribution Coefficient

Napthalene Concentration in Soil

TPH Concentration in Soil based on site data regression

Kd:= Koc foc =  $1 \frac{L}{ka}$ Sn = Kd Cn =  $0.124 \frac{mg}{kg}$ Ctph:= 46.258  $\cdot \frac{\text{Sn}}{\frac{mg}{kg}}$  + 45.277= 51 mg kg Ctph:=  $51 \frac{mg}{kg}$ Vol:=(DL+30 ft)·W·T=10800 ft 3 PV:= Vol·n= 20197 gal Msoil:= Vol·Dsoil= 1.08.10<sup>6</sup> *lb* Mtph:= Msoil · Ctph= 55 1b Dhp:= Mtph Rhp = 209 1b Dhp\_sf:= Dhp·SF= 628 1b Mphd:= Vdrum Chp D= 176 1b  $Nd := \frac{Dhp\_sf}{Mphd} = 3.6$ Nd:= 4 Mhp\_design=Nd Mphd=705 1b

Vsd:= Nd·Vdrum= 220 gal

IV = Vsd 
$$\cdot \frac{\text{Chp}}{\text{IS}} = 1408 \text{ gal}$$

$$PPV := \frac{IV}{PV} = 7 \%$$

CONCLUSIONS: FOUR DRUMS OF 32% HP WILL BE MIXED WITH WATER FOR A TOTAL VOLUME OF ~ 1,400 GALLONS AND INJECTED INTO IW-1 DRAIN PIPE

#### TABLE 3 SUMMARY OF ANALYTICAL RESULTS FOR SOIL CONFIRMATORY SAMPLES CLIMATE ROOFING, 2700 ISLETA BLVD, SW ALBUQUEQUE, NEW MEXICO

			Tier 1	North	South Floor	North	South	East Wall	West Wall	Meoh
Analyte	Units	Method	Standard	Floor - 13'	- 13'	Wall - 8'	Wall - 8'	8'	- 8'	Blank
Sample Collection Date				11/3/2005	11/3/2005	11/3/2005	11/7/2005	11/7/2005	11/7/2005	
Sample Collection Time				1330	1345	1050	1415	1430	1400	
Diesel Range Organics	mg/kg	EPA 8015B	NS	12	16	63	130	<10	120	NA
Motor Oil Range Organics	mg/kg	EPA 8015B	NS	<50	<50	<50	<50	<50	<50	NA
Gasoline Range Organics	mg/kg	EPA 8015B	NS	38	150	38	780	<5.0	4,800	<5.0
Benzene	mg/kg	EPA 8260B	0.02	< 0.050	< 0.50	< 0.050	< 0.50	< 0.050	<5.0	< 0.050
Toluene	mg/kg	EPA 8260B	2.09	< 0.050	< 0.50	< 0.050	< 0.50	< 0.050	<5.0	< 0.050
Ethylbenzene	mg/kg	EPA 8260B	17.23	0.11	< 0.50	0.39	<0.50	< 0.050	30	< 0.050
Xylenes, total	mg/kg	EPA 8260B	2.91	0.89	3.0	0.29	3.2	< 0.050	130	< 0.050
Methyl tertiary butyl ether	mg/kg	EPA 8260B	0.04	< 0.050	< 0.50	< 0.050	< 0.50	< 0.050	<5.0	< 0.050
Naphthalene	mg/kg	EPA 8260B	*	0.21	<1.0	0.14	2.9	< 0.10	25	< 0.10
1-Methylnaphthalene	mg/kg	EPA 8260B	*	0.24	<2.0	0.33	4.80	< 0.20	46	<0.20
2-Methylnaphthalene	mg/kg	EPA 8260B	*	0.35	2.1	< 0.20	6.5	< 0.20	32	<0.20
Naphthalene, Total	mg/kg	EPA 8260B	0.68	0.80	2.10	0.47	14.20	< 0.20	103	<0.20

#### Notes:

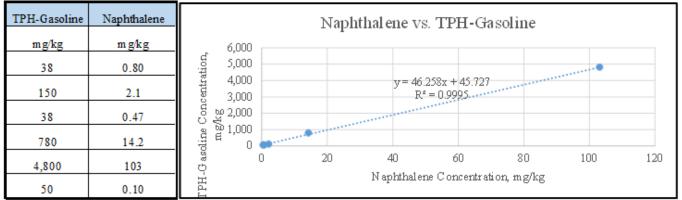
NA

Samples were collected using methanol extraction method in the field

This table only presents analytes with concentrations above practical quantitation limits. For a full list of analytes refer to Appendix B.

Listed Tier 1 Standard is protective of groundwater (Table 4-16 NMED PSTB Guidelines for Corrective Action) \* See total naphthalene

- \* EPA
  - US Environmental Protection Agency
- mg/kg Milligrams per kilogram
  - Not analyzed



Data source: Completion Report. Golder. January 2006

Source: Completion Report. Golder. January 2016

## **APPENDIX E – SITE ACCESS AGREEMENT**

Name of Property Owner: <u>Prostripe Property management</u>, LLC. Location of Property: 2700 Isleta Boulevard SW, Albuquerque, New Mexico

This is my consent to the New Mexico Environment Department (Department) and its authorized officers, employees, contractors, and representatives for access to the above-described Property for the following purposes:

Corrective action consistent with the requirements of 20.5.119 NMAC and approved by the Department. Activities may include but are not limited to the following:

- Injection of chemical compounds to remediate soil and groundwater contamination and ongoing soil and groundwater sampling, and installation and abandonment of soil borings and monitoring wells, as required.
- All work will be conducted in an efficient, courteous manner and with minimal disruption and inconvenience to the patrons, employees, agents, and representative of the Owner.

The Department or its representative will provide the Property Owner written or oral notice prior to each entrance onto Property. This notice shall be given to:

Property Owner:	Pinstripe Property management, LLC.
Owner's Address:	10 00 Antier tolol rd su
City, State, Zip Code: _	
Telephone:	Albuquerque, NM 8712/ 505-440-3434
Email:	racquel Villegas @ YALos. com

Property Owner may observe activities on the Property, consistent with Occupational Health and Safety Regulations (see 29 CFR § 1910.120). Should the property owner choose to collect and analyze split samples, the Property Owner is responsible for the provision of, and costs associated with any equipment, accessories and laboratory costs required for such split samples.

Installations on the Property will be placed to minimize interference with the movement of vehicles and regular activities on the Property. Following completion of the project, the Department or its representative will properly abandon all wells, remove equipment, all materials, trash, fencing, and other associated items. The Department or its representative will otherwise return the property as close as possible to the pre-entrance condition.

This permission is given by me voluntarily with knowledge of my right to refuse and without coercion. I have had an opportunity to ask questions and all my questions have been answered to my satisfaction.

Signature Property Owner

124/19 Date

## APPENDIX F – HEALTH AND SAFETY PLAN



Site Name: Climate Roofing	Vener Mustafin		<b>Telephone:</b> 505-296-1070			
Location: 2700 Isleta Blvd SW, Albuquerque, NM	: Racquel Villegas		<b>Telephone:</b> 505-877-4913			
EPA I.D. No.: N/A	Vener Mustafin		Date: Jan	<b>Date:</b> January 11, 2019		
Project No.	ed Activities: 2019					
Objectives:		Site Type: Check as me	any as applicable.			
All personnel working on this site are trained in a 29 CFR 1910.120 and are currently active in a mo	Active	Industrial	Waste	Well field		
<i>monitoring program to perform work on a hazard</i> The objective of this health and safety plan (HSP)	lous waste site.	Inactive	Landfill		Underground storage tank	
site-specific hazards and the hazards controls to b		Secure Secure	Confined	space		
worker safety for the following activities:			(must use lon	g form)	Unknown	
• Inject hydrogen peroxide into select a dra	Unsecure		1 1 1 1 1 1	(must use long form)		
		Uncontrol (must use lon		Other (Egg Farm)		
Site Description/History and Site Activities.		1				

### Description/History and Site Activities:

Climate Roofing is a former gasoline service station located at 2700 Isleta Blvd, SW, Albuquerque, New Mexico. Currently, the site is being used as a Los Solecitos Academy Child Care. The USTs were removed in 1990. The date of the release and volume of product lost into subsurface were unknown. Proposed activities include injection of hydrogen peroxide solution into groundwater using an existing 60-LF long drain. Drain will be accessed through a 4-inch diameter PVC riser. Hydrogen peroxide will be added into the mixing tank containing water and injected into the drain by gravity feed or using a pump.

