

**NM2 - \_\_\_\_ 19 \_\_\_\_**

**Minor  
Modification  
Request &  
Approval**

**Oct. 26, 2017**

State of New Mexico  
Energy, Minerals and Natural Resources Department

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**Susana Martinez**  
Governor

**Ken McQueen**  
Cabinet Secretary

**Matthias Sayer**  
Deputy Cabinet Secretary

**David R. Catanach, Division Director**  
Oil Conservation Division



October 26, 2016

Stacey Boultinghouse  
ETC Field Services LLC  
800 E. Sonterra Boulevard, Suite 400  
San Antonio, Texas 78258

**Re: Request for Minor Modification of Surface Waste Management Permit NM2-019  
and OCD approved Closure/Post-Closure Care Plan dated July 11, 2014  
ETC Field Services LLC  
Permit NM2-019  
Location: Unit F of Section 36, Township 23 South, Range 36 East, NMPM,  
Lea County, New Mexico**

Dear Ms. Boultinghouse:

The Oil Conservation Division (OCD) has reviewed ETC Field Services LLC's (ETC) email request, dated October 6, 2017 and emailed to OCD on October 13, 2017, for a minor modification to the existing permit (NM2-019) and the OCD approved Closure/Post-Closure care plan dated July 11, 2016 to stop the bi-weekly tilling in all active landfarm cells, with the exception of cell 3, and to remove the requirement to sample the vadose zone annually for major cations and anions with the exception of chloride and sulfate.

OCD hereby grants ETC approval of the minor modification requests, with the following conditions:

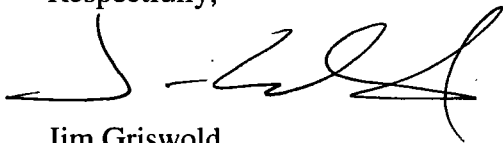
1. ETC shall comply with all applicable requirements of the Oil and Gas Act (Chapter 70, Article 2 NMSA 1978), the existing permit NM2-019, the transitional provisions of 19.15.36.20 NMAC, and all conditions specified in this approval;
2. ETC shall continue to till/disk cells that show hydrocarbon and VOC concentrations above the treatment zone closure standards of 19.15.36.15.F NMAC on a bi-weekly basis. When a cell has met the following for two consecutive sampling events, tilling will cease in that cell:
  - Benzene, as determined by EPA SW-846 Method 8021B or 8260B, shall not exceed 0.2 mg/kg;
  - Total BTEX, as determined by EPA SW-846 Method 8021B or 8260B, shall not exceed 50 mg/kg;

- GRO/DRO combined fractions, as determined by EPA SW-846 Method 8015M, shall not exceed 500 mg/kg; and
  - TPH, as determined by EPA Method 418.1 or other EPA Method approved by the division, shall not exceed 2500 mg/kg. ETC will analyze TPH using EPA Method 8015 (C6 extended to C35);
3. ETC shall submit a notification of cessation of tilling to OCD prior to halting tilling. The notification of cessation of tilling shall include a summary of results and laboratory analytical reports.
  4. ETC shall monitor the vadose zone (native soils) for total petroleum hydrocarbons (TPH) and volatile aromatic organics (BTEX) quarterly; Chloride semi-annually; and Sulfate and Water Quality Control Commission (WQCC) metals annually; and
  5. ETC shall continue to monitor the treatment zone (soils being remediated) semi-annually for TPH and Chloride to demonstrate compliance with the transitional provision of 19.15.36.20.A NMAC.

Please be advised that approval of this request does not relieve ETC of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve ETC of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If there are any questions regarding this matter, please do not hesitate to contact Brad Jones on my staff at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Respectfully,



Jim Griswold  
Environmental Bureau Chief

JG/baj

cc: OCD District I Office, Hobbs

**Jones, Brad A., EMNRD**

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**From:** Boultinghouse, Stacy <Stacy.Boultinghouse@energytransfer.com>  
**Sent:** Friday, October 13, 2017 7:05 AM  
**To:** Jones, Brad A., EMNRD; Griswold, Jim, EMNRD  
**Cc:** Bockisch, Bernie  
**Subject:** RE: ETC Field Services LLC Jal Landfarm Modification  
**Attachments:** FW: OCD review comments; 082148-RPT-3-2017 Landfarm Closure and Post-Closure Care Plan.pdf; 082148-3-2017 Permit Amendment Letter.pdf; 2017 Permit Amendment Letter.redline.pdf; 082148-RPT-3-2017 Landfarm Closure and Post-Closure Care Plan.redline.pdf

Gentlemen,

Please find attached for review the Revised Permit & Closure & PCC Plan Modification request with backup documentation as previously discussed for the ETC Jal Landfarm. A redline copy is also provided for ease of reference.

If you have any questions, please do not hesitate to contact Bernie Bockisch at 505.884.0672 (Bernard.bockisch@ghd.com) or me.

Thank you.

"of all the paths you take in life,  
make sure a few of them are dirt"



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Stacy Boultinghouse, PG(TX4889/LA73)  
EH&S Environmental-Manager  
Waste, Water, Remediation  
Energy Transfer Partners

O: 210.870.2725  
C: 281.740.0494

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This email may contain confidential attorney-client privileged information or attorney work product. If you received this email in error, please contact me at one of the above phone numbers.

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**From:** Boultinghouse, Stacy  
**Sent:** Monday, June 12, 2017 8:10 AM  
**To:** Jones, Brad A., EMNRD <brad.a.jones@state.nm.us>; Jim Griswold (Jim.Griswold@state.nm.us) <Jim.Griswold@state.nm.us>  
**Cc:** Bockisch, Bernie <Bernard.Bockisch@ghd.com>; Boultinghouse, Stacy <Stacy.Boultinghouse@energytransfer.com>  
**Subject:** ETC Field Services LLC Jal Landfarm Modification

Gentlemen,

Please find attached for review the Permit & Closure & PCC Plan Modification request with backup documentation as previously discussed for the ETC Jal Landfarm.

If you have any questions, please do not hesitate to contact Bernie Bockisch at 505.884.0672 ([Bernard.bockisch@ghd.com](mailto:Bernard.bockisch@ghd.com)) or me. Thank you.

Stacy Boultinghouse, PG (TX4889/LA73)  
Water, Waste & Remediation

Energy Transfer Company  
800 Sonterra Blvd  
San Antonio, TX 78258  
281.740.0494 Cell  
210.870.2725 Office

"of all the paths you take in life,  
make sure a few of them are dirt"

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This email may contain confidential attorney-client privileged information or attorney work product. If you received this email in error, please contact me at one of the above phone numbers.

Private and confidential as detailed [here](#). If you cannot access hyperlink, please e-mail sender.



October 6, 2017

Reference No. 082148

Mr. Brad Jones  
Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Dear Mr. Jones:

**Re: ETC Field Services Jal No. 4 Landfarm  
Revised Request to Modify Permit and Closure Plan  
Lea County, New Mexico, Permit NM-2-019**

On behalf of ETC Field Services LLC (ETC), GHD Services Inc. (GHD) is requesting a modification to the existing Jal No. 4 Landfarm Permit and Closure and Post-Closure Plan. As part of this request, ETC is rescinding the previously submitted request to amend the Permit and Closure Plan dated September 2, 2016.

The ETC Jal No. 4 (formerly Regency Field Services, LP) Landfarm is located in Lea County, New Mexico. The facility is located approximately 10 miles north of Jal, New Mexico to the south of Deep Wells Road and approximately 2 miles west of Highway 18 in Lea County. The area surrounding the Landfarm is used for cattle grazing and oil and gas production.

The Landfarm consists of 15 soil treatment cells, ranging in surface area from 0.35 acres to 4.92 acres. The total area of the Landfarm is over 40 acres. According to information provided in previous reports and correspondence, the initial load of impacted soil was delivered to the Landfarm in January 2002. The Landfarm is no longer accepting soil and is in the process of being closed. The last delivery of soil was received in June 2010.

## **1. Request to Modify Landfarm Tilling**

Land farmed soils within each cell have been disked on a bi-weekly schedule in accordance with the existing permit and closure plan to promote the degradation of hydrocarbon concentrations. The analytical data for concentrations of benzene, total benzene, toluene, ethylbenzene, and xylene (total BTEX), GRO/DRO combined, and total petroleum hydrocarbons (TPH) by EPA Methods 8015 (extended range to C35) and 418.1 in the treatment zone indicate that TPH has not been detected above the treatment zone closure standards for those constituents since at least 2015 in all cells except for cell 3 (Table 1). Laboratory analytical reports for this data are attached. In addition, TPH concentrations in cell 3 have fluctuated below the closure plan action levels during the past three years.

Based on the data, it is apparent that the continued tilling of soils in cells that are above the referenced closure standards (cells 1, 2, and 4 through 15) is not beneficial. Tilling of these cells will only contribute to

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### **GHD**

6121 Indian School Road NE Suite 200 Albuquerque New Mexico 87110 USA  
T 505 884 0672 F 505 884 4932 W [www.ghd.com](http://www.ghd.com)



soil erosion. By reducing the number of cells to till, ETC can focus efforts to bring the residual TPH concentrations found in cell 3 to below closure standards. Due to this, ETC is requesting to discontinue disking of Landfarm cells with the exception of cell 3.

## **2. Request to Remove Sampling for Specific Cations and Anions from Annual Sampling and Background Concentrations**

The requirement to sample for the presence of major cations and anions was included in the landfarm permit approval conditions dated March 18, 2002. The specific cations and anions consist of the following: sodium, calcium, magnesium, potassium, and alkalinity (carbonate, and bicarbonate). This requirement was also included in the Landfarm Closure Plan dated July 11, 2014 because of the landfarm permit approval conditions. ETC is requesting to modify both the permit and closure plan to remove this requirement for the following reasons:

- Analysis for these cations and anions is not required under 19.15.36.15 NMAC; and
- The stated cations and anions do not have a regulatory standard (with the exception of sulfate and chloride) under 20.6.2.3103 (A) or (B) NMAC.

Based on this, other than the inclusion of this requirement into the landfarm permit approval conditions, there does not appear to be a regulatory requirement to sample for these analytes. Both sulfate and chloride are not included in this request since both are regulated under 20.6.2.3103 (B) NMAC. Sulfate and chloride will be sampled in accordance with the Closure/Post Closure Plan.

A form C-137A has been attached along with a copy of the Revised Landfarm Closure and Post-Closure Plan. If you have any questions or require additional information, please feel free to contact us at (505) 884-0672 or [bernard.bockisch@ghd.com](mailto:bernard.bockisch@ghd.com).

Sincerely,

GHD

Bernard Bockisch  
Senior Project Manager

Alan Brandon,  
Senior Project Manager

CM/jm/3

Encl.

cc: Stacy Boultinghouse, Energy Transfer Company

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

For State Use Only:

Form C-137A  
June 30, 2016

Submit 1 Copy to Santa Fe Office

**APPLICATION FOR MINOR MODIFICATION TO SURFACE WASTE  
MANAGEMENT FACILITY**

1. Operator: ETC Field Services LLC  
Address: Approx 10 miles north of Jal, New Mexico to the south of Deep Wells Road and approx 2 miles west of Highway 18  
Contact Person: Stacy Boultinghouse Phone: 281-740-0494
2. Location: SE /4 NW /4 Section 36 Township 23 South Range 36 East
3. Provide permit number NM2-019
4. Attach a description of the proposed minor modification(s) to the surface waste management facility.
5. If the Minor Modification involves changes to a treatment, remediation, or disposal method, attach engineering designs, certified by a registered professional engineer, including technical data on the design elements of each applicable treatment, remediation, and disposal method and detailed designs of surface impoundments.
6. If the Minor Modification will affect the closure and post-closure plan, attach an updated closure and post closure plan, including a responsible third party contractor's cost estimate, sufficient to close the surface waste management facility in a manner that will protect fresh water, public health, and the environment (the closure and post closure plan shall comply with the requirements contained in 19.15.36.18 NMAC).
7. If the Minor Modification will affect the contingency plan, attach an updated contingency plan that complies with the requirements of Subsection N of 19.15.36.13 NMAC and with NMSA 1978, Sections 12-12-1 through 12-12-30, as amended (the Emergency Management Act).
8. If the Minor Modification will affect the control of run-on or run-off water at the site, attach an updated plan to control run-on water onto the site and run-off water from the site that complies with the requirements of Subsection M of 19.15.36.13 NMAC.
9. If the Minor Modification will affect the best management practice plan, attach a best management practice plan to ensure protection of fresh water, public health, and the environment.
10. The division may require additional information to demonstrate that the surface waste management facility's operation will not adversely impact fresh water, public health, or the environment and that the surface waste management facility will comply with division rules and orders.

**11. CERTIFICATION**

I hereby certify that the information submitted with this application is true, accurate, and complete to the best of my knowledge and belief.

Name: Stacy Boultinghouse

Title: Environmental Manager

Signature: Stacy Boultinghouse

Date: 09 June '17

E-mail Address: Stacy.Boultinghouse@energytransfer.com



Treatment Zone Soil Analytical Data Summary - TPH and Chloride  
ETC Field Services LLC

Sample Location	Grid Location	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (C6 to C12) (mg/kg)	TPH-DRO (>C12 to C28) (mg/kg)	TPH-ORO (>C28 to C35) (mg/kg)	TPH GRO/DRO Total (C6 to C28) (mg/kg)	TPH GRO/DRO/ ORO Total (C6 to C35) (mg/kg)	TRPH by 418.1 (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Landfarm Closure Criteria			0.2	50	NE			500	2,500	2,500	1,000
TZ Cell 1	G1	12/15/09	NA	NA	<16.2	670	81	670	751	NA	61.5
		6/14/10	NA	NA	<15.9	727	82.2	727	809.2	NA	40.9
		12/1/10	NA	NA	<15.4	724	50.4	724	774.4	NA	34
		6/14/11	NA	NA	<15.1	887	118	887	1005	NA	67.8
		11/28/11	NA	NA	<19.1	<19.1	<19.1	<38.2	<57.3	NA	45.7
		6/14/12	NA	NA	<15.2	638	78.5	638	716.5	NA	20.7
		10/30/12	NA	NA	<15.4	514	63.5	514	577.5	NA	21.0
		5/22/13	NA	NA	<15.3	527	312	527	839	NA	47.5
		11/14/13	NA	NA	<15.6	548	50.5	548	598.5	NA	50.1
	G2	12/15/09	NA	NA	<15.8	582	74	582	656	NA	98
		6/14/10	NA	NA	<15.8	672	89.2	672	761.2	NA	83.2
		12/1/10	NA	NA	<15.6	855	85.5	855	940.5	NA	59
		6/14/11	NA	NA	<15.1	665	37.3	665	702.3	NA	107
		11/28/11	NA	NA	<15.4	560	196	560	756	NA	27.7
		6/14/12	NA	NA	<15.2	472.00	87.80	472	559.8	NA	16.2
		10/30/12	NA	NA	<15.5	438	47.2	438	485.2	NA	18.3
		5/22/13	NA	NA	<15.4	887	230	887	1117	NA	89.2
		11/14/13	NA	NA	<15.5	58.4	<15.7	58.4	58.4	NA	18.3
	G3	12/15/09	NA	NA	<16.4	1,060	134	1,060	1194	NA	231
		6/14/10	NA	NA	<78.5	1,310	157	1,310	1467	NA	161
		12/1/10	NA	NA	<15.5	978	34	978	1012	NA	187
		6/14/11	NA	NA	<15.2	1,510	157	1,510	1667	NA	184
		11/28/11	NA	NA	<15.5	1,110	359	1,110	1469	NA	306
		6/14/12	NA	NA	<15.2	1,390	88.7	1,390	1478.7	NA	75.9
		10/30/12	NA	NA	<15.5	1,100	124	1,100	1224	NA	82.4
		5/22/13	NA	NA	<15.3	1340	349	1340	1689	NA	119
		11/14/13	NA	NA	17.3	1,830	139	1847.3	1986.3	NA	205
	G4	12/15/09	NA	NA	53.7	1,230	113	1283.7	1396.7	NA	300
		6/14/10	NA	NA	<76.5	1,720	253	1,720	1973	NA	186
		12/1/10	NA	NA	<15.7	826	16.2	826	842.2	NA	83.2
		6/14/11	NA	NA	<15.1	1,580	131	1,580	1711	NA	304
		11/28/11	NA	NA	<15.4	1,380	376	1,380	1756	NA	309
		6/14/12	NA	NA	<15.1	419	85.0	419	504	NA	36.4
		10/30/12	NA	NA	<15.5	1,220	148	1,220	1368	NA	90.0
		5/22/13	NA	NA	<15.3	1300	533	1300	1833	NA	181
		11/14/13	NA	NA	<15.5	1,480	93.2	1,480	1573.2	NA	187
	G5	12/15/09	NA	NA	<18.3	189	21.5	189	210.5	NA	44.8
		6/14/10	NA	NA	<16.3	240	30.5	240	270.5	NA	136
		12/1/10	NA	NA	<15.3	962	43.3	962	1005.3	NA	113
		6/14/11	NA	NA	15.9	1,120	121	1135.9	1256.9	NA	105
		11/28/11	NA	NA	<15.4	1,720	655	1,720	2375	NA	214
		6/14/12	NA	NA	<15.1	678	95.5	678	773.5	NA	52.2
		10/30/12	NA	NA	<15.3	961	140.00	961	1101	NA	62.1
		5/22/13	NA	NA	<15.1	1,490	368	1,490	1858	NA	143
	CS	11/14/13	NA	NA	99	1,450	116	1549	1665	NA	141
		8/5/14	NA	NA	<20.0	<50.0	NA	<70.0	NA	NA	151
		2/26/15	<0.00533	<0.0116	<2.32	<7.41	NA	<9.73	NA	32.6	12.9
		5/27/15	NS	NS	NS	NS	NS	NS	NS	NS	NS
		8/12/15	<0.0200	<0.0800	<4.00	<50.0	NA	<54.0	NA	<10.0	52.3
		2/16/16	NA	NA	<4.9	82	NA	82	NA	NA	<7.5
		8/31/16	Data inconclusive due to laboratory error								
		11/21/16	NA	NA	<4.9	36	110	36	146	NA	<30
		2/24/17	<0.025	<0.222	<4.9	52	100	52	152	NA	<30

Treatment Zone Soil Analytical Data Summary - TPH and Chloride  
ETC Field Services LLC

Sample Location	Grid Location	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (C6 to C12) (mg/kg)	TPH-DRO (>C12 to C28) (mg/kg)	TPH-ORO (>C28 to C35) (mg/kg)	TPH GRO/DRO Total (C6 to C28) (mg/kg)	TPH GRO/DRO/ ORO Total (C6 to C35) (mg/kg)	TRPH by 418.1 (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Landfarm Closure Criteria			0.2	50	NE			500	2,500	2,500	1,000
TZ Cell 2	G1	12/15/09	NA	NA	<18.8	65.2	<18.8	65.2	65.2	NA	7.83
		6/14/10	NA	NA	<15.5	1,220	189	1,220	1409	NA	24
		12/1/10	NA	NA	<15.6	733	35.6	733	768.6	NA	11.2
		6/14/11	NA	NA	<15.1	722	45.7	722	767.70	NA	16.5
		11/28/11	NA	NA	<15.5	1,100	421	1,100	1521	NA	17.2
		6/14/12	NA	NA	<15.3	906	100	906	1006	NA	12.5
		10/30/12	NA	NA	<15.3	669	63.5	669	732.5	NA	16.3
		5/22/13	NA	NA	<15.5	586	161	586	747	NA	42.1
		11/14/13	NA	NA	<15.4	602	50.1	602	652.1	NA	46.7
	G2	12/15/09	NA	NA	<16.0	307	50.4	307	357.4	NA	161
		6/14/10	NA	NA	<15.6	584	92.8	584	676.8	NA	126
		12/1/10	NA	NA	<15.5	387	25.3	387	412.3	NA	54.3
		6/14/11	NA	NA	<15.1	644	27.7	644	671.7	NA	55.5
		11/28/11	NA	NA	<15.3	661	280	661	941	NA	150
		6/14/12	NA	NA	<15.3	556	89.2	556	645.2	NA	28.8
		10/30/12	NA	NA	<15.4	467	52.7	467	519.7	NA	50.6
		5/22/13	NA	NA	<15.2	429	147	429	576	NA	115
		11/14/13	NA	NA	<15.5	58.8	<15.5	58.8	58.8	NA	73.4
	G3	12/15/09	NA	NA	<18.9	140	19.6	140	159.6	NA	144
		6/14/10	NA	NA	<16.3	154	24.7	154	178.7	NA	135
		12/1/10	NA	NA	<15.4	481	42.1	481	523.1	NA	70.5
		6/14/11	NA	NA	18.1	828	100	846.1	946.1	NA	151
		11/28/11	NA	NA	<15.4	672	304	672	976	NA	89.9
		6/14/12	NA	NA	<15.2	649	98.4	649	747	NA	21.2
		10/30/12	NA	NA	<15.2	523	78.0	523	601	NA	35.9
		5/22/13	NA	NA	<15.1	467	224	467	691	NA	109
		11/14/13	NA	NA	<15.5	524	65.6	524	590	NA	84.6
	G4	12/15/09	NA	NA	<19.1	136	21.8	136	158	NA	45.6
		6/14/10	NA	NA	<15.6	372	98.7	372	471	NA	152
		12/1/10	NA	NA	<15.5	319	28	319	347	NA	55.2
		6/14/11	NA	NA	<14.8	579	49.7	579	629	NA	51.8
		11/28/11	NA	NA	<15.4	635	283	635	918	NA	200
		6/14/12	NA	NA	<15.2	423	100	423	523	NA	21.2
		10/30/12	NA	NA	<15.3	430	79.0	430	509	NA	88.3
		5/22/13	NA	NA	<15.2	455	222	455	677	NA	136
		11/14/13	NA	NA	<15.3	377	53.4	377	430	NA	60.8
	CS	8/5/14	NA	NA	<4.00	<50.0	NA	<54.0	NA	NA	66.3
		2/26/15	<0.00533	<0.0116	<2.32	7.42	NA	7.42	NA	299	11.0
		5/27/15	NS	NS	NS	NS	NS	NS	NS	NS	NS
		8/12/15	<0.0200	<0.0800	<4.00	<50.0	NA	<54.0	NA	<10.0	44.7
		2/16/16	NA	NA	<4.7	47	NA	47	NA	NA	3.7
		8/31/16	Data inconclusive due to laboratory error								
		11/21/16	NA	NA	<4.8	17	52	17	69	NA	<30
		2/24/17	<0.025	<0.224	<5.0	34	150	34	184	NA	<30

Treatment Zone Soil Analytical Data Summary - TPH and Chloride  
ETC Field Services LLC

