



TETRA TECH

August 30, 2010

Mr. Mike Bratcher
Environmental Engineer Specialist
Oil Conservation Division, District 2
1301 West Grand Avenue
Artesia, NM 88210

**Re: Assessment Report and Work Plan for the Basic Energy Services, Inc.,
Myrtle Myra Saltwater Disposal, Unit C, Section 21, Township 21 South,
Range 27 East, Eddy County, New Mexico.**

Mr. Bratcher:

Tetra Tech Inc. (Tetra Tech) was contacted by Basic Energy Services, Inc. (Basic) to assess a release of produced water which occurred at the Myrtle Myra SWD, located in Unit C, Section 21, Township 21 South, Range 27 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.46894°, W 104.1987°. The site location is shown on Figures 1 and 2.

Background

According to the State of New Mexico C-141 Initial Report, the leak was discovered on October 2, 2009. Approximately 600 barrels of produced water was released when a charge pump engaged rupturing a 4-inch clamp on the suction line. A total of 590 barrels of fluids were recovered. The initial C-141 is enclosed in Appendix A.

Hydrology

According to *The New Mexico State Engineers Well Reports*, one domestic water well is located within the same Section as the site. The listed well, located in Section 21, has an average reported depth of 75 feet below ground surface (bgs). No additional water wells were located within the Section. The well reports are shown in Appendix B.

According to the *Geology and Groundwater Resources of Eddy County, New Mexico (Report 3)*, the Rustler and Castile formations (Ochoa Series) are present west and east of the Pecos River. The Rustler and Castile formations consist of anhydrite, gypsum, interbedded sandy clay and beds of dolomite. Groundwater from the Castile and Rustler formations west of the Pecos River is historically high in chloride and sulfate

Tetra Tech

1910 North Big Spring, Midland, TX 79705

Tel 432.682.4559 Fax 432.682.3946 www.tetrattech.com



concentrations which increase towards the river. The site is located on the eastern edge of the Rustler formation. See Figure 3 detailing geology of the site.

Regulatory

A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the depth to groundwater, the proposed RRAL for TPH is 1,000 mg/kg.

Soil Assessment and Results

On November 11, 2009, Tetra Tech personnel inspected the site and installed a total of four (4) auger holes (AH-1 to AH-4) to assess the spill area and to determine background levels for chlorides at the site. The spill area is shown on the attached Figure 4. The auger holes were advanced to depths ranging from 1.5 feet to 9.5 feet bgs. Select samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B, and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The results of the sampling are summarized in Table 1.

Referring to Table 1, all of the samples analyzed were below the RRAL for both BTEX and TPH. Chloride concentrations were elevated in auger holes AH-1 through AH-3. The background auger hole AH-4 had chloride concentrations of less than 200 mg/kg.

In order to further delineate the chloride concentrations at the site, Tetra Tech personnel were onsite December 21, 2009, to install 4 backhoe trenches (T-1 to T-4). The trenches were placed adjacent to and named in accordance with the auger holes. Each of the trenches was extended from 10 to 16 feet bgs and samples were collected and submitted for analysis of chlorides. Referring to Table 1, the chlorides remained elevated in trenches T-1 to T-3, with background trench T-4 ranging from less than 200 mg/kg to 309 mg/kg.

In order to complete delineation of the chloride concentrations at the site, Tetra Tech personnel were onsite March 25 and June 17, 2010, to drill three boreholes (BH-1 to BH-3) at the location. The boreholes were placed adjacent to the trenches and named in accordance with the trenches. The boreholes were extended to a depths ranging from 25 feet to 70 feet bgs. Samples were collected with a split spoon sampler every five feet beginning at 15 to 20 feet bgs and were submitted to the laboratory for analysis of chlorides. Referring to Table 1, the chlorides decreased to near background concentrations in BH-1 at a depth of 15 to 20 feet bgs, at 30 feet bgs in BH-2, and at 65 feet bgs in BH-3. Borehole BH-3, which is located adjacent and south of the original drilling mud pit, had elevated chlorides to a depth of 60 feet bgs. The chloride concentration in BH-3 declined to a low of 968 mg/kg in sandy soil at 25 feet bgs, which



TETRA TECH

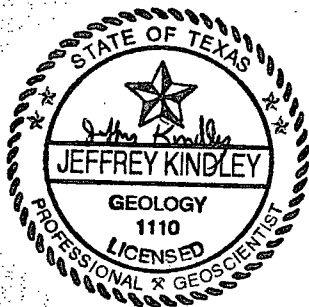
immediately increased to 2,620 mg/kg in the underlying clay layer which extends to 40 feet bgs. With the completion of the borings, it appears the chlorides have been vertically defined at the site. No groundwater was encountered during drilling activities at the site.

Work Plan

Basic proposes to excavate and remove an area measuring 12 feet by 85 feet by 10 feet deep in the vicinity of BH-1 and BH-2. Upon completion of the excavation, the soils will be transported offsite for proper disposal. Afterwards, a 40-mil poly liner measuring 25 feet by 12 feet will be installed at 4 feet bgs in the vicinity of BH-2. The liner will impede further migration of the remaining chlorides in the soil. After installation of the liner, the site will be backfilled with clean soils and brought up to surface grade.

The area in the vicinity of BH-3 appears to be impacted from the release which occurred on October 2, 2009, to a depth of 20 feet bgs. At 25 feet bgs, the chloride concentration decreases to 968 mg/kg then increased to 2,620 mg/kg at 30 feet bgs, whereby a clay layer was encountered. Chloride concentrations peaked at 40 feet bgs with a concentration of 2,900 mg/kg, which declined to below 250 mg/kg at 65 feet bgs. Basic proposes to excavate a 45 foot by 25 foot by 10 feet deep area in the vicinity of BH-3 and install a 40-mil poly liner with the same measurements at 4 feet bgs in order to impede further vertical migration. After installation of the liner, the site will be backfilled with clean soils and brought up to surface grade.

Once the remedial activities are performed, a closure report will be submitted at the site. If you require any additional information or have any questions or comments concerning this work plan, please call at (432) 682-4559.



Respectfully submitted,
TETRA TECH

Jeffrey Kindley
Jeff Kindley, P.G.
Senior Project Manager

cc: Lyn Sockwell – Basic Energy Services, Inc.

FIGURES

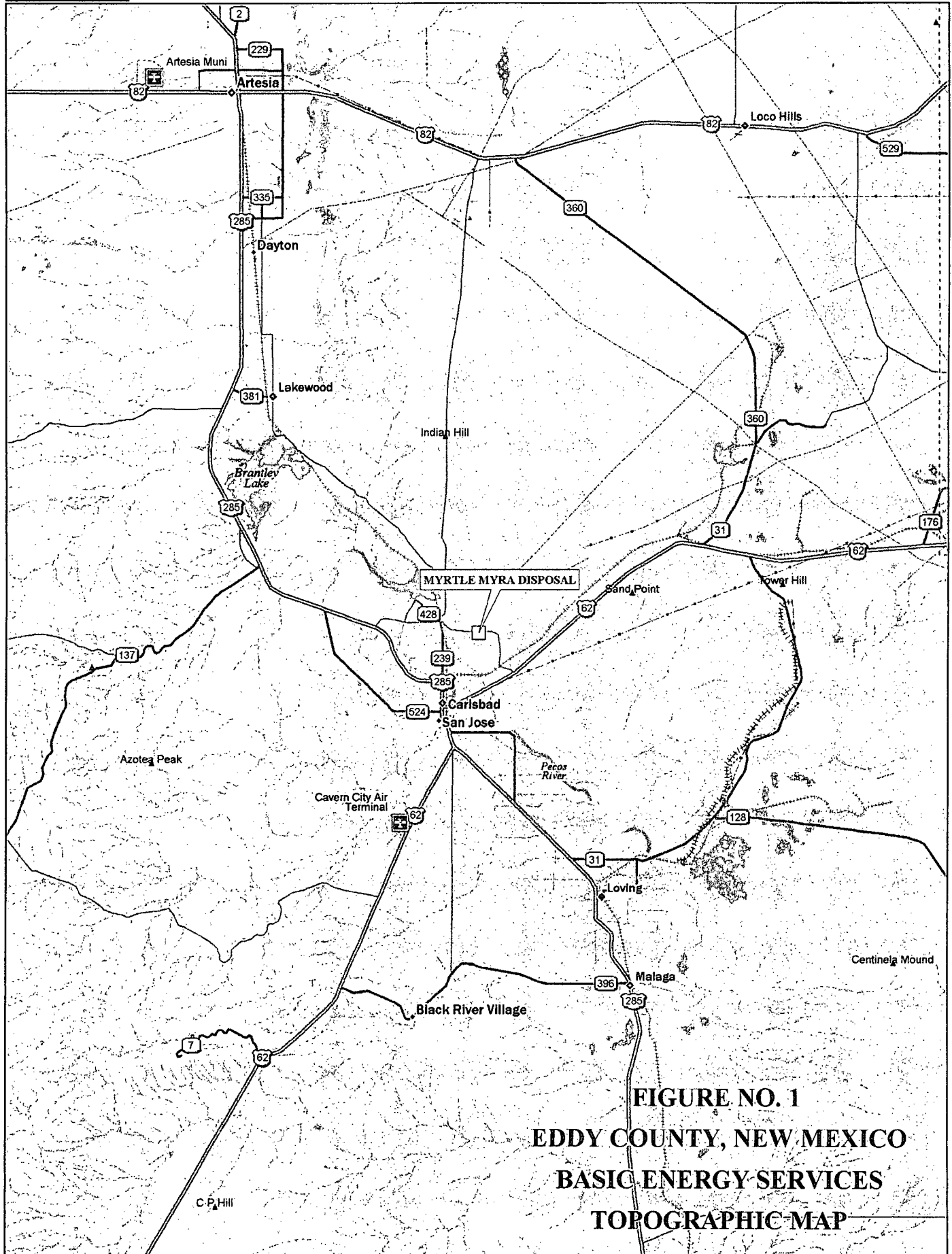
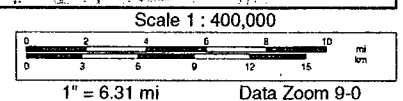