Note: A site map, definitions, and additional information about this form are provided on the last three pages of this form.



### Waste Management Practices:

PPE that cannot be decontaminated (i.e., chemical resistant suits, gloves, boot covers, respirator cartridges, etc.) will be placed in plastic trash bags. The disposal of investigation-derived waste will be in accordance with the U.S. Environmental Protection Agency, state, and federal requirements. Empty hydrogen peroxide drums will be rinsed out with water.

Waste Types:	🛛 Liquid	Solid	Sludge Gas			
Waste / Chemical	Corrosive	🛛 Oxidizer	Flammable			
<b>Characteristics:</b>						
🖂 Toxic	Explosive	🛛 Volatile	Radioactive			
Reactive	Inert		Other (specify)			
<b>Chemical / Health Haza</b>	ards of Concern:					
Explosion or fire	e hazard – monitor with	Inorganic ch	nemicals (nitrate and chloride)			
combustible gas me	ter					
Oxygen deficier	ncy – monitor with oxygen	Organic chemicals (PCP)				
meter						
	monitor with methane and	Petroleum Hydrocarbons (as TPH DRO)				
hydrogen sulfide me	eter					
Surface tanks		Underground storage tanks				
	tion or skin absorption hazard	$\bigcirc$ Other 55 – gallon drums of 30%, 32%, 35%, or 50% hydrogen peroxide				
	dangerous to life and health					
(IDLH) – must use	long form					
<b>Explosion or Fire Poten</b>	itial: 🗌 High 🗌	Medium	Low Unknown			
Radiological Hazards of	f Concern: None known					



Ionizing radiation (Radioactive materials, X-ray) (must use long form)	Non-ionizing radiation (ultraviolet, lasers)
Safety Hazards of Concern: (Based on anticipated clean-up	
operations)	
Heavy Equipment	Buried utilities
Pinch points	Overhead utilities
Energized and rotating equipment (drill rig)	Suspended loads
Steam cleaning equipment	Buried drums
Excavations	Work over or near water
Welding or torch cutting (Hot work)	Work from elevated platforms
Sharp Objects	Manual Lifting
Hazardous energy sources (electrical, hydraulic)	Other (specify)
	Heavy traffic
Physical Hazards of Concern:	☐ Vibration
Heat stress	Noise
Cold stress	Solar (sunburn)
Slips, trips, falls	Unstable or steep terrain
Illumination	Other (specify) Traffic
Biological Hazards of Concern:	Snakes (rattlesnakes)
Poisonous plants (poison ivy, poison oak)	Stinging insects (bees, wasps)
Spiders (black widow or brown recluse spiders)	Animals (feral dogs, mountain lions, etc.)
Medical waste	Blood or other body fluids
Unexploded Ordnance:	
<ul> <li>Unexploded Ordnance (UXO) (must use long form)</li> <li>Chemical Warfare Materials (CWM) (must use long form)</li> </ul>	Explosive ordnance waste (OEW) (must use long form)



Chemical Products EA Engineering Will Use or Store On Site: (Attach a Material Safety Data Sheet [MSDS] for each item.)
Alconox® or Liquinox®
Hydrochloric acid (HCl)
Nitric Acid (HNO <sub>3</sub> )
Sodium hydroxide (NaOH)
Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> )
Other (specify) <u>Hydrogen Peroxide</u>
Other (specify)



Chemicals Present at S	Highest Observed Concentration* ite (groundwater)	PEL/TLV (specify ppm or mg/m <sup>3</sup> )	IDLH Level (specify ppm or mg/m <sup>3</sup> )	Symptoms and Effects of Acute Exposure	Photo- ionization Potential (eV)	
Benzene	<1.0 µg/L	1 ppm (PEL)	500 ppm CARC	Severe irritant (skin, eye); reproductive toxin; CNS narcotic	9.24	
Toluene	<1.0 µg/L	100 ppm	500 ppm	Severe irritant (skin, eye); reproductive toxin; CNS narcotic; fatigue, weakness, dizziness; headache	8.82	
Ethylbenzene	1.9 μg/L	100 ppm	800 ppm	Severe irritant (skin, eye, mucous membranes); headache; narcosis	8.76	
Xylenes (o, m, and p)	<1.5 µg/L	100 ppm	900 ppm	Irritant (skin, eye, throat); reproductive toxin, CNS narcotic	8.44 - 8.56	
Diesel Fuel	NA	NE	NE	Irritant (respiratory tract); possible carcinogen; NE possible mutagen		
Gasoline	NA	300 ppm	CARC	Irritant (skin, eye, mucous membrane); CNS narcotic	NE	
Hydrogen peroxide (delivered)	32% solution	1 ppm (PEL)	75ppm	Irritant (eyes, nose, throat); corneal ulcer, erythema, vesiculation skin, bleaching hair	NE	
Notes: NIOSH Pocket Guide to Chemical Hazards, September 2005 2018 Groundwater sampling data						
CARC = $GW = Ground water$ $NA = Not available$ $ppm = Part per million$ CarcinogenicIDLH = Immediately dangerous to life or $PEL = Permissible exposure$ $TLV = Threshold limit$ $eV = Electron volthealthlimitvaluemg/L = Milligram per litermg/m^3 = Milligram per cubic meterHarrow meter$						



Field Activities Covered Under This Plan:							
				Level of Protection			
Task Description		Туре	Prir	mary	Contir	ngency	<b>Date of Activities</b>
1 Hydrogen Peroxide Solution Injection		Intrusive [Variable]	C	D	C	B	2019
		Nonintrusive					
2 Groundwater Sampling		Intrusive	C	D	□ C	🗌 D	
		Nonintrusive					
Site Personnel and Responsibilities (include subcontra	ctors):						
<b>Employee Name and Office Code</b>	Task			Respo	onsibilities		
Vener Mustafin	1	Project Manager or Designated Leader: Directs project activities, makes site safety coordinator (SSC) aware of pertinent project developments and plans, and maintains communications with client as necessary.					
Tyler Curley, Curtis Landers, Elliot Andelman, others	1	Site Safety Coordinator (SSC): Ensures that appropriate personal protective equipment (PPE) is available, enforces proper utilization of PPE by on-site personnel, suspends investigative work if he or she believes that site personnel are or may be exposed to an immediate health hazard, implements the health and safety plan, and reports any observed deviations from anticipated conditions described in the health and safety plan to the health and safety representative.					
Tyler Curley, Curtis Landers, Elliot Andelman, others	1	Field Personnel: Complete tasks as directed by the program manager, field team leader, and SSC and follow all procedures and guidelines established in the EA Engineering Health and Safety Manual.					