Sample Location	Grid Location	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (C6 to C12) (mg/kg)	TPH-DRO (>C12 to C28) (mg/kg)	TPH-ORO (>C28 to C35) (mg/kg)	TPH GRO/DRO Total (C6 to C28) (mg/kg)	TPH GRO/DRO/ ORO Total (C6 to C35) (mg/kg)	TRPH by 418.1 (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Landfarm Closure Criteria			0.2	50	NE			500	2,500	2,500	1,000
TZ Cell 3	G1	12/15/09	NA	NA	<307	3,860	538	3,860	4398	NA	16.2
		6/14/10	NA	NA	<154	3,540	373	3,540	3913	NA	21.5
		12/1/10	NA	NA	<15.3	3,070	58.9	3,070	3128.9	NA	9.53
		6/14/11	NA	NA	<15.1	3,250	317	3,250	3567	NA	14.3
		11/28/11	NA	NA	<15.3	3,760	870	3,760	4630	NA	13.2
		6/14/12	NA	NA	<77.3	4,050	468	4,050	4518	NA	12.3
		10/30/12	NA	NA	<15.3	3,590	319	3,590	3909	NA	3.87
		5/22/13	NA	NA	20.6	3,560	749	3580.6	4329.6	NA	28.3
		11/14/13	NA	NA	21.3	4,230	199	4251.3	4450.3	NA	3.87
	G2	12/15/09	NA	NA	<16.8	630	67.5	630	697.5	NA	26.3
		6/14/10	NA	NA	<154	3,420	364	3,420	3784	NA	22.7
		12/1/10	NA	NA	<15.2	4,470	287	4,470	4757	NA	9.39
		6/14/11	NA	NA	<15.2	3,720	<15.2	3,720	3720	NA	25.0
		11/28/11	NA	NA	<15.4	4,790	913	4,790	5703	NA	45.2
		6/14/12	NA	NA	<75.8	5,410	398	5,410	5808	NA	12.5
		10/30/12	NA	NA	<15.4	3,900	311	3,900	4211	NA	16.8
		5/22/13	NA	NA	<15.2	2,890	1,140	2,890	4030	NA	27.3
		11/14/13	NA	NA	19.9	4,280	191	4299.9	4490.9	NA	16.8
	G3	12/15/09	NA	NA	<80.9	2,930	365	2,930	3295	NA	26.6
		6/14/10	NA	NA	<159	4,830	515	4,830	5345	NA	26.3
		12/1/10	NA	NA	<15.1	3,490	112	3,490	3602	NA	10.6
		6/14/11	NA	NA	<15.2	3,290	<15.2	3,290	3290	NA	10.9
		11/28/11	NA	NA	<15.2	4,330	1,010	4,330	5340	NA	16.5
		6/14/12	NA	NA	<75.5	3,720	411	3,720	4131	NA	9.49
		10/30/12	NA	NA	<15.2	3,380	276	3,380	3656	NA	6.02
		5/22/13	NA	NA	<15.1	3,840	535	3,840	4375	NA	13.8
	G4	11/14/13	NA	NA	20.8	4,220	213	4240.8	4453.8	NA	6.02
		12/15/09	NA	NA	<81.9	2,120	247	2,120	2367	NA	15.8
		6/14/10	NA	NA	<169	4,440	488	4,440	4928	NA	15.6
		12/01/10	NA	NA	<15.2	4,340	220	4,340	4560	NA	<8.55
		6/14/11	NA	NA	22.0	3,750	<15.1	3772	3750	NA	9.30
		11/28/11	NA	NA	<15.2	4,070	893	4,070	4963	NA	50.7
		6/14/12	NA	NA	<75.4	4,800	448	4,800	5248	NA	10.8
		10/30/12	NA	NA	<15.4	2,810	226	2,810	3036	NA	6.05
	G5	5/22/13	NA	NA	<75.2	5150	900	5150	6050	NA	13.7
		11/14/13	NA	NA	22.5	5030	226	5052.5	5278.5	NA	31.1
		12/15/09	NA	NA	<16.8	489	47.4	489	536.4	NA	17.8
		6/14/10	NA	NA	<153	4,540	506	4,540	5046	NA	15.1
		12/1/10	NA	NA	<15.4	3,830	54.9	3,830	3884.9	NA	10.8
		6/14/11	NA	NA	19.5	3,100	<15.2	3119.5	3119.5	NA	23.2
		11/28/11	NA	NA	<15.2	4,690	1,020	4,690	5710	NA	21.6
		6/14/12	NA	NA	<75.8	3,780	414	3,780	4194	NA	11.8
	CS	10/30/12	NA	NA	<15.3	3,030	246	3,030	3276	NA	6.11
		5/22/13	NA	NA	<15.2	3,580	823	3,580	4403	NA	15.9
		11/14/13	NA	NA	20.4	4,410	182	4430.4	4612.4	NA	31.6
		8/5/14	NA	NA	<20.0	163	NA	163	NA	NA	25.7
		2/26/15	<0.00533	<0.0116	<2.32	175	NA	175	NA	366	20.6
		5/27/15	NS	NS	NS	NS	NS	NS	NS	NS	NS
		8/12/15	<0.100	<0.400	<20.0	1,080	NA	1,080	NA	52.2	32.7
		2/16/16	NA	NA	<4.8	630	NA	630	NA	NA	<1.5
		8/31/16	Data inconclusive due to laboratory error								
		11/21/16	NA	NA	<4.7	270	630	270	900	NA	<30
		2/24/17	<0.023	<0.21	<4.7	1100	1800	1100	2900	NA	<30

Treatment Zone Soil Analytical Data Summary - TPH and Chloride  
ETC Field Services LLC

Sample Location	Grid Location	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (C6 to C12) (mg/kg)	TPH-DRO (>C12 to C28) (mg/kg)	TPH-ORO (>C28 to C35) (mg/kg)	TPH GRO/DRO Total (C6 to C28) (mg/kg)	TPH GRO/DRO/ ORO Total (C6 to C35) (mg/kg)	TRPH by 418.1 (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Landfarm Closure Criteria			0.2	50	NE			500	2,500	2,500	1,000
TZ Cell 4	G1	12/15/09	NA	NA	<18.14	428	32.2	428	460.2	NA	18
		6/14/10	NA	NA	<155	3,830	304	3,830	4134	NA	37.7
		12/01/10	NA	NA	<15.3	3,120	52.6	3,120	3172.6	NA	32.6
		6/14/11	NA	NA	<15.2	2,790	<15.2	2,790	2790	NA	33.0
		11/28/11	NA	NA	<15.2	3,270	779	3,270	4049	NA	33.6
		6/14/12	NA	NA	<75.8	4,100	410	4,100	4510	NA	19.8
		10/30/12	NA	NA	<15.5	2,650	265	2,650	2915	NA	18.0
		5/22/13	NA	NA	<76.1	5,230	855	5,230	6085	NA	45.0
	G2	11/14/13	NA	NA	17.0	3,560	145	3577	3722	NA	57.1
		12/15/09	NA	NA	<80.1	3,320	339	3,320	3659	NA	39.7
		6/14/10	NA	NA	<154	1,910	<154	1,910	1910	NA	36.1
		12/01/10	NA	NA	<15.4	3,240	36.6	3,240	3276.6	NA	33.6
		6/14/11	NA	NA	17.6	3,560	16.6	3577.6	3594.2	NA	39.0
		11/28/11	NA	NA	<15.2	4,270	1,050	4,270	5320	NA	22.5
		6/14/12	NA	NA	<76.1	3,860	422	3,860	4282	NA	25.2
		10/30/12	NA	NA	<15.6	2,340	228	2,340	2568	NA	27.2
	G3	5/22/13	NA	NA	<15.3	4,370	478	4,370	4848	NA	39.6
		11/14/13	NA	NA	17.5	3,290	87.3	3307.5	3394.8	NA	63.9
		12/15/09	NA	NA	<19.6	436	31.4	436	467.4	NA	9.49
		6/14/10	NA	NA	<160	3,460	276	3,460	3736	NA	41
		12/01/10	NA	NA	<15.3	3,180	64.5	3,180	3244.5	NA	43.1
		6/14/11	NA	NA	20.9	3,710	19.2	3730.9	3750.1	NA	52.3
		11/28/11	NA	NA	<15.2	3,470	764	3,470	4234	NA	76.3
		6/14/12	NA	NA	<15.1	2,930	75.3	2,930	3005.3	NA	24.0
	G4	10/30/12	NA	NA	<15.5	2,800	258	2,800	3058	NA	18.0
		5/22/13	NA	NA	<15.3	3,690	428	3,690	4118	NA	68.0
		11/14/13	NA	NA	<15.5	2,500	67.7	2,500	2567.7	NA	73.9
		12/15/09	NA	NA	<18.3	302	22.4	302	324.4	NA	16.1
		6/14/10	NA	NA	<154	2,170	167	2,170	2337	NA	126
		12/01/10	NA	NA	<15.4	2,330	47.9	2,330	2377.9	NA	80.6
		6/14/11	NA	NA	<15.2	2,350	<15.2	2,350	2350	NA	57.7
		11/28/11	NA	NA	<152	6,420	1,750	6,420	8170	NA	12.2
	G5	6/14/12	NA	NA	<15.2	2,600	82.5	2,600	2682.5	NA	52.8
		10/30/12	NA	NA	<15.4	1,910	183	1,910	2093	NA	35.7
		5/22/13	NA	NA	<15.1	2,780	436	2,780	3216	NA	82.0
		11/14/13	NA	NA	16.1	2,280	89.9	2296.1	2386	NA	92.4
		12/15/09	NA	NA	<16.8	489	47.4	489	536.4	NA	17.8
		6/14/10	NA	NA	<153	3,170	276	3,170	3446	NA	75.9
		12/01/10	NA	NA	<15.3	2,470	41.7	2,470	2511.7	NA	74.6
		6/14/11	NA	NA	<15.1	2,210	<15.1	2,210	2210	NA	79.7
	CS	11/28/11	NA	NA	<15.3	3,540	868	3,540	4408	NA	81.1
		6/14/12	NA	NA	<15.2	2,580	82.2	2,580	2662.2	NA	25.7
		10/30/12	NA	NA	<15.5	1,920	170	1,920	2090	NA	33.6
		5/22/13	NA	NA	<15.2	3,120	517	3,120	3637	NA	62.7
		11/14/13	NA	NA	18.3	3,370	134	3388.3	3522.3	NA	71.5
		8/5/14	NA	NA	<20.0	140	NA	140	NA	NA	38.9
		2/26/15	<0.00533	<0.0116	<2.32	902	NA	902	NA	5,640	10.4
		5/27/15	NS	NS	NS	NS	NS	NS	NS	NS	NS
		8/12/15	<0.100	<0.400	<20.0	226	NA	226	NA	44.6	32.2
		2/16/16	NA	NA	<4.7	420	NA	420	NA	NA	2.9
		8/31/16	Data inconclusive due to laboratory error								
		11/22/16	NA	NA	<4.7	300	510	300	810	NA	<30
		2/24/17	<0.024	<0.217	<4.8	140	250	140	390	NA	<30

Treatment Zone Soil Analytical Data Summary - TPH and Chloride  
ETC Field Services LLC

Sample Location	Grid Location	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (C6 to C12) (mg/kg)	TPH-DRO (>C12 to C28) (mg/kg)	TPH-ORO (>C28 to C35) (mg/kg)	TPH GRO/DRO Total (C6 to C28) (mg/kg)	TPH GRO/DRO/ ORO Total (C6 to C35) (mg/kg)	TRPH by 418.1 (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Landfarm Closure Criteria			0.2	50	NE			500	2,500	2,500	1,000
TZ Cell 5	G1	12/15/09	NA	NA	<15.3	82.2	51.9	82.2	134.1	NA	<4.28
		6/14/10	NA	NA	<15.4	73.1	29.4	73.1	102.5	NA	12.5
		12/1/10	NA	NA	<15.1	143	51.6	143	194.6	NA	<4.26
		6/14/11	NA	NA	<15.1	71.1	18.2	71.1	89.3	NA	<4.22
		11/28/11	NA	NA	<15.1	151	196	151	347	NA	<5.04
		6/14/12	NA	NA	<15.2	46.2	53.8	46.2	100	NA	6.29
		10/30/12	NA	NA	<15.1	60.6	31.1	60.6	91.7	NA	<1.01
		5/22/13	NA	NA	<15.2	40.4	68.7	40.4	109.1	NA	4.09
		11/14/13	NA	NA	<15.3	89.1	62.4	89.1	151.5	NA	6.44
		8/5/14	<0.0200	<0.0200	<4.00	<50.0	NA	<54.0	NA	188	<25.0
	CS	2/26/15	NA	NA	<2.32	<7.41	NA	<9.73	NA	NA	9.00
		5/27/15	<0.0200	<0.0800	<4.00	<50.0	NA	<54.0	NA	<10.0	<25.0
		8/11/15	NA	NA	<4.00	<50.0	NA	<54.0	NA	NA	341
		2/16/16	NA	NA	<4.7	<10	NA	<14.7	NA	NA	<1.5
		8/31/16	Data inconclusive due to laboratory error								
		11/22/16	NA	NA	<4.7	<9.9	61	<14.6	61	NA	<30
		2/24/17	<0.025	<0.224	<5.0	<10	<51	<15	<66	NA	<30
TZ Cell 6	G1	12/15/09	NA	NA	<18.4	98.7	18.7	98.7	117.4	NA	<20.6
		6/14/10	NA	NA	<15.4	286	77.2	286	363.2	NA	48.9
		12/1/10	NA	NA	<15.4	207	24.3	207	231.3	NA	<17.2
		6/14/11	NA	NA	<15.2	398	<15.2	398	398	NA	51.7
		11/28/11	NA	NA	<15.3	333	182	333	515	NA	20.4
		6/14/12	NA	NA	<15.4	206	82.3	206	288.3	NA	10.9
		10/30/12	NA	NA	<15.4	176	23.6	176	199.6	NA	7.22
		5/22/13	NA	NA	<15.1	216	115	216	331	NA	43.0
		11/14/13	NA	NA	<15.3	37.7	<15.3	37.7	37.7	NA	37.0
		12/15/09	NA	NA	<18.5	177	30	177	207	NA	36.5
	G2	6/14/10	NA	NA	<15.5	347	68	347	415	NA	98
		12/1/10	NA	NA	<15.3	276	21.1	276	297.1	NA	81.4
		6/14/11	NA	NA	<15.2	462	<15.2	462	462	NA	72.8
		11/28/11	NA	NA	<15.3	297	147	297	444	NA	86.2
		6/14/12	NA	NA	<15.2	330	89.8	330	419.8	NA	31.5
		10/30/12	NA	NA	<15.3	246	27.0	246	273	NA	27.6
		5/22/13	NA	NA	<15.2	216	92.1	216	308.1	NA	57.1
		11/14/13	NA	NA	<15.3	39.1	<15.3	39.1	39.1	NA	94.9
		8/5/14	<0.0200	<0.0200	<4.00	<50.0	NA	<54.0	NA	146	32.0
		2/26/15	NA	NA	<2.32	<7.41	NA	<9.73	NA	NA	15.6
	CS	5/27/15	<0.0200	<0.0800	<4.00	<50.0	NA	<54.0	NA	<10.0	<25.0
		8/11/15	NA	NA	<4.00	<50.0	NA	<54.0	NA	NA	<25.0
		2/16/16	NA	NA	<4.7	19	NA	19	NA	NA	<1.5
		8/31/16	Data inconclusive due to laboratory error								
		11/22/16	NA	NA	<4.9	30	170	30	200	NA	<30
		2/24/17	<0.025	<0.222	<4.9	15	120	15	135	NA	<30

Treatment Zone Soil Analytical Data Summary - TPH and Chloride  
ETC Field Services LLC

Sample Location	Grid Location	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (C6 to C12) (mg/kg)	TPH-DRO (>C12 to C28) (mg/kg)	TPH-ORO (>C28 to C35) (mg/kg)	TPH GRO/DRO Total (C6 to C28) (mg/kg)	TPH GRO/DRO/ ORO Total (C6 to C35) (mg/kg)	TRPH by 418.1 (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Landfarm Closure Criteria			0.2	50	NE			500	2,500	2,500	1,000
TZ Cell 7	G1	12/15/09	NA	NA	<18.5	267	30.9	267	297.9	NA	17.1
		6/14/10	NA	NA	<15.8	525	77.9	525	602.9	NA	15.5
		12/1/10	NA	NA	<15.8	166	146.2	166	312.2	NA	5.69
		6/14/11	NA	NA	<15.2	719	27.5	719	746.5	NA	28.9
		11/28/11	NA	NA	<15.5	535	202	535	737	NA	11.4
		6/14/12	NA	NA	<15.1	429	105	429	534	NA	9.11
		10/30/12	NA	NA	<15.7	204	36.5	204	240.5	NA	5.67
		5/22/13	NA	NA	<15.2	404	148	404	552	NA	11.3
	CS	11/14/13	NA	NA	<15.7	218	26.0	218	244	NA	10.5
		8/5/14	<0.0200	<0.0200	<4.00	<50.0	NA	<54.0	NA	249	26.2
		2/26/15	NA	NA	<2.32	<7.41	NA	<9.73	NA	NA	8.62
		5/27/15	<0.0200	<0.0800	<4.00	<50.0	NA	<54.0	NA	<10.0	<25.0
		8/11/15	NA	NA	<4.00	<50.0	NA	<54.0	NA	NA	32.8
		2/16/16	NA	NA	<4.7	17	NA	17	NA	NA	<1.5
		8/31/16	Data inconclusive due to laboratory error								
		11/22/16	NA	NA	<4.7	25	97	25	122	NA	<30
		2/24/17	<0.023	<0.206	<4.6	11	59	11	70	NA	<30
TZ Cell 8	G1	12/15/09	NA	NA	<218	3,910	405	3,910	4315	NA	2,050
		6/14/10	NA	NA	<15.7	650	88.9	650	738.9	NA	81.2
		12/1/10	NA	NA	NA	NA	NA	NA	NA	NA	NA
		6/14/11	NA	NA	NA	NA	NA	NA	NA	NA	NA
		11/28/11	NA	NA	NA	NA	NA	NA	NA	NA	NA
		6/14/12	NA	NA	NA	NA	NA	NA	NA	NA	NA
		10/30/12	NA	NA	NA	NA	NA	NA	NA	NA	NA
		5/22/13	NA	NA	NA	NA	NA	NA	NA	NA	NA
	G2	11/14/13	NA	NA	NA	NA	NA	NA	NA	NA	NA
		12/15/09	NA	NA	<18.6	95	<18.6	95	95	NA	<10.4
		6/14/10	NA	NA	<16.3	537	87	537	624	NA	146
		12/1/10	NA	NA	<15.5	556	41.1	556	597.1	NA	24.3
		6/14/11	NA	NA	<15.2	449	33.4	449	482.4	NA	66.5
		11/28/11	NA	NA	<15.3	208	83.4	208	291.4	NA	140
		6/14/12	NA	NA	<15.2	382	97.2	382	479.2	NA	48.2
		10/30/12	NA	NA	<15.2	161	27.0	161	188	NA	25.3
	CS	5/22/13	NA	NA	<15.2	282	119	282	401	NA	47.9
		11/14/13	NA	NA	18.6	227	51.0	245.6	296.6	NA	56.6
		8/5/14	<0.0400	<0.0400	<8.00	<50.0	NA	<58.0	NA	185	43.0
		2/26/15	NA	NA	<2.32	<7.41	NA	<9.73	NA	NA	11.0
		5/27/15	<0.0200	<0.0800	<4.00	<50.0	NA	<54.0	NA	<10.0	<25.0
		8/11/15	NA	NA	<8.0	<50.0	NA	<58.0	NA	NA	<25.0
		2/16/16	NA	NA	<4.7	11	NA	11	NA	NA	<1.5
		8/31/16	Data inconclusive due to laboratory error								
		11/22/16	NA	NA	<4.8	<9.4	<47	<14.2	<61.2	NA	<30
		2/24/17	<0.024	<0.213	<4.7	<9.6	<48	<14.3	<62.3	NA	<30

Treatment Zone Soil Analytical Data Summary - TPH and Chloride  
ETC Field Services LLC

Sample Location	Grid Location	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (C6 to C12) (mg/kg)	TPH-DRO (>C12 to C28) (mg/kg)	TPH-ORO (>C28 to C35) (mg/kg)	TPH GRO/DRO Total (C6 to C28) (mg/kg)	TPH GRO/DRO/ ORO Total (C6 to C35) (mg/kg)	TRPH by 418.1 (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Landfarm Closure Criteria			0.2	50	NE			500	2,500	2,500	1,000
TZ Cell 9	G1	12/15/09	NA	NA	<17.7	71.9	18	71.9	89.9	NA	156
		6/14/10	NA	NA	<15.5	238	62.3	238	300.3	NA	110
		12/1/10	NA	NA	<15.3	55.3	<15.3	55.3	55.3	NA	84
		6/14/11	NA	NA	<15.1	262	<15.1	262	262	NA	107
		11/28/11	NA	NA	<15.4	391	307	391	698	NA	145
		6/14/12	NA	NA	<15.1	341	97.2	341	438.2	NA	40.0
		10/30/12	NA	NA	<15.3	194	34.8	194	228.8	NA	40.3
		5/22/13	NA	NA	<15.1	240	122	240	362	NA	69.7
		11/14/13	NA	NA	<15.5	234	55.7	234	289.7	NA	56.7
	G2	12/15/09	NA	NA	<16.2	194	71.7	194	265.7	NA	152
		6/14/10	NA	NA	<15.4	1,250	135	1,250	1385	NA	407
		12/1/10	NA	NA	<15.3	689	54.1	689	743.1	NA	263
		6/14/11	NA	NA	<15.1	165	<15.1	165	165	NA	163
		11/28/11	NA	NA	<15.3	828	286	828	1114	NA	218
		6/14/12	NA	NA	<15.1	348	117	348	465	NA	34.1
		10/30/12	NA	NA	<15.5	142	30.4	142	172.4	NA	37.7
		5/22/13	NA	NA	<15.1	210	114	210	324	NA	69.9
		11/14/13	NA	NA	<15.4	242	66.7	242	308.7	NA	112
	G3	12/15/09	NA	NA	<17.0	86.9	28.8	86.9	115.7	NA	58.6
		6/14/10	NA	NA	<15.5	286	60.7	286	346.7	NA	229
		12/1/10	NA	NA	<15.4	312	41.4	312	353.4	NA	58.8
		6/14/11	NA	NA	<15.0	216	<15.0	216	216	NA	109
		11/28/11	NA	NA	<15.4	279	187	279	466	NA	130
		6/14/12	NA	NA	<15.1	193	105	193	298	NA	22.2
		10/30/12	NA	NA	<15.4	133	35.7	133	168.7	NA	81.3
		5/22/13	NA	NA	<15.2	171	105	171	276	NA	72.7
		11/14/13	NA	NA	<15.3	114	34.7	114	148.7	NA	104
	G4	12/15/09	NA	NA	<16.3	210	58.2	210	268.2	NA	43.5
		6/14/10	NA	NA	<15.4	277	78.6	277	355.6	NA	206
		12/1/10	NA	NA	<15.3	335	40.3	335	375.3	NA	56.3
		6/14/11	NA	NA	<14.9	221	<14.9	221	221	NA	86.0
		11/28/11	NA	NA	<15.1	531	271	531	802	NA	87.0
		6/14/12	NA	NA	<15.1	441	113	441	554	NA	38.9
		10/30/12	NA	NA	<15.3	184	41.5	184	225.5	NA	22.4
		5/22/13	NA	NA	<15.2	168	89	168	257	NA	61.1
	G5	11/14/13	NA	NA	<15.4	136	51.1	136	187.1	NA	66.6
		12/15/09	NA	NA	<15.4	164	63.5	164	227.5	NA	81.6
		6/14/10	NA	NA	<15.4	164	42	164	206	NA	55.9
		12/1/10	NA	NA	<15.3	199	22.6	199	221.6	NA	33.5
		6/14/11	NA	NA	<15.1	153	<15.1	153	153	NA	75.4
		11/28/11	NA	NA	<15.6	305	200	305	505	NA	77.5
		6/14/12	NA	NA	<15.1	182	72.1	182	254.1	NA	19.2
		10/30/12	NA	NA	<15.2	107	22.9	107	129.9	NA	35.9
	CS	5/22/13	NA	NA	<15.1	123	56.5	123	179.5	NA	33.7
		11/14/13	NA	NA	<15.4	64.9	18.0	64.9	82.9	NA	99.0
		8/5/14	<0.0200	<0.0200	<4.00	<50.0	NA	<54.0	NA	220	68.2
		2/26/15	NA	NA	<2.32	<7.41	NA	<9.73	NA	NA	10.2
		5/27/15	<0.0200	<0.0800	<4.00	<50.0	NA	<54.0	NA	<10.0	<25.0
		8/11/15	NA	NA	<4.00	<50.0	NA	<54.0	NA	NA	89.3
		2/16/16	NA	NA	<4.9	9.6	NA	9.6	NA	NA	<1.5
		8/31/16	Data inconclusive due to laboratory error								
		11/22/16	NA	NA	<4.7	43	170	43	213	NA	<30
		2/24/17	<0.024	<0.215	<4.8	11	<50	11	11	NA	<30