FIGURE NO. 1
EDDY COUNTY, NEW MEXICO
BASIC ENERGY SERVICES
TOPOGRAPHIC MAP

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www.delorme.com



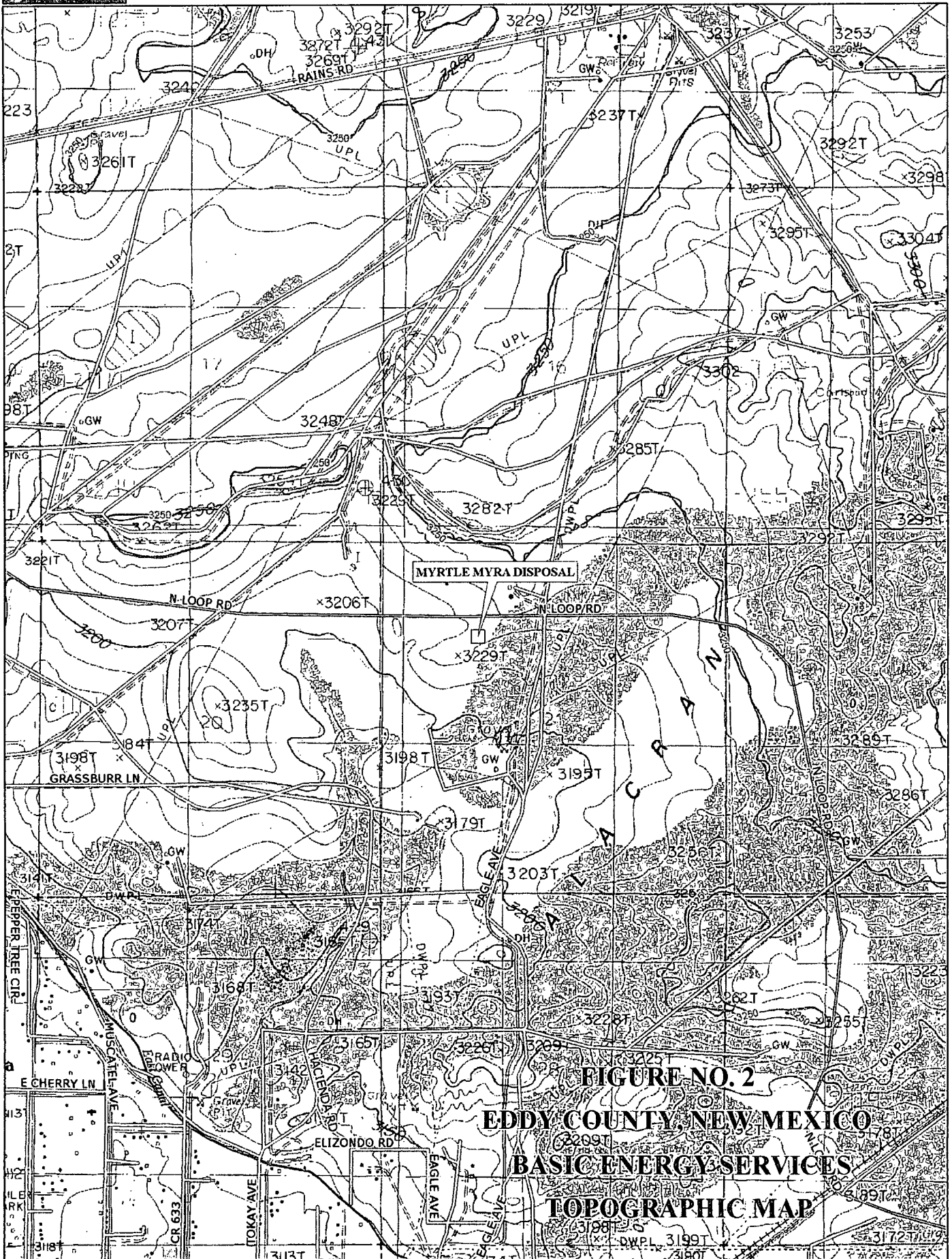
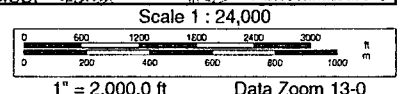
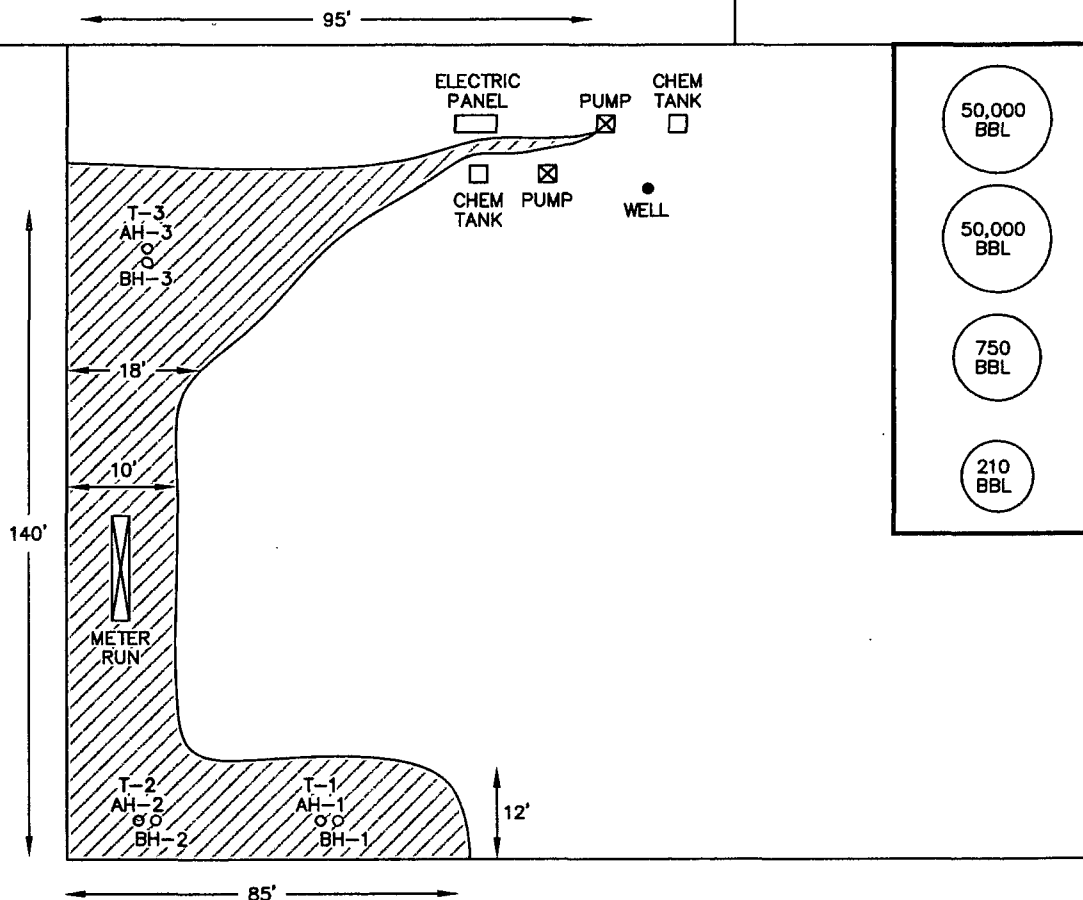


FIGURE NO. 2
EDDY COUNTY, NEW MEXICO
BASIC ENERGY SERVICES
TOPOGRAPHIC MAP



T-4
AH-4
BACKGROUND
○

RESERVE PIT



- ☐ SPILL AREA
- SAMPLE LOCATIONS
- SAMPLE TRENCH
- BORE HOLE SAMPLE LOCATIONS

NOT TO SCALE

FIGURE NO. 4

EDDY COUNTY, NEW MEXICO

BASIC ENERGY SERVICES, LP
MYRTLE MYRA DISPOSAL
SPILL / SAMPLE LOCATIONS

TETRA TECH, INC.
MIDLAND, TEXAS

DATE:
11/12/09
DWN. BY:
JJ
FILE:
Q:\MISC\8400389\
MYRTLE MYRA

TABLES

Table 1
BASIC ENERGY
MYRTLE MYRA SWD
EDDY COUNTY, NEW MEXICO

Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	Total					
AH-1	11/11/09	0-1'	X		<1.00	<50.0	<50.0	<0.0100	<0.0100	<0.0100	<0.0100	2,300
		1-1.5'	X		-	-	-	-	-	-	-	2,890
		2-2.5'	X		-	-	-	-	-	-	-	2,120
T-1	12/21/09	2.0	X		-	-	-	-	-	-	-	2,380
		3.0	X		-	-	-	-	-	-	-	1,650
		4.0	X		-	-	-	-	-	-	-	2,420
		5.0	X		-	-	-	-	-	-	-	4,560
		6.0	X		-	-	-	-	-	-	-	2,010
		8.0	X		-	-	-	-	-	-	-	2,580
		10.0	X		-	-	-	-	-	-	-	1,690
BH-1	03/25/10	15.0	X		-	-	-	-	-	-	-	392
		20.0	X		-	-	-	-	-	-	-	504
		25.0	X		-	-	-	-	-	-	-	214
AH-2	11/11/09	0-1'	X		<1.00	<50.0	<50.0	<0.0100	<0.0100	<0.0100	<0.0100	3,330
		1-1.5'	X		-	-	-	-	-	-	-	1,310
T-2	12/21/09	2.0	X		-	-	-	-	-	-	-	1,670
		3.0	X		-	-	-	-	-	-	-	2,340
		4.0	X		-	-	-	-	-	-	-	1,080
		5.0	X		-	-	-	-	-	-	-	978
		6.0	X		-	-	-	-	-	-	-	1,340
		8.0	X		-	-	-	-	-	-	-	2,500
		10.0	X		-	-	-	-	-	-	-	2,680
		12.0	X		-	-	-	-	-	-	-	2,660
		14.0	X		-	-	-	-	-	-	-	2,370
		16.0	X		-	-	-	-	-	-	-	2,080
BH-2	03/25/10	20.0	X		-	-	-	-	-	-	-	571
		25.0	X		-	-	-	-	-	-	-	1,160