Protective Equipment: (Indicate type or material as necessary for each task; attach additional sheets as necessary)				
Task: 🛛 1	2	Task: 1	2	
Level: C	D	Level: C	D	
🖂 Primary	Contingency	Primary	Contingency	
RESPIRATORY	PROTECTIVE CLOTHING	RESPIRATORY	PROTECTIVE CLOTHING	
Not needed	Not needed	⊠ Not needed	Not needed	
APR:	Tyvek® coveralls:	APR:	Tyvek® coveralls:	
Cartridge:	Saranex® coveralls:	Cartridge:	Saranex® coveralls:	
Escape mask:	Coveralls:	Escape mask:	Coveralls:	
Other:	Other:	Other:	Other:	
HEAD AND EYE          Not needed         Safety glasses:         Face shield:         Goggles:         Hard hat:         Other:       Face Shield	GLOVES          Not needed         Undergloves:         Gloves:         Overgloves:	HEAD AND EYE   Not needed   Safety glasses:   Face shield:   Goggles:   Hard hat:   Other:	Gloves: Nitrile	
<ul> <li>FIRST AID EQUIPMENT</li> <li>Not needed</li> <li>∑ Standard First Aid kit</li> <li>∑ Portable eyewash</li> <li>OTHER</li> <li>☐ (specify):</li></ul>	BOOTS <ul> <li>Not needed</li> <li>Work boots: Steel Toed</li> <li>Overboots:</li> </ul>	<ul> <li>FIRST AID EQUIPMENT</li> <li>Not needed</li> <li>∑ Standard First Aid kit</li> <li>∑ Portable eyewash</li> <li>OTHER</li> <li>☐ (specify):</li></ul>	BOOTS          Not needed         Work boots:         Overboots:	

Note: Respirator will be worn when handling 32% hydrogen peroxide and in vicinity of open drums.

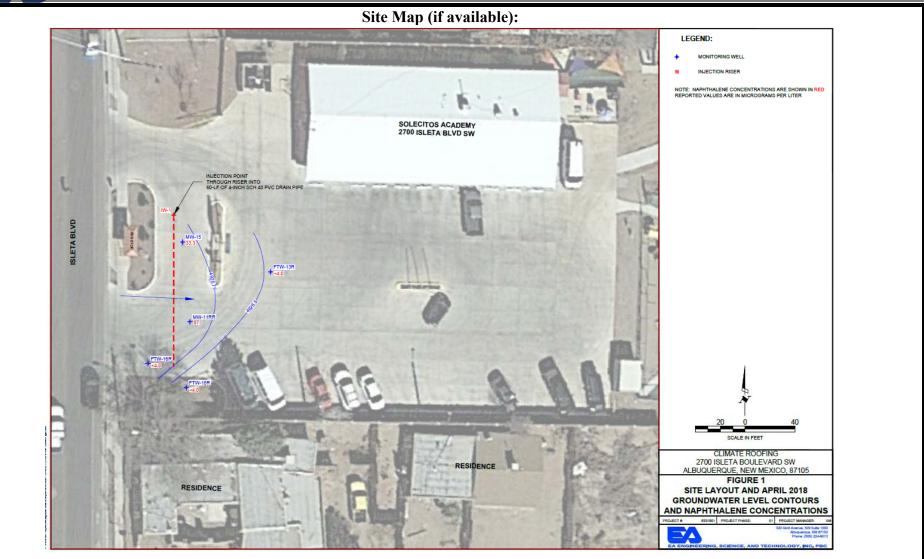
APR = Air purifying respirator

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Monitoring Equipment: (Specify instruments needed for each task; attach additional sheets as necessary)						
Instrument	Task	Instrument Reading	Action Guideline	Comments		
Combustible gas indicator model:	1	0 to 10% LEL	No explosion hazard	Not needed		
	2	10 to 25% LEL	Potential explosion hazard; notify SSC			
		>25% LEL	Explosion hazard; interrupt task; evacuate site, notify SSC			
O2 meter model:	$\square$ 1	> 23.5% O2	Potential fire hazard; evacuate site	Not needed		
	2	23.5 to 19.5% O2	Oxygen level normal			
		<19.5% O2	Oxygen deficiency; interrupt task; evacuate site; notify SSC			
Photoionization detector model:	1	>0 to 5 ppm above background	Level D	Not needed		
□ 11.7 eV □ 10.6 eV	2	>5 to 50 ppm above background	Level C			
□ 9.8 eV □ eV		>50 ppm above background	Evacuate site; notify SSC	·		
Flame ionization detector model:	1	>0 to 5 ppm above background	Level D	Not needed		
	2	>5 to 50 ppm above background	Level C			
		>50 ppm above background	Evacuate site; notify SSC			
Detector tubes models:		Specify:	Specify:	Note: This action level for Not needed upgrading the level of protection is one-half of the contaminant's PEL. If the PEL is reached, evacuate the site and notify the SSC.		
Respirable dust monitor model:	$ \begin{array}{c c}     1 \\     2 \end{array} $	Specify:	Specify:	Not needed		
Other: (specify):	$ \begin{array}{c c}     1 \\     2 \end{array} $	Specify:	Specify:	Not needed		
Notes: eV = Electron vol	t P	EL = Permissible exposure limit	LEL = Lower explosive limit ppm = Part per million	$O_2 = Oxygen$		







Additional Comments:	<b>Emergency Contacts:</b>			Telephone
EA Engineering site workers will contain and absorb any chemicals used or	U.S. Coast Guard Nation	nal Response C	lenter	800/424-8802
transferred on site.	InfoTrac			800/535-5053
	Fire department			911
	Police department			911
	EA Engineering Personn			
	Corporate Human Resor		Michele Bailey	410/584-7000
	Corporate Health & Saf		Pete Garger	410/527-2412
	Office Health & Safet	ty Coordinator		505/259-6779
	Program Manager:		Mike McVey	505/235-9037
	Site Safety Coordinate	or:	Tyler Curley	719-688-9558
Personnel Decontamination and Disposal Method:	Medical Emergency:			
Personnel will follow the U.S. Environmental Protection Agency's "Standard	Hospital Name:	Dr Dan Trig	g Memorial Hospital	
Operating Safety Guides" for decontamination procedures for Level C personal	-	-		
protection. The following decontamination stations should be set up in each				
decontamination zone:	Hospital Address:	1100 Centra	l Avenue, SE,	
		Albuquerque	e, New Mexico, 87106	
• All equipment will be decontaminated in a designated area	Hospital Telephone:	Emergency -	- 911	
		General – (5	05) 841-1234	
All disposable equipment and gloves will be double-bagged or containerized in				
an acceptable manner and disposed of in accordance with local regulations.	Ambulance Telephone:	911		