Treatment Zone Soil Analytical Data Summary - TPH and Chloride  
ETC Field Services LLC

Sample Location	Grid Location	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (C6 to C12) (mg/kg)	TPH-DRO (>C12 to C28) (mg/kg)	TPH-ORO (>C28 to C35) (mg/kg)	TPH GRO/DRO Total (C6 to C28) (mg/kg)	TPH GRO/DRO/ ORO Total (C6 to C35) (mg/kg)	TRPH by 418.1 (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Landfarm Closure Criteria			0.2	50	NE			500	2,500	2,500	1,000
TZ Cell 10	G1	12/15/09	NA	NA	<17.8	276	50.9	276	326.9	NA	9.63
		6/14/10	NA	NA	<15.5	600	135	600	735	NA	16.7
		12/1/10	NA	NA	<15.2	643	76.3	643	719.3	NA	<4.25
		6/14/11	NA	NA	<15.0	513	43.8	513	556.8	NA	16.8
		11/28/11	NA	NA	<15.5	671	246	671	917	NA	14.3
		6/14/12	NA	NA	<15.1	423	89.6	423	512.6	NA	11.7
		10/30/12	NA	NA	<15.2	288	66.9	288	354.9	NA	3.69
		5/22/13	NA	NA	<15.1	425	120	425	545	NA	10.4
		11/14/13	NA	NA	<15.8	202	69.6	202	271.6	NA	15.6
	G2	12/15/09	NA	NA	<16.2	217	52.4	217	269.4	NA	11.9
		6/14/10	NA	NA	<15.5	329	80.5	329	409.5	NA	11.3
		12/1/10	NA	NA	<15.3	265	40	265	305	NA	<8.56
		6/14/11	NA	NA	<15.1	234	<15.1	234	234	NA	<8.43
		11/28/11	NA	NA	<15.3	324	154	324	478	NA	24.3
		6/14/12	NA	NA	<15.0	222	82.1	222	304.1	NA	8.87
		10/30/12	NA	NA	<15.1	132	41.0	132	173	NA	3.30
		5/22/13	NA	NA	<15.0	231	75.9	231	306.9	NA	11.9
	G3	11/14/13	NA	NA	<15.5	123	32.2	123	155.2	NA	18.0
		12/15/09	NA	NA	<17.0	96.8	24.1	96.8	120.9	NA	9.06
		6/14/10	NA	NA	<15.2	200	58.2	200	258.2	NA	25.7
		12/1/10	NA	NA	<15.2	185	27.3	185	212.3	NA	<8.54
		6/14/11	NA	NA	<15.0	185	<15.0	185	185	NA	26.0
		11/28/11	NA	NA	<15.2	269	152	269	421	NA	21.8
		6/14/12	NA	NA	<15.1	226	88.5	226	314.5	NA	14.7
		10/30/12	NA	NA	15.1	150	39.6	165.1	204.7	NA	3.91
	G4	5/22/13	NA	NA	<15.1	179	62.5	179	241.5	NA	19.2
		11/14/13	NA	NA	<15.3	167	41.4	167	208.4	NA	24.5
		12/15/09	NA	NA	<18.9	129	19.2	129	148.2	NA	10
		6/14/10	NA	NA	<15.3	576	137	576	713	NA	44.8
		12/1/10	NA	NA	<15.3	905	95.3	905	1000.3	NA	<8.59
		6/14/11	NA	NA	<15.0	549	70.4	549	619.4	NA	90.6
		11/28/11	NA	NA	<15.3	767	246	767	1013	NA	138
		6/14/12	NA	NA	<15.1	756	129	756	885	NA	11.5
	CS	10/30/12	NA	NA	<15.2	521	110	521	631	NA	9.29
		5/22/13	NA	NA	<15.2	678	148	678	826	NA	78.3
		11/14/13	NA	NA	<15.4	297	59.3	297	356.3	NA	46.4
		8/5/14	<0.0200	<0.0200	<4.00	<50.0	N/A	<54.0	NA	331	32.8
		2/26/15	NA	NA	<2.32	<7.41	NA	<9.73	NA	NA	14.7
		5/27/15	<0.0200	<0.0800	<4.00	55.7	NA	55.7	NA	<10.0	<25.0
		8/11/15	NA	NA	<4.00	<50.0	NA	<54.0	NA	NA	<25.0
		2/16/16	NA	NA	<4.8	43	NA	43	NA	NA	<1.5
		8/31/16	Data inconclusive due to laboratory error								
		11/22/16	NA	NA	<4.7	69	300	69	369	NA	<30
		2/24/17	<0.024	<0.216	<4.8	<9.7	<48	<14.5	<62.5	NA	<30



Treatment Zone Soil Analytical Data Summary - TPH and Chloride  
ETC Field Services LLC

Sample Location	Grid Location	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (C6 to C12) (mg/kg)	TPH-DRO (>C12 to C28) (mg/kg)	TPH-ORO (>C28 to C35) (mg/kg)	TPH GRO/DRO Total (C6 to C28) (mg/kg)	TPH GRO/DRO/ ORO Total (C6 to C35) (mg/kg)	TRPH by 418.1 (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Landfarm Closure Criteria			0.2	50	NE			500	2,500	2,500	1,000
TZ Cell 11	G1	12/15/09	NA	NA	26.7	589	27.9	615.7	643.6	NA	128
		6/14/10	NA	NA	85.9	1,510	123	1595.9	1718.9	NA	469
		12/1/10	NA	NA	<15.3	362	15.3	362	377.3	NA	215
		6/14/11	NA	NA	<15.2	350	<15.2	350	350	NA	305
		11/28/11	NA	NA	<15.5	721	195	721	916	NA	651
		6/14/12	NA	NA	<15.1	260	61.6	260	321.6	NA	113
		10/30/12	NA	NA	<15.2	132	15.4	132	147.4	NA	49.9
		5/22/13	NA	NA	<15.1	185	59.3	185	244.3	NA	192
		11/14/13	NA	NA	<15.5	147	33.7	147	180.7	NA	167
	G2	12/15/09	NA	NA	27	488	49.7	515	564.7	NA	161
		6/14/10	NA	NA	<15.4	202	19.9	202	221.9	NA	169
		12/1/10	NA	NA	<15.5	181	17.8	181	198.8	NA	44.1
		6/14/11	NA	NA	<15.0	274	<15.0	274	274	NA	112
		11/28/11	NA	NA	<15.1	212	74.4	212	286.4	NA	76.9
		6/14/12	NA	NA	<15.1	118	41.8	118	159.8	NA	22.3
		10/30/12	NA	NA	<15.1	56.1	<15.2	56.1	56.1	NA	<1.01
		5/22/13	NA	NA	<15.1	117	33.1	117	150.1	NA	38.9
		11/14/13	NA	NA	<15.4	95.5	20.6	95.5	116.1	NA	48.0
	CS	8/5/14	<0.0200	<0.0200	<4.00	<50.0	NA	<54.0	NA	226	<25.0
		2/26/15	NA	NA	<2.32	<7.41	NA	<9.73	NA	NA	22.1
		5/27/15	<0.0200	<0.0800	<4.00	<50.0	NA	<54.0	NA	<10.0	<25.0
		8/11/15	NA	NA	<4.00	<50.0	NA	<54.0	NA	NA	39.0
		2/17/16	NA	NA	<4.9	15	NA	15	NA	NA	<1.5
		9/1/16	Data inconclusive due to laboratory error								
		11/22/16	NA	NA	<4.7	<9.8	60	<14.5	60	NA	<30
		2/24/17	<0.025	<0.221	<4.9	<9.1	<46	<14	<60	NA	<30
TZ Cell 12	G1	12/15/09	NA	NA	<16.2	302	38.1	302	340.1	NA	<22.6
		6/14/10	NA	NA	<15.6	449	78.1	449	527.1	NA	47.3
		12/1/10	NA	NA	<15.6	374	42.4	374	416.4	NA	<43.5
		6/14/11	NA	NA	<15.1	573	18.0	573	591	NA	29.0
		11/28/11	NA	NA	<15.3	452	161	452	613	NA	28.1
		6/14/12	NA	NA	<15.2	319	89.4	319	408.4	NA	11.7
		10/30/12	NA	NA	<15.3	209	35.3	209	244.3	NA	<1.02
		5/22/13	NA	NA	<16.4	139	43.6	139	182.6	NA	28.7
	CS	11/14/13	NA	NA	<15.5	171	22.0	171	193	NA	65.6
		8/5/14	<0.0200	<0.0200	<4.00	<50.0	NA	<54.0	NA	403	<25.0
		2/26/15	NA	NA	<2.32	<7.41	NA	<9.73	NA	NA	12.5
		5/27/15	<0.0200	0.2121	<4.00	<50.0	NA	<54.0	NA	<10.0	<25.0
		8/11/15	NA	NA	<4.00	<50.0	NA	<54.0	NA	NA	610
		2/17/16	NA	NA	<4.7	10	NA	10	NA	NA	<1.5
		9/1/16	Data inconclusive due to laboratory error								
		11/22/16	NA	NA	<4.7	<9.5	<48	<14.2	<62.2	NA	<30
		2/24/17	<0.025	<0.225	<5.0	<9.6	<48	<14.6	<62.6	NA	<30

Treatment Zone Soil Analytical Data Summary - TPH and Chloride  
ETC Field Services LLC

Sample Location	Grid Location	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (C6 to C12) (mg/kg)	TPH-DRO (>C12 to C28) (mg/kg)	TPH-ORO (>C28 to C35) (mg/kg)	TPH GRO/DRO Total (C6 to C28) (mg/kg)	TPH GRO/DRO/ ORO Total (C6 to C35) (mg/kg)	TRPH by 418.1 (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Landfarm Closure Criteria			0.2	50	NE			500	2,500	2,500	1,000
TZ Cell 13	G1	12/15/09	NA	NA	20	597	64.6	617	681.6	NA	291
		6/14/10	NA	NA	<15.7	288	71.6	288	359.6	NA	347
		12/11/10	NA	NA	<15.9	185	16.2	185	201.2	NA	425
		6/14/11	NA	NA	<15.3	414	25.6	414	439.6	NA	458
		11/28/11	NA	NA	<15.5	211	112	211	323	NA	311
		6/14/12	NA	NA	<15.4	395	89.1	395	484.1	NA	93.5
		10/30/12	NA	NA	<15.6	133	29.4	133	162.4	NA	131
		5/22/13	NA	NA	<15.3	450	195	450	645	NA	329
	CS	11/14/13	NA	NA	<15.7	153	<15.7	153	153	NA	334
		8/5/14	<0.0200	<0.0200	<4.00	<50.0	NA	<54.0	NA	130	231
		2/26/15	NA	NA	<2.32	<7.41	NA	<9.73	NA	NA	424
		5/27/15	<0.0200	<0.0800	<4.00	<50.0	NA	<54.0	NA	<10.0	81.9
		8/11/15	NA	NA	<4.00	<50.0	NA	<54.0	NA	NA	541
		2/17/16	NA	NA	<5.0	47	NA	47	NA	NA	8.3
		9/1/16	Data inconclusive due to laboratory error								
		11/22/16	NA	NA	<4.9	32	120	32	152	NA	41
		2/24/17	<0.025	<0.221	<4.9	26	<48	26	26	NA	<30
TZ Cell 14	G1	12/15/09	NA	NA	<17.6	61.5	<17.6	61.5	61.5	NA	<4.92
		6/14/10	NA	NA	<16.9	48.4	<16.9	48.4	48.4	NA	5.37
		12/11/10	NA	NA	<15.3	127	15.6	127	142.6	NA	<4.27
		6/14/11	NA	NA	<15.1	110	<15.1	110	110	NA	15.7
		11/28/11	NA	NA	<15.4	88.5	62.3	88.5	150.8	NA	762
		6/14/12	NA	NA	<15.1	93.2	44.4	93.2	137.6	NA	7.02
		10/30/12	NA	NA	<15.3	80.0	16.5	80.0	96.5	NA	3.70
		5/22/13	NA	NA	<15.3	129.0	55.8	129.0	184.8	NA	10.3
	CS	11/14/13	NA	NA	<15.4	77.8	<15.4	77.8	77.8	NA	9.88
		8/5/14	<0.0200	<0.0200	<4.00	<50.0	NA	<54.0	NA	82.0	<25.0
		2/26/15	NA	NA	<2.32	116	NA	116	NA	NA	37.5
		5/27/15	<0.0200	<0.0800	<4.00	<50.0	NA	<54.0	NA	<10.0	<25.0
		8/11/15	NA	NA	<4.00	<50.0	NA	<54.0	NA	NA	<25.0
		2/17/16	NA	NA	<4.8	12	NA	12	NA	NA	<1.5
		9/1/16	Data inconclusive due to laboratory error								
		11/23/16	NA	NA	<4.9	<10	<51	<14.9	<65.9	NA	<30
		2/24/17	<0.024	<0.216	<4.8	<9.5	<47	<14.3	<61.3	NA	<30
TZ Cell 15	G1	12/15/09	NA	NA	NA	NA	NA	NA	NA	NA	NS
		6/14/10	NA	NA	<16.2	209	82.2	209	291.2	NA	79.7
		12/11/10	NA	NA	<15.7	218	29.7	218	247.7	NA	26.2
		6/14/11	NA	NA	<15.4	205	<15.4	205	205	NA	64.1
		11/28/11	NA	NA	<15.5	322	219	322	541	NA	30.9
		6/14/12	NA	NA	<15.5	291	113	291	404	NA	16.5
		10/30/12	NA	NA	<16.0	164	64.6	164	228.6	NA	13.8
		5/22/13	NA	NA	<15.7	317	221	317	538	NA	70.9
	CS	11/14/13	NA	NA	<15.9	286	27.2	286	313.2	NA	79.7
		8/5/14	<0.100	<0.100	<20.0	<50.0	NA	<70.0	NA	1220	<125
		2/26/15	NA	NA	<2.32	22.0	NA	22.0	NA	NA	54.4
		5/27/15	<0.0400	0.4243	<8.00	<50.0	NA	<54.0	NA	<10.0	<25.0
		8/11/15	NA	NA	<20.0	<50.0	NA	<52.0	NA	NA	30.4
		2/17/16	NA	NA	<4.8	67	NA	67	NA	NA	3.2
		9/1/16	Data inconclusive due to laboratory error								
		11/23/16	NA	NA	<4.6	150	450	150	600	NA	<30
		2/24/17	<0.025	<0.224	<5.0	200	230	200	430	NA	<30

## Notes:

TZ = Treatment Zone

CS = Composite Sample

mg/kg = milligrams per kilogram

TPH = Total Petroleum Hydrocarbons

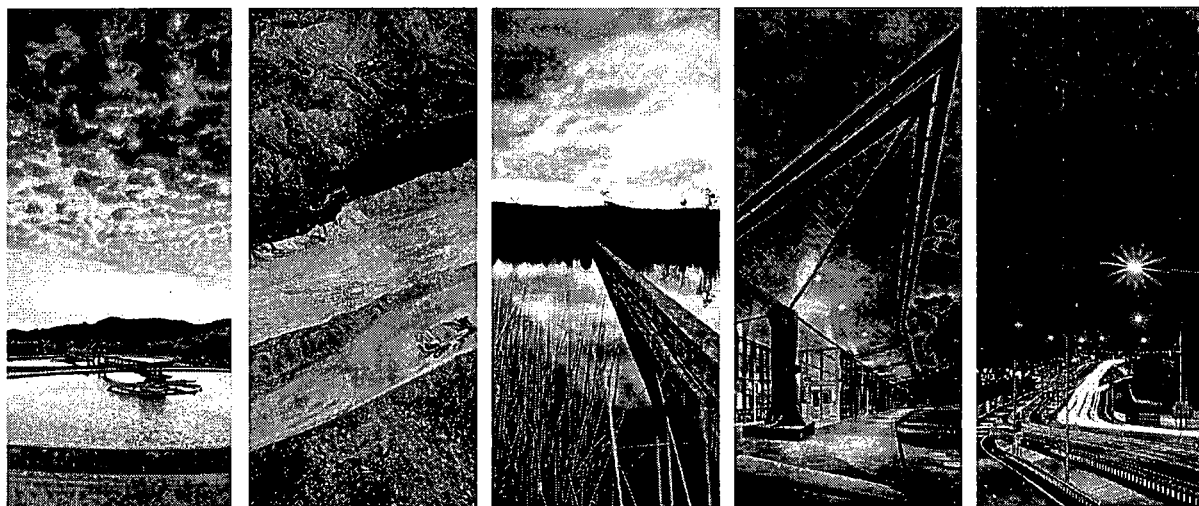
GRO/DRO = Gasoline/Diesel Range Organics

BTEX = Benzene + Toluene + Ethylbenzene + Xylenes

NS = Not Sampled

NA = Not Analyzed

Concentrations in **Bold** exceed the New Mexico Oil Conservation Division Landfarm Closure Criteria



# **Landfarm Closure and Post-Closure Care Plan**

Jal No. 4 Landfarm

Jal, New Mexico

ETC Field Services, LLC

GHD | 6121 Indian School Road NE Suite 200 Albuquerque New Mexico 87110 USA

082148 | Report No 1 | October 6, 2017



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Appendix B	19.15.29 NMAC and 19.15.30 NMAC Regulations



## 1. Revisions to the Original Document

This Closure and Post-Closure Plan was originally dated July 11, 2014 and approved by the New Mexico Oil Conservation Division (NMOCD) on July 22, 2014. Since the original submittal of this document, the ownership of the property has changed from Regency Field Services to ETC Field Services, LLC (ETC). Revision of this document has been performed to request the following minor modifications to the original Landfarm Closure and Post-Closure Plan:

- Stop tilling in landfarm cells with the exception of cell 3.
- Remove the requirement to sample for major cations and anions with the exception of chloride and sulfate.

Landfarmed soils within each cell have been disked on a bi-weekly schedule in accordance with the existing permit and closure and post plan to promote the degradation of hydrocarbon concentrations. Analytical data for concentrations of total petroleum hydrocarbons (TPH) in the treatment zone as analyzed by both EPA Method 418.1 and EPA Method 8015 (extended range through C35) are presented in Table 1. The analytical data indicate that gasoline range organics/diesel range organics (GRO/DRO) combined fraction and TPH has not been detected above the closure standards since at least 2015 in all cells except for cell 3. Benzene, toluene, ethylbenzene, and total xylenes (BTEX) concentrations in the vadose zone have also met the closure standard. In addition, TPH concentrations in cell 3 have fluctuated below the closure plan action levels during the past three years.

Based on the data, it is apparent that the continued tilling of soils in cells that are below closure plan levels (cells 1, 2, and 4 through 15) is not beneficial. Tilling of these cells will only contribute to soil erosion. By reducing the number of cells to till, ETC can focus efforts to bring the residual TPH (as analyzed by both EPA Method 418.1 and EPA Method 8015 [extended range through C35]) concentrations found in cells 3 to below closure standards.

The requirement to sample for the presence of cations and anions was included in the landfarm permit approval conditions dated March 18, 2002. The specific cations and anions consist of the following: sodium, calcium, magnesium, potassium, and alkalinity (carbonate, and bicarbonate). This requirement was also addressed in the Landfarm Closure Plan dated July 11, 2014 because of the landfarm permit approval conditions. ETC is requesting to modify both the permit and closure plan to remove this requirement for the following reasons:

- Analysis for these cations and anions is not required under 19.15.36.15 NMAC.
- The stated cations and anions do not have a regulatory standard under 20.6.2.3103 (A) or (B), with the exception of chloride and sulfate.

Based on this, other than the inclusion of this requirement into the landfarm permit approval conditions, there does not appear to be a regulatory requirement to sample for these analytes.



## 2. Background

### *Landfarm*

The landfarm (permit number NM-02-0019) is located in the southeastern portion of Lea County, approximately 10 miles north-northwest of Jal, New Mexico (Figure 1), in the SE/4 of the NW/4 of Section 36, Township 23 South, Range 36 East (New Mexico Principal Meridian). The landfarm lies on the south side of Deep Wells Road, approximately 2 miles west of Highway 18. The land that the landfarm is situated on is owned by ETC Field Services, LLC formerly Regency Field Services, LLC. The area surrounding the landfarm is used for cattle grazing and oil and gas exploration.

Receiving its first soil in July 2001, the landfarm consists of 15 cells (Figure 2), ranging in surface area from 0.35 acres to 4.92 acres. Total area of the facility is nearly 40 acres. The facility is at or near capacity and last received soil in June 2010. ETC has no plans to place additional soil in any of the landfarm cells.

### *Setting*

According to the "Geology and Ground-Water Conditions in Southern Lea County, New Mexico" (New Mexico Institute of Mining and Technology-Groundwater, Report 6 -1961), the landfarm is located near the southern edge of the Eunice Plain physiologic subdivision. The Eunice Plain is underlain by a hard caliche surface and is almost entirely covered by reddish-brown dune sand. In some places the underling surface consists of alluvial sediments, most commonly calcareous silt, in buried or Quaternary lake basins. Annual precipitation over the landfarm is reported to be 9 to 10 inches. There are no major surface drainage features within 5 miles of the landfarm. The ground surface slopes very gently to the northwest.

### *Geology*

The New Mexico Pit Rule Mapping Portal was accessed on the internet with the New Mexico Geology tab selected. The surface geology of the general area at and around the landfarm was labeled with the identifier "Qe/Qp" (Figure 3).

The following describes these surficial geology identifiers, according to the Geologic Map of New Mexico, 2003, New Mexico Bureau of Geology and Mineral Resources:

Qe      Eolian deposits (Holocene to middle Pleistocene).

Qp      Piedmont alluvial deposits (Holocene to middle Pleistocene) – includes deposits of higher gradient tributaries bordering major stream valleys, alluvial veneers of the piedmont slope, and alluvial fans. May locally include upper Pliocene deposits.

The drillers log (Appendix A) for a well (Permit No. Cp-634, approximately 1200 feet from the northwest corner of the landfarm) in the NW/4, NE/4, NW/4 of Section 36 and north of the landfarm (Figure 4), shows a layer of caliche and sand to a depth of 3 feet below ground surface (bgs) with a layer of caliche and sandstone to 15 feet bgs.

Sandy caliche was encountered from 15 to 42 feet bgs, followed by limestone to a depth of 47 feet bgs. A layer of sand and sandy shale was found from 47 to 78 feet bgs, followed by interlayered



sandstone and limestone with sandy streaks to 95 feet bgs. From 95 to 135 feet bgs, the log showed sand and sandy shale, followed by sand and sandy limestone to 155 feet bgs. Water was first encountered at around 155 to 170 feet bgs in a layer of soft sand. Hard sand was encountered from 170 to 230 feet. From 230 to 252 feet a layer of water bearing soft sand was logged. The Red Bed and Red Shale formations were found at 252 feet bgs and extending to the total depth of the well at 260 feet bgs.

### Groundwater

Based on existing water well data within 1200 feet of the landfarm, the depth to groundwater in the general area of the landfarm, ranges from 123 to 133 feet bgs.