EDDY COUNTY, NEW MEXICO[illegible]

Table 1
BASIC ENERGY
MYRTLE MYRA SWD
EDDY COUNTY, NEW MEXICO

Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	GRO	DRO	Total					
AH-4	11/11/09	0-1' (BG)	X		<1.00	<50.0	<50.0	<0.0100	<0.0100	<0.0100	<0.0100	<200
Background		1-1.5' (BG)	X		-	-	-	-	-	-	-	<200
T-4	12/21/09	2.0	X		-	-	-	-	-	-	-	<200
		3.0	X		-	-	-	-	-	-	-	229
		4.0	X		-	-	-	-	-	-	-	<200
		5.0	X		-	-	-	-	-	-	-	309
T-4	12/21/09	6.0	X		-	-	-	-	-	-	-	274
		8.0	X		-	-	-	-	-	-	-	229
		10.0	X		-	-	-	-	-	-	-	214
		12.0	X		-	-	-	-	-	-	-	257

(-) Not Analyzed

_____ Depth of proposed excavation and liner placement.

_____ Depth of proposed excavation

APPENDIX A
INITIAL C-141

District I
1625 N French Dr., Hobbs, NM 88240
District II
1301 W Grand Avenue, 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

OCT 05 2009

Form C-141
Revised October 10, 2003

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

x Initial Report ☐ Final Report

Name of Company Basic Energy Services <i>246368</i>	Contact David Alvarado
Address P.O. Box 10460 MIDLAND TX. 79702	Telephone No. 575.746.9663
Facility Name MYRTLE MYRA SWD <i>001</i>	Facility Type

Surface Owner <i>STATE</i>	Mineral Owner	Lease No. 3001521515
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30-015-21515

LOCATION OF RELEASE

Unit Letter C	Section 21	Township 21S	Range 27E	Feet from the 660	North/South Line NORTH	Feet from the 1980	East/West Line WEST	County EDDY
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Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release PRODUCED WATER WITH IRON SULFATE	Volume of Release 600 BBLS	Volume Recovered 590 BBLS
Source of Release SUCTION SIDE OF PUMP FROM TANK	Date and Hour of Occurrence 10-2-09 UNDETERMAN TIME	Date and Hour of Discovery 10-2-09 7:30 AM.
Was Immediate Notice Given? X Yes ☐ No ☐ Not Required	If YES, To Whom? JERRY HANAWAY, DAVID ALVARADO, ROGER MASSEY, LYN SOCLWELL	
By Whom? RICHARD PENA	Date and Hour 10-2-09 7:30 AM	
Was a Watercourse Reached? ☐ Yes X No	If YES, Volume Impacting the Watercourse. NONE	

If a Watercourse was Impacted, Describe Fully.*

NO WATERCOURSE IMPACTED.

Describe Cause of Problem and Remedial Action Taken.*

4" Clamp broke on suction side of fluid end and separated when charge pump turned on..

Vacuum Truck was used to recover 590 bbls. and placed back in the storage tanks. Will have a blade scrape up material send to CRI.

Describe Area Affected and Cleanup Action Taken.*

South side and west side of location was affected. Before we can blade location gas lines are to be flagged.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <i>David H. Alvarado</i>	OIL CONSERVATION DIVISION	
Printed Name: David H. Alvarado	Approved by District Supervisor: <i>RDade by SAH</i>	Remediation Actions to be completed Final C-141 submitted with conf analyses/documentation on or before Expiration Date.
Title: S.E.N.M. DISTRICT MANAGER	Approval Date: <i>10-26-09</i>	Expiration Date: <i>12-31-09</i>
E-mail Address: david.alvarado@basiconenergyservices.com	Conditions: SEE ATTACHED STIPULATIONS	Attached ☒ <i>2RP-358</i>

*USE 0930036710
n 300 0930036 77
SEA 0930036 77*

APPENDIX B
WATER WELL REPORTS

Water Well Data
Average Depth to Groundwater (ft)
Basic - Myrtle Myra SWD Facility
Eddy County, New Mexico

20 South			27 East		
6	5	4	3	2	1
	50				
7	8	9	10	11	12
66					
18	17	16	15	14	66
				74	
19	20	21	22	23	24
		150			
30	29	28	27	26	25
31	32	33	34	35	36

20 South			28 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
		30	35		
31	32	33	25	34	35
115		29			19

20 South			29 East		
6	5	4	3	2	1
			91		
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
	62				
30	29	28	27	26	25
52					
31	32	33	34	35	36

21 South			26 East		
6	5	65	4	3	2
					89
7	8	9	10	11	12
66	170		115		
18	17	16	15	14	13
	178	35	65		
19	20	21	22	23	24
	210			34	
30	29	28	27	26	25
115					40
31	32	33	34	35	36
	164	120			26

21 South			27 East		
6	5	4	3	2	1 SITE
175	350				186
7	8	9	10	11	12
		78			
18	17	16	15	14	13
19	20	21	Site	22	23
36	27		75		
30	29	28	40	27	26
	31	30	46		70
31	32	33	34	35	36
17	15			30	

21 South			28 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
	37				
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

22 South			26 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

22 South			27 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

22 South			28 East		
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

- 88** New Mexico State Engineers Well Reports
- 105** USGS Well Reports
- 90** Geology and Groundwater Conditions in Southern Lea, County, NM (Report 6)
- Geology and Groundwater Resources of Eddy County, NM (Report 3)
- 34** NMOCD - Groundwater Data
- 123** Field water level
- 143** NMOCD Groundwater map well location



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Sub basin	Use	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 00061	STK	ED		1	2	4	21	21S	27E	576163	3592217*	150		
C 00206	STK	ED			2	4	21	21S	27E	576264	3592118*	150		
C 01449	DOM	ED		1	3	3	21	21S	27E	574950	3591807*	108	75	33
Average Depth to Water:												75 feet		
Minimum Depth:												75 feet		
Maximum Depth:												75 feet		

Record Count: 3

PLSS Search:

Section(s): 21

Township: 21S

Range: 27E

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Sub-basin	Use	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 00026	IRR	ED		1	1	1	31	21S	27E	571775	3589711*	190		
C 00046	IRR	ED					30	21S	27E	572477	3590614*	185		
C 00047 A	DOM	ED		2	3	2	26	21S	27E	579218	3591043*	90	70	20
C 00047 A	IRR	ED		2	3	2	26	21S	27E	579218	3591043*	90	70	20
C 00047 EXPL	IRR	ED		3	2	4	26	21S	27E	579429	3590444*	490		
C 00061	STK	ED		1	2	4	21	21S	27E	576163	3592217*	150		
C 00064 A	IRR	ED		1	1	32	21S	27E	573461	3589670*	95	15	80	
C 00065	IRR	ED		4	4	4	30	21S	27E	573155	3589947*	72	15	57
C 00089	DOM	ED		2	2	31	21S	27E	573056	3589651*	275			
C 00096	IRR	ED				29	21S	27E	574063	3590675*	91			
C 00106	IRR	ED		2	1	1	32	21S	27E	573560	3589769*	105		
C 00112	DOM	ED				30	21S	27E	572477	3590614*	184	10	174	
C 00129	IRR	ED			4	30	21S	27E	572853	3590226*	300			
C 00132	DOM	ED		1	3	4	19	21S	27E	572544	3591744*	34		
C 00156	IRR	ED		2	4	3	30	21S	27E	572348	3590116*	180		
C 00162	DOM	ED		3	3	30	21S	27E	571874	3590011*	175			
C 00164	DOM	ED		3	1	4	19	21S	27E	572541	3591961*	375		
C 00168	DOM	ED		4	4	3	30	21S	27E	572348	3589916*	179		
C 00188	DOM	ED		3	3	28	21S	27E	575076	3590094*	280			
C 00197	DOM	ED				32	21S	27E	574067	3589068*	300			
C 00201	IRR	ED		4	3	30	21S	27E	572249	3590017*	240			
C 00202	DOM	ED		4	1	30	21S	27E	572245	3590835*	200			
C 00206	STK	ED		2	4	21	21S	27E	576264	3592118*	150			
C 00207	DOM	ED		3	3	30	21S	27E	571874	3590011*				
C 00208	IRR	ED		2	1	3	30	21S	27E	571970	3590515*	270	14	256
C 00208	MUL	ED		2	1	3	30	21S	27E	571970	3590515*	270	14	256
C 00218	DOM	ED			3	30	21S	27E	572075	3590212*	170			
C 00221	IRR	ED		1	4	1	30	21S	27E	572144	3590934*	282		
C 00222	IRR	ED		1	3	4	29	21S	27E	574167	3590182*	297		