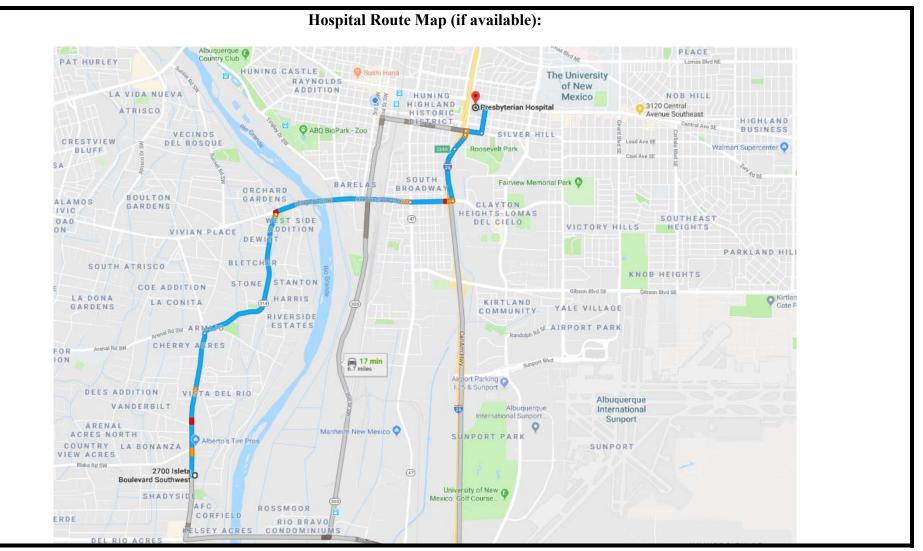


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Page		UL.	14

<u>Route to Hospital:</u> (see next page for route map) 14 minutes (5.3 miles)					
t	Head north on Isleta Blvd SW toward Val Verde Rd SW				
	1.3 mi				
r	Use the right 2 lanes to turn right to stay on Isleta Blvd SW				
	Pass by Dairy Queen (Treat) (on the left in 1.1 mi)				
	1.4 mi				
t	Continue onto NM-314 E/Bridge Blvd SW				
	<ul> <li>Continue to follow NM-314 E</li> <li>Pass by McDonald's (on the left in 0.7 mi)</li> </ul>				
	• • • • •				
	1.2 mi				
t	Continue onto Avenida Cesar Chavez				
	0.4 mi				
*	Turn left to merge onto I-25 N				
	0.5 mi				
r	Take exit 224A toward Coal Ave/Lead Ave/Central Ave				
	0.2 mi				
*	Merge onto Oak St SE				
	187 ft				
г*	Turn right onto Coal Ave SE				
	0.1 mi				
Con	tinue on Cedar St SE. Drive to Gold Ave SE				
3 mir	n (0.3 mi)				
41	Turn left onto Cedar St SE				
•	0.2 mi				
*					
4	Turn left onto Gold Ave SE Destination will be on the right				
	•				
	246 ft				

Note: This page must be posted on site.





Note: This page must be posted on site.

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APPR	OVAL AND SIGN-OFF FORM	
	Project No. 6331801	
I have read, understood, and agree with the information set Coordinator as well as procedures and guidelines establish medical requirements for conducting field work and have m	ed in the EA Engineering Health and Safety	
Name	Signature	Date
APPROVALS: (Two Signatures Required)		
Site Safety C	Coordinator	Date
Health and Safe	ty Coordinator	Date

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## **DEFINITIONS**

Intrusive - Work involving excavation to any depth, drilling, opening of monitoring wells, most sampling, and Geoprobe® work

Nonintrusive - Generally refers to site walk-throughs or field reconnaissance

## **Levels of Protection**

Level D - Hard hat, safety boots, and glasses, may include protective clothing such as gloves, boot covers, and Tyvek® or Saranex® coveralls

Level C - Hard hat, safety boots, glasses, and air purifying respirators with appropriate cartridges, PLUS protective clothing such as gloves, boot covers, and Tyvek® or Saranex® coveralls

## **Emergency Contacts**

- **InfoTrac** For issues related to incidents involving the transportation of hazardous chemicals; this hotline provides accident assistance 24 hours per day, 7 days per week
- **U.S. Coast Guard National Response Center** For issues related to spill containment, cleanup, and damage assessment; this hotline will direct spill information to the appropriate state or region

## Health and Safety Plan Short Form

- Used for field projects of limited duration and with relatively limited activities; may be filled in with handwritten text
- Limitations:
  - No Level B or A work
  - Limited number of tasks
  - No confined space entry
  - No unexploded ordnance work or radiation hazard

## SAFETY DATA SHEET HYDROGEN PEROXIDE 35%

SDS # : 7722-84-1--35 Revision date: 2015-03-18 Format: NA Version 1



#### **1. PRODUCT AND COMPANY IDENTIFICATION**

Product Identifier	
Product Name	HYDROGEN PEROXIDE 35%
Other means of identification	
CAS-No	7722-84-1
Recommended use of the chemica	I and restrictions on use
Recommended Use:	
Restrictions on Use:	Use as recommended by the label.
<u>Manufacturer/Supplier</u>	PeroxyChem LLC 2005 Market Street Suite 3200 Philadelphia, PA 19103 Phone: +1 267/ 422-2400 (General Information) E-Mail: sdsinfo@peroxychem.com
	PeroxyChem Canada PG Pulp Mill Road Prince George, BC V2N2S6 1+ 250/ 561-4200 (General Information)
Emergency telephone number	For leak, fire, spill or accident emergencies, call: 1 800 / 424 9300 (CHEMTREC - U.S.A.) 1 703 / 527 3887 (CHEMTREC - Collect - All Other Countries) 1 613/ 996-6666 (CANUTEC - Canada) 1 303/ 389-1409 (Medical - U.S Call Collect)
	1 281 / 474-8750 (Bayport, Texas Plant) 1 250 / 561-4221 (Prince George, BC, Canada Plant)

## 2. HAZARDS IDENTIFICATION

#### **Classification**

#### **OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Acute toxicity - Oral	Category 4
Acute toxicity - Inhalation (Vapors)	Category 4
Skin corrosion/irritation	Category 2 Sub-category B
Serious eye damage/eye irritation	Category 1

			_	
V	ers	sion	1	

Specific target organ toxicity (single exposure)	Category 3
Oxidizing Liquids	Category 2

#### GHS Label elements, including precautionary statements

#### EMERGENCY OVERVIEW

#### Danger

#### Hazard Statements

- H318 Causes serious eye damage
- H302 Harmful if swallowed
- H332 Harmful if inhaled
- H335 May cause respiratory irritation
- H315 Causes skin irritation
- H270 May cause or intensify fire; oxidizer



#### **Precautionary Statements - Prevention**

- P271 Use only outdoors or in a well-ventilated area
- P261 Avoid breathing mist/vapors/spray
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection
- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking
- P221 Take any precaution to avoid mixing with combustibles/flammables
- P220 Keep/Store away from clothing/flammable materials/combustibles

#### **Precautionary Statements - Response**

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

- P310 Immediately call a POISON CENTER or doctor
- P302 + P352 IF ON SKIN: Wash with plenty of water and soap
- P332 + P313 If skin irritation occurs: Get medical advice/ attention
- P362 + P364 Take off all contaminated clothing and wash it before reuse
- P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
- P312 Call a POISON CENTER or doctor if you feel unwell
- P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

P330 - Rinse mouth

P370 + P378 - In case of fire: Use water for extinction

#### Hazards not otherwise classified (HNOC)

No hazards not otherwise classified were identified.

#### Other Information

Keep container in a cool place out of direct sunlight. Store only in vented containers. Do not store on wooden pallets. Do not return unused material to its original container. Avoid contamination - Contamination could cause decomposition and generation of oxygen which may result in high pressure and possible container rupture. Empty drums should be triple rinsed with water before discarding.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula

HO - OH

Chemical name	CAS-No	Weight %
Hydrogen peroxide	7722-84-1	35
Water	7732-18-5	65

Occupational exposure limits, if available, are listed in section 8

4. FIRST AID MEASURES		
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Seek immediate medical attention/advice.	
Skin Contact	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.	
Inhalation	Move to fresh air. If person is not breathing, contact emergency medical services, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.	
Ingestion	Rinse mouth. Do not induce vomiting. If conscious, give 2 glasses of water. Get immediate medical attention. Never give anything by mouth to an unconscious person.	
Most important symptoms and effects, both acute and delayed	In case of accidental ingestion, necrosis may result from mucous membrane burns (mouth, esophagus and stomach). Oxygen rapid release may cause stomach swelling and hemorrhaging, which may product major, or even fatal, injury to organs if a large amount has been ingested. In case of skin contact, may cause burns, erythema, blisters or even necrosis. Hydrogen Peroxide irritates respiratory system and, if inhaled, may cause inflammation and pulmonary edema. The effects may not be immediate.	
Indication of immediate medical attention and special treatment needed, if necessary	Hydrogen peroxide at these concentrations is a strong oxidant. Direct contact with the eye is likely to cause corneal damage especially if not washed immediately. Careful opthalmologic evaluation is recommended and the possibility of local corticosteroid therapy should be considered. Because of the likelihood of corrosive effects on the gastrointestinal tract after ingestion, and the unlikelihood of systemic effects, attemps at evacuating the stomach via emesis induction or gastric lavage should be avoided. There is a remote possibility, however, that a nasogastric or orogastric tube may be required for the reduction of severe distension due to gas formation.	
	5. FIRE-FIGHTING MEASURES	
Suitable Extinguishing Media	Water. Do not use any other substance.	
Specific Hazards Arising from the Chemical	In closed unventilated containers, risk of rupture due to the increased pressure from decomposition. Contact with combustible material may cause fire	
Hazardous Combustion Products	On decomposition product releases oxygen which may intensify fire.	
Explosion data Sensitivity to Mechanical Impact Sensitivity to Static Discharge	Not sensitive. Not sensitive.	
Protective equipment and precautions for firefighters	Use water spray to cool fire exposed surfaces and protect personnel. Move containers from fire area if you can do it without risk. As in any fire, wear self-contained breathing apparatus and full protective gear.	

## 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Isolate and post spill area. Keep people away from and upwind of spill/leak. Eliminate all sources of ignition and remove combustible materials.
Other	Combustible materials exposed to hydrogen peroxide should be immediately submerged in or rinsed with large amounts of water to ensure that all hydrogen peroxide is removed. Residual hydrogen peroxide that is allowed to dry (upon evaporation hydrogen peroxide can concentrate) on organic materials such as paper, fabrics, cotton, leather, wood or other combustibles can cause the material to ignite and result in fire.
Environmental Precautions	Do not flush into surface water or sanitary sewer system; if discharged into sewers or watercourses, dilute with plenty of water. See Section 12 for additional Ecological Information.
Methods for Containment	Dike to collect large liquid spills. Stop leak and contain spill if this can be done safely. Small spillage: Dilute with large quantities of water.
Methods for cleaning up	Flush area with flooding quantities of water. Hydrogen peroxide may be decomposed by adding sodium metabisulfite or sodium sulfite after diluting to about 5%.
	7. HANDLING AND STORAGE
Handling	Keep/Store away from clothing/ combustible materials. Wear personal protective equipment. Reference to other sections. Never return unused hydrogen peroxide to original container. Contamination may cause decomposition and generation of oxygen gas which could result in high pressures and possible container rupture. Empty drums should be triple rinsed with water before discarding. Utensils used for handling hydrogen peroxide should only be made of glass, stainless steel, aluminum or plastic. Pipes and equipment should be passivated before first use. Use only in well-ventilated areas. Hydrogen peroxide should be stored only in vented containers and transferred only in a prescribed manner.
Storage	Keep containers in cool areas out of direct sunlight and away from combustibles. Provide mechanical general and/or local exhaust ventilation to prevent release of vapor or mist into work environment. Containers must be vented. Keep/store only in original container. Store rooms or warehouses should be made of non-combustible materials with impermeable

Incompatible products Combustible materials. Copper alloys, galvanized iron. Strong reducing agents. Heavy metals. Iron. Copper alloys. Contact with metals, metallic ions, alkalis, reducing agents and organic matter (such as alcohols or terpenes) may produce self-accelerated thermal decomposition.

temperature, etc.).

floors. In case of release, spillage should flow to safe area. Containers should be visually inspected on a regular basis to detect any abnormalities (swollen drums, increases in

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Control parameters

#### **Exposure Guidelines**

Ingredients with workplace control parameters.

Chemical name	ACGIH TLV	OSHA PEL	NIOSH	Mexico
Hydrogen peroxide 7722-84-1	TWA: 1 ppm	TWA: 1 ppm TWA: 1.4 mg/m <sup>3</sup>	IDLH: 75 ppm TWA: 1 ppm TWA: 1.4 mg/m <sup>3</sup>	Mexico: TWA 1 ppm Mexico: TWA 1.5 mg/m <sup>3</sup> Mexico: STEL 2 ppm
<b>a</b> l 1 1				Mexico: STEL 3 mg/m <sup>3</sup>
Chemical name	British Columbia	Quebec	Ontario TWAEV	Alberta
Hydrogen peroxide 7722-84-1	TWA: 1 ppm	TWA: 1 ppm TWA: 1.4 mg/m <sup>3</sup>	TWA: 1 ppm	TWA: 1 ppm TWA: 1.4 mg/m <sup>3</sup>

#### Appropriate engineering controls

## **HYDROGEN PEROXIDE 35%**

#### SDS #: 7722-84-1--35 Revision date: 2015-03-18

	Version 1
Engineering measures	Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation.
Individual protection measures, su	ch as personal protective equipment
Eye/Face Protection	Use chemical splash-type monogoggles and a full-face shield made of polycarbonate, acetate, polycarbonate/acetate, PETG or thermoplastic.
Skin and Body Protection	For body protection wear impervious clothing such as an approved splash protective suit made of SBR rubber, PVC (PVC Outershell w/Polyester Substrate), Gore-Tex (Polyester trilaminate w/Gore-Tex), or a specialized HAZMAT Splash or Protective Suite (Level A, B, or C). For foot protection, wear approved boots made of NBR, PVC, Polyurethane, or neoprene. Overboots made of Latex or PVC, as well as firefighter boots or specialized HAZMAT boots are also permitted. DO NOT wear any form of boot or overboot made of nylon or nylon blends. DO NOT USE cotton, wool or leather as these materials react rapidly with higher concentrations of hydrogen peroxide. Completely submerge hydrogen peroxide contaminated clothing or other materials in water prior to drying. Residual hydrogen peroxide, if allowed to dry on materials such as paper, fabrics, cotton, leather, wood or other combustibles, can cause the material to ignite and result in a fire.
Hand Protection	For hand protection, wear approved gloves made of nitrile, PVC, or neoprene. DO NOT use cotton, wool or leather for these materials react RAPIDLY with higher concentrations of hydrogen peroxide. Thoroughly rinse the outside of gloves with water prior to removal. Inspect regularly for leaks.
Respiratory Protection	If concentrations in excess of 10 ppm are expected, use NIOSH/DHHS approved self-contained breathing apparatus (SCBA) or other approved air-supplied respirator (ASR) equipment (e.g., a full-face airline respirator (ALR)). DO NOT use any form of air-purifying respirator (APR) or filtering facepiece (dust mask), especially those containing oxidizable sorbants such as activated carbon.
Hygiene measures	Avoid breathing vapors, mist or gas. Clean water should be available for washing in case of eye or skin contamination.
General information	Protective engineering solutions should be implemented and in use before personal protective equipment is considered.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

## Information on basic physical and chemical properties

Appearance	Clear, colorless liquid
Physical State	Liquid
Color	Colorless
Odor	odorless
Odor threshold	Not applicable
рН	<= 3.7
Melting point/freezing point	-33 °C
Boiling Point/Range	108 °C
Flash point	Not flammable
Evaporation Rate	> 1 (n-butyl acetate=1)
Flammability (solid, gas)	Not flammable
Flammability Limit in Air	Not applicable
Upper flammability limit:	
Lower flammability limit:	
Vapor pressure	23 mm Hg @ 30 °C
Vapor density	No information available
Density	1.13 g/cm <sup>3</sup> @ 20°C
Specific gravity	1.13
Water solubility	completely soluble
Solubility in other solvents	No information available
Partition coefficient	log Kow = -1.5 @ 20 °C
Autoignition temperature	Not combustible
Decomposition temperature	100 °C (adiabatic)
····	

Viscosity, kinematic

Viscosity, dynamic Explosive properties Oxidizing properties Molecular weight Bulk density	No information available No information available Strong oxidizer 34 Not applicable
	10. STABILITY AND REACTIVITY
Reactivity	Reactive and oxidizing agent.
Chemical Stability	Stable under normal conditions. Decomposes on heating. Stable under recommended storage conditions.
Possibility of Hazardous Reactions	Contact with organic substances may cause fire or explosion. Contact with metals, metallic ions, alkalis, reducing agents and organic matter (such as alcohols or terpenes) may produce self-accelerated thermal decomposition.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Excessive heat; Contamination; Exposure to UV-rays; pH variations.
Incompatible materials	Combustible materials. Copper alloys, galvanized iron. Strong reducing agents. Heavy metals. Iron. Copper alloys. Contact with metals, metallic ions, alkalis, reducing agents and organic matter (such as alcohols or terpenes) may produce self-accelerated thermal decomposition.