The Pit Rule Mapping Portal with the New Mexico Office of State Engineer (OSE) and United States Geological Survey (USGS) well tab selected was reviewed for water wells in the area of the landfarm. Five wells with recorded depths were identified in section 36, surrounding the landfarm (Figure 4) with recorded water depths. The depth to groundwater in these wells is listed below:

Well	Section	Township	Range	Depth to Water (in feet)
CP 00651	36	23S	36E	123
CP 00512	36	23S	36E	126
CP 00634	36	23S	36E	125
CP 00621	36	23S	36E	127
CP 00497	36	23S	36E	133

Based on the above information, the average depth to groundwater in the area of the landfarm is approximately 127 feet bgs and the topographic change over Section 36, Township 23 South, Range 36 East is a maximum of 9 feet. The elevation change applies over the extent of the landfarm acreage and does not cause the depth to water to be less than 100 feet.

### Background Soil Sample

A background soil sample was collected on April 11, 2001, in accordance with the landfarm Permit requirements at the time of permit approval. The soil sample was collected at a depth of approximately 2 feet below ground surface. The sample was analyzed for BTEX, TPH, Resource Conservation and Recovery Act (RCRA) metals, carbonate, bicarbonate, and anions/cations.

Background data collected from the site is summarized as follows:

Benzene (mg/Kg)	Toluene (mg/Kg)	Ethyl-Benzene (mg/Kg)	Xylenes (mg/Kg)	BTEX (mg/Kg)	TOTAL TPH C6-C36 (mg/Kg)
<0.025	<0.025	<0.025	<0.025	<0.025	134

Sodium (mg/kg)	Calcium (mg/Kg)	Magnesium (mg/Kg)	Potassium (mg/Kg)	Chloride (mg/Kg)	Sulfate (mg/Kg)	Carbonate (mg/Kg)	Bicarbonate (mg/Kg)
14.4	73.54	8.54	11.24	<10	35.2	<1.0	140



Silver (mg/kg)	Arsenic (mg/Kg)	Barium (mg/Kg)	Cadmium (mg/Kg)	Chromium (mg/Kg)	Mercury (mg/Kg)	Lead (mg/Kg)	Selenium (mg/Kg)
<0.1	0.923	47.92	0.3605	4.21	<0.1	<0.55	1.959

Laboratory analytical data was obtained from the original Application for Waste Management Facility for the landfarm (dated May 30, 2001).

The reported background data was obtained from a single sample that was collected in accordance with the established procedure as provided in the New Mexico Oil Conservation Division (NMOCD) Permit 711 Approval document Dated March 18, 2002. The NMOCD considers the presence of TPH in the background soil to invalidate the background results. Recollection of background samples was performed in August 2014. Resampling of background samples for TPH (C6 extended to C35) by EPA Method 8015 is being performed. Once all of the data is collected, background sample calculations will be performed using the most current version of ProUCL, an EPA-approved statistical analysis software program.

#### ***Treatment Zone Monitoring***

The soil that makes up the Treatment Zone of each cell has been disked on a bi-weekly schedule to promote the degradation of hydrocarbon concentrations and volatile organic compounds (VOCs). Once hydrocarbon and VOC concentrations are below closure standards in the remaining cells for two consecutive sampling events, tilling will be halted. Notification of cessation of tilling will be provided to the NMOCD prior to halting tilling. As specified in 19.15.36.15 F, closure standards for petroleum hydrocarbons consist of the following:

- Benzene, as determined by EPA SW-846 Method 8021B or 8260B, shall not exceed 0.2 mg/kg.
- Total BTEX, as determined by EPA SW-846 Method 8021B or 8260B, shall not exceed 50 mg/kg. The GRO and DRO combined fractions, as determined by EPA SW-846 Method 8015M, shall not exceed 500 mg/kg. TPH, as determined by EPA Method 418.1 or other EPA Method approved by the division, shall not exceed 2500 mg/kg.
- As previously mentioned, ETC will analyze TPH using EPA Method 8015 (C6 extended to C35). The Treatment Zone of each cell has been monitored periodically following the first time soil had been placed into a cell. Since 2009 the cells have been sampled bi-annually and the results reported to the NMOCD annually. Soil samples collected from the bi-annual sampling events were analyzed for GRO/DRO Combined, TPH (C6 extended to C35), TPH by EPA Method 418.1, benzene, total BTEX, and chloride. The most recent annual sampling report was submitted in March 2017, covering the 2016 sampling events.

#### ***Vadose Zone Monitoring***

The Vadose Zone has been monitored from the first time soil had been placed into a cell. Biannual sampling and annual reporting has been performed since 2009. The most recent annual sampling report was submitted in March 2017, covering the 2016 sampling events. Soil concentrations were compared to the laboratory practical quantitation limits (PQL). The results of the background sampling and analysis that is currently being performed will be used to assist with this comparison.





### **3. Landfarm Closure Plan**

ETC is submitting this Closure Plan for NMOCD approval to close their Lea County, New Mexico landfarm permit number NM-02-0019.

This Closure Plan constitutes notification of cessation of operations in accordance with 19.15.36.18.A(1) NMAC. A copy of the closure schedule can be found in Section 5.0 of this document.

ETC will continue with quarterly monitoring of the vadose zone and semi-annual monitoring of the treatment zone. Monitoring will be performed in accordance with the permit approval conditions and the transitional provisions of 19.15.36.20 NMAC.

Treatment Zone: Section 19.15.36.15.D NMAC requires the collection and analysis of at least one composite soil sample, consisting of four discrete samples, from the treatment zone of each cell on a semi-annual basis. Samples are to be analyzed for TPH by EPA Method 8015M (C6 extended to C35) and chlorides by EPA Method 300.1.

Vadose Zone: the approved Facility Permit requires the collection and analysis of a minimum of one random discrete soil sample from the vadose zone on a quarterly basis. The vadose zone samples will be collected from soils not to exceed 3 feet below the cell's original ground surface. The samples will be analyzed for:

- TPH by EPA Method 8015 (C6 extended to C35) (quarterly).
- BTEX by EPA Method 8021B (quarterly).
- Chlorides by EPA Method 300.1 (semi-annually).
- WQCC metals and sulfate (annually).

#### **3.1 Cells Meeting Closure Performance Standards**

Treatment Zone data obtained from the semi-annual monitoring will be used to assess if cells are meeting closure performance standards in accordance with 19.15.36.15 NMAC. Cell concentrations will be monitored for the presence of TPH, and chlorides using the above reference methods during semi-annual monitoring. When the soil concentrations in a particular cell are below 500 mg/kg for DRO/GRO Combined by EPA Method 8015 and 1000 mg/kg for chlorides by EPA Method 300.0, closure sampling will be performed. The closure sampling will consist of collecting a minimum of one composite soil sample, consisting of four discrete samples from that cell. The landfarm cells will be sampled for closure twice (semi- annually), to confirm the cells meet NMOCD closure standards. The samples will be analyzed for:

- Benzene, as determined by EPA SW-846 Method 8021B shall not exceed 0.2 mg/kg.
- Total BTEX, as determined by EPA SW-846 Method 8021B shall not exceed 50 mg/kg.
- The gasoline range organics (GRO) and diesel range organics (DRO) combined fractions, as determined by EPA SW-846 Method 8015M, shall not exceed 500 mg/kg.
- TPH by EPA Method 8015 (C6 extended to C35) shall not exceed 2500 mg/kg.



- Chlorides, as determined by EPA Method 300.1, shall not exceed 1000 mg/kg.
- In addition, the metals listed in Subsections A and B of 20.6.2.3103 NMAC will be analyzed utilizing EPA SW-846 methods 6010C or 6020A. The concentration of constituents will be compared with the practical quantitation limit (PQL) or the applicable representative background value. If the concentration of those constituents exceed the PQL or background concentration, ETC will either perform a site specific risk assessment using EPA approved methods and propose closure standards based upon individual site conditions that protect fresh water, public health, safety and the environment, which shall be subject to division approval or remove the material pursuant to Paragraph (2) of Subsection G of 19.15.36.15 NMAC.

As soil from these cells meets these standards demonstrated through semi-annual sampling (collected 6 months apart, but within one year), ETC will submit a request for NMOCD approval to close these cells. The request will include the laboratory analytical data of the cell or cells which are requested to be closed. It will also include a comparison of the laboratory analytical data with the closure standards of 19.15.36.15.F NMAC.

If cell closure approval is received, sampling of those cells will be discontinued. ETC plans to leave the remediated soil from closed cells in place in accordance with 19.15.36.15.G(1) NMAC.

Re-vegetation of closed cells will be performed in accordance with 19.15.36.18.A(6) NMAC as soon as closure is approved by the NMOCD. This will be performed to minimize erosion. Revegetation requirements are described in Section 3.3 of this document.

### **3.2 Cells above Performance Closure Standards**

ETC will continue to disk cells that show hydrocarbon and VOC concentrations above the closure standards on a bi-weekly basis. When a cell has met the following for two consecutive sampling events, tilling will cease in that cell:

- Benzene, as determined by EPA SW-846 Method 8021B or 8260B, shall not exceed 0.2 mg/kg.
- Total BTEX, as determined by EPA SW-846 Method 8021B or 8260B, shall not exceed 50 mg/kg.
- The GRO/DRO combined fractions, as determined by EPA SW-846 Method 8015M, shall not exceed 500 mg/kg. TPH, as determined by EPA Method 418.1 or other EPA Method approved by the division, shall not exceed 2500 mg/kg. As previously mentioned, ETC will analyze TPH using EPA Method 8015 (C6 extended to C35).

Notification of cessation of tilling will be provided to the NMOCD prior to halting tilling. The notification of cessation of tilling will include a summary of results and laboratory analytical reports. Monitoring of the Treatment Zones and of the Vadose Zones will continue until closure performance standards have been met. The sampling results will be submitted to the NMOCD annually.

ETC will evaluate the potential for the cells to meet closure performance standards if they are not achieved within 4 years from the date of approval of this Closure Plan. If this occurs, the data will be evaluated and ETC may:

- Submit a request for additional time to meet the standards.



- Arrange to have any non-compliant soils moved to a NMOCD approved landfill in accordance with 19.15.36.18.C(4)(c) NMAC.
- Request approval of an alternative closure standard from the division in accordance with 19.15.36.15.G(4) NMAC.

If treated soils are removed, the cell will be filled in with native soils and re-vegetated in accordance with Paragraph (6) of Subsection A of 19.15.36.18 NMAC. Following closure approval for the landfarm cells, ETC will proceed with final closure activities under the approved Closure Plan.

### **3.3 Landfarm Closure**

ETC currently plans to leave the remediated soil in place. The landfarm cells will be contoured to support re-vegetation. Facility berm material may be used to control potential erosion issues at the topographically low corner of the facility, landfarm cell berms will be contoured in. However, any berms left in place for erosion control will be seeded for vegetative growth.

#### ***Roads and fences***

The access roads will be removed as a part of the re-contouring. Disturbed areas will be re-vegetated in accordance with 19.15.36.18(A)(6) NMAC.

#### ***Re-vegetation***

The ground in and around the landfarm will be re-vegetated in accordance with 19.15.36.18(A)(6) NMAC. The re-vegetation will consist of establishing a vegetative cover equal to 70 percent of the native perennial vegetative cover (un-impacted by overgrazing, fire or other intrusion damaging to native vegetation). The cover will consist of at least three native plant species, including at least one grass, but not including noxious weeds. Maintenance of that cover, including the removal of noxious weeds, will be performed through two successive growing seasons.

#### ***Soil Sampling***

Visibly stained areas will be sampled for the presence of TPH using EPA Method 8015 and chlorides using EPA Method 300.1. If these soils exceed 2,500 mg/kg of TPH and 1000 mg/kg chlorides, the soil will be excavated and removed from the site for disposal at a NMOCD approved landfill. The soil will be manifested under form C138.

During closure and post closure operations, ETC will maintain the landfarm to protect fresh water, public health, safety and the environment.

#### ***Closure Report***

A report will be submitted upon completion of closure activities. The report will include a description of closure activities, soil sampling data of spills or releases (if applicable), and photographs of the site.



## 4. Post Closure Plan

Following clean closure of the landfarm, ETC will inspect and maintain the re-vegetated area of the landfarm on a biannual basis. Revegetation will be assessed according to Section 3.3, above. The post closure care period will be three years following receipt of landfarm closure approval in accordance with 19.15.36.18.E.

If there has been a release to the vadose zone or to ground water, then ETC will comply with the applicable requirements of 19.15.29 NMAC and 19.15.30 NMAC, release notification and remediation, respectively. A copy of these regulations can be found in Appendix B.

### *Landfarm Post Closure*

At the end of the 3 year post-closure care period, ETC will send a Post Closure report to the NMOCD, demonstrating compliance with meeting Post Closure Requirements. The Landfarm Post Closure Report will include estimations of vegetative cover, types of plants growing at the site and photographs of the revegetated areas.

### *Release of Financial Assurance*

With receipt of closure approval from the NMOCD, ETC will request release of financial assurance.

## 5. Closure Schedule

Closure will generally follow the following schedule.

- **Achieving Landfarm Closure Performance Standards:** Achieving closure performance standards for all cells is anticipated to occur within the next 2 years. Operational monitoring will continue to be performed on the current schedule. ETC will petition for closure as cells meet performance standards. Cells will be removed from operational monitoring once they have been approved for closure. Closure requests will be submitted once the closure performance standards have been demonstrated through semi-annual monitoring. Soil sampling of identified stained soil will be performed.
- **Closure Assessment:** An assessment of the likelihood that the landfarm soils will meet closure performance standards will be included within each annual report. In the event that cells are not meeting closure performance standards within 5 years of the date of approval of this closure plan, a closure alternatives assessment will be performed. The alternatives assessment will evaluate closure options as discussed in Section 3.2, above. The alternatives assessment will be submitted to the NMOCD as part of the fourth year's annual report. In the event that it is determined that soil in a particular cell cannot be remediated, they may be removed in accordance with 19.15.36.18.C(4)(c) NMAC.
- **Cell Closure:** Grading and reseedling of individual cells will begin within 30 days of receipt of NMOCD closure approval. The purpose of this is to minimize erosion and begin vegetative growth on the cell as soon as possible.



- **Landfarm Closure Activities:** Once closure approval of all landfarm cells is received, grading of the berms and roads, and grading and reseedling of any unclosed landfarm cells will be performed. These activities will begin within 30 days following receipt of NMOCD closure approval.
- **Post Closure Care:** Post closure care of the entire former landfarm as described in Section 4.0 will be performed for a period of 3 years following receipt of final Landfarm Closure Report approval from the NMOCD.
- **Post Closure Report:** A post closure report will be submitted at the end of the Post Closure period. The Post Closure period will be deemed complete once establishment of a vegetative cover equal to 70 percent of the native perennial vegetative cover (un-impacted by overgrazing, fire or other intrusion damaging to native vegetation) or scientifically documented ecological description consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintenance of that cover through two successive growing seasons. The post closure report will include the vegetative cover calculations and include photographs of the site.

## Figures

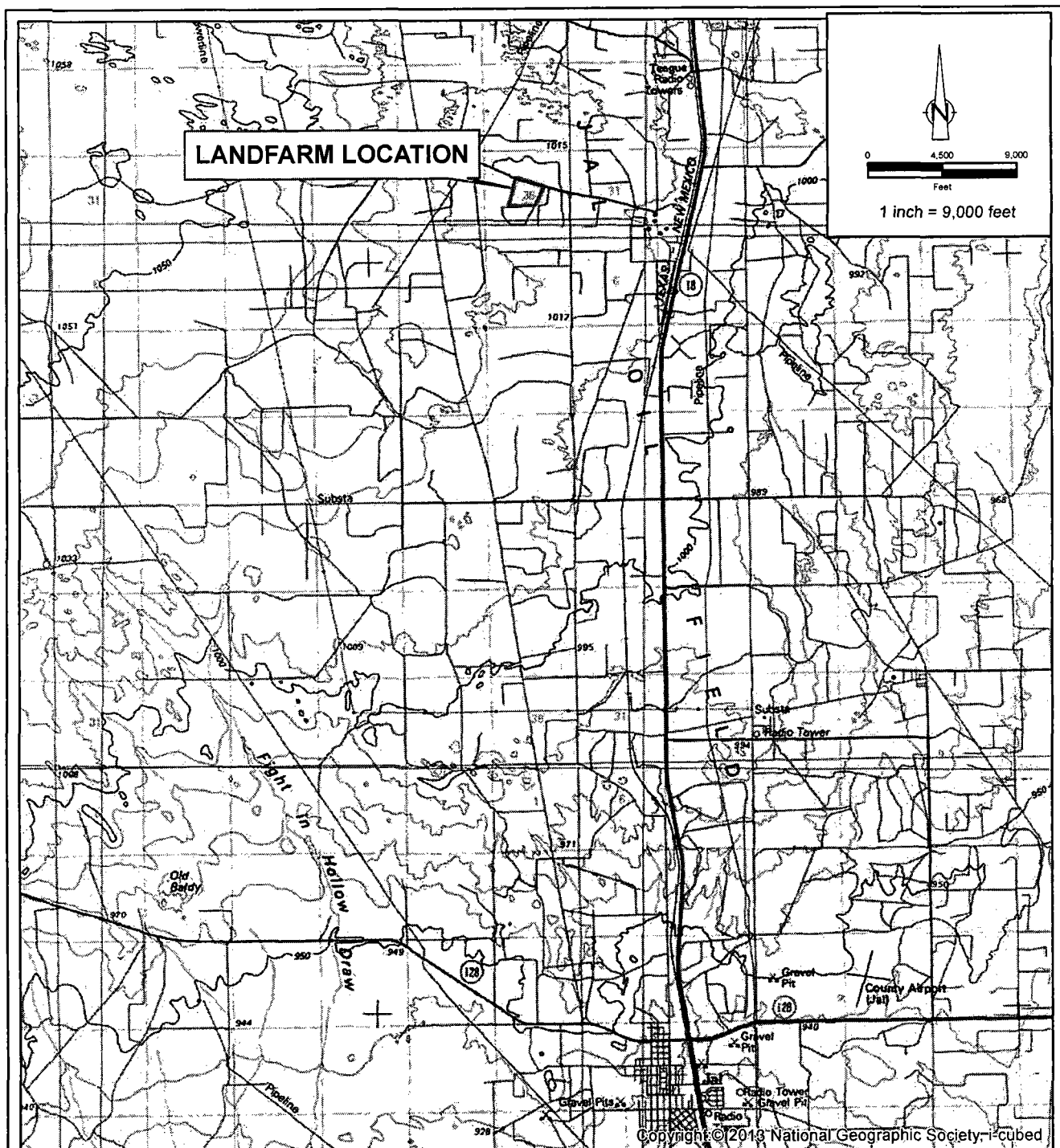
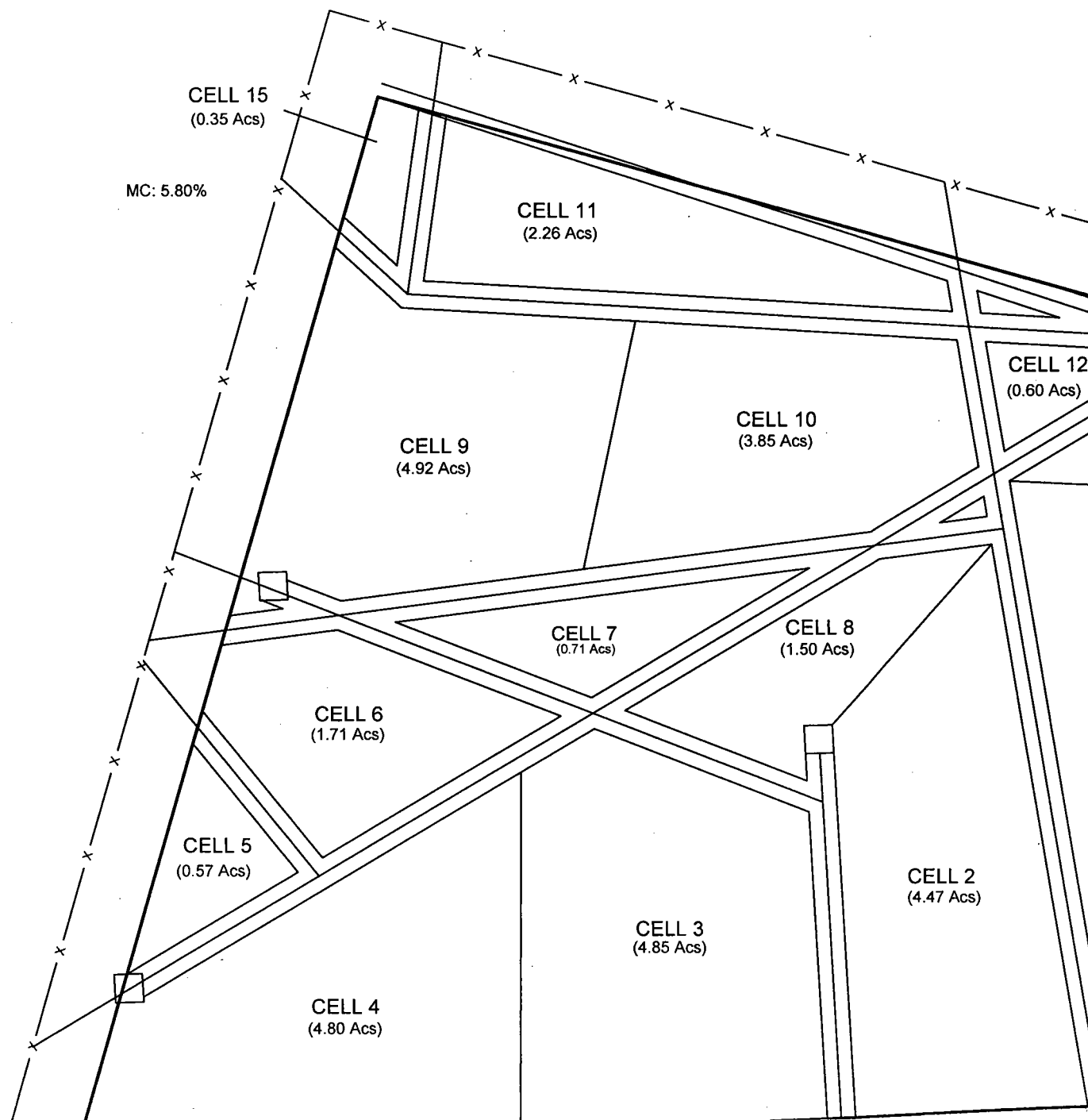
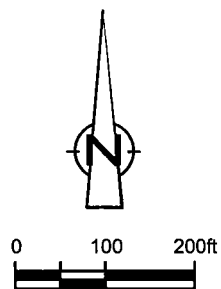