*UTM location was derived from PLSS - see Help

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	Sub basin	Use	County	Q Q Q					X	Depth Depth Water				
				64	16	4	Sec	Tws		Rng	Y	Well	Water	Column
C 00227		IRR	ED	4	1	4	19	21S	27E	572741	3591961*	435		
C 00237		DOM	ED	1	3	4	19	21S	27E	572544	3591744*	105	20	85
C 00240		DOM	ED	3	3	3	30	21S	27E	571773	3589910*	137	10	127
C 00242		DOM	ED	3	1	4	19	21S	27E	572541	3591961*	79	27	52
C 00243		DOM	ED	1	3	4	19	21S	27E	572544	3591744*			
C 00263		DOM	ED	3	3	4	30	21S	27E	572551	3589924*	260		
C 00264		DOM	ED	3	3	4	19	21S	27E	572544	3591544*	335	25	310
C 00288		DOM	ED	3	3	4	19	21S	27E	572544	3591544*	60		
C 00297		DOM	CH	1	1	2	35	21S	27E	579029	3589833*	130	30	100
C 00314		DOM	ED		1	4	24	21S	27E	580742	3592180*	397		
C 00336		DOM	ED		3	4	19	21S	27E	572645	3591645*	79	32	47
C 00337		DOM	ED	1	1	2	32	21S	27E	574168	3589780*	318		
C 00344		DOM	ED	3	3	3	31	21S	27E	571783	3588308*	180	17	163
C 00378		DOM	ED	1	3	3	30	21S	27E	571773	3590110*	350	15	335
C 00422		DOM	ED		3	4	19	21S	27E	572645	3591645*	74	28	46
C 00428		DOM	ED		2	3	31	21S	27E	572251	3588823*	37		
C 00440		DOM	ED				19	21S	27E	572466	3592235*	70	29	41
C 00448		DOM	ED	1	3	4	19	21S	27E	572544	3591744*	262	137	125
C 00460		DOM	ED				30	21S	27E	572477	3590614*	63	29	34
C 00468		DOM	ED	3	4	4	26	21S	27E	579432	3590041*	80		
C 00468		IRR	ED	3	4	4	26	21S	27E	579432	3590041*	80		
C 00487		DOM	ED	4	1	2	31	21S	27E	572751	3589531*	215		
C 00522		IRR	ED	4	3	1	30	21S	27E	571968	3590721*	100	33	67
C 00552		DOM	ED	1	2	3	29	21S	27E	573759	3590579*	240	24	216
C 00552		PRO	ED	1	2	3	29	21S	27E	573759	3590579*	240	24	216
C 00554		DOM	ED	3	1	4	19	21S	27E	572541	3591961*	60	38	22
C 00556		IRR	ED		4	3	30	21S	27E	572249	3590017*	200	31	169
C 00561		DOM	ED	2	3	1	32	21S	27E	573561	3589368*	340	11	329
C 00566		DOM	ED	2	2	2	32	21S	27E	574773	3589785*	323	18	305
C 00591		DOM	ED	1	3	1	31	21S	27E	571778	3589313*	200		
C 00592		DOM	ED				31	21S	27E	572487	3589012*	100	15	85
C 00593		DOM	ED				31	21S	27E	572487	3589012*	250		

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(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	Sub basin	Use	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 00594	DOM	ED					31	21S	27E	572487	3589012*	250		
C 00595	DOM	ED		2	3	1	30	21S	27E	571968	3590921*	210	24	186
C 00598	DOM	ED		1	3	1	31	21S	27E	571778	3589313*	100		
C 00600	DOM	ED					30	21S	27E	572477	3590614*	303	15	288
C 00606	DOM	ED		1	1	3	29	21S	27E	573355	3590573*	252	8	244
C 00632	COM	ED		2	2	2	32	21S	27E	574773	3589785*	270	30	240
C 00634	IRR	ED		4	1	3	29	21S	27E	573555	3590373*	122	17	105
C 00636	IRR	ED					30	21S	27E	572477	3590614*	134	25	109
C 00637	DOM	ED					19	21S	27E	572466	3592235*	100	29	71
C 00638	DOM	ED		3	1	3	30	21S	27E	571770	3590315*	50	27	23
C 00645	PRO	ED		1	1	25	21S	27E	579933	3591356*		100		
C 00647	DOM	ED		2	4	3	30	21S	27E	572348	3590116*	200	80	120
C 00652	COM	ED		2	4	4	29	21S	27E	574771	3590188*	458		
C 00652	IRR	ED		2	4	4	29	21S	27E	574771	3590188*	458		
C 00654	DOM	ED		1	1	1	29	21S	27E	573349	3591377*	250		
C 00655	DOM	ED		2	2	3	29	21S	27E	573959	3590579*	200		
C 00660	DOM	ED		2	1	2	32	21S	27E	574368	3589780*	325	14	311
C 00661	DOM	ED		3	2	4	30	21S	27E	572952	3590354*	200	10	190
C 00668	DOM	ED		2	4	2	30	21S	27E	573150	3590961*	280	12	268
C 00673	DOM	ED		2	3	4	29	21S	27E	574367	3590182*	309	30	279
C 00681	DOM	ED		2	2	3	31	21S	27E	572350	3588922*	44	18	26
C 00688	DOM	ED		2	2	3	29	21S	27E	573959	3590579*	90	31	59
C 00698	DOM	ED		4	3	2	36	21S	27E	580859	3589248*	110		
C 00699	DOM	ED		3	3	2	36	21S	27E	580659	3589248*	110		
C 00702	DOM	ED		4	4	1	30	21S	27E	572344	3590734*	330	15	315
C 00707	DOM	ED		1	3	1	31	21S	27E	571778	3589313*	25	6	19
C 00710	DOM	ED		1	3	1	31	21S	27E	571778	3589313*	32	5	27
C 00714	DOM	ED		3	1	4	19	21S	27E	572541	3591961*	50	32	18
C 00718	DOM	ED		1	1	4	30	21S	27E	572549	3590535*	205	15	190
C 00719	DOM	ED		1	4	1	30	21S	27E	572144	3590934*	170	30	140
C 00719	IRR	ED		1	4	1	30	21S	27E	572144	3590934*	170	30	140
C 00721	DOM	ED		2	3	4	19	21S	27E	572744	3591744*	74	55	19

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(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	Sub basin	Use	County	Q Q Q			Sec	Tws	Rng	X	Y	Depth Depth Water		
				64	16	4						Well	Water	Column
C 00722	DOM	ED		1	3	4	19	21S	27E	572544	3591744*	47	28	19
C 00722 A	DOM	ED					19	21S	27E	572466	3592235*	80		
C 00725	DOM	ED		4	3	1	29	21S	27E	573552	3590775*	222	22	200
C 00727	DOM	ED					30	21S	27E	572477	3590614*	200		
C 00732	DOM	ED		2	1	2	32	21S	27E	574368	3589780*	50		
C 00734	DOM	ED		4	3	1	29	21S	27E	573552	3590775*	230		
C 00741	DOM	ED					29	21S	27E	574063	3590675*	300	20	280
C 00749	DOM	ED		4	4	3	29	21S	27E	573963	3589977*	300		
C 00751	DOM	ED					32	21S	27E	574067	3589068*	325	15	310
C 00767	IRR	ED		1	3	4	29	21S	27E	574167	3590182*	150	26	124
C 00772	DOM	ED					32	21S	27E	574067	3589068*	350		
C 00775	DOM	ED		1	3	4	19	21S	27E	572544	3591744*	62	20	42
C 00779	DOM	ED					29	21S	27E	574063	3590675*	247	18	229
C 00781	DOM	ED					29	21S	27E	574063	3590675*	302	29	273
C 00782	DOM	ED					31	21S	27E	572487	3589012*	42	18	24
C 00796	DOM	ED		1	4	4	30	21S	27E	572955	3590147*	255	16	239
C 00797	DOM	ED			2	3	30	21S	27E	572247	3590426*	350		
C 00798	DOM	ED					30	21S	27E	572477	3590614*	300	17	283
C 00814	DOM	ED		1	3	2	30	21S	27E	572547	3590947*	36	17	19
C 00838	DOM	ED					30	21S	27E	572477	3590614*			
C 00844	DOM	ED		3	1	3	30	21S	27E	571770	3590315*	230		
C 00846	DOM	ED		1	1	3	30	21S	27E	571770	3590515*	241	23	218
C 00858	IRR	ED		4	4	3	25	21S	27E	580446	3590051*	304		
C 00859	DOM	ED					30	21S	27E	572477	3590614*	136	17	119
C 00866	DOM	ED		1	3	2	30	21S	27E	572547	3590947*	240	16	224
C 00871	DOM	ED			1	4	19	21S	27E	572642	3592062*	95	33	62
C 00877	DOM	ED			3	4	19	21S	27E	572645	3591645*	82	30	52
C 00888	DOM	ED					29	21S	27E	574063	3590675*	270	12	258
C 00909	DOM	ED					30	21S	27E	572477	3590614*	127	29	98
C 00914	DOM	ED		1	3	4	19	21S	27E	572544	3591744*			
C 00922	DOM	ED		1	1	4	30	21S	27E	572549	3590535*	265	12	253
C 00925	MUL	ED			1	3	28	21S	27E	575070	3590498*	300	46	254