1.10 cP @ 20 °C

Hazardous Decomposition Products Oxygen which supports combustion. Liable to produce overpressure in container.

11. TOXICOLOGICAL INFORMATION						
Product Information						
LD50 Oral	50% solution: LD50 > 225 mg/kg bw (rat) 35 % solution:LD50 1193 mg/kg bw (rat) 70 % solution: LD50 1026 mg/kg bw (rat)					
LD50 Dermal	35% solution: LD50 > 2000 mg/kg bw (rabbit)					
LC50 Inhalation	70 % solution: LD50 9200 mg/kg bw (rabbit) 50% solution: LC50 > 170 mg/m³ (rat) (4-hr) Hydrogen Peroxide vapors: LC0 9400 mg/m³ (mouse) (5 - 15 minutes) Hydrogen Peroxide vapors: LC50 > 2160 mg/m³ (mouse)					
Serious eye damage/eye irritation Skin corrosion/irritation	Corrosive. Risk of serious damage to eyes. Moderately irritating (rabbit).					
Sensitization	Did not cause sensitization on laboratory animals.					
Information on toxicological effects	<u>S</u>					
Symptoms	Vapors, mists, or aerosols of hydrogen peroxide can cause upper airway irritation, inflammation of the nose, hoarseness, shortness of breath, and a sensation of burning or tightness in the chest. Prolonged exposure to concentrated vapor or to dilute solutions can cause irritation and temporary bleaching of skin and hair. Exposure to vapor, mist, or					

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity

This product contains hydrogen peroxide. The International Agency for Research on Cancer (IARC) has conculded that there is inadequate evidence for carcinogenicity of hydrogen peroxide in humans, but limited evidence in experimental animals (Group 3 - not classifiable as to its carcinogenicity to humans). The American Conference of Governmental Industrial Hygienists (ACGIH) has concluded that hydrogen peroxide is a

aerosol can cause stinging pain and tearing of eyes.

#### **HYDROGEN PEROXIDE 35%**

#### SDS #: 7722-84-1--35 Revision date: 2015-03-18 Version 1

'Confirmed Animal Carcinogen with Unknown Relevance to Humans' (A3).

Chemical name	ACGIH	IARC	NTP	OSHA
Hydrogen peroxide 7722-84-1	A3	3		

Mutagenicity	This product is not recognized as mutagenic by Research Agencies In vivo tests did not show mutagenic effects
Reproductive toxicity	No toxicity to reproduction in animal studies.
STOT - single exposure STOT - repeated exposure	May cause respiratory irritation. Not classified.
Target organ effects	Eyes, Respiratory System, Skin.
Aspiration hazard	Aspiration risk: may cause lung damage if swallowed.

## 12. ECOLOGICAL INFORMATION

#### **Ecotoxicity**

#### **Ecotoxicity effects**

Hydrogen peroxide is naturally produced by sunlight (between 0.1 and 4 ppb in air and 0.001 to 0.1 mg/L in water). Not expected to have significant environmental effects.

Hydrogen peroxide (772	2-84-1)			
Active Ingredient(s)	Duration	Species	Value	Units
Hydrogen peroxide	96 h LC50	Fish Pimephales promelas	16.4	mg/L
Hydrogen peroxide	72 h LC50	Fish Leuciscus idus	35	mg/L
Hydrogen peroxide	48 h EC50	Daphnia pulex	2.4	mg/L
Hydrogen peroxide	24 h EC50	Daphnia magna	7.7	mg/L
Hydrogen peroxide	72 h EC50	Algae Skeletonema costatum	1.38	mg/L
Hydrogen peroxide	21 d NOEC	Daphnia magna	0.63	mg/L

Persistence and degradability	Hydrogen peroxide in the aquatic environment is subject to various reduction or oxidation processes and decomposes into water and oxygen. Hydrogen peroxide half-life in freshwater ranged from 8 hours to 20 days, in air from 10 - 20 hours, and in soils from minutes to hours depending upon microbiological activity and metal contamination.						
Bioaccumulation	Material may have some potential to bioaccumulate but will likely degrade in most environments before accumulation can occur.						
Mobility	Will likely be mobile in the environment due to its water solubility but will likely degrade over time.						
Other Adverse Effects	Decomposes into oxygen and water. No adverse effects.						
13. DISPOSAL CONSIDERATIONS							
Waste disposal methods	Dispose of in accordance with local regulations. Can be disposed as waste water, when in compliance with local regulations.						
US EPA Waste Number	D001						
Contaminated Packaging	Dispose of in accordance with local regulations.						

container.

## **14. TRANSPORT INFORMATION**

DOT

UN/ID no Proper Shipping Name Hazard class Subsidiary class Packing Group	2014 HYDROGEN PEROXIDE, AQUEOUS SOLUTION 5.1 8 II
<u>TDG</u> UN/ID no Proper Shipping Name Hazard class Subsidiary class Packing Group	UN 2014 HYDROGEN PEROXIDE, AQUEOUS SOLUTION 5.1 8 II
	Air regulation permit shipment of Hydrogen Peroxide (<=40%) in non-vented containers for Air Cargo Only aircraft, as well as for Passenger and Cargo aircraft. HOWEVER, all PeroxyChem Hydrogen Peroxide containers are vented and therefore, air shipments of PeroxyChem H2O2 are not permitted. IATA air regulations state that venting of packages containing oxidizing substances is not permitted for air transport.
IMDG/IMO UN/ID no Proper Shipping Name Hazard class Subsidiary Hazard Class Packing Group	UN 2014 HYDROGEN PEROXIDE, AQUEOUS SOLUTION 5.1 8 II
OTHER INFORMATION	Protect from physical damage. Keep drums in upright position. Drums should not be

#### OTHER INFORMATION

Protect from physical damage. Keep drums in upright position. Drums should not be stacked in transit. Do not store drums on wooden pallets.