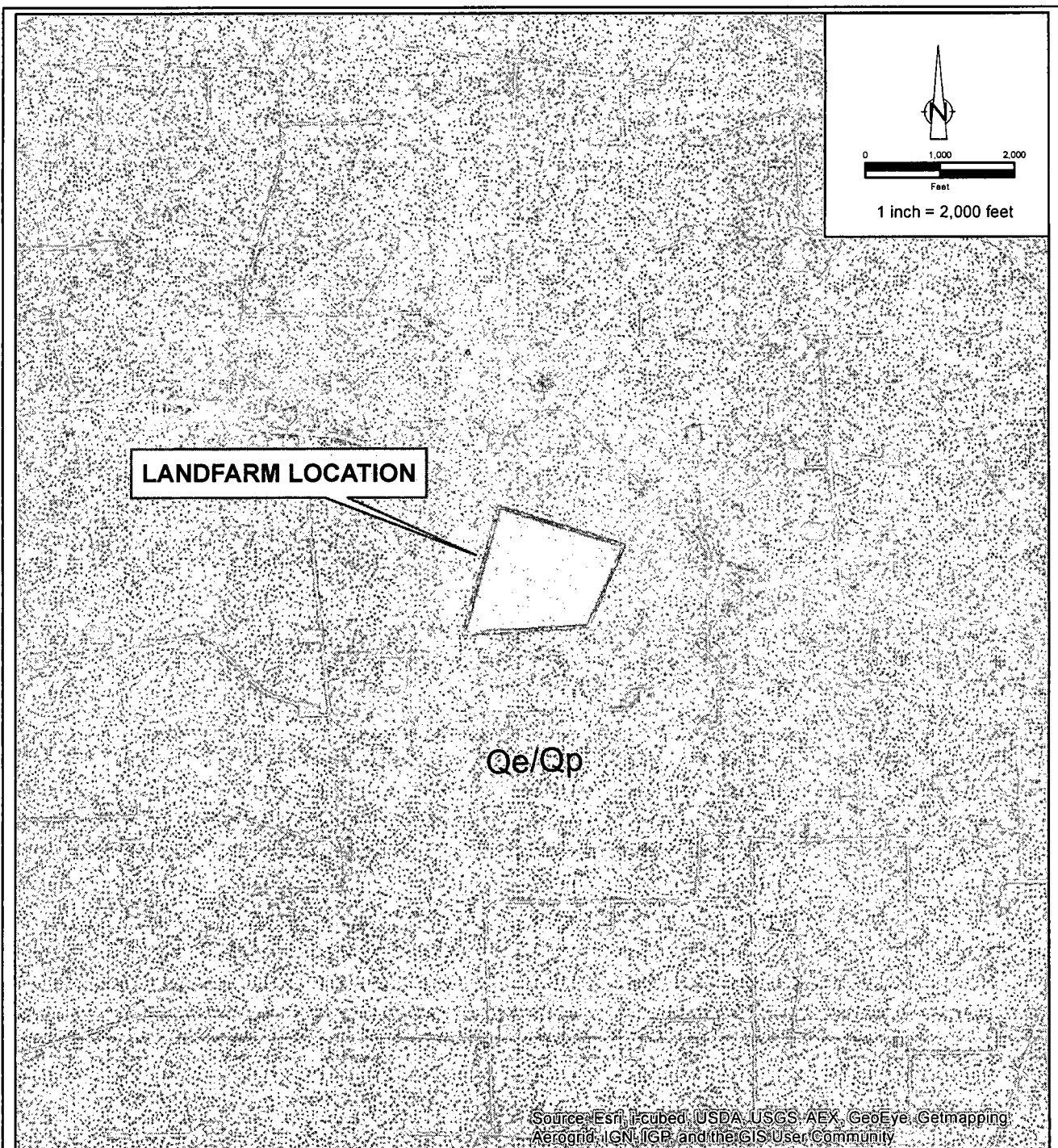
Figure 1

SITE LOCATION MAP  
 LEA COUNTY LANDFARM  
 SE/4 NW/4 OF SECTION 36  
 TOWNSHIP 23 SOUTH, RANGE 38 EAST  
 Regency Energy Field Services









### Legend



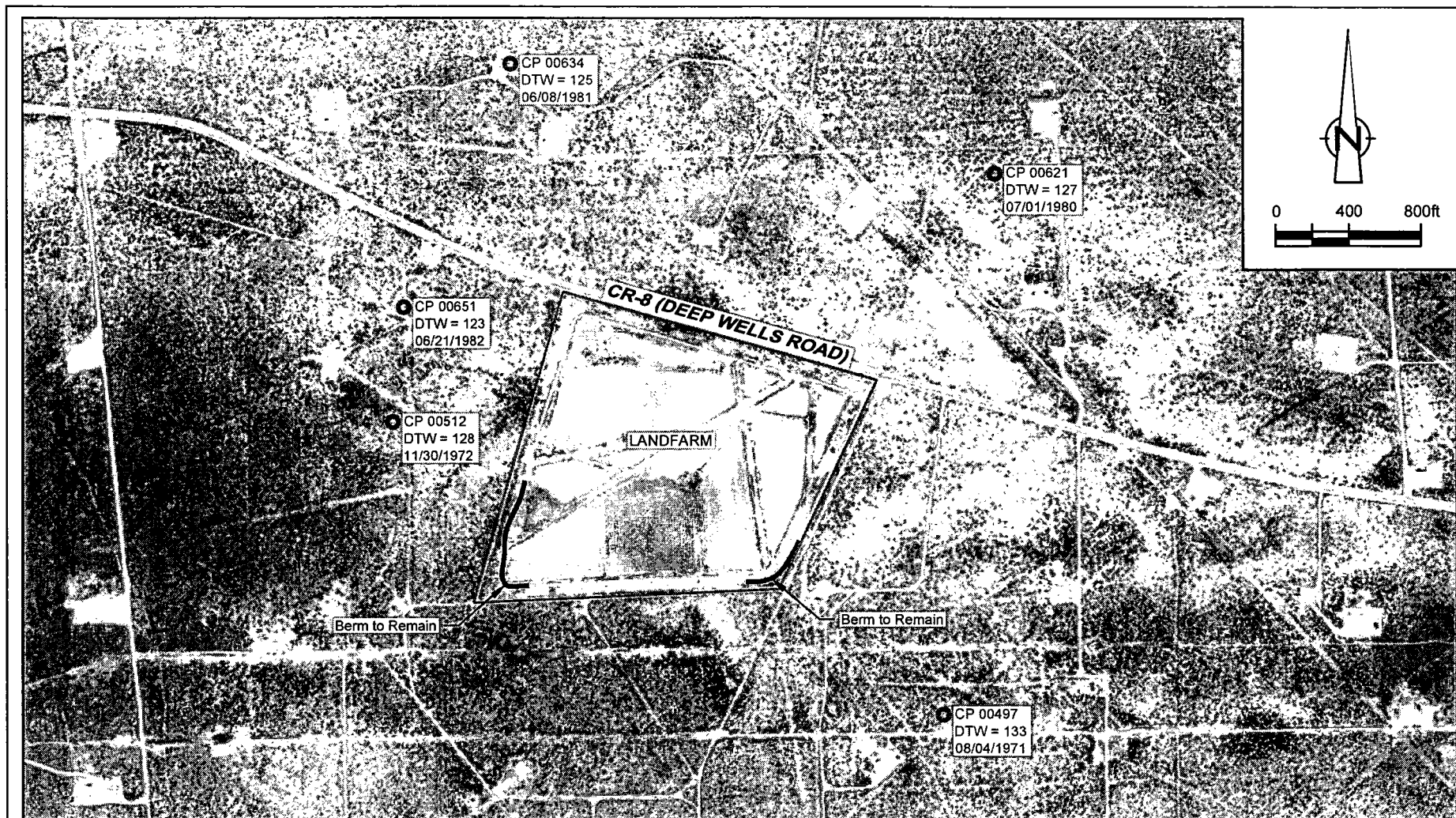
-  Approximate Facility Boundary
-  Qe/Qp Formation



Figure 3

SITE GEOLOGY MAP  
LEA COUNTY LANDFARM  
SE/4 NW/4 OF SECTION 36  
TOWNSHIP 23 SOUTH, RANGE 38 EAST  
*Regency Energy Field Services*



LAT/LONG: 32.261° NORTH, 103.220° WEST  
 COORDINATE: NAD83 DATUM, U.S. FOOT  
 STATE PLANE ZONE - NEW MEXICO EAST

#### LEGEND

- WATER WELL WITH WELL ID,  
 DEPTH TO WATER IN FEET AND  
 INSTALL DATE



Figure 4  
 WATER WELLS MAP (DEPTH TO GROUNDWATER)  
 LEA COUNTY LANDFARM  
 SE/4 NW/4 OF SECTION 36  
 TOWNSHIP 23 SOUTH, RANGE 38 EAST  
*Regency Energy Field Services*

## Table

Treatment Zone Soil Analytical Data Summary - TPH and Chloride  
ETC Field Services LLC

Sample Location	Grid Location	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (C6 to C12) (mg/kg)	TPH-DRO (>C12 to C28) (mg/kg)	TPH-ORO (>C28 to C35) (mg/kg)	TPH GRO/DRO Total (C6 to C28) (mg/kg)	TPH GRO/DRO/ ORO Total (C6 to C35) (mg/kg)	TRPH by 418.1 (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Landfarm Closure Criteria			0.2	50	NE			500	2,500	2,500	1,000
TZ Cell 1	G1	12/15/09	NA	NA	<16.2	670	81	670	751	NA	61.5
		6/14/10	NA	NA	<15.9	727	82.2	727	809.2	NA	40.9
		12/1/10	NA	NA	<15.4	724	50.4	724	774.4	NA	34
		6/14/11	NA	NA	<15.1	887	118	887	1005	NA	67.8
		11/28/11	NA	NA	<19.1	<19.1	<19.1	<38.2	<57.3	NA	45.7
		6/14/12	NA	NA	<15.2	638	78.5	638	716.5	NA	20.7
		10/30/12	NA	NA	<15.4	514	63.5	514	577.5	NA	21.0
		5/22/13	NA	NA	<15.3	527	312	527	839	NA	47.5
		11/14/13	NA	NA	<15.6	548	50.5	548	598.5	NA	50.1
	G2	12/15/09	NA	NA	<15.8	582	74	582	656	NA	98
		6/14/10	NA	NA	<15.8	672	89.2	672	761.2	NA	83.2
		12/1/10	NA	NA	<15.6	855	85.5	855	940.5	NA	59
		6/14/11	NA	NA	<15.1	665	37.3	665	702.3	NA	107
		11/28/11	NA	NA	<15.4	560	196	560	756	NA	27.7
		6/14/12	NA	NA	<15.2	472.00	87.80	472	559.8	NA	16.2
		10/30/12	NA	NA	<15.5	438	47.2	438	485.2	NA	18.3
		5/22/13	NA	NA	<15.4	887	230	887	1117	NA	89.2
		11/14/13	NA	NA	<15.5	58.4	<15.7	58.4	58.4	NA	18.3
	G3	12/15/09	NA	NA	<16.4	1,060	134	1,060	1194	NA	231
		6/14/10	NA	NA	<78.5	1,310	157	1,310	1467	NA	161
		12/1/10	NA	NA	<15.5	978	34	978	1012	NA	187
		6/14/11	NA	NA	<15.2	1,510	157	1,510	1667	NA	184
		11/28/11	NA	NA	<15.5	1,110	359	1,110	1469	NA	306
		6/14/12	NA	NA	<15.2	1,390	88.7	1,390	1478.7	NA	75.9
		10/30/12	NA	NA	<15.5	1,100	124	1,100	1224	NA	82.4
		5/22/13	NA	NA	<15.3	1340	349	1340	1689	NA	119
	G4	11/14/13	NA	NA	17.3	1,830	139	1847.3	1986.3	NA	205
		12/15/09	NA	NA	53.7	1,230	113	1283.7	1396.7	NA	300
		6/14/10	NA	NA	<76.5	1,720	253	1,720	1973	NA	186
		12/1/10	NA	NA	<15.7	826	16.2	826	842.2	NA	83.2
		6/14/11	NA	NA	<15.1	1,580	131	1,580	1711	NA	304
		11/28/11	NA	NA	<15.4	1,380	376	1,380	1756	NA	309
		6/14/12	NA	NA	<15.1	419	85.0	419	504	NA	36.4
		10/30/12	NA	NA	<15.5	1,220	148	1,220	1368	NA	90.0
	G5	5/22/13	NA	NA	<15.3	1300	533	1300	1833	NA	181
		11/14/13	NA	NA	<15.5	1,480	93.2	1,480	1573.2	NA	187
		12/15/09	NA	NA	<18.3	189	21.5	189	210.5	NA	44.8
		6/14/10	NA	NA	<16.3	240	30.5	240	270.5	NA	136
		12/1/10	NA	NA	<15.3	962	43.3	962	1005.3	NA	113
		6/14/11	NA	NA	15.9	1,120	121	1135.9	1256.9	NA	105
		11/28/11	NA	NA	<15.4	1,720	655	1,720	2375	NA	214
		6/14/12	NA	NA	<15.1	678	95.5	678	773.5	NA	52.2
	CS	10/30/12	NA	NA	<15.3	961	140.00	961	1101	NA	62.1
		5/22/13	NA	NA	<15.1	1,490	368	1,490	1858	NA	143
		11/14/13	NA	NA	99	1,450	116	1549	1665	NA	141
		8/5/14	NA	NA	<20.0	<50.0	NA	<70.0	NA	NA	151
		2/26/15	<0.00533	<0.0116	<2.32	<7.41	NA	<9.73	NA	32.6	12.9
		5/27/15	NS	NS	NS	NS	NS	NS	NS	NS	NS
		8/12/15	<0.0200	<0.0800	<4.00	<50.0	NA	<54.0	NA	<10.0	52.3
		2/16/16	NA	NA	<4.9	82	NA	82	NA	NA	<7.5
		8/31/16	Data inconclusive due to laboratory error								
		11/21/16	NA	NA	<4.9	36	110	36	146	NA	<30
		2/24/17	<0.025	<0.222	<4.9	52	100	52	152	NA	<30

Treatment Zone Soil Analytical Data Summary - TPH and Chloride  
ETC Field Services LLC

Sample Location	Grid Location	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (C6 to C12) (mg/kg)	TPH-DRO (>C12 to C28) (mg/kg)	TPH-ORO (>C28 to C35) (mg/kg)	TPH GRO/DRO Total (C6 to C28) (mg/kg)	TPH GRO/DRO/ ORO Total (C6 to C35) (mg/kg)	TRPH by 418.1 (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Landfarm Closure Criteria			0.2	50	NE			500	2,500	2,500	1,000
TZ Cell 2	G1	12/15/09	NA	NA	<18.8	65.2	<18.8	65.2	65.2	NA	7.83
		6/14/10	NA	NA	<15.5	1,220	189	1,220	1409	NA	24
		12/1/10	NA	NA	<15.6	733	35.6	733	768.6	NA	11.2
		6/14/11	NA	NA	<15.1	722	45.7	722	767.70	NA	16.5
		11/28/11	NA	NA	<15.5	1,100	421	1,100	1521	NA	17.2
		6/14/12	NA	NA	<15.3	906	100	906	1006	NA	12.5
		10/30/12	NA	NA	<15.3	669	63.5	669	732.5	NA	16.3
		5/22/13	NA	NA	<15.5	586	161	586	747	NA	42.1
	G2	11/14/13	NA	NA	<15.4	602	50.1	602	652.1	NA	46.7
		12/15/09	NA	NA	<16.0	307	50.4	307	357.4	NA	161
		6/14/10	NA	NA	<15.6	584	92.8	584	676.8	NA	126
		12/1/10	NA	NA	<15.5	387	25.3	387	412.3	NA	54.3
		6/14/11	NA	NA	<15.1	644	27.7	644	671.7	NA	55.5
		11/28/11	NA	NA	<15.3	661	280	661	941	NA	150
		6/14/12	NA	NA	<15.3	556	89.2	556	645.2	NA	28.8
		10/30/12	NA	NA	<15.4	467	52.7	467	519.7	NA	50.6
	G3	5/22/13	NA	NA	<15.2	429	147	429	576	NA	115
		11/14/13	NA	NA	<15.5	58.8	<15.5	58.8	58.8	NA	73.4
		12/15/09	NA	NA	<18.9	140	19.6	140	159.6	NA	144
		6/14/10	NA	NA	<16.3	154	24.7	154	178.7	NA	135
		12/1/10	NA	NA	<15.4	481	42.1	481	523.1	NA	70.5
		6/14/11	NA	NA	18.1	828	100	846.1	946.1	NA	151
		11/28/11	NA	NA	<15.4	672	304	672	976	NA	89.9
		6/14/12	NA	NA	<15.2	649	98.4	649	747	NA	21.2
	G4	10/30/12	NA	NA	<15.2	523	78.0	523	601	NA	35.9
		5/22/13	NA	NA	<15.1	467	224	467	691	NA	109
		11/14/13	NA	NA	<15.5	524	65.6	524	590	NA	84.6
		12/15/09	NA	NA	<19.1	136	21.8	136	158	NA	45.6
		6/14/10	NA	NA	<15.6	372	98.7	372	471	NA	152
		12/1/10	NA	NA	<15.5	319	28	319	347	NA	55.2
		6/14/11	NA	NA	<14.8	579	49.7	579	629	NA	51.8
		11/28/11	NA	NA	<15.4	635	283	635	918	NA	200
	CS	6/14/12	NA	NA	<15.2	423	100	423	523	NA	21.2
		10/30/12	NA	NA	<15.3	430	79.0	430	509	NA	88.3
		5/22/13	NA	NA	<15.2	455	222	455	677	NA	136
		11/14/13	NA	NA	<15.3	377	53.4	377	430	NA	60.8
		8/5/14	NA	NA	<4.00	<50.0	NA	<54.0	NA	NA	66.3
		2/26/15	<0.00533	<0.0116	<2.32	7.42	NA	7.42	NA	299	11.0
		5/27/15	NS	NS	NS	NS	NS	NS	NS	NS	NS
		8/12/15	<0.0200	<0.0800	<4.00	<50.0	NA	<54.0	NA	<10.0	44.7
		2/16/16	NA	NA	<4.7	47	NA	47	NA	NA	3.7
		8/31/16	Data inconclusive due to laboratory error								
		11/21/16	NA	NA	<4.8	17	52	17	69	NA	<30
		2/24/17	<0.025	<0.224	<5.0	34	150	34	184	NA	<30

Treatment Zone Soil Analytical Data Summary - TPH and Chloride  
ETC Field Services LLC

Sample Location	Grid Location	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (C6 to C12) (mg/kg)	TPH-DRO (>C12 to C28) (mg/kg)	TPH-ORO (>C28 to C35) (mg/kg)	TPH GRO/DRO Total (C6 to C28) (mg/kg)	TPH GRO/DRO/ ORO Total (C6 to C35) (mg/kg)	TRPH by 418.1 (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Landfarm Closure Criteria			0.2	50	NE			500	2,500	2,500	1,000
TZ Cell 3	G1	12/15/09	NA	NA	<307	3,860	538	3,860	4398	NA	16.2
		6/14/10	NA	NA	<154	3,540	373	3,540	3913	NA	21.5
		12/1/10	NA	NA	<15.3	3,070	58.9	3,070	3128.9	NA	9.53
		6/14/11	NA	NA	<15.1	3,250	317	3,250	3567	NA	14.3
		11/28/11	NA	NA	<15.3	3,760	870	3,760	4630	NA	13.2
		6/14/12	NA	NA	<77.3	4,050	468	4,050	4518	NA	12.3
		10/30/12	NA	NA	<15.3	3,590	319	3,590	3909	NA	3.87
		5/22/13	NA	NA	20.6	3,560	749	3580.6	4329.6	NA	28.3
		11/14/13	NA	NA	21.3	4,230	199	4251.3	4450.3	NA	3.87
	G2	12/15/09	NA	NA	<16.8	630	67.5	630	697.5	NA	26.3
		6/14/10	NA	NA	<154	3,420	364	3,420	3784	NA	22.7
		12/1/10	NA	NA	<15.2	4,470	287	4,470	4757	NA	9.39
		6/14/11	NA	NA	<15.2	3,720	<15.2	3,720	3720	NA	25.0
		11/28/11	NA	NA	<15.4	4,790	913	4,790	5703	NA	45.2
		6/14/12	NA	NA	<75.8	5,410	398	5,410	5808	NA	12.5
		10/30/12	NA	NA	<15.4	3,900	311	3,900	4211	NA	16.8
		5/22/13	NA	NA	<15.2	2,890	1,140	2,890	4030	NA	27.3
	G3	11/14/13	NA	NA	19.9	4,280	191	4299.9	4490.9	NA	16.8
		12/15/09	NA	NA	<80.9	2,930	365	2,930	3295	NA	26.6
		6/14/10	NA	NA	<159	4,830	515	4,830	5345	NA	26.3
		12/1/10	NA	NA	<15.1	3,490	112	3,490	3602	NA	10.6
		6/14/11	NA	NA	<15.2	3,290	<15.2	3,290	3290	NA	10.9
		11/28/11	NA	NA	<15.2	4,330	1,010	4,330	5340	NA	16.5
		6/14/12	NA	NA	<75.5	3,720	411	3,720	4131	NA	9.49
		10/30/12	NA	NA	<15.2	3,380	276	3,380	3656	NA	6.02
	G4	5/22/13	NA	NA	<15.1	3,840	535	3,840	4375	NA	13.8
		11/14/13	NA	NA	20.8	4,220	213	4240.8	4453.8	NA	6.02
		12/15/09	NA	NA	<81.9	2,120	247	2,120	2367	NA	15.8
		6/14/10	NA	NA	<169	4,440	488	4,440	4928	NA	15.6
		12/01/10	NA	NA	<15.2	4,340	220	4,340	4560	NA	<8.55
		6/14/11	NA	NA	22.0	3,750	<15.1	3772	3750	NA	9.30
		11/28/11	NA	NA	<15.2	4,070	893	4,070	4963	NA	50.7
		6/14/12	NA	NA	<75.4	4,800	448	4,800	5248	NA	10.8
	G5	10/30/12	NA	NA	<15.4	2,810	226	2,810	3036	NA	6.05
		5/22/13	NA	NA	<75.2	5150	900	5150	6050	NA	13.7
		11/14/13	NA	NA	22.5	5030	226	5052.5	5278.5	NA	31.1
		12/15/09	NA	NA	<16.8	489	47.4	489	536.4	NA	17.8
		6/14/10	NA	NA	<153	4,540	506	4,540	5046	NA	15.1
		12/1/10	NA	NA	<15.4	3,830	54.9	3,830	3884.9	NA	10.8
		6/14/11	NA	NA	19.5	3,100	<15.2	3119.5	3119.5	NA	23.2
		11/28/11	NA	NA	<15.2	4,690	1,020	4,690	5710	NA	21.6
	CS	6/14/12	NA	NA	<75.8	3,780	414	3,780	4194	NA	11.8
		10/30/12	NA	NA	<15.3	3,030	246	3,030	3276	NA	6.11
		5/22/13	NA	NA	<15.2	3,580	823	3,580	4403	NA	15.9
		11/14/13	NA	NA	20.4	4,410	182	4430.4	4612.4	NA	31.6
		8/5/14	NA	NA	<20.0	163	NA	163	NA	NA	25.7
		2/26/15	<0.00533	<0.0116	<2.32	175	NA	175	NA	366	20.6
		5/27/15	NS	NS	NS	NS	NS	NS	NS	NS	NS
		8/12/15	<0.100	<0.400	<20.0	1,080	NA	1,080	NA	52.2	32.7
		2/16/16	NA	NA	<4.8	630	NA	630	NA	NA	<1.5
		8/31/16	Data inconclusive due to laboratory error								
		11/21/16	NA	NA	<4.7	270	630	270	900	NA	<30
		2/24/17	<0.023	<0.21	<4.7	1100	1800	1100	2900	NA	<30

Treatment Zone Soil Analytical Data Summary - TPH and Chloride  
ETC Field Services LLC