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(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD-Number	Sub-basin	Use	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 00940		DOM	ED	4	4	2	25	21S	27E	581258	3590872*	42	5	37
C 00940 CLW		DOM	ED	4	4	2	25	21S	27E	581258	3590872*	72	20	52
C 00943		DOM	ED	2	4	3	29	21S	27E	573963	3590177*	280	27	253
C 00947		IRR	ED	1	4	4	30	21S	27E	572955	3590147*	80		
C 00947		STK	ED	1	4	4	30	21S	27E	572955	3590147*	80		
C 00973		DOM	ED				26	21S	27E	578914	3590731*	80	32	48
C 00976		DOM	ED	3	2	1	30	21S	27E	572143	3591135*	155	25	130
C 00999		DOM	ED	3	4	1	30	21S	27E	572144	3590734*	48	22	26
C 01006		DOM	ED	3	4	1	30	21S	27E	572144	3590734*	265	17	248
C 01016		DOM	ED	3	1	3	30	21S	27E	571770	3590315*	215	25	190
C 01021		DOM	ED	3	2	4	31	21S	27E	572956	3588750*	255	12	243
C 01026		DOM	ED		2	3	30	21S	27E	572247	3590426*	190	17	173
C 01038		DOM	ED	3	4	3	29	21S	27E	573763	3589977*	293	14	279
C 01040		DOM	ED				30	21S	27E	572477	3590614*	301	19	282
C 01045		COM	ED	2	1	2	31	21S	27E	572751	3589731*	307		
C 01046		DOM	ED		1	4	19	21S	27E	572642	3592062*	360	32	328
C 01047		IRR	ED		3	1	29	21S	27E	573453	3590876*	288	256	32
C 01068		DOM	ED	3	1	3	29	21S	27E	573355	3590373*	350	20	330
C 01068 REPAR		DOM	ED	3	1	3	29	21S	27E	573355	3590373*			
C 01069		DOM	ED	3	3	1	29	21S	27E	573352	3590775*	355	20	335
C 01073		DOM	ED		1	1	31	21S	27E	571876	3589612*	170	40	130
C 01079		DOM	ED		3	4	19	21S	27E	572645	3591645*	360		
C 01096		DOM	ED				29	21S	27E	574063	3590675*	306	17	289
C 01101		DOM	ED	3	4	3	29	21S	27E	573763	3589977*	315	17	298
C 01106		DOM	ED	4	4	4	30	21S	27E	573155	3589947*	280	14	266
C 01118		DOM	ED		3	4	19	21S	27E	572645	3591645*	81	34	47
C 01119		DOM	ED	1	1	4	19	21S	27E	572541	3592161*	105	42	63
C 01126		DOM	ED	2	2	2	31	21S	27E	573155	3589750*	260	30	230
C 01128		DOM	ED	2	2	2	31	21S	27E	573155	3589750*	303	19	284
C 01130		SAN	ED	3	4	4	30	21S	27E	572955	3589947*	365	19	346
C 01134		COM	ED	1	2	2	31	21S	27E	572955	3589750*	275		
C 01134		IRR	ED	1	2	2	31	21S	27E	572955	3589750*	275		

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(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	Sub basin	Use	County	Q Q Q				Sec	Tws	Rng	X	Y	Depth Depth Water		
				64	16	4	4						Well	Water	Column
C 01142	STK	ED		3	1	4	03	21S	27E		577358	3596873*	100		
C 01152	DOM	ED		4	4	3	30	21S	27E		572348	3589916*	240	18	222
C 01155	DOM	ED		1	3	29	21S	27E			573456	3590474*	290	22	268
C 01157	DOM	ED		4	2	30	21S	27E			573051	3590862*	292	17	275
C 01159	DOM	ED		4	19	21S	27E				572846	3591846*	432	31	401
C 01160	DOM	ED		4	3	24	21S	27E			580340	3591767*	60	17	43
C 01160	EXP	ED		4	3	24	21S	27E			580340	3591767*	60	17	43
C 01163	EXP	ED		4	4	24	21S	27E			581157	3591783*	240		
C 01165	IRR	ED		2	4	2	30	21S	27E		573150	3590961*	180	26	154
C 01174	DOM	ED		1	3	1	29	21S	27E		573352	3590975*	280	27	253
C 01175	IRR	ED		4	4	2	30	21S	27E		573150	3590761*	100	19	81
C 01188	DOM	ED		4	30	21S	27E				572853	3590226*	277	16	261
C 01189	IRR	ED		1	2	2	30	21S	27E		572947	3591361*	100	26	74
C 01199	DOM	ED		1	4	19	21S	27E			572642	3592062*	389	57	332
C 01207	DOM	ED		3	4	19	21S	27E			572645	3591645*	70	31	39
C 01210	DOM	ED		1	4	30	21S	27E			572650	3590436*	60	26	34
C 01248	DOM	ED		3	3	1	29	21S	27E		573352	3590775*	240	19	221
C 01250	DOM	ED		3	3	29	21S	27E			573460	3590072*	250	45	205
C 01252	DOM	ED		1	1	32	21S	27E			573461	3589670*	260	17	243
C 01280	DOM	ED		2	1	4	19	21S	27E		572741	3592161*	100	58	42
C 01299	DOM	ED		1	3	1	29	21S	27E		573352	3590975*	284	23	261
C 01318	DOM	ED		4	1	3	28	21S	27E		575169	3590397*	52	40	12
C 01321	DOM	LE		2	3	29	21S	27E			573860	3590480*	270	60	210
C 01330	STK	ED		3	3	3	09	21S	27E		574941	3594849*	92	80	12
C 01333	PRO	ED		1	1	4	05	21S	27E		574128	3597045*	400	350	50
C 01339	EXP	ED		1	4	09	21S	27E			575842	3595353*	425	120	305
C 01349	DOM	ED		2	3	2	26	21S	27E		579218	3591043*	395	45	350
C 01357	DOM	ED		4	1	30	21S	27E			572245	3590835*	410	16	394
C 01359	DOM	ED		3	4	24	21S	27E			580748	3591775*	63	21	42
C 01373	DOM	ED		2	3	3	30	21S	27E		571973	3590110*	140	26	114
C 01389	DOM	ED		1	3	1	19	21S	27E		571758	3592539*	102	60	42
C 01393	DOM	ED		3	1	19	21S	27E			571859	3592440*	481	72	409

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(In feet)

POD Number	Sub basin	Use	County	Q Q Q			64	16	4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 01441	DOM	ED		2	3	3	19	21S	27E	571962	3591731*	175	34	141			
C 01449	DOM	ED		1	3	3	21	21S	27E	574950	3591807*	108	75	33			
C 01458	DOM	ED		4	3	30	21S	27E	572249	3590017*	188	20	168				
C 01499	DOM	ED		3	1	30	21S	27E	571869	3590822*	104	26	78				
C 01509	STK	ED		1	1	3	30	21S	27E	571770	3590515*	73	43	30			
C 01520	DOM	ED		4	1	4	19	21S	27E	572741	3591961*	70	70	0			
C 01550	IRR	ED		2	4	1	30	21S	27E	572344	3590934*	200					
C 01553	DOM	ED		3	1	1	29	21S	27E	573349	3591177*	84					
C 01581	DOM	ED		1	1	1	32	21S	27E	573360	3589769*	40					
C 01583	DOM	ED		3	3	2	25	21S	27E	580650	3590865*	270	80	190			
C 01591	DOM	ED		2	2	3	30	21S	27E	572346	3590525*	100	20	80			
C 01644	DOM	ED		1	1	29	21S	27E	573450	3591278*	66	35	31				
C 01649	DOM	ED		3	1	1	29	21S	27E	573349	3591177*	88	25	63			
C 01650	DOM	ED		4	4	29	21S	27E	574672	3590089*	45						
C 01651	DOM	ED		4	4	4	29	21S	27E	574771	3589988*	62					
C 01653	DOM	ED		4	1	29	21S	27E	573856	3590882*	60	20	40				
C 01662	DOM	ED		3	1	29	21S	27E	573453	3590876*	40						
C 01664	DOM	ED		3	2	1	30	21S	27E	572143	3591135*	136	29	107			
C 01685	DOM	ED		3	3	1	19	21S	27E	571758	3592339*	115	59	56			
C 01686	DOM	ED		2	4	3	30	21S	27E	572348	3590116*	235	217	18			
C 01687	DOM	ED		2	4	3	30	21S	27E	572348	3590116*	235	19	216			
C 01692	DOM	ED		3	1	2	25	21S	27E	580649	3591270*	250	178	72			
C 01709	DOM	ED					29	21S	27E	574063	3590675*	42	15	27			
C 01755	DOM	ED		2	3	29	21S	27E	573860	3590480*	320	17	303				
C 01835	DOM	ED		1	4	4	26	21S	27E	579432	3590241*	58	5	53			
C 01838	DOM	ED		1	1	31	21S	27E	571876	3589612*	40	30	10				
C 01868	DOM	ED		1	1	30	21S	27E	571866	3591227*	95	25	70				
C 01875	DOM	ED		1	3	3	28	21S	27E	574975	3590193*	170	40	130			
C 01928	DOM	ED			2	25	21S	27E	580952	3591167*	200						
C 01947	DOM	ED		3	4	29	21S	27E	574268	3590083*	43	18	25				
C 02009	DOM	ED		3	3	32	21S	27E	573464	3588465*	50	32	18				
C 02045	DOM	ED		2	3	29	21S	27E	573860	3590480*	80	29	51				

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(In feet)