## **15. REGULATORY INFORMATION**

## U.S. Federal Regulations

#### <u>SARA 313</u>

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories	
Acute health hazard	Yes
Chronic health hazard	No
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

#### Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

#### **CERCLA**

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	SARA RQ
Hydrogen peroxide 7722-84-1		1000 lb	

#### **HYDROGEN PEROXIDE 35%**

Hydrogen Peroxide RQ is for concentrations of > 52% only

#### International Inventories

Component	TSCA (United States)	DSL (Canada)	EINECS/EL INCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines )	AICS (Australia)	NZIoC (New Zealand)
Hydrogen peroxide 7722-84-1 (35)	Х	Х	Х	Х	Х	Х	Х	х	Х

Mexico - Grade

Serious risk, Grade 3

#### CANADA

WHMIS Hazard Class

C - Oxidizing materials

- D1B Toxic materials
- E Corrosive material
- F Dangerously reactive material









#### **16. OTHER INFORMATION**

NFPA	Health Hazards 3	Flammability 0	Stability 1	Special Hazards OX	
HMIS	Health Hazards 3	Flammability 0	Physical hazard 1	Special precautions H	
NFPA/HMIS Ratings Leg	Special Haz Protection =	Serious = 3; Moderate = 2; ards: OX = Oxidizer H (Safety goggles, gloves, eu of a vapor cartidge resp	apron, the use of supplie	ed air or SCBA respirator is	
Uniform Fire Code	Oxidizer: Cla	ass 2Liquid			
Revision date: Revision note	2015-03-18 Initial Releas	se			

#### **Disclaimer**

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#### Prepared By:

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# **APPENDIX G – FIELD FORMS**

## HYDROGEN PEROXIDE INJECTION LOG CLIMATE ROOFING, 2700 ISLETA BLVD, ALBUQUERQUE, NEW MEXICO

Date:				
EA Personnel on Si	ite:			
Subcontractors on S	Site:			
Safety Briefing Cor	nducted by:			at time:
Mixing Vessel Typ	e, Material, Capacity:			
Transfer Pump Typ	e, Manufacturer, Mode	:l:		
Totalizing Flowmet	ter Type, Model			
Hydrogen Peroxide	Concentration, Manufa	acturer:		
Batch Mix:				
Volume of Water:				
Volume of Hydroge	en Peroxide at C	Concentration:		
	Injec	ction	<del>.</del>	
Time	Start Vol, gal	End Vol, gal	Pressure, psig	Notes:

EA Engineering, Science, and Technology, Inc. PBC 3200 Gold Avenue SW, #1300 Albuquerque, NM 87102



## MONITOR WELL SAMPLING FIELD FORM

		FLUID	LEVEL DATA		
Well ID		_ C	Date gauged		
Site		т	ïme gauged		
Depth to PSH	Feet	Well diameter	Inches	After Bailin Depth to PSH	g NAPL Feet
Depth to water	Feet	Height of fluid column	Feet	Depth to water	Feet
Total depth	Feet	Volume in well	Gallons	NAPL thickness	Feet
NAPL thickness	Feet			NAPL Recovered	Gallons
		(3 well volumes :	= gallons)	<u> </u>	

## **GROUNDWATER SAMPLING DATA**

Time/date purged

Purge Method

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pН	ORP (mV)	DO (mg/L)

Actual purge volume \_\_\_\_\_ gal.

Field measurements stabilized within ± 10%?

Time/date sampled

Purged/sampled by

Sample method

Requested analyses

Comments/observations

## **APPENDIX H – DISCHARGE PERMIT SUBMITTAL**

## **Mustafin**, Vener

From:	Mustafin, Vener		
Sent:	Wednesday, November 21, 2018 10:41 AM		
То:	Jason G. Herman (Jason.Herman@state.nm.us)		
Cc:	Michael Boulay (Michael.Boulay@state.nm.us); McGrath, Sarah, NMENV		
	(sarah.mcgrath@state.nm.us)		
Subject:	Climate Roofing - UIC Discharge Permit Application		
Attachments:	Climate Roofing - UIC DP.pdf		

Dear Mr. Herman:

Attached please find the Underground Injection Control Discharge Permit for Climate Roofing, Albuquerque, New Mexico.

Under a contract with the NMED PSTB, EA Engineering, Science, and Technology, Inc. PBC is planning to inject hydrogen peroxide solution to mitigate residual contamination associated with the release of gasoline from a Leaking Underground Storage Tank.

Hard copy of the permit is to follow.

If you have questions, please feel free to contact me.

Thank you.

Respectfully,

Vener Mustafin, PE EA Engineering, Science, and Technology, Inc. PBC 320 Gold Avenue, SW Suite 1300 Albuquerque, NM 87102 505-296-1070 cell 505-715-4477 direct vmustafin@eaest.com



## NEW MEXICO ENVIRONMENT DEPARTMENT GROUND WATER QUALITY BUREAU

UNDERGROUND INJECTION CONTROL GENERAL DISCHARGE PERMIT



## Certified Mail- Return Receipt Requested

Facility Name:	Climate Roofing
Facility Location:	2700 Isleta Blvd., SW, Albuquerque, NM 87105
	35 02' 05.90" 106 40' 44.30"
	Bernalillo County
Legally Responsible Party:	NMED PSTB
	2905 Rodeo Park Drive East, Building 1
	Santa Fe, NM 87505
	(505) 476-4385
Remediation Oversight Agency Contact:	NMED PSTB
	Lorena Goerger
	505-476-4385
Remediation or Injection Plan Identification:	Climate Roofing
Permitting Action:	New
PPS Contact	Jason G. Herman
	(505) 827-2713
EFFECTIVE DATE:	TERM ENDS:

Michelle Hunter Chief, Ground Water Quality Bureau

[Subsection H of 20.6.2.3109 NMAC, NMSA 1978, § 74-6-5.I]

## I. UIC GENERAL DISCHARGE PERMIT

The New Mexico Environment Department (NMED) Ground Water Quality Bureau (GWQB) issues this Underground Injection Control General Discharge Permit (UIC Permit) for the subsurface emplacement of additive fluids through a Class V UIC injection well for the purpose of facilitating vadose zone or ground water remediation. The GWQB issues this UIC Permit to New Mexico Environment Department Petroleum Storage Tank Bureau (Permittee) pursuant to the New Mexico Water Quality Act (WQA), NMSA 1978 §§74-6-1 through 74-6-17, and the New Mexico Water Quality Control Commission (WQCC) Ground and Surface Water Protection Regulations, 20.6.2 NMAC.

In issuing this UIC Permit, the GWQB has determined that the requirements of Subsection C of 20.6.2.3109 NMAC have been met. The activities authorized by this UIC Permit are principally governed by Climate Roofing Injection Plan (Injection Plan), under the authority of STATUTES/REGULATIONS, with oversight by the New Mexico Environment Department Petroleum Storage Tank Bureau. Compliance with this UIC Permit requires compliance with the terms, requirements, and conditions of the Injection Plan. The term of this UIC Permit shall be no longer than five years from the effective date of this UIC Permit.

The injection activities, the location of the injection site, the type of injection and quantities of additives being used are briefly described as follows:

# Injection Activities (summary: including injection well type, number of wells, and injection frequency)

Copy of the Injection Plan Attached (required): (Attached)

## **Injection Site Information**

Depth to Ground Water: Approximately 8 ft Existing concentration of total dissolved solids (TDS) in ground water: 650 mg/L to 1,020 mg/L Location: 2700 Isleta Boulevard, SW, Albuquerque, NM, 87105 County: Bernalillo Latitude: 35 02' 05.90" Longitude: 106 40' 44.30"

Map Showing Area of Injection Sites Attached (required) -: (Attached)

## Additives Being Used (including volumes, manufacturer, and mixing ratios)

Approximately 1,400 gallons of hydrogen peroxide 10% solution in water (140 gallons of hydrogen peroxide mixed with 1260 gallons of water).

## Anticipated Precipitation, Dissolution, Adsorption, and Desorption Products

No precipitation, dissolution, adsorption, or desorption products are anticipated. Final reaction products are water and carbon dioxide.

## **Public Notice Posting Locations**

2 inch by 3 inch Newspaper Ad required for New, Renewal, Modification and Renewal/Modification applications.