Sample Location	Grid Location	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (C6 to C12) (mg/kg)	TPH-DRO (>C12 to C28) (mg/kg)	TPH-ORO (>C28 to C35) (mg/kg)	TPH GRO/DRO Total (C6 to C28) (mg/kg)	TPH GRO/DRO/ ORO Total (C6 to C35) (mg/kg)	TRPH by 418.1 (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Landfarm Closure Criteria			0.2	50	NE			500	2,500	2,500	1,000
TZ Cell 4	G1	12/15/09	NA	NA	<18.14	428	32.2	428	460.2	NA	18
		6/14/10	NA	NA	<155	3,830	304	3,830	4134	NA	37.7
		12/01/10	NA	NA	<15.3	3,120	52.6	3,120	3172.6	NA	32.6
		6/14/11	NA	NA	<15.2	2,790	<15.2	2,790	2790	NA	33.0
		11/28/11	NA	NA	<15.2	3,270	779	3,270	4049	NA	33.6
		6/14/12	NA	NA	<75.8	4,100	410	4,100	4510	NA	19.8
		10/30/12	NA	NA	<15.5	2,650	265	2,650	2915	NA	18.0
		5/22/13	NA	NA	<76.1	5,230	855	5,230	6085	NA	45.0
	G2	11/14/13	NA	NA	17.0	3,560	145	3577	3722	NA	57.1
		12/15/09	NA	NA	<80.1	3,320	339	3,320	3659	NA	39.7
		6/14/10	NA	NA	<154	1,910	<154	1,910	1910	NA	36.1
		12/01/10	NA	NA	<15.4	3,240	36.6	3,240	3276.6	NA	33.6
		6/14/11	NA	NA	17.6	3,560	16.6	3577.6	3594.2	NA	39.0
		11/28/11	NA	NA	<15.2	4,270	1,050	4,270	5320	NA	22.5
		6/14/12	NA	NA	<76.1	3,860	422	3,860	4282	NA	25.2
		10/30/12	NA	NA	<15.6	2,340	228	2,340	2568	NA	27.2
	G3	5/22/13	NA	NA	<15.3	4,370	478	4,370	4848	NA	39.6
		11/14/13	NA	NA	17.5	3,290	87.3	3307.5	3394.8	NA	63.9
		12/15/09	NA	NA	<19.6	436	31.4	436	467.4	NA	9.49
		6/14/10	NA	NA	<160	3,460	276	3,460	3736	NA	41
		12/01/10	NA	NA	<15.3	3,180	64.5	3,180	3244.5	NA	43.1
		6/14/11	NA	NA	20.9	3,710	19.2	3730.9	3750.1	NA	52.3
		11/28/11	NA	NA	<15.2	3,470	764	3,470	4234	NA	76.3
		6/14/12	NA	NA	<15.1	2,930	75.3	2,930	3005.3	NA	24.0
	G4	10/30/12	NA	NA	<15.5	2,800	258	2,800	3058	NA	18.0
		5/22/13	NA	NA	<15.3	3,690	428	3,690	4118	NA	68.0
		11/14/13	NA	NA	<15.5	2,500	67.7	2,500	2567.7	NA	73.9
		12/15/09	NA	NA	<18.3	302	22.4	302	324.4	NA	16.1
		6/14/10	NA	NA	<154	2,170	167	2,170	2337	NA	126
		12/01/10	NA	NA	<15.4	2,330	47.9	2,330	2377.9	NA	80.6
		6/14/11	NA	NA	<15.2	2,350	<15.2	2,350	2350	NA	57.7
		11/28/11	NA	NA	<152	6,420	1,750	6,420	8170	NA	12.2
	G5	6/14/12	NA	NA	<15.2	2,600	82.5	2,600	2682.5	NA	52.8
		10/30/12	NA	NA	<15.4	1,910	183	1,910	2093	NA	35.7
		5/22/13	NA	NA	<15.1	2,780	436	2,780	3216	NA	82.0
		11/14/13	NA	NA	16.1	2,280	89.9	2296.1	2386	NA	92.4
		12/15/09	NA	NA	<16.8	489	47.4	489	536.4	NA	17.8
		6/14/10	NA	NA	<153	3,170	276	3,170	3446	NA	75.9
		12/01/10	NA	NA	<15.3	2,470	41.7	2,470	2511.7	NA	74.6
		6/14/11	NA	NA	<15.1	2,210	<15.1	2,210	2210	NA	79.7
	CS	11/28/11	NA	NA	<15.3	3,540	868	3,540	4408	NA	81.1
		6/14/12	NA	NA	<15.2	2,580	82.2	2,580	2662.2	NA	25.7
		10/30/12	NA	NA	<15.5	1,920	170	1,920	2090	NA	33.6
		5/22/13	NA	NA	<15.2	3,120	517	3,120	3637	NA	62.7
		11/14/13	NA	NA	18.3	3,370	134	3388.3	3522.3	NA	71.5
		8/5/14	NA	NA	<20.0	140	NA	140	NA	NA	38.9
		2/26/15	<0.00533	<0.0116	<2.32	902	NA	902	NA	5,640	10.4
		5/27/15	NS	NS	NS	NS	NS	NS	NS	NS	NS
		8/12/15	<0.100	<0.400	<20.0	226	NA	226	NA	44.6	32.2
		2/16/16	NA	NA	<4.7	420	NA	420	NA	NA	2.9
		8/31/16	Data inconclusive due to laboratory error								
		11/22/16	NA	NA	<4.7	300	510	300	810	NA	<30
		2/24/17	<0.024	<0.217	<4.8	140	250	140	390	NA	<30

Treatment Zone Soil Analytical Data Summary - TPH and Chloride  
ETC Field Services LLC

Sample Location	Grid Location	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (C6 to C12) (mg/kg)	TPH-DRO (>C12 to C28) (mg/kg)	TPH-ORO (>C28 to C35) (mg/kg)	TPH GRO/DRO Total (C6 to C28) (mg/kg)	TPH GRO/DRO/ ORO Total (C6 to C35) (mg/kg)	TRPH by 418.1 (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Landfarm Closure Criteria			0.2	50	NE			500	2,500	2,500	1,000
TZ Cell 5	G1	12/15/09	NA	NA	<15.3	82.2	51.9	82.2	134.1	NA	<4.28
		6/14/10	NA	NA	<15.4	73.1	29.4	73.1	102.5	NA	12.5
		12/1/10	NA	NA	<15.1	143	51.6	143	194.6	NA	<4.26
		6/14/11	NA	NA	<15.1	71.1	18.2	71.1	89.3	NA	<4.22
		11/28/11	NA	NA	<15.1	151	196	151	347	NA	<5.04
		6/14/12	NA	NA	<15.2	46.2	53.8	46.2	100	NA	6.29
		10/30/12	NA	NA	<15.1	60.6	31.1	60.6	91.7	NA	<1.01
		5/22/13	NA	NA	<15.2	40.4	68.7	40.4	109.1	NA	4.09
		11/14/13	NA	NA	<15.3	89.1	62.4	89.1	151.5	NA	6.44
	CS	8/5/14	<0.0200	<0.0200	<4.00	<50.0	NA	<54.0	NA	188	<25.0
		2/26/15	NA	NA	<2.32	<7.41	NA	<9.73	NA	NA	9.00
		5/27/15	<0.0200	<0.0800	<4.00	<50.0	NA	<54.0	NA	<10.0	<25.0
		8/11/15	NA	NA	<4.00	<50.0	NA	<54.0	NA	NA	341
		2/16/16	NA	NA	<4.7	<10	NA	<14.7	NA	NA	<1.5
		8/31/16	Data inconclusive due to laboratory error								
		11/22/16	NA	NA	<4.7	<9.9	61	<14.6	61	NA	<30
		2/24/17	<0.025	<0.224	<5.0	<10	<51	<15	<66	NA	<30
TZ Cell 6	G1	12/15/09	NA	NA	<18.4	98.7	18.7	98.7	117.4	NA	<20.6
		6/14/10	NA	NA	<15.4	286	77.2	286	363.2	NA	48.9
		12/1/10	NA	NA	<15.4	207	24.3	207	231.3	NA	<17.2
		6/14/11	NA	NA	<15.2	398	<15.2	398	398	NA	51.7
		11/28/11	NA	NA	<15.3	333	182	333	515	NA	20.4
		6/14/12	NA	NA	<15.4	206	82.3	206	288.3	NA	10.9
		10/30/12	NA	NA	<15.4	176	23.6	176	199.6	NA	7.22
		5/22/13	NA	NA	<15.1	216	115	216	331	NA	43.0
		11/14/13	NA	NA	<15.3	37.7	<15.3	37.7	37.7	NA	37.0
		12/15/09	NA	NA	<18.5	177	30	177	207	NA	36.5
	G2	6/14/10	NA	NA	<15.5	347	68	347	415	NA	98
		12/1/10	NA	NA	<15.3	276	21.1	276	297.1	NA	81.4
		6/14/11	NA	NA	<15.2	462	<15.2	462	462	NA	72.8
		11/28/11	NA	NA	<15.3	297	147	297	444	NA	86.2
		6/14/12	NA	NA	<15.2	330	89.8	330	419.8	NA	31.5
		10/30/12	NA	NA	<15.3	246	27.0	246	273	NA	27.6
		5/22/13	NA	NA	<15.2	216	92.1	216	308.1	NA	57.1
		11/14/13	NA	NA	<15.3	39.1	<15.3	39.1	39.1	NA	94.9
		8/5/14	<0.0200	<0.0200	<4.00	<50.0	NA	<54.0	NA	146	32.0
		2/26/15	NA	NA	<2.32	<7.41	NA	<9.73	NA	NA	15.6
	CS	5/27/15	<0.0200	<0.0800	<4.00	<50.0	NA	<54.0	NA	<10.0	<25.0
		8/11/15	NA	NA	<4.00	<50.0	NA	<54.0	NA	NA	<25.0
		2/16/16	NA	NA	<4.7	19	NA	19	NA	NA	<1.5
		8/31/16	Data inconclusive due to laboratory error								
		11/22/16	NA	NA	<4.9	30	170	30	200	NA	<30
		2/24/17	<0.025	<0.222	<4.9	15	120	15	135	NA	<30



Treatment Zone Soil Analytical Data Summary - TPH and Chloride  
ETC Field Services LLC

Sample Location	Grid Location	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (C6 to C12) (mg/kg)	TPH-DRO (>C12 to C28) (mg/kg)	TPH-ORO (>C28 to C35) (mg/kg)	TPH GRO/DRO Total (C6 to C28) (mg/kg)	TPH GRO/DRO/ ORO Total (C6 to C35) (mg/kg)	TRPH by 418.1 (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Landfarm Closure Criteria			0.2	50	NE			500	2,500	2,500	1,000
TZ Cell 7	G1	12/15/09	NA	NA	<18.5	267	30.9	267	297.9	NA	17.1
		6/14/10	NA	NA	<15.8	525	77.9	525	602.9	NA	15.5
		12/1/10	NA	NA	<15.8	166	146.2	166	312.2	NA	5.69
		6/14/11	NA	NA	<15.2	719	27.5	719	746.5	NA	28.9
		11/28/11	NA	NA	<15.5	535	202	535	737	NA	11.4
		6/14/12	NA	NA	<15.1	429	105	429	534	NA	9.11
		10/30/12	NA	NA	<15.7	204	36.5	204	240.5	NA	5.67
		5/22/13	NA	NA	<15.2	404	148	404	552	NA	11.3
	CS	11/14/13	NA	NA	<15.7	218	26.0	218	244	NA	10.5
		8/5/14	<0.0200	<0.0200	<4.00	<50.0	NA	<54.0	NA	249	26.2
		2/26/15	NA	NA	<2.32	<7.41	NA	<9.73	NA	NA	8.62
		5/27/15	<0.0200	<0.0800	<4.00	<50.0	NA	<54.0	NA	<10.0	<25.0
		8/11/15	NA	NA	<4.00	<50.0	NA	<54.0	NA	NA	32.8
		2/16/16	NA	NA	<4.7	17	NA	17	NA	NA	<1.5
		8/31/16	Data inconclusive due to laboratory error								
		11/22/16	NA	NA	<4.7	25	97	25	122	NA	<30
		2/24/17	<0.023	<0.206	<4.6	11	59	11	70	NA	<30
TZ Cell 8	G1	12/15/09	NA	NA	<218	3,910	405	3,910	4315	NA	2,050
		6/14/10	NA	NA	<15.7	650	88.9	650	738.9	NA	81.2
		12/1/10	NA	NA	NA	NA	NA	NA	NA	NA	NA
		6/14/11	NA	NA	NA	NA	NA	NA	NA	NA	NA
		11/28/11	NA	NA	NA	NA	NA	NA	NA	NA	NA
		6/14/12	NA	NA	NA	NA	NA	NA	NA	NA	NA
		10/30/12	NA	NA	NA	NA	NA	NA	NA	NA	NA
		5/22/13	NA	NA	NA	NA	NA	NA	NA	NA	NA
	G2	11/14/13	NA	NA	NA	NA	NA	NA	NA	NA	NA
		12/15/09	NA	NA	<18.6	95	<18.6	95	95	NA	<10.4
		6/14/10	NA	NA	<16.3	537	87	537	624	NA	146
		12/1/10	NA	NA	<15.5	556	41.1	556	597.1	NA	24.3
		6/14/11	NA	NA	<15.2	449	33.4	449	482.4	NA	66.5
		11/28/11	NA	NA	<15.3	208	83.4	208	291.4	NA	140
		6/14/12	NA	NA	<15.2	382	97.2	382	479.2	NA	48.2
		10/30/12	NA	NA	<15.2	161	27.0	161	188	NA	25.3
	CS	5/22/13	NA	NA	<15.2	282	119	282	401	NA	47.9
		11/14/13	NA	NA	18.6	227	51.0	245.6	296.6	NA	56.6
		8/5/14	<0.0400	<0.0400	<8.00	<50.0	NA	<58.0	NA	185	43.0
		2/26/15	NA	NA	<2.32	<7.41	NA	<9.73	NA	NA	11.0
		5/27/15	<0.0200	<0.0800	<4.00	<50.0	NA	<54.0	NA	<10.0	<25.0
		8/11/15	NA	NA	<8.0	<50.0	NA	<58.0	NA	NA	<25.0
		2/16/16	NA	NA	<4.7	11	NA	11	NA	NA	<1.5
		8/31/16	Data inconclusive due to laboratory error								
		11/22/16	NA	NA	<4.8	<9.4	<47	<14.2	<61.2	NA	<30
		2/24/17	<0.024	<0.213	<4.7	<9.6	<48	<14.3	<62.3	NA	<30

Treatment Zone Soil Analytical Data Summary - TPH and Chloride  
ETC Field Services LLC

Sample Location	Grid Location	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (C6 to C12) (mg/kg)	TPH-DRO (>C12 to C28) (mg/kg)	TPH-ORO (>C28 to C35) (mg/kg)	TPH GRO/DRO Total (C6 to C28) (mg/kg)	TPH GRO/DRO/ ORO Total (C6 to C35) (mg/kg)	TRPH by 418.1 (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Landfarm Closure Criteria			0.2	50	NE			500	2,500	2,500	1,000
TZ Cell 9	G1	12/15/09	NA	NA	<17.7	71.9	18	71.9	89.9	NA	156
		6/14/10	NA	NA	<15.5	238	62.3	238	300.3	NA	110
		12/1/10	NA	NA	<15.3	55.3	<15.3	55.3	55.3	NA	84
		6/14/11	NA	NA	<15.1	262	<15.1	262	262	NA	107
		11/28/11	NA	NA	<15.4	391	307	391	698	NA	145
		6/14/12	NA	NA	<15.1	341	97.2	341	438.2	NA	40.0
		10/30/12	NA	NA	<15.3	194	34.8	194	228.8	NA	40.3
		5/22/13	NA	NA	<15.1	240	122	240	362	NA	69.7
	G2	11/14/13	NA	NA	<15.5	234	55.7	234	289.7	NA	56.7
		12/15/09	NA	NA	<16.2	194	71.7	194	265.7	NA	152
		6/14/10	NA	NA	<15.4	1,250	135	1,250	1385	NA	407
		12/1/10	NA	NA	<15.3	689	54.1	689	743.1	NA	263
		6/14/11	NA	NA	<15.1	165	<15.1	165	165	NA	163
		11/28/11	NA	NA	<15.3	828	286	828	1114	NA	218
		6/14/12	NA	NA	<15.1	348	117	348	465	NA	34.1
		10/30/12	NA	NA	<15.5	142	30.4	142	172.4	NA	37.7
	G3	5/22/13	NA	NA	<15.1	210	114	210	324	NA	69.9
		11/14/13	NA	NA	<15.4	242	66.7	242	308.7	NA	112
		12/15/09	NA	NA	<17.0	86.9	28.8	86.9	115.7	NA	58.6
		6/14/10	NA	NA	<15.5	286	60.7	286	346.7	NA	229
		12/1/10	NA	NA	<15.4	312	41.4	312	353.4	NA	58.8
		6/14/11	NA	NA	<15.0	216	<15.0	216	216	NA	109
		11/28/11	NA	NA	<15.4	279	187	279	466	NA	130
		6/14/12	NA	NA	<15.1	193	105	193	298	NA	22.2
	G4	10/30/12	NA	NA	<15.4	133	35.7	133	168.7	NA	81.3
		5/22/13	NA	NA	<15.2	171	105	171	276	NA	72.7
		11/14/13	NA	NA	<15.3	114	34.7	114	148.7	NA	104
		12/15/09	NA	NA	<16.3	210	58.2	210	268.2	NA	43.5
		6/14/10	NA	NA	<15.4	277	78.6	277	355.6	NA	206
		12/1/10	NA	NA	<15.3	335	40.3	335	375.3	NA	56.3
		6/14/11	NA	NA	<14.9	221	<14.9	221	221	NA	86.0
		11/28/11	NA	NA	<15.1	531	271	531	802	NA	87.0
	G5	6/14/12	NA	NA	<15.1	441	113	441	554	NA	38.9
		10/30/12	NA	NA	<15.3	184	41.5	184	225.5	NA	22.4
		5/22/13	NA	NA	<15.2	168	89	168	257	NA	61.1
		11/14/13	NA	NA	<15.4	136	51.1	136	187.1	NA	66.6
		12/15/09	NA	NA	<15.4	164	63.5	164	227.5	NA	81.6
		6/14/10	NA	NA	<15.4	164	42	164	206	NA	55.9
		12/1/10	NA	NA	<15.3	199	22.6	199	221.6	NA	33.5
		6/14/11	NA	NA	<15.1	153	<15.1	153	153	NA	75.4
	CS	11/28/11	NA	NA	<15.6	305	200	305	505	NA	77.5
		6/14/12	NA	NA	<15.1	182	72.1	182	254.1	NA	19.2
		10/30/12	NA	NA	<15.2	107	22.9	107	129.9	NA	35.9
		5/22/13	NA	NA	<15.1	123	56.5	123	179.5	NA	33.7
		11/14/13	NA	NA	<15.4	64.9	18.0	64.9	82.9	NA	99.0
		8/5/14	<0.0200	<0.0200	<4.00	<50.0	NA	<54.0	NA	220	68.2
		2/26/15	NA	NA	<2.32	<7.41	NA	<9.73	NA	NA	10.2
		5/27/15	<0.0200	<0.0800	<4.00	<50.0	NA	<54.0	NA	<10.0	<25.0
		8/11/15	NA	NA	<4.00	<50.0	NA	<54.0	NA	NA	89.3
		2/16/16	NA	NA	<4.9	9.6	NA	9.6	NA	NA	<1.5
		8/31/16	Data inconclusive due to laboratory error								
		11/22/16	NA	NA	<4.7	43	170	43	213	NA	<30
		2/24/17	<0.024	<0.215	<4.8	11	<50	11	11	NA	<30

Treatment Zone Soil Analytical Data Summary - TPH and Chloride  
ETC Field Services LLC

Sample Location	Grid Location	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (C6 to C12) (mg/kg)	TPH-DRO (>C12 to C28) (mg/kg)	TPH-ORO (>C28 to C35) (mg/kg)	TPH GRO/DRO Total (C6 to C28) (mg/kg)	TPH GRO/DRO/ ORO Total (C6 to C35) (mg/kg)	TRPH by 418.1 (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Landfarm Closure Criteria			0.2	50	NE			500	2,500	2,500	1,000
TZ Cell 10	G1	12/15/09	NA	NA	<17.8	276	50.9	276	326.9	NA	9.63
		6/14/10	NA	NA	<15.5	600	135	600	735	NA	16.7
		12/1/10	NA	NA	<15.2	643	76.3	643	719.3	NA	<4.25
		6/14/11	NA	NA	<15.0	513	43.8	513	556.8	NA	16.8
		11/28/11	NA	NA	<15.5	671	246	671	917	NA	14.3
		6/14/12	NA	NA	<15.1	423	89.6	423	512.6	NA	11.7
		10/30/12	NA	NA	<15.2	288	66.9	288	354.9	NA	3.69
		5/22/13	NA	NA	<15.1	425	120	425	545	NA	10.4
	G2	11/14/13	NA	NA	<15.8	202	69.6	202	271.6	NA	15.6
		12/15/09	NA	NA	<16.2	217	52.4	217	269.4	NA	11.9
		6/14/10	NA	NA	<15.5	329	80.5	329	409.5	NA	11.3
		12/1/10	NA	NA	<15.3	265	40	265	305	NA	<8.56
		6/14/11	NA	NA	<15.1	234	<15.1	234	234	NA	<8.43
		11/28/11	NA	NA	<15.3	324	154	324	478	NA	24.3
		6/14/12	NA	NA	<15.0	222	82.1	222	304.1	NA	8.87
		10/30/12	NA	NA	<15.1	132	41.0	132	173	NA	3.30
	G3	5/22/13	NA	NA	<15.0	231	75.9	231	306.9	NA	11.9
		11/14/13	NA	NA	<15.5	123	32.2	123	155.2	NA	18.0
		12/15/09	NA	NA	<17.0	96.8	24.1	96.8	120.9	NA	9.06
		6/14/10	NA	NA	<15.2	200	58.2	200	258.2	NA	25.7
		12/1/10	NA	NA	<15.2	185	27.3	185	212.3	NA	<8.54
		6/14/11	NA	NA	<15.0	185	<15.0	185	185	NA	26.0
		11/28/11	NA	NA	<15.2	269	152	269	421	NA	21.8
		6/14/12	NA	NA	<15.1	226	88.5	226	314.5	NA	14.7
	G4	10/30/12	NA	NA	15.1	150	39.6	165.1	204.7	NA	3.91
		5/22/13	NA	NA	<15.1	179	62.5	179	241.5	NA	19.2
		11/14/13	NA	NA	<15.3	167	41.4	167	208.4	NA	24.5
		12/15/09	NA	NA	<18.9	129	19.2	129	148.2	NA	10
		6/14/10	NA	NA	<15.3	576	137	576	713	NA	44.8
		12/1/10	NA	NA	<15.3	905	95.3	905	1000.3	NA	<8.59
		6/14/11	NA	NA	<15.0	549	70.4	549	619.4	NA	90.6
		11/28/11	NA	NA	<15.3	767	246	767	1013	NA	138
	CS	6/14/12	NA	NA	<15.1	756	129	756	885	NA	11.5
		10/30/12	NA	NA	<15.2	521	110	521	631	NA	9.29
		5/22/13	NA	NA	<15.2	678	148	678	826	NA	78.3
		11/14/13	NA	NA	<15.4	297	59.3	297	356.3	NA	46.4
		8/5/14	<0.0200	<0.0200	<4.00	<50.0	N/A	<54.0	NA	331	32.8
		2/26/15	NA	NA	<2.32	<7.41	NA	<9.73	NA	NA	14.7
		5/27/15	<0.0200	<0.0800	<4.00	55.7	NA	55.7	NA	<10.0	<25.0
		8/11/15	NA	NA	<4.00	<50.0	NA	<54.0	NA	NA	<25.0
		2/16/16	NA	NA	<4.8	43	NA	43	NA	NA	<1.5
		8/31/16	Data inconclusive due to laboratory error								
		11/22/16	NA	NA	<4.7	69	300	69	369	NA	<30
		2/24/17	<0.024	<0.216	<4.8	<9.7	<48	<14.5	<62.5	NA	<30