POD Number	Sub basin	Use	County	Q Q Q				Sec	Tws	Rng	X		Depth Y	Depth Well	Water Column
				64	16	4	4								
C 02049	DOM	ED		1	4	19	21S	27E			572642	3592062*	85	58	27
C 02075	DOM	ED		1	2	30	21S	27E			572646	3591246*	287	22	265
C 02075 RPR	DOM	ED		1	2	30	21S	27E			572646	3591246*	100	22	78
C 02133	DOM	ED		1	3	30	21S	27E			571871	3590416*	135	29	106
C 02135	DOM	ED		1	2	30	21S	27E			572646	3591246*	115	21	94
C 02164	DOM	ED		1	1	30	21S	27E			571866	3591227*	100	35	65
C 02170	DOM	ED		3	4	28	21S	27E			575876	3590100*	253	16	237
C 02177	DOM	ED		3	4	1	19	21S	27E		572136	3592358*	445	70	375
C 02177 PLG.	DOM	ED		4	1	19	21S	27E			572237	3592459*	200		
C 02193	DOM	ED			4	32	21S	27E			574476	3588675*	55	15	40
C 02208	DOM	ED		3	3	1	30	21S	27E		571768	3590721*	150		
C 02209	DOM	ED		2	2	1	31	21S	27E		572349	3589721*	202	22	180
C 02210	DOM	ED		3	3	3	30	21S	27E		571773	3589910*	60		
C 02215	DOM	ED		3	2	1	31	21S	27E		572149	3589521*	30		
C 02217	DOM	ED			4	2	30	21S	27E		573051	3590862*	270	17	253
C 02327	DOM	ED			1	30	21S	27E			572070	3591023*	100		
C 02380	DOM	ED		3	3	4	30	21S	27E		572551	3589924*	52	20	32
C 02380	IRR	ED		3	3	4	30	21S	27E		572551	3589924*	52	20	32
C 02385	DOM	ED		1	2	2	32	21S	27E		574573	3589785*	100		
C 02399	DOM	ED		1	2	3	30	21S	27E		572146	3590525*	100	18	82
C 02447	DOM	ED		4	1	1	31	21S	27E		571975	3589511*	41	23	18
C 02462	IRR	ED		2	4	3	30	21S	27E		572348	3590116*	100		
C 02467	IRR	ED		3	3	4	30	21S	27E		572551	3589924*			
C 02471	DOM	ED		1	3	3	29	21S	27E		573359	3590171*	120	50	70
C 02526	DOM	ED		3	2	4	30	21S	27E		572952	3590354*	41	14	27
C 02530	DOM	ED		3	1	3	29	21S	27E		573355	3590373*	30	17	13
C 02554	DOM	ED			1	3	28	21S	27E		575070	3590498*	180		
C 02591	DOM	ED			1	1	30	21S	27E		571866	3591227*	130	23	107
C 02592	DOM	ED		2	1	3	29	21S	27E		573555	3590573*	150		
C 02640	DOM	ED		1	2	1	31	21S	27E		572149	3589721*	42	15	27
C 02645	DOM	ED		2	4	4	29	21S	27E		574771	3590188*	195	45	150
C 02646	DOM	ED		4	3	3	31	21S	27E		571983	3588308*	25	13	12

*UTM location was derived from PLSS - see Help

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	Sub basin	Use	County	Q Q Q						X	Y	Depth	Depth	Water
				64	16	4	Sec	Tws	Rng			Well	Water	Column
C 02673		DOM	ED	1	1	30	21S	27E	571866	3591227*	150	23	127	
C 02729		DOM	ED	2	1	3	30	21S	27E	571970	3590515*	41	27	14
C 02788		PRO	ED	1	1	1	32	21S	27E	573360	3589769*	30	15	15
C 02831		DOM	ED	2	4	4	29	21S	27E	574771	3590188*	120		
C 02837		DOM	ED	2	4	4	29	21S	27E	574771	3590188*	179	155	24
C 02839		DOM	ED	2	4	1	30	21S	27E	572344	3590934*	200		
C 02900		DOM	ED	2	2	2	31	21S	27E	573155	3589750*	95		
C 02907		DOM	ED	1	2	3	30	21S	27E	572146	3590525*	52	14	38
C 02908		MUL	ED	4	4	4	19	21S	27E	573144	3591561*	95		
C 02917		DOM	ED	4	2	3	30	21S	27E	572346	3590325*	100		
C 02936		DOM	ED	1	2	3	30	21S	27E	572146	3590525*	150	143	7
C 02967		DOM	ED	2	4	3	29	21S	27E	573963	3590177*	95		
C 02968		DOM	ED	2	1	1	33	21S	27E	575177	3589790*	350		
C 02992		DOM	ED	3	3	2	01	21S	27E	580594	3597311*	235	186	49
C 02998		DOM	ED	1	2	2	32	21S	27E	574573	3589785*	48		
C 03018		DOM	ED	2	2	2	30	21S	27E	573147	3591361*	250		
C 03065		DOM	ED	3	4	2	30	21S	27E	572950	3590761*	47	12	35
C 03088		DOM	ED	1	4	1	30	21S	27E	572144	3590934*	200		
C 03163		STK	ED	3	1	2	06	21S	27E	572513	3597613*	440	175	265
C 03171 POD1		DOM	ED	3	2	3	29	21S	27E	573759	3590379*	100	31	69
C 03268 POD1		STK	ED	4	2	4	01	21S	27E	581201	3596915*	48		
C 03292 POD1		STK	ED	4	3	4	06	21S	27E	572716	3596407*	500		
C 03335 POD1		DOM	ED	4	1	3	29	21S	27E	573555	3590373*	225	31	194
C 03419 POD1		DOM	ED	4	3	3	30	21S	27E	572007	3589955	160	130	30

Average Depth to Water: 36 feet

Minimum Depth: 5 feet

Maximum Depth: 350 feet

Record Count: 277

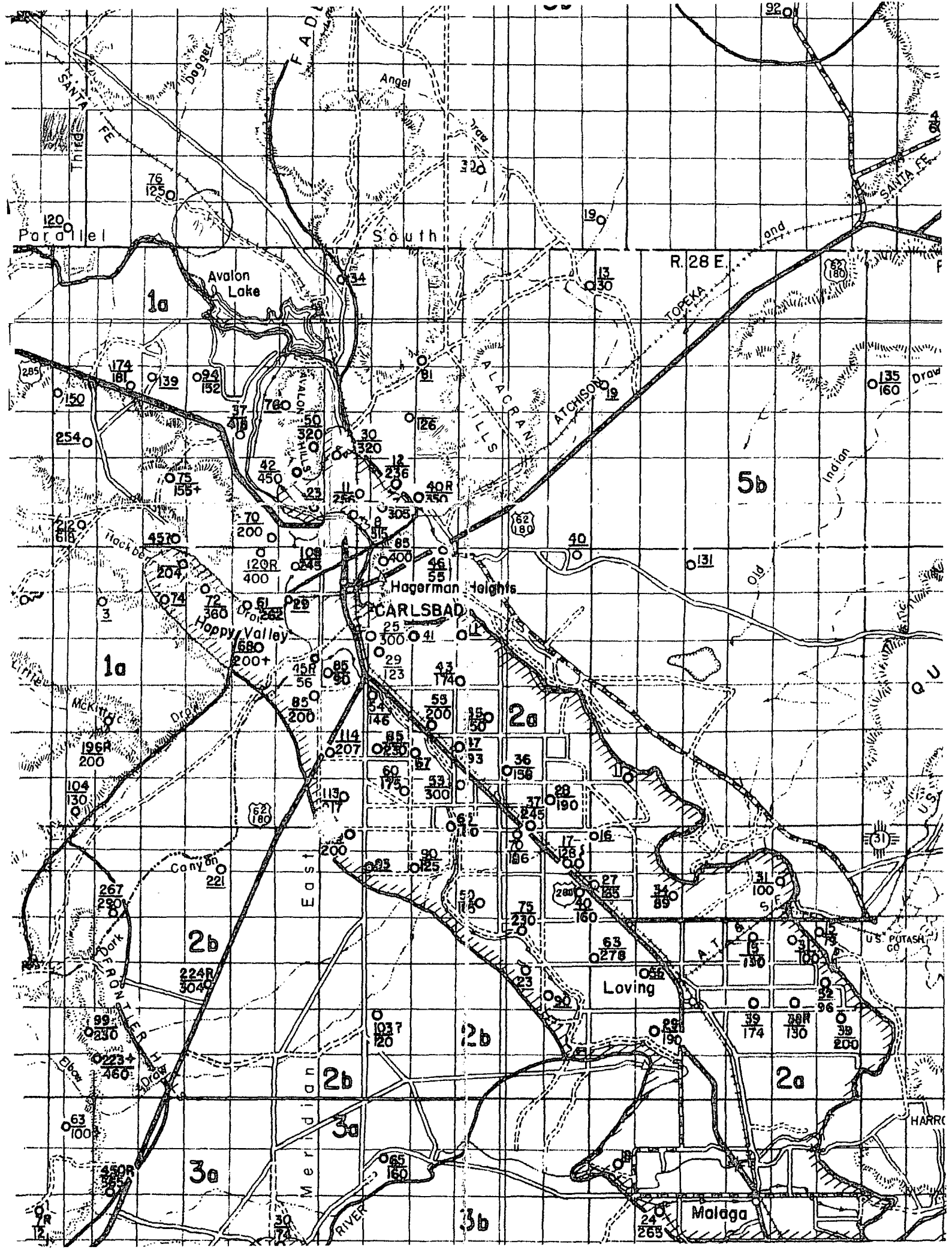
PLSS Search:

Township: 21S

Range: 27E

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



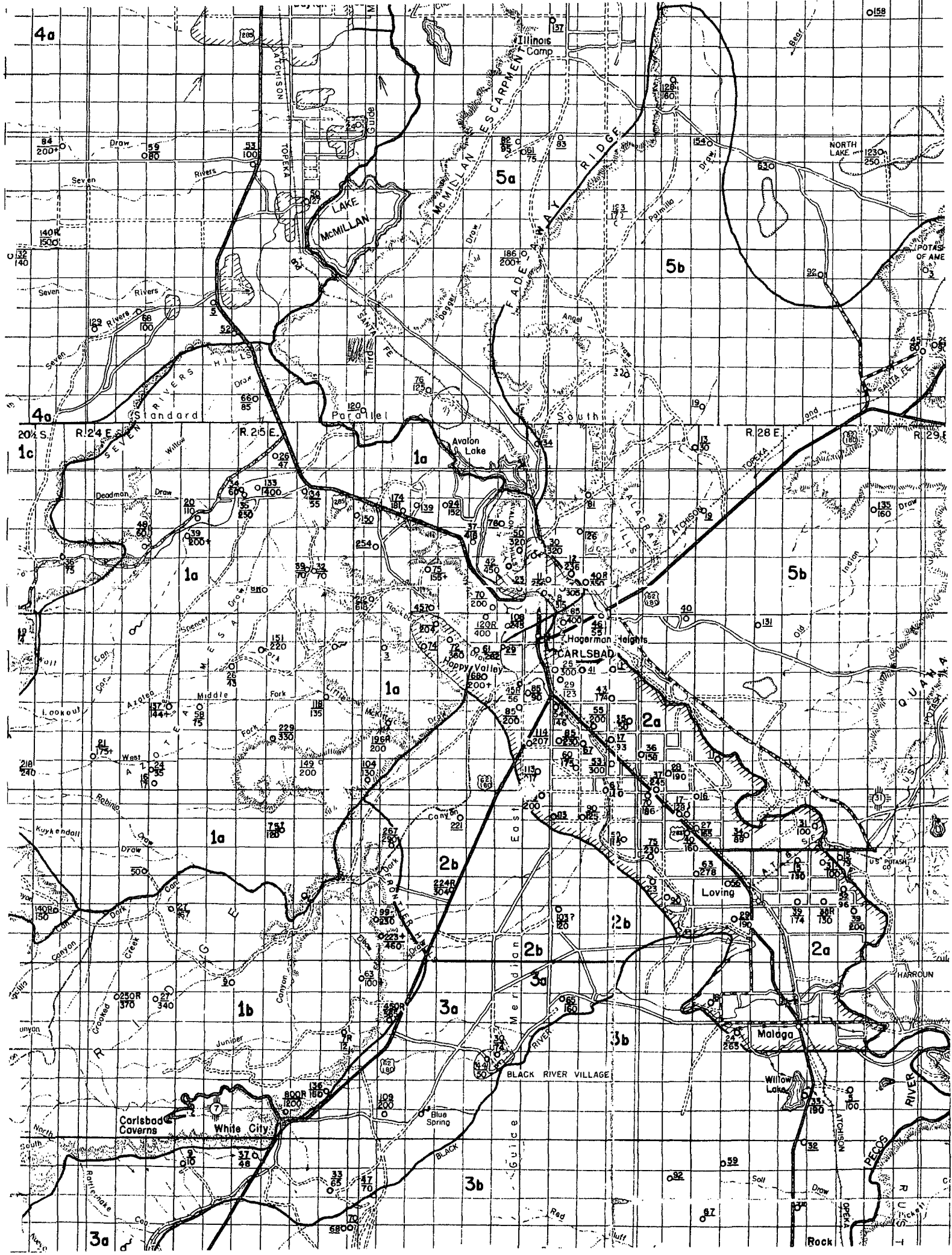


TABLE 1. RECORDS OF WELLS IN EDDY COUNTY, NEW MEXICO. (Continued)

LOCATION NUMBER	OWNER OR NAME	DATE COM- PLETED	TOPOGRAPHIC SITUATION	ALTITUDE ABOVE SEA LEVEL (feet)	DEPTH OF WELL (feet)	DIAMETER OF WELL (inches)	PRINCIPAL WATER-BEARING BED	
							CHARACTER OF MATERIAL	GEOLOGIC UNIT
21.26.31.243	Bobbit	—	Happy Valley	3,305	250	6	Limestone	Carlsbad
33.441	—	—	do.	3,240	—	6 (?)	Alluvium (?)	Quaternary (?)
35.122	E. M. Hoose	1932	Hillside	3,190	87.5	—	Limestone	Carlsbad
35.223	U. S. Govt. (?)	—	Terrace	3,150	146	8	Conglomerate or limestone	Quaternary or Carlsbad
35.343	C. F. Montgomery	—	above river E. edge Ocotilla Hills	3,250	200	6	Limestone	Carlsbad
35.441	Blake Spruill	1943	Terrace	3,175	200	12	do.	do.
36.212	—	—	Lakewood Terrace	3,122	—	12	—	—
21.27.1.420	Dinwitty	—	Draw	3,180	30	6	Redbeds and gypsum, or sand	Rustler or Quaternary
6.140	—	—	Gentle S. W. slope	3,190	—	—	Limestone (?)	Carlsbad (?)
9.330	—	—	Shallow depression	3,220	—	6	Alluvium (?)	Quaternary (?)
19.334	F. R. Dickson	—	Edge of terrace	3,136	320	—	Limestone	Carlsbad

See explanation at beginning of table.

LOCATION NUMBER	WATER LEVEL		YIELD (g.p.m.)	METHOD OF LIFT	USE OF WATER	REMARKS
	BELOW LAND SURFACE (feet)	DATE OF MEASUREMENT				
21.26.31.243	194.0	Nov. 21, 1949	—	W	S	See analysis, Table 3.
33.441	45	do.	—	W	S	
35.122	78.3	Dec. 15, 1947	3 E.	W	D & S	Abandoned. See analysis, Table 3. Sulfur taste. See analysis, Table 3. Supplies 55 families. See analysis, Table 3.
35.223	52.9	Jan. 23, 1950	—	N	N	
35.343	135.5	May 22, 1949	1	W	S	
35.441	70.0	Oct. 7, 1948	300	T	P	
36.212	23.0	Jan. 6, 1948	—	T	I	Depth to water measured while pump- ing.
21.27.1.420	12.7	Dec. 27, 1948	1 E.	W	S	
6.140	34.1	Sept. 3, 1948	—	W	S	See analysis, Table 3.
9.330	81.4	Jan. 25, 1950	2 E.	W	S	
19.334	30.1	Oct. 10, 1947	1,200 R.	T	I	

See explanation at beginning of table.

TABLE 1. RECORDS OF WELLS IN EDDY COUNTY, NEW MEXICO. (Continued)

LOCATION NUMBER	OWNER OR NAME	DATE COM- PLETED	TOPOGRAPHIC SITUATION	ALTITUDE ABOVE SEA LEVEL (feet)	DEPTH OF WELL (feet)	DIAMETER OF WELL (inches)	PRINCIPAL WATER-BEARING BED	
							CHARACTER OF MATERIAL	GEOLOGIC UNIT
21.27.20.220	W. W. Simpson	1942	—	3,210	126	—	Redbeds, gypsum	Rustler (?)
28.331	—	1947	Hillside	3,150	350	16	Limestone	Carlsbad
29.311	T. Ives	—	Lakewood Terrace	3,112	236	16	Redbeds, gypsum	Rustler (?)
29.321	do.	—	do.	3,115	269	4 (?)	Limestone	Carlsbad (?)
29.331	P. H. Wailes	—	do.	3,110	268	5	do.	Carlsbad
29.343	O'Chesky	—	do.	3,109	—	18	Alluvium (?)	Quaternary (?)
29.423	Simpson	1916	Top Hill	3,150	150	6	Redbeds and gypsum	Rustler (?)
29.434	O'Chesky	1947	Terrace	3,120	324	8	Limestone (?)	Carlsbad (?)
30.341	H. H. Brahn	—	do.	3,117	—	12	—	—
30.431	C. S. McCasland	—	—	3,115	186	8	Limestone	Carlsbad
30.440	T. Ives	1947	Terrace	3,113	76	16	Alluvium	Quaternary

See explanation at beginning of table.

LOCATION NUMBER	WATER LEVEL		YIELD (g.p.m.)	METHOD OF LIFT	USE OF WATER	REMARKS
	BELOW LAND SURFACE (feet)	DATE OF MEASUREMENT				
21.27.20.220	—	—	—	W (?)	S	Sulfate water at 80 ft., better water at 126 ft.
28.331	40	—	—	T	D, S, & I	Limestone at 25 ft., water at 350 ft. Driller: Brennenstool.
29.311	11.5	Jan. 6, 1948	—	N	I	
29.321	7.5	Oct. 15, 1947	—	T	D, S, & I	
29.331	1.1	Feb. 6, 1947	—	G	D & I	From surface to 229 ft. in caving red- beds, limestone 229-268 ft.
29.343	13.7	Oct. 13, 1947	—	C	S & I	
29.423	41.3	Nov. 15, 1949	—	N	S	Water at 40 ft., 80 ft., and 120 ft.
29.434	19.8	Oct. 13, 1947	400 R.	C	S & I	Driller: Frank Gentry.
30.341	16.0	Oct. 10, 1947	—	T	D, S, & I	
30.431	7.0	—	1,000 R.	C	I	Redbeds at 55 ft., limestone at 160 ft. Cased to 135 ft.
30.440	14.7	Oct. 20, 1947	—	N	—	Driller: Spencer.

See explanation at beginning of table.

TABLE 1. RECORDS OF WELLS IN EDDY COUNTY, NEW MEXICO. (Continued)

LOCATION NUMBER	OWNER OR NAME	DATE COM- PLETED	TOPOGRAPHIC SITUATION	ALTITUDE ABOVE SEA LEVEL (feet)	DEPTH OF WELL (feet)	DIAMETER OF WELL (inches)	PRINCIPAL WATER-BEARING BED	
							CHARACTER OF MATERIAL	GEOLOGIC UNIT
21.27.30.442	T. Ives	1941	Terrace	3,115	256	7	Limestone	Carlsbad
30.442a	J. F. Lumsford	1947	do.	3,115	68	12	Alluvium	Quaternary
30.443	G. Wiley	1942 (?)	do.	3,115	—	16	Alluvium (?)	Quaternary (?)
31.111	J. Stagner	—	do.	3,115	—	9	Limestone (?)	Carlsbad
31.130	—	—	do.	3,120	150 (?)	10 (?)	Alluvium (?)	Quaternary (?)
31.211	G. A. Blitch	—	do.	3,115	220	9	Limestone (?)	Carlsbad (?)
31.212	Int. Potash Co.	—	do.	3,120	250	5 3/16	Limestone	Carlsbad
31.212a	do.	1947	do.	3,120	315	18	do.	do.
31.212b	do.	1947 (?)	do.	3,120	315	18	do.	do.
31.214	Denhoff	—	do.	3,112	—	8	Alluvium (?)	Quaternary (?)
32.111	L. E. Loman	—	do.	3,113	70	12	Alluvium	Quaternary
32.112	do.	1947	do.	3,112	305	6	Limestone	Carlsbad
32.112a	S. Tracy	1949	do.	3,112	105	15	Alluvium	Quaternary
21.28.18.130	Bybee	—	Lone Tree draw	3,150	—	7	Alluvium (?)	Quaternary (?)
21.29.3.120	Wayne Cowden	—	—	3,380	302	6	Redbeds (?)	Dockum

See explanation at beginning of table.