Newspaper: Albuquerque Journal

2 feet by 3 feet sign posted for 30 days in a location conspicuous to the public at or near the facility required for New, Modification and Renewal/Modification applications. **Sign Location:** 2700 Isleta Boulevard SW, Albuquerque, NM, 87105

8.5 inch by 11 inch or larger posted off-site location conspicuous to the public (e.g. public library).Required for New, Modification and Renewal/Modification applications.Flyer Location: South Valley Public Library, 3904 Isleta Boulevard, SW, Albuquerque, NM 87105

This UIC Permit consists of the complete and accurate completion of this UIC Permit form as determined by the GWQB.

Issuance of this UIC Permit does not relieve the Permittee of the responsibility to comply with the WQA, WQCC Regulations, and any other applicable federal, state and/or local laws and regulations, such as zoning requirements and nuisance ordinances.

## Facility Name, UICGDP-# Effective Date: \_\_\_\_\_

## Signatures

Signature must be that of the person listed as the legally responsible party on this application.

*I, the applicant, attest under penalty of law to the truth of the information and supporting documentation contained in this application for an Underground Injection Control General Discharge Permit.* 

## **Applicant's Signature**

Signature:	The	Date: $\frac{11}{2}$ , $\frac{115}{15}$	
Printed Name:		Title:	
_	LORENA GOERGER	PROGRAM MAMACE	R

## II. FINDINGS

In issuing this UIC Permit, GWQB finds:

- 1. The Permittee is injecting fluids so that such injections will move directly or indirectly into ground water within the meaning of Section 20.6.2.3104 NMAC.
- 2. The Permittee is injecting fluids so that such fluids will move into ground water of the State of New Mexico which has an existing concentration of 10,000 mg/L or less of TDS within the meaning of Subsection A of 20.6.2.3101 NMAC.
- 3. The Permittee is using a Class V UIC well as described in 20.6.2.5002(B)(5)(d)(ii) NMAC for in situ ground water remediation by injecting a fluid that facilitates vadose zone or groundwater remediation.
- 4. The Permittee is injecting fluids into groundwater in order to achieve the remediation goals identified in the Injection Plan.

## III. AUTHORIZATION TO DISCHARGE

The Permittee is authorized to inject chemical additives into ground water in accordance with this UIC Permit and the Injection Plan under the oversight of NMED PSTB.

[20.6.2.3104 NMAC, Subsection C of 20.6.2.3106 NMAC, Subsection C of 20.6.2.3109 NMAC]

## IV. CONDITIONS

The conditions of this UIC Permit shall be complied with by the Permittee and are enforceable by GWQB.

1. The Permittee shall perform remediation activities in accordance with the Injection Plan and shall notify GWQB of any changes prior to making them.

[20.6.2.3107 NMAC]

2. The Permittee shall monitor the injection activities and their effects on ground water quality as required by the Injection Plan and shall provide GWQB with electronic copies of the required reporting and any pertinent documentation of activities at the site.

[20.6.2.3107.A NMAC, 20.6.2.3109.A NMAC]

3. If the GWQB or the Permittee identifies any failure of the Injection Plan or this UIC Permit to comply with 20.6.2 NMAC not specifically noted herein, GWQB may require the Permittee to

submit a corrective action plan and a schedule for completion of corrective actions to address the failure.

Additionally, the GWQB may the Permittee to submit a proposed modification to the Injection Plan, this UIC Permit, or both.

[20.6.2.3107.A NMAC, 20.6.2.3109.E NMAC]

- 4. ADDITIONAL MONITORING REQUIREMENTS (RESERVED) Placeholder for any added monitoring and reporting requirements.
- 5. TERMINATION Within 30 days of completion of activities authorized by this UIC Permit the Permittee shall submit a closure report and a request to terminate the UIC Permit to the GWQB for its approval. The closure report shall identify how the injection well(s) was closed in accordance with the Injection Plan. The Permittee shall provide NMED PSTB with a copy of this closure report.

[20.6.2.5005 NMAC, 19.27.4 NMAC]

6. INSPECTION and ENTRY – The Permittee shall allow a representative of the NMED to inspect the facility and its operations subject to this UIC Permit and the WQCC regulations. The GWQB representative may, upon presentation of proper credentials, enter at reasonable times upon or through any premises in which a water contaminant source is located or in which are located any records required to be maintained by regulations of the federal government or the WQCC.

The Permittee shall allow the GWQB representative to have access to, and reproduce for their use, any copy of the records, and to perform assessments, sampling or monitoring during an inspection for the purpose of evaluating compliance with this UIC Permit and the WQCC regulations.

Nothing in this UIC Permit shall be construed as limiting in any way the inspection and entry authority of GWQB under the WQA, the WQCC Regulations, or any other local, state or federal regulations.

[20.6.2.3107.D NMAC, NMSA 1978, §§ 74-6-9.B and 74-6-9.E]

7. MODIFICATIONS and/or AMENDMENTS – In the event the Permittee proposes a change to the injection plan that would result in a change in the volume injected; the location of the injections; or the concentration of the additives being injected by the facility, the Permittee shall notify GWQB prior to implementing such changes. The Permittee shall obtain approval (which may require modification of this UIC Permit) by GWQB prior to implementing such changes.

[20.6.2.3107.C NMAC, 20.6.2.3109.E and G NMAC]

8. COMPLIANCE with OTHER LAWS – Nothing in this UIC Permit shall be construed in any way as relieving the Permittee of the obligation to comply with all applicable federal, state, and local laws, regulations, permits or orders.

[NMSA 1978, § 74-6-5.L]

9. PERMIT FEES – Payment of permit fees is due at the time of UIC Permit approval. Permit fees shall be paid in a single payment remitted to GWQB no later than 30 days after the UIC Permit effective date.

Permit fees are associated with issuance of this UIC Permit. Nothing in this UIC Permit shall be construed as relieving the Permittee of the obligation to pay all permit fees assessed by GWQB. A Permittee that ceases injecting or does not commence injecting during the term of the UIC Permit shall pay all permit fees assessed by GWQB. An approved UIC Permit shall be suspended or terminated if the facility fails to remit a payment by its due date.

[20.6.2.3114.F NMAC, NMSA 1978, § 74-6-5.K]

## INJECTION PLAN CLIMATE ROOFING 2700 ISLETA BOULEVARD, SW, ALBUQUERQUE, NM

**Objective**: The objective of the proposed injection is to mitigate residual dissolved groundwater concentrations of naphthalenes in MW-15 and MW-11RR wells to below the New Mexico Quality Control Commission (NMWQCC) standard of 30 micrograms per liter ( $\mu$ g/L). Detections of naphthalenes in groundwater are associated with a release of gasoline at the site.

**Overseeing Agency**: Work is being done under State Lead Contract # 18 667 3200 0021 that is funded and lead by the New Mexico Environment Department Petroleum Storage Tank Bureau (NMED PSTB).

**Solution**: To achieve the objective, approximately 1,400 gallons of 10% hydrogen peroxide solution in water will be injected into subsurface using an existing injection drain.

**Injection Point**: The IW-1 drain consists of a 60-linear feet of a 4-inch diameter polyvinyl chloride (PVC) perforated pipe installed approximately 7.5 feet below ground surface (bgs) within a clean gravelly backfill. Groundwater at the site occurs at approximately 8 feet bgs and flows to the east.

**Injection**: Solution will be applied into the IW-1 riser that is constructed of 4-inch diameter PVC casing that is connected to the drainpipe. Application will be by pumping or by gravity draining. Injection volume, flowrate, and pressure will be monitored and adjusted, as needed, during application.

Injection Frequency: One injection event has been approved and funded by the NMED PSTB.



## LEGEND:



INJECTION RISER

NOTE: NAPHTHALENE CONCENTRATIONS ARE SHOWN IN RED REPORTED VALUES ARE IN MICROGRAMS PER LITER