Treatment Zone Soil Analytical Data Summary - TPH and Chloride  
ETC Field Services LLC

Sample Location	Grid Location	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (C6 to C12) (mg/kg)	TPH-DRO (>C12 to C28) (mg/kg)	TPH-ORO (>C28 to C35) (mg/kg)	TPH GRO/DRO Total (C6 to C28) (mg/kg)	TPH GRO/DRO/ ORO Total (C6 to C35) (mg/kg)	TRPH by 418.1 (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Landfarm Closure Criteria			0.2	50	NE			500	2,500	2,500	1,000
TZ Cell 11	G1	12/15/09	NA	NA	26.7	589	27.9	615.7	643.6	NA	128
		6/14/10	NA	NA	85.9	1,510	123	1595.9	1718.9	NA	469
		12/1/10	NA	NA	<15.3	362	15.3	362	377.3	NA	215
		6/14/11	NA	NA	<15.2	350	<15.2	350	350	NA	305
		11/28/11	NA	NA	<15.5	721	195	721	916	NA	651
		6/14/12	NA	NA	<15.1	260	61.6	260	321.6	NA	113
		10/30/12	NA	NA	<15.2	132	15.4	132	147.4	NA	49.9
		5/22/13	NA	NA	<15.1	185	59.3	185	244.3	NA	192
	G2	11/14/13	NA	NA	<15.5	147	33.7	147	180.7	NA	167
		12/15/09	NA	NA	27	488	49.7	515	564.7	NA	161
		6/14/10	NA	NA	<15.4	202	19.9	202	221.9	NA	169
		12/1/10	NA	NA	<15.5	181	17.8	181	198.8	NA	44.1
		6/14/11	NA	NA	<15.0	274	<15.0	274	274	NA	112
		11/28/11	NA	NA	<15.1	212	74.4	212	286.4	NA	76.9
		6/14/12	NA	NA	<15.1	118	41.8	118	159.8	NA	22.3
		10/30/12	NA	NA	<15.1	56.1	<15.2	56.1	56.1	NA	<1.01
	CS	5/22/13	NA	NA	<15.1	117	33.1	117	150.1	NA	38.9
		11/14/13	NA	NA	<15.4	95.5	20.6	95.5	116.1	NA	48.0
		8/5/14	<0.0200	<0.0200	<4.00	<50.0	NA	<54.0	NA	226	<25.0
		2/26/15	NA	NA	<2.32	<7.41	NA	<9.73	NA	NA	22.1
		5/27/15	<0.0200	<0.0800	<4.00	<50.0	NA	<54.0	NA	<10.0	<25.0
		8/11/15	NA	NA	<4.00	<50.0	NA	<54.0	NA	NA	39.0
		2/17/16	NA	NA	<4.9	15	NA	15	NA	NA	<1.5
		9/1/16	Data inconclusive due to laboratory error								
		11/22/16	NA	NA	<4.7	<9.8	60	<14.5	60	NA	<30
		2/24/17	<0.025	<0.221	<4.9	<9.1	<46	<14	<60	NA	<30
TZ Cell 12	G1	12/15/09	NA	NA	<16.2	302	38.1	302	340.1	NA	<22.6
		6/14/10	NA	NA	<15.6	449	78.1	449	527.1	NA	47.3
		12/1/10	NA	NA	<15.6	374	42.4	374	416.4	NA	<43.5
		6/14/11	NA	NA	<15.1	573	18.0	573	591	NA	29.0
		11/28/11	NA	NA	<15.3	452	161	452	613	NA	28.1
		6/14/12	NA	NA	<15.2	319	89.4	319	408.4	NA	11.7
		10/30/12	NA	NA	<15.3	209	35.3	209	244.3	NA	<1.02
		5/22/13	NA	NA	<16.4	139	43.6	139	182.6	NA	28.7
	CS	11/14/13	NA	NA	<15.5	171	22.0	171	193	NA	65.6
		8/5/14	<0.0200	<0.0200	<4.00	<50.0	NA	<54.0	NA	403	<25.0
		2/26/15	NA	NA	<2.32	<7.41	NA	<9.73	NA	NA	12.5
		5/27/15	<0.0200	0.2121	<4.00	<50.0	NA	<54.0	NA	<10.0	<25.0
		8/11/15	NA	NA	<4.00	<50.0	NA	<54.0	NA	NA	610
		2/17/16	NA	NA	<4.7	10	NA	10	NA	NA	<1.5
		9/1/16	Data inconclusive due to laboratory error								
		11/22/16	NA	NA	<4.7	<9.5	<48	<14.2	<62.2	NA	<30
		2/24/17	<0.025	<0.225	<5.0	<9.6	<48	<14.6	<62.6	NA	<30

Treatment Zone Soil Analytical Data Summary - TPH and Chloride  
ETC Field Services LLC

Sample Location	Grid Location	Sample Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH-GRO (C6 to C12) (mg/kg)	TPH-DRO (>C12 to C28) (mg/kg)	TPH-ORO (>C28 to C35) (mg/kg)	TPH GRO/DRO Total (C6 to C28) (mg/kg)	TPH GRO/DRO/ ORO Total (C6 to C35) (mg/kg)	TRPH by 418.1 (mg/kg)	Chloride (mg/kg)
New Mexico Energy, Mineral & Natural Resources Department Oil Conservation Landfarm Closure Criteria			0.2	50	NE			500	2,500	2,500	1,000
TZ Cell 13	G1	12/15/09	NA	NA	20	597	64.6	617	681.6	NA	291
		6/14/10	NA	NA	<15.7	288	71.6	288	359.6	NA	347
		12/1/10	NA	NA	<15.9	185	16.2	185	201.2	NA	425
		6/14/11	NA	NA	<15.3	414	25.6	414	439.6	NA	458
		11/28/11	NA	NA	<15.5	211	112	211	323	NA	311
		6/14/12	NA	NA	<15.4	395	89.1	395	484.1	NA	93.5
		10/30/12	NA	NA	<15.6	133	29.4	133	162.4	NA	131
		5/22/13	NA	NA	<15.3	450	195	450	645	NA	329
		11/14/13	NA	NA	<15.7	153	<15.7	153	153	NA	334
	CS	8/5/14	<0.0200	<0.0200	<4.00	<50.0	NA	<54.0	NA	130	231
		2/26/15	NA	NA	<2.32	<7.41	NA	<9.73	NA	NA	424
		5/27/15	<0.0200	<0.0800	<4.00	<50.0	NA	<54.0	NA	<10.0	81.9
		8/11/15	NA	NA	<4.00	<50.0	NA	<54.0	NA	NA	541
		2/17/16	NA	NA	<5.0	47	NA	47	NA	NA	8.3
		9/1/16	Data inconclusive due to laboratory error								
		11/22/16	NA	NA	<4.9	32	120	32	152	NA	41
		2/24/17	<0.025	<0.221	<4.9	26	<48	26	26	NA	<30
TZ Cell 14	G1	12/15/09	NA	NA	<17.6	61.5	<17.6	61.5	61.5	NA	<4.92
		6/14/10	NA	NA	<16.9	48.4	<16.9	48.4	48.4	NA	5.37
		12/1/10	NA	NA	<15.3	127	15.6	127	142.6	NA	<4.27
		6/14/11	NA	NA	<15.1	110	<15.1	110	110	NA	15.7
		11/28/11	NA	NA	<15.4	88.5	62.3	88.5	150.8	NA	762
		6/14/12	NA	NA	<15.1	93.2	44.4	93.2	137.6	NA	7.02
		10/30/12	NA	NA	<15.3	80.0	16.5	80.0	96.5	NA	3.70
		5/22/13	NA	NA	<15.3	129.0	55.8	129.0	184.8	NA	10.3
		11/14/13	NA	NA	<15.4	77.8	<15.4	77.8	77.8	NA	9.88
	CS	8/5/14	<0.0200	<0.0200	<4.00	<50.0	NA	<54.0	NA	82.0	<25.0
		2/26/15	NA	NA	<2.32	116	NA	116	NA	NA	37.5
		5/27/15	<0.0200	<0.0800	<4.00	<50.0	NA	<54.0	NA	<10.0	<25.0
		8/11/15	NA	NA	<4.00	<50.0	NA	<54.0	NA	NA	<25.0
		2/17/16	NA	NA	<4.8	12	NA	12	NA	NA	<1.5
		9/1/16	Data inconclusive due to laboratory error								
		11/23/16	NA	NA	<4.9	<10	<51	<14.9	<65.9	NA	<30
		2/24/17	<0.024	<0.216	<4.8	<9.5	<47	<14.3	<61.3	NA	<30
TZ Cell 15	G1	12/15/09	NA	NA	NA	NA	NA	NA	NA	NA	NS
		6/14/10	NA	NA	<16.2	209	82.2	209	291.2	NA	79.7
		12/1/10	NA	NA	<15.7	218	29.7	218	247.7	NA	26.2
		6/14/11	NA	NA	<15.4	205	<15.4	205	205	NA	64.1
		11/28/11	NA	NA	<15.5	322	219	322	541	NA	30.9
		6/14/12	NA	NA	<15.5	291	113	291	404	NA	16.5
		10/30/12	NA	NA	<16.0	164	64.6	164	228.6	NA	13.8
		5/22/13	NA	NA	<15.7	317	221	317	538	NA	70.9
		11/14/13	NA	NA	<15.9	286	27.2	286	313.2	NA	79.7
	CS	8/5/14	<0.100	<0.100	<20.0	<50.0	NA	<70.0	NA	1220	<125
		2/26/15	NA	NA	<2.32	22.0	NA	22.0	NA	NA	54.4
		5/27/15	<0.0400	0.4243	<8.00	<50.0	NA	<54.0	NA	<10.0	<25.0
		8/11/15	NA	NA	<20.0	<50.0	NA	<52.0	NA	NA	30.4
		2/17/16	NA	NA	<4.8	67	NA	67	NA	NA	3.2
		9/1/16	Data inconclusive due to laboratory error								
		11/23/16	NA	NA	<4.6	150	450	150	600	NA	<30
		2/24/17	<0.025	<0.224	<5.0	200	230	200	430	NA	<30

## Notes:

TZ = Treatment Zone

CS= Composite Sample

mg/kg = milligrams per kilogram

TPH = Total Petroleum Hydrocarbons

GRO/DRO = Gasoline/Diesel Range Organics

BTEX = Benzene + Toluene + Ethylbenzene + Xylenes

NS = Not Sampled

NA = Not Analyzed

Concentrations in **Bold** exceed the New Mexico Oil Conservation Division Landfarm Closure Criteria

## Appendices

# **Appendix A**

## **Water Well Log**

**STATE ENGINEER OFFICE  
WELL RECORD**

FIELD ENGR. LOG

**Section 1. GENERAL INFORMATION**

(A) Owner of well El Paso Natural Gas Company Owner's Well No. 16  
Street or Post Office Address P. O. Box 1492  
City and State El Paso, Texas 79978

Well was drilled under Permit No. CP-634 and is located in the:

a. NW  $\frac{1}{4}$  NE  $\frac{1}{4}$  NW  $\frac{1}{4}$  of Section 36 Township 23S Range 36E N.M.P.M.

b. Tract No. \_\_\_\_\_ of Map No. \_\_\_\_\_ of the \_\_\_\_\_

c. Lot No. \_\_\_\_\_ of Block No. \_\_\_\_\_ of the \_\_\_\_\_  
Subdivision, recorded in \_\_\_\_\_ County.

d. X= \_\_\_\_\_ feet, Y= \_\_\_\_\_ feet, N.M. Coordinate System \_\_\_\_\_ Zone in  
the \_\_\_\_\_ Grant.

(B) Drilling Contractor Spruill Bros. Drilling Co. License No. WD 803

Address Box 6129, Odessa, Texas 79762

Drilling Began June 8, 1981 Completed June 15, 1981 Type tools Rotary Size of hole 17 $\frac{1}{2}$  in.

Elevation of land surface or \_\_\_\_\_ at well is \_\_\_\_\_ ft. Total depth of well 260 ft.

Completed well is ☒ shallow ☐ artesian. Depth to water upon completion of well 125 ft.

**Section 2. PRINCIPAL WATER-BEARING STRATA**

Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
From	To			
130	260	130	Sand	80

**Section 3. RECORD OF CASING**

Diameter (inches)	Pounds per foot	Threads per in.	Depth in Feet		Length (feet)	Type of Shoe	Perforations	
			Top	Bottom			From	To
10-3/4	40.48		+2 Ft.	160	162		0	0
10-3/4	40.48	Screen	160 Ft.	260	100		160	260

**Section 4. RECORD OF MUDDING AND CEMENTING**

Depth in Feet		Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
From	To				
0	40	17 $\frac{1}{2}$		100	Gravity

**Section 5. PLUGGING RECORD**

Plugging Contractor \_\_\_\_\_  
Address \_\_\_\_\_  
Plugging Method \_\_\_\_\_  
Date Well Plugged \_\_\_\_\_  
Plugging approved by: \_\_\_\_\_

State Engineer Representative

No.	Depth in Feet		Cubic Feet of Cement
	Top	Bottom	
1			
2			
3			
4			

**FOR USE OF STATE ENGINEER ONLY**

Date Received August 5, 1981

Quad. \_\_\_\_\_ FWL \_\_\_\_\_ FSL \_\_\_\_\_

File No. CP-634 Exploratory Use SUPP. Location No. 23.36.36.12141  
tained as supplemental well CP-37-Combined-S-5



## Section 6. LOG OF HOLE

[illegible]

## Section 7. REMARKS AND ADDITIONAL INFORMATION

STATE ENGINEER  
ROSWELL, NM

Aug 5 8 25 AM '52

STATE ENGINEER  
ROSWELL, N.M.

Aug 12 3 29 AM '01

The undersigned hereby certifies that, to the best of his knowledge and belief, the foregoing is a true and correct record of the above described hole.

*Thomas Spruell*  
Driller

**INSTRUCTIONS:** This form should be executed in triplicate, preferably typewritten, and submitted to the appropriate district office of the State Engineer. A' ions' except Section 5 shall be answered as completely and accurately as possible.

## **Appendix B**

### **19.15.29 NMAC and 19.15.30 NMAC Regulations**

**TITLE 19            NATURAL RESOURCES AND WILDLIFE**  
**CHAPTER 15       OIL AND GAS**  
**PART 29           RELEASE NOTIFICATION**

**19.15.29.1        ISSUING AGENCY:** Energy, Minerals and Natural Resources Department, Oil Conservation Division.  
 [19.15.29.1 NMAC - N, 12/1/08]

**19.15.29.2        SCOPE:** 19.15.29 NMAC applies to persons engaged in oil and gas development and production within New Mexico.  
 [19.15.29.2 NMAC - N, 12/1/08]

**19.15.29.3        STATUTORY AUTHORITY:** 19.15.29 NMAC is adopted pursuant to the Oil and Gas Act, NMSA 1978, Section 70-2-6, Section 70-2-11 and Section 70-2-12.  
 [19.15.29.3 NMAC - N, 12/1/08]

**19.15.29.4        DURATION:** Permanent.  
 [19.15.29.4 NMAC - N, 12/1/08]

**19.15.29.5        EFFECTIVE DATE:** December 1, 2008, unless a later date is cited at the end of a section.  
 [19.15.29.5 NMAC - N, 12/1/08]

**19.15.29.6        OBJECTIVE:** To require persons who operate or control the release or the location of the release to report the unauthorized release of oil, gases, produced water, condensate or oil field waste including regulated NORM, or other oil field related chemicals, contaminants or mixtures of those chemicals or contaminants that occur during drilling, producing, storing, disposing, injecting, transporting, servicing or processing and to establish reporting procedures.  
 [19.15.29.6 NMAC - N, 12/1/08]

**19.15.29.7        DEFINITIONS:**

A. "Major release" means:

- (1) an unauthorized release of a volume, excluding gases, in excess of 25 barrels;
- (2) an unauthorized release of a volume that:
  - (a) results in a fire;
  - (b) will reach a watercourse;
  - (c) may with reasonable probability endanger public health; or
  - (d) results in substantial damage to property or the environment;
- (3) an unauthorized release of gases in excess of 500 MCF; or
- (4) a release of a volume that may with reasonable probability be detrimental to water or exceed the standards

in Subsections A and B or C of 19.15.30.9 NMAC.

B. "Minor release" means an unauthorized release of a volume, greater than five barrels but not more than 25 barrels; or greater than 50 MCF but less than 500 MCF of gases.

[19.15.29.7 NMAC - Rp, 19.15.3.116 NMAC, 12/1/08]

**19.15.29.8        RELEASE NOTIFICATION:**

A. The person operating or controlling either the release or the location of the release shall notify the division of unauthorized release occurring during the drilling, producing, storing, disposing, injecting, transporting, servicing or processing of oil, gases, produced water, condensate or oil field waste including regulated NORM, or other oil field related chemicals, contaminants or mixture of the chemicals or contaminants, in accordance with the requirements of 19.15.29 NMAC.

B. The person operating or controlling either the release or the location of the release shall notify the division in accordance with 19.15.29 NMAC with respect to a release from a facility of oil or other water contaminant, in such quantity as may with reasonable probability be detrimental to water or exceed the standards in Subsections A and B or C of 19.15.30.9 NMAC.

[19.15.29.8 NMAC - Rp, 19.15.3.116 NMAC, 12/1/08]

**19.15.29.9        REPORTING REQUIREMENTS:** The person operating or controlling either the release or the location of the release shall provide notification of releases in 19.15.29.8 NMAC as follows.

A. The person shall report a major release by giving both immediate verbal notice and timely written notice pursuant to Subsections A and B of 19.15.29.10 NMAC.

B. The person shall report a minor release by giving timely written notice pursuant to Subsection B of 19.15.29.10 NMAC.

[19.15.29.9 NMAC - Rp, 19.15.3.116 NMAC, 12/1/08]

**19.15.29.10 CONTENTS OF NOTIFICATION:**

**A.** The person operating or controlling either the release or the location of the release shall provide immediate verbal notification within 24 hours of discovery to the division district office for the area within which the release takes place. In addition, the person shall provide immediate verbal notification of a release of a volume that may with reasonable probability be detrimental to water or exceed the standards in Subsections A and B or C of 19.15.30.9 NMAC to the division's environmental bureau chief. The notification shall provide the information required on form C-141.

**B.** The person operating or controlling either the release or the location of the release shall provide timely written notification within 15 days to the division district office for the area within which the release occurs by completing and filing form C-141. In addition, the person shall provide timely written notification of a release of a volume that may with reasonable probability be detrimental to water or exceed the standards in Subsections A and B or C of 19.15.30.9 NMAC to the division's environmental bureau chief within 15 days after the release is discovered. The written notification shall verify the prior verbal notification and provide appropriate additions or corrections to the information contained in the prior verbal notification.

[19.15.29.10 NMAC - Rp, 19.15.3.116 NMAC, 12/1/08]

**19.15.29.11 CORRECTIVE ACTION:** The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.

[19.15.29.11 NMAC - Rp, 19.15.3.116 NMAC, 12/1/08]

**HISTORY of 19.15.29 NMAC:**

**History of Repealed Material:** 19.15.3 NMAC, Drilling (filed 10/29/2001) repealed 12/1/08.

**NMAC History:**

That applicable portion of 19.15.3 NMAC, Drilling (Section 116) (filed 10/29/2001) was replaced by 19.15.29 NMAC, Release Notification, effective 12/1/08.

**TITLE 19           NATURAL RESOURCES AND WILDLIFE**  
**CHAPTER 15       OIL AND GAS**  
**PART 30           REMEDiation**

**19.15.30.1       ISSUING AGENCY:** Energy, Minerals and Natural Resources Department, Oil Conservation Division.  
 [19.15.30.1 NMAC - N, 12/1/08]

**19.15.30.2       SCOPE:** 19.15.30 NMAC applies to persons engaged in oil and gas development and production within New Mexico.  
 [19.15.30.2 NMAC - N, 12/1/08]

**19.15.30.3       STATUTORY AUTHORITY:** 19.15.30 NMAC is adopted pursuant to the Oil and Gas Act, NMSA 1978, Sections 70-2-6, 70-2-11 and 70-2-12.  
 [19.15.30.3 NMAC - N, 12/1/08]

**19.15.30.4       DURATION:** Permanent.  
 [19.15.30.4 NMAC - N, 12/1/08]

**19.15.30.5       EFFECTIVE DATE:** December 1, 2008, unless a later date is cited at the end of a section.  
 [19.15.30.5 NMAC - N, 12/1/08]

**19.15.30.6       OBJECTIVE:** To abate pollution of subsurface water so that ground water of the state that has a background concentration of 10,000 mg/l or less TDS is either remediated or protected for use as domestic, industrial and agricultural water supply, and to remediate or protect those segments of surface waters that are gaining because of subsurface-water inflow for uses designated in the water quality standards for interstate and intrastate surface waters in New Mexico, 20.6.4 NMAC; and abate surface-water pollution so that surface waters of the state are remediated or protected for designated or attainable uses as defined in the water quality standards for interstate and intrastate surface waters in New Mexico, 20.6.4 NMAC.  
 [19.15.30.6 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

**19.15.30.7       DEFINITIONS:** [RESERVED]  
 [See 19.15.2.7 NMAC for definitions.]

**19.15.30.8       PREVENTION AND ABATEMENT OF WATER POLLUTION:**

**A.** If the background concentration of a water contaminant exceeds the standard or requirement of Subsections A, B or C of 19.15.30.9 NMAC, the responsible person shall abate the pollution to the background concentration.

**B.** The standards and requirements set forth in of Subsections A, B or C of 19.15.30.9 NMAC are not intended as maximum ranges and concentrations for use, and nothing contained in 19.15.30.9 NMAC limits the use of waters containing higher ranges and concentrations.  
 [19.15.30.8 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

**19.15.30.9       ABATEMENT STANDARDS AND REQUIREMENTS:**

**A.** The responsible person shall abate the vadose zone so that water contaminants in the vadose zone will not with reasonable probability contaminate ground water or surface water, in excess of the standards in Subsections B and C of 19.15.30.9 NMAC, through leaching, percolation or other transport mechanisms, or as the water table elevation fluctuates.

**B.** The responsible person shall abate ground-water pollution at a place of withdrawal for present or reasonably foreseeable future use, where the TDS concentration is 10,000 mg/l or less, to conform to the following standards:

- (1) toxic pollutants as defined in 20.6.2.7 NMAC shall not be present; and
- (2) the standards of 20.6.2.3103 NMAC shall be met.

**C.** The responsible person shall abate surface-water pollution to conform to the water quality standards for interstate and intrastate surface waters in New Mexico, 20.6.4 NMAC.

**D.** The division shall not consider subsurface-water and surface-water abatement complete until eight consecutive quarterly samples, or an alternate lesser number of samples the director approves, from the compliance sampling stations the director approved meet the abatement standards in Subsections A, B and C of 19.15.30.9 NMAC. The division shall consider abatement of water contaminants measured in solid-matrix samples of the vadose zone complete after one-time sampling from compliance stations the director approves.

**E.** Technical infeasibility.

(1) If a responsible person is unable to meet the abatement standards set forth in Subsections A and B of 19.15.30.9 NMAC using commercially accepted abatement technology pursuant to an approved abatement plan, the responsible person may propose that abatement standards compliance is technically infeasible.

(a) The director may consider technical infeasibility proposals involving the use of experimental abatement technology.

(b) The responsible person may demonstrate technical infeasibility by a statistically valid extrapolation of the decrease in concentrations of a water contaminant over the remainder of a 20 year period, such that projected future reductions during that time would be less than 20 percent of the concentration at the time the responsible person proposes technical infeasibility. A statistically valid decrease cannot be demonstrated by fewer than eight consecutive quarters.

(c) The technical infeasibility proposal shall include a substitute abatement standard for those contaminants that is technically feasible. The responsible person shall meet abatement standards for other water contaminants not demonstrated to be technically infeasible.

(2) The director shall not approve a proposed technical infeasibility demonstration for a water contaminant if its concentration is greater than 200 percent of the abatement standard for the contaminant.

(3) If the director cannot approve any or all portions of a proposed technical infeasibility demonstration because the water contaminant concentration is greater than 300 percent of the abatement standard for each contaminant, the responsible person may further pursue the issue of technical infeasibility by filing a petition with the division seeking approval of alternate abatement standards pursuant to Subsection F of 19.15.30.9 NMAC.

**F. Alternative abatement standards.**

(1) At any time during or after the stage 2 abatement plan's submission, the responsible person may file a petition seeking approval of alternative abatement standards for the standards set forth in Subsections A and B of 19.15.30.9 NMAC. The division may approve alternative abatement standards if the petitioner demonstrates that:

(a) either compliance with the abatement standards is not feasible, by the maximum use of technology within the responsible person's economic capability; or there is no reasonable relationship between the economic and social costs and benefits, including attainment of the standards set forth in 19.15.30.9 NMAC to be obtained;

(b) the proposed alternative abatement standards are technically achievable and cost-benefit justifiable; and

(c) compliance with the proposed alternative abatement standard will not create a present or future hazard to public health or undue damage to property.

(2) The responsible person shall file a written petition with the division's environmental bureau chief. The petition may include a transport, fate and risk assessment in accordance with accepted methods, and other information as the petitioner deems necessary to support the petition. The petition shall:

(a) state the petitioner's name and address;

(b) state the date of the petition;

(c) describe the facility or activity for which the petitioner seeks the alternate abatement standards;

(d) state the address or description of the property upon which the facility is located;

(e) describe the water body or watercourse the release affected;

(f) identify the abatement standard from which petitioner wishes to vary;

(g) state why the petitioner believes that compliance with 19.15.30 NMAC will impose an unreasonable burden upon the petitioner's activity;

(h) identify the water contaminant for which the petitioner proposes the alternative standard;

(i) state the alternative standard the petitioner proposes;

(j) identify the three-dimensional body of water pollution for which the petitioner seeks approval; and

(k) state the extent to which the abatement standards set forth in 19.15.30.9 NMAC are now, and will in the future be, violated.

(3) The division's environmental bureau chief shall review the petition and, within 60 days after receiving the petition, submit a written recommendation to the director to approve, approve subject to conditions or disapprove any or all of the proposed alternative abatement standards. The recommendation shall include the reasons for the division's environmental bureau chief's recommendation. The division's environmental bureau chief shall submit a copy of the recommendation to the petitioner by certified mail.

(4) If the division's environmental bureau chief recommends approval, or approval subject to conditions, of any or all of the proposed alternative abatement standards, the division shall hold a public hearing on those standards. If the division's environmental bureau chief recommends disapproval of any or all of the proposed alternative abatement standards, the petitioner may submit a request to the director, within 15 days after the recommendation's receipt, for a public hearing on those standards. If the petitioner does not submit a timely request for hearing, the recommended disapproval shall become a final decision of the director and shall not be subject to review.

(5) If the director grants a public hearing, the division shall conduct the hearing in accordance with division hearing procedures.

(6) Based on the record of the public hearing, the division shall approve, approve subject to condition or disapprove any or all of the proposed alternative abatement standards. The division shall notify the petitioner by certified mail of its decision and the reasons for the decision.

[19.15.30.9 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

**19.15.30.10 MODIFICATION OF ABATEMENT STANDARDS:** If applicable abatement standards are modified

after the division approves the abatement measures, the abatement standards that are in effect at the time that the division approved the abatement measures shall be the abatement standards for the duration of the abatement action, unless the director determines that compliance with those standards may with reasonable probability create a present or future hazard to public health or the environment. In an appeal of the director's determination that additional actions are necessary, the director shall have the burden of proof.

[19.15.30.10 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

#### **19.15.30.11 ABATEMENT PLAN REQUIRED:**

**A.** Unless otherwise provided by 19.15.30 NMAC responsible persons who are abating, or who are required to abate, water pollution in excess of the standards and requirements set forth in 19.15.30.9 NMAC shall do so pursuant to an abatement plan the director approves. When the director has approved an abatement plan, the responsible person's actions leading to and including abatement shall be consistent with the abatement plan's terms and conditions.

**B.** In the event of a transfer of the ownership, control or possession of a facility for which an abatement plan is required or approved, where the transferor is a responsible person, the transferee also shall be considered a responsible person for the abatement plan's duration, and may jointly share the responsibility to conduct the actions 19.15.30 NMAC requires with other responsible persons.

(1) The transferor shall notify the transferee in writing at least 30 days prior to the transfer that the division has required or approved an abatement plan for the facility, and shall deliver or send by certified mail to the director a copy of the notification together with a certificate or other proof that the transferee has received the notification.

(2) The transferor and transferee may agree to a designated responsible person who shall assume the responsibility to conduct the actions 19.15.30 NMAC requires. The responsible persons shall notify the director in writing if a designated responsible person is agreed upon.

(3) If the director determines that the designated responsible person has failed to conduct the actions 19.15.30 NMAC requires, the director shall notify all responsible persons of this failure in writing and allow them 30 days, or longer for good cause shown, to conduct the required actions before setting a show cause hearing requiring those responsible persons to appear and show cause why they should not be ordered to comply, a penalty should not be assessed, a civil action should not be commenced in district court or the division should not take other appropriate action.

**C.** If the source of the water pollution to be abated is a facility that operated under a discharge plan, the director may require the responsible person to submit a financial assurance plan that covers the estimated costs to conduct the actions the abatement plan requires. Such a financial assurance plan shall be consistent with financial assurance requirements the division adopts.

[19.15.30.11 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

#### **19.15.30.12 EXEMPTIONS FROM ABATEMENT PLAN REQUIREMENT:**

**A.** Except as provided in Subsection B of 19.15.30.12 NMAC, 19.15.30.11 NMAC and 19.15.30.13 NMAC do not apply to a person who is abating water pollution:

(1) from an underground storage tank, under the authority of the New Mexico environmental improvement board's underground storage tank rules, 20.5 NMAC, or in accordance with the Ground Water Protection Act, NMSA 1978, Section 74-6B-1 *et seq.*;

(2) under the EPA's authority pursuant to either the Federal Comprehensive Environmental Response, Compensation and Liability Act, and amendments, or RCRA;

(3) pursuant to the New Mexico environmental improvement board's hazardous waste management rule, 20.4.1 NMAC;

(4) under the authority of the United States nuclear regulatory commission or the United States department of energy pursuant to the Atomic Energy Act;

(5) under the authority of a ground-water discharge plan the director approved, provided that such abatement is consistent with the requirements and provisions of 19.15.30.8 NMAC, 19.15.30.9 NMAC, Subsections C and D of 19.15.30.13 NMAC, 19.15.30.14 NMAC and 19.15.30.19 NMAC;

(6) under the authority of a letter of understanding, settlement agreement or administrative order on consent or other agreement signed by the director or director's designee prior to March 15, 1997, provided that abatement is being performed in compliance with the terms of the letter of understanding, settlement agreement or administrative order or other agreement on consent; and

(7) on an emergency basis, or while abatement plan approval is pending, or in a manner that will likely result in compliance with the standards and requirements set forth in 19.15.30.9 NMAC within one year after notice is required to be given pursuant to 19.15.29.9 NMAC provided that the division does not object to the abatement action.

**B.** If the director determines that abatement of water pollution subject to Subsection A of 19.15.30.12 NMAC will not meet the standards of Subsections B and C of 19.15.30.9 NMAC, or that additional action is necessary to protect health, welfare, environment or property, the director may notify a responsible person, by certified mail, to submit an abatement plan pursuant to 19.15.30.11 NMAC and Subsection A of 19.15.30.14 NMAC. The notification shall state the reasons for the director's determination. In an appeal of the director's determination under Subsection B of 19.15.30.12 NMAC, the director shall have the burden of proof.

[19.15.30.12 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

### 19.15.30.13 ABATEMENT PLAN PROPOSAL:

A. Except as provided for in 19.15.30.12 NMAC a responsible person shall, within 60 days of receipt of the director's written notice that the division requires an abatement plan, submit an abatement plan proposal to the director for approval. The responsible person may submit stage 1 and stage 2 abatement plan proposals together. For good cause shown, the director may allow for a total of 120 days to prepare and submit the abatement plan proposal.

#### B. Voluntary abatement.

(1) A person wishing to abate water pollution in excess of the standards and requirements set forth in 19.15.30.9 NMAC may submit a stage 1 abatement plan proposal to the director for approval. Following the director's approval of a final site investigation report prepared pursuant to stage 1 of an abatement plan, a person may submit a stage 2 abatement plan proposal to the director for approval.

(2) Following approval of a stage 1 or stage 2 abatement plan proposal under Paragraph (1) of Subsection B of 19.15.30.13 NMAC the person submitting the approved plan shall be a responsible person under 19.15.30 NMAC for the purpose of performing the approved stage 1 or stage 2 abatement plan. Nothing in 19.15.30 NMAC precludes the director from applying 19.15.29.11 NMAC to a responsible person if applicable.

C. Stage 1 abatement plan. The stage 1 of the abatement plan's purpose is to design and conduct a site investigation that adequately defines site conditions, and provide the data necessary to select and design an effective abatement option. Stage 1 of the abatement plan may include the following information depending on the media affected, and as needed to select and implement an expeditious abatement option:

(1) descriptions of the site, including a site map, and of site history including the nature of the release that caused the water pollution, and a summary of previous investigations;

(2) site investigation work plan that defines:

(a) site geology and hydrogeology; the vertical and horizontal extent and magnitude of vadose-zone and ground-water contamination; subsurface hydraulic conductivity; transmissivity, storativity and rate and direction of contaminant migration; inventory of water wells inside and within one mile from the perimeter of the three-dimensional body where the standards set forth in Subsection C of 19.15.30.9 NMAC are exceeded; and location and number of wells the pollution actually or potentially affects; and

(b) surface water hydrology, seasonal stream flow characteristics, ground water/surface water relationships, the vertical and horizontal extent and magnitude of contamination and impacts to surface water and stream sediments; the magnitude of contamination and impacts on surface water may be, in part, defined by conducting a biological assessment of fish, benthic macro invertebrates and other wildlife populations; seasonal variations should be accounted for when conducting these assessments;

(3) monitoring program, including sampling stations and frequencies, for the abatement plan's duration that may be modified, after the director's approval, as the responsible person creates additional sampling stations;

(4) quality assurance plan, consistent with the sampling and analytical techniques listed in Subsection B of 20.6.2.3107 NMAC and with 20.6.4.14 NMAC of the water quality standards for interstate and intrastate surface waters in New Mexico, for all work to be conducted pursuant to the abatement plan;

(5) a schedule for stage 1 abatement plan activities, including the submission of summary quarterly progress reports, and the submission, for the director's approval, of a detailed final site investigation report; and

(6) additional information that may be required to design and perform an adequate site investigation.

#### D. Stage 2 abatement plan.

(1) A responsible person shall submit a stage 2 abatement plan proposal to the director for approval within 60 days, or up to 120 days for good cause shown, after the director's approval of the final site investigation report prepared pursuant to stage 1 of the abatement plan. The responsible person may submit a stage 1 and 2 abatement plan proposal together. Stage 2 of the abatement plan's purpose is to select and design, if necessary, an abatement option that, when implemented, results in attainment of the abatement standards and requirements set forth in 19.15.30.9 NMAC, including post-closure maintenance activities.

(2) Stage 2 of the abatement plan should include, at a minimum, the following information:

(a) a brief description of the current situation at the site;

(b) development and assessment of abatement options;

(c) a description, justification and design, if necessary, of the preferred abatement option;

(d) modification, if necessary, of the monitoring program the director approved pursuant to stage 1 of the abatement plan, including the designation of pre- and post-abatement-completion sampling stations and sampling frequencies to be used to demonstrate compliance with the standards and requirements set forth in 19.15.30.9 NMAC;

(e) site maintenance activities, if needed, the responsible person proposes to perform after abatement activities terminate;

(f) a schedule for the duration of abatement activities, including the submission of summary quarterly progress reports;

(g) a public notification proposal designed to satisfy the requirements of Subsections B and C of 19.15.30.15 NMAC; and



(h) additional information that may be reasonably required to select, describe, justify and design an effective abatement option.

[19.15.30.13 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

#### 19.15.30.14 OTHER REQUIREMENTS:

A. A responsible person shall allow the director's authorized representative upon presentation of proper credentials and with reasonable prior notice to:

- (1) enter the facility at reasonable times;
- (2) inspect and copy records an abatement plan requires;
- (3) inspect treatment works, monitoring and analytical equipment;
- (4) sample wastes, ground water, surface water, stream sediment, plants, animals or vadose-zone material including vadose-zone vapor;

(5) use monitoring systems and wells under the responsible person's control in order to collect samples of media listed in Paragraph (4) of Subsection A of 19.15.30.14 NMAC; and

(6) gain access to off-site property the responsible person does not own or control, but is accessible to the responsible person through a third-party access agreement, provided that the agreement allows it.

B. A responsible person shall provide the director, or director's representative, with at least four working days advance notice of sampling to be performed pursuant to an abatement plan, or a well plugging, abandonment or destruction at a facility where the division has required an abatement plan.

C. A responsible person wishing to plug, abandon or destroy a monitoring or water supply well within the perimeter of the three-dimensional body where the standards set forth in Subsection B of 19.15.30.9 NMAC are exceeded, at a facility where the division has required an abatement plan, shall propose such action by certified mail to the director for approval, unless the state engineer's approval is required. The responsible person shall design the proposed action to prevent water pollution that could result from water contaminants migrating through the well or bore hole. The proposed action shall not take place without the director's written approval, unless the responsible person does not receive written approval or disapproval within 30 days after the date the director receives the proposal.

[19.15.30.14 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

#### 19.15.30.15 PUBLIC NOTICE AND PARTICIPATION:

A. Prior to public notice, the applicant shall give written notice, as approved by the division, of stage 1 and stage 2 abatement plans to the following persons:

(1) surface owners of record within one mile of the perimeter of the geographic area where the standards and requirements set forth in 19.15.30.9 NMAC are exceeded;

(2) the county commission where the geographic area where the standards and requirements set forth in 19.15.30.9 NMAC are exceeded is located;

(3) the appropriate city officials if the geographic area where the standards and requirements set forth in 19.15.30.9 NMAC are exceeded is located or is partially located within city limits or within one mile of the city limits;

(4) those persons, the director identifies, who have requested notification, who shall be notified by mail;

(5) the New Mexico trustee for natural resources, and other local, state or federal governmental agencies affected, as the director identifies, which shall be notified by certified mail;

(6) the governor or president of a tribe, pueblo or nation if the geographic area where the standards and requirements set forth in 19.15.30.9 NMAC are exceeded is located or is partially located within tribal boundaries or within one mile of the tribal boundaries, who shall be notified by certified mail;

(7) the director may extend the distance requirements for notice if the director determines the proposed abatement plan has the potential to adversely impact public health or the environment at a distance greater than one mile. The director may require additional notice as needed. The applicant shall furnish a copy and proof of the notice to the division.

B. Within 15 days after the division determines that a stage 1 abatement plan or a stage 2 abatement plan is administratively complete, the responsible person shall issue public notice in a division-approved form in a newspaper of general circulation in the county in which the release occurred, and in a newspaper of general circulation in the state. For the purposes of Subsection B of 19.15.30.15 NMAC, an administratively complete stage 1 abatement plan is a document that satisfies the requirements of Subsection C of 19.15.30.13 NMAC and an administratively complete stage 2 abatement plan is a document that satisfies the requirements of Paragraph (2) of Subsection D of 19.15.30.13 NMAC. The public notice shall include, as approved in advance by the director:

(1) the responsible person's name and address;

(2) the location of the proposed abatement;

(3) a brief description of the source, extent and estimated volume of release; whether the release occurred into the vadose zone, ground water or surface water; and a description of the proposed stage 1 or stage 2 abatement plan;

(4) a brief description of the procedures the director followed in making a final determination;

(5) a statement that the public may view a copy of the abatement plan at the division's Santa Fe office or at the division's district office for the area in which the release occurred, and a statement describing how the public can access the

abatement plan electronically from a division-maintained site if such access is available;

(6) a statement that the division will accept the following comments and requests for consideration if the director receives them within 30 days after the date of publication of the public notice:

- (a) written comments on the abatement plan; and
- (b) for a stage 2 abatement plan, written requests for a public hearing that include reasons why a hearing should be held; and

(7) an address and phone number at which interested persons may obtain further information..

C. A person seeking to comment on a stage 1 abatement plan, or to comment or request a public hearing on a stage 2 abatement plan, shall file written comments or hearing requests with the division within 30 days after the date of public notice, or within 30 days after the director receives a proposed significant modification of a stage 2 abatement plan. Requests for a public hearing shall set forth the reasons why a hearing should be held. The division shall hold a public hearing if the director determines that there is significant public interest or that the request has technical merit.

D. The division shall distribute notice of an abatement plan's filing with the next division and commission hearing docket following the plan's receipt.

[19.15.30.15 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

#### **19.15.30.16 DIRECTOR APPROVAL OR NOTICE OF DEFICIENCY OF SUBMITTALS:**

A. The director shall, within 60 days after receiving an administratively complete stage 1 abatement plan, a site investigation report, a technical infeasibility demonstration or an abatement completion report approve the document, or notify the responsible person of the document's deficiency, based upon the information available.

B. If the division does not hold a public hearing pursuant to Subsection C of 19.15.30.15 NMAC then the director shall, within 90 days after receiving a stage 2 abatement plan proposal, approve the plan, or notify the responsible person of the plan's deficiency, based upon the information available.

C. If the division holds a public hearing pursuant to Subsection C of 19.15.30.15 NMAC then the director shall, within 60 days after receiving the required information, approve stage 2 of the abatement plan proposal, or notify the responsible person of the plan's deficiency, based upon the information contained in the plan and the information submitted at the hearing.

D. If the director notifies a responsible person of a deficiency in a site investigation report, or in a stage 1 or stage 2 abatement plan proposal, the responsible person shall submit a modified document to cure the deficiencies the director specifies within 30 days after receiving the notice of deficiency. The responsible person is in violation of 19.15.30 NMAC if the responsible person fails to submit a modified document within the required time, or if the responsible person does not in the modified document make a good faith effort to cure the deficiencies the director specified.

E. Provided that the responsible person meets the other requirements of 19.15.30 NMAC and provided further that stage 2 of the abatement plan, if implemented, shall result in the standards and requirements set forth in 19.15.30.9 NMAC being met within a schedule that is reasonable given the site's particular circumstances, the director shall approve the plan.

[19.15.30.16 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

**19.15.30.17 INVESTIGATION AND ABATEMENT:** A responsible person who receives the division's approval for stage 1 or stage 2 of an abatement plan shall conduct investigation, abatement, monitoring and reporting activities in compliance with 19.15.30 NMAC and according to the terms and schedules contained in the approved abatement plans.

[19.15.30.17 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

#### **19.15.30.18 ABATEMENT PLAN MODIFICATION:**

A. The division may modify an approved abatement plan at the responsible person's written request in accordance with 19.15.30 NMAC with the director's written approval.

B. If data the responsible person submitted pursuant to monitoring requirements specified in the approved abatement plan or other information available to the director indicates that the abatement action is ineffective, or is creating unreasonable injury to or interference with health, welfare, environment or property, the director may require a responsible person to modify an abatement plan within the shortest reasonable time so as to effectively abate water pollution that exceeds the standards and requirements set forth in 19.15.30.9 NMAC, and to abate and prevent unreasonable injury to or interference with health, welfare, environment or property.

[19.15.30.18 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

#### **19.15.30.19 COMPLETION AND TERMINATION:**

A. The division shall consider abatement complete when the responsible person meets the standards and requirements set forth in 19.15.30.9 NMAC. At that time, the responsible person shall submit an abatement completion report, documenting compliance with the standards and requirements set forth in 19.15.30.9 NMAC, to the director for approval. The abatement completion report also shall propose changes to long-term monitoring and site maintenance activities, if needed, to be performed after the abatement plan's termination.

B. Provided that the responsible person meets the other requirements of 19.15.30 NMAC and provided

further that the responsible person has met the standards and requirements set forth in 19.15.30.9 NMAC, the director shall approve the abatement completion report. When the director approves the abatement completion report, the director shall also notify the responsible person in writing that the abatement plan is terminated.  
[19.15.30.19 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

**19.15.30.20 DISPUTE RESOLUTION:** In the event of a technical dispute regarding the requirements of 19.15.29 NMAC, 19.15.30.9 NMAC, 19.15.30.12 NMAC, 19.15.30.13 NMAC, 19.15.30.18 NMAC or 19.15.30.19 NMAC, including notices of deficiency, the responsible person may notify the director by certified mail that a dispute has arisen, and the responsible person desires to invoke the dispute resolution provisions of 19.15.30.20 NMAC provided that the responsible person shall send the notification within 30 days after the responsible person receives the director's decision that causes the dispute. Upon the notification, the deadlines affected by the technical dispute shall be extended for a 30 day negotiation period, or for a maximum of 60 days if approved by the director for good cause shown. During this negotiation period, the director or the director's designee and the responsible person shall meet at least once. A mutually agreed upon third party may facilitate the meeting, but the third party shall assume no power or authority granted or delegated to the director by the Oil and Gas Act or by the division or commission. If the dispute remains unresolved after the negotiation period, the director's decision shall be final.

[19.15.30.20 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

**19.15.30.21 APPEALS FROM DIRECTOR'S AND DIVISION'S DECISIONS:**

**A.** If the director

- (1) determines that an abatement plan is required pursuant to 19.15.29.11 NMAC;
- (2) approves or provides notice of deficiency of a proposed abatement plan, technical infeasibility

demonstration or abatement completion report; or

- (3) modifies or terminates an approved abatement plan

the director shall provide written notice of the action by certified mail to the responsible person and other persons who participated in the action.

**B.** A person who participated in the action before the director and that the action listed in Subsection A of 19.15.30.21 NMAC adversely affects may file a petition requesting a hearing before a division examiner.

**C.** The person shall make the petition in writing and file it with the division within 30 days after receiving notice of the director's action. The petition shall specify the portions of the action to which the petitioner objects, certify that the person has mailed or hand-delivered a copy of the petition to the director and to the applicant or permittee if the petitioner is not the applicant or permittee and have attached a copy of the action for which the person seeks review. Unless a person makes a timely petition for hearing, the director's action is final.

**D.** The hearing before the division shall be conducted in the same manner as other division hearings.

**E.** The petitioner shall pay the cost of the court reporter for the hearing.

**F.** A party adversely affected by a division order pursuant to a hearing held by a division examiner, shall have a right to have the matter heard de novo before the commission.

**G.** The appeal provisions do not relieve the owner, operator or responsible person of their obligations to comply with federal or state laws including regulations or rules.

[19.15.30.21 NMAC - Rp, 19.15.1.19 NMAC, 12/1/08]

**HISTORY of 19.15.30 NMAC:**

**History of Repealed Material:** 19.15.1 NMAC, General Provisions and Definitions (filed 04/27/2001) repealed 12/1/08.

**NMAC History:**

That applicable portion of 19.15.1 NMAC, General Provisions and Definitions (Section 19) (filed 04/27/2001) was replaced by 19.15.30 NMAC, Remediation, effective 12/1/08.