LOCATION NUMBER	WATER LEVEL		YIELD (g.p.m.)	METHOD OF LIFT	USE OF WATER	REMARKS
	BELOW LAND SURFACE (feet)	DATE OF MEASUREMENT				
21.27.30.442	10.7	Oct. 20, 1947	—	C	D	Driller: Spencer.
30.442a	15.0	Oct. 10, 1947	—	C	—	
30.443	15.5	do.	—	C	I	
31.111	8.4	Oct. 20, 1947	—	C	I	
31.130	22.7	Nov. 14, 1949	—	T	I	
31.211	11.0	Oct. 10, 1947	—	C	D & I	South well of two. North well of two.
31.212	10.4	Oct. 9, 1947	—	C	D & I	
31.212a	7.6	Jan. 17, 1950	1,000 R.	T	PR	
31.212b	—	—	1,000 R.	T	PR	
31.214	15.8	Oct. 10, 1947	—	C	I	
32.111	13.7	Oct. 13, 1947	—	C	I	No limestone encountered. Driller: Gentry. See analysis, Table 3. Cased to 37 ft.
32.112	7.5	do.	180 R.	C	D & I	
32.112a	15.0	Jan. 24, 1950	—	T	I	
21.28.18.130	18.9	Jan. 21, 1950	—	W	S	
21.29.3.120	210+	Dec. 23, 1948	—	W	S	

See explanation at beginning of table.

APPENDIX C
LABORATORY ANALYTICAL



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019

HUB: 1752439743100-86536
NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

Lubbock: T104704219-08-TX
LELAP-02003
Kansas E-10317

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

Ike Tavaréz
Tetra Tech
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: November 23, 2009

Work Order: 9111609



Project Location: Eddy Co., NM
Project Name: Basic Myrtle Myra SWD
Project Number: 114-6400359

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
214958	AH-1 0-1'	soil	2009-11-11	00:00	2009-11-13
214959	AH-1 1'-1.5'	soil	2009-11-11	00:00	2009-11-13
214960	AH-1 2'-2.5'	soil	2009-11-11	00:00	2009-11-13
214961	AH-2 0-1'	soil	2009-11-11	00:00	2009-11-13
214962	AH-2 1'-1.5'	soil	2009-11-11	00:00	2009-11-13
214963	AH-3 0-1'	soil	2009-11-11	00:00	2009-11-13
214964	AH-3 1'-1.5'	soil	2009-11-11	00:00	2009-11-13
214965	AH-3 2'-2.5'	soil	2009-11-11	00:00	2009-11-13
214966	AH-3 3'-3.5'	soil	2009-11-11	00:00	2009-11-13
214967	AH-3 4'-4.5'	soil	2009-11-11	00:00	2009-11-13

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
214968	AH-3 5'-5.5'	soil	2009-11-11	00:00	2009-11-13
214969	AH-3 6'-6.5'	soil	2009-11-11	00:00	2009-11-13
214970	AH-3 7'-7.5'	soil	2009-11-11	00:00	2009-11-13
214971	AH-3 8'-8.5'	soil	2009-11-11	00:00	2009-11-13
214972	AH-3 9'-9.5'	soil	2009-11-11	00:00	2009-11-13
214973	AH-4 (BG) 0-1'	soil	2009-11-11	00:00	2009-11-13
214974	AH-4 (BG) 1'-1.5'	soil	2009-11-11	00:00	2009-11-13

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 23 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Basic Myrtle Myra SWD were received by TraceAnalysis, Inc. on 2009-11-13 and assigned to work order 9111609. Samples for work order 9111609 were received intact at a temperature of 8.2 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	55928	2009-11-19 at 11:00	65456	2009-11-19 at 23:56
Chloride (Titration)	SM 4500-Cl B	55853	2009-11-17 at 12:48	65378	2009-11-18 at 10:58
Chloride (Titration)	SM 4500-Cl B	55854	2009-11-17 at 12:49	65388	2009-11-18 at 14:44
Chloride (Titration)	SM 4500-Cl B	55855	2009-11-17 at 12:50	65389	2009-11-18 at 14:45
TPH DRO - NEW	Mod. 8015B	55834	2009-11-16 at 15:56	65341	2009-11-16 at 15:56
TPH DRO - NEW	Mod. 8015B	55839	2009-11-16 at 15:56	65350	2009-11-16 at 15:56
TPH GRO	S 8015B	55928	2009-11-19 at 11:00	65457	2009-11-20 at 00:23

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 9111609 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 214958 - AH-1 0-1'

Laboratory: Midland
Analysis: BTEX
QC Batch: 65456
Prep Batch: 55928

Analytical Method: S 8021B
Date Analyzed: 2009-11-19
Sample Preparation: 2009-11-19

Prep Method: S 5035
Analyzed By: AG
Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.17	mg/Kg	1	2.00	108	64.4 - 111.2
4-Bromofluorobenzene (4-BFB)		1.37	mg/Kg	1	2.00	68	43.1 - 128.4

Sample: 214958 - AH-1 0-1'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 65378
Prep Batch: 55853

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-11-18
Sample Preparation: 2009-11-17

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2300	mg/Kg	100	4.00

Sample: 214958 - AH-1 0-1'

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 65350
Prep Batch: 55839

Analytical Method: Mod. 8015B
Date Analyzed: 2009-11-16
Sample Preparation: 2009-11-16

Prep Method: N/A
Analyzed By: kg
Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Report Date: November 23, 2009
114-6400359

Work Order: 9111609
Basic Myrtle Myra SWD

Page Number: 5 of 23
Eddy Co., NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	¹	133	mg/Kg	1	100	133	70 - 130

Sample: 214958 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015B	Prep Method:	S 5035
QC Batch:	65457	Date Analyzed:	2009-11-20	Analyzed By:	AG
Prep Batch:	55928	Sample Preparation:	2009-11-19	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.19	mg/Kg	1	2.00	110	65.3 - 115
4-Bromofluorobenzene (4-BFB)		1.86	mg/Kg	1	2.00	93	61.7 - 121.1

Sample: 214959 - AH-1 1'-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	65378	Date Analyzed:	2009-11-18	Analyzed By:	AR
Prep Batch:	55853	Sample Preparation:	2009-11-17	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2890	mg/Kg	100	4.00

Sample: 214960 - AH-1 2'-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	65388	Date Analyzed:	2009-11-18	Analyzed By:	AR
Prep Batch:	55854	Sample Preparation:	2009-11-17	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2120	mg/Kg	50	4.00

¹ High surrogate recovery. Sample non-detect, result bias high.

Report Date: November 23, 2009
114-6400359

Work Order: 9111609
Basic Myrtle Myra SWD

Page Number: 6 of 23
Eddy Co., NM

Sample: 214961 - AH-2 0-1'

Laboratory: Midland
Analysis: BTEX
QC Batch: 65456
Prep Batch: 55928

Analytical Method: S 8021B
Date Analyzed: 2009-11-19
Sample Preparation: 2009-11-19

Prep Method: S 5035
Analyzed By: AG
Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.14	mg/Kg	1	2.00	107	64.4 - 111.2
4-Bromofluorobenzene (4-BFB)		1.38	mg/Kg	1	2.00	69	43.1 - 128.4

Sample: 214961 - AH-2 0-1'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 65388
Prep Batch: 55854

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-11-18
Sample Preparation: 2009-11-17

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3330	mg/Kg	100	4.00

Sample: 214961 - AH-2 0-1'

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 65350
Prep Batch: 55839

Analytical Method: Mod. 8015B
Date Analyzed: 2009-11-16
Sample Preparation: 2009-11-16

Prep Method: N/A
Analyzed By: kg
Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	²	133	mg/Kg	1	100	133	70 - 130

²High surrogate recovery. Sample non-detect, result bias high.

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Sample: 214961 - AH-2 0-1'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 65457
Prep Batch: 55928

Analytical Method: S 8015B
Date Analyzed: 2009-11-20
Sample Preparation: 2009-11-19

Prep Method: S 5035
Analyzed By: AG
Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.15	mg/Kg	1	2.00	108	65.3 - 115
4-Bromofluorobenzene (4-BFB)		1.87	mg/Kg	1	2.00	94	61.7 - 121.1

Sample: 214962 - AH-2 1'-1.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 65388
Prep Batch: 55854

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-11-18
Sample Preparation: 2009-11-17

Prep Method: N/A
Analyzed By: AR
Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1310	mg/Kg	50	4.00

Sample: 214963 - AH-3 0-1'

Laboratory: Midland
Analysis: BTEX
QC Batch: 65456
Prep Batch: 55928

Analytical Method: S 8021B
Date Analyzed: 2009-11-19
Sample Preparation: 2009-11-19

Prep Method: S 5035
Analyzed By: AG
Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.10	mg/Kg	1	2.00	105	64.4 - 111.2
4-Bromofluorobenzene (4-BFB)		1.34	mg/Kg	1	2.00	67	43.1 - 128.4

Sample: 214963 - AH-3 0-1'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 65388 Date Analyzed: 2009-11-18 Analyzed By: AR
Prep Batch: 55854 Sample Preparation: 2009-11-17 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1410	mg/Kg	100	4.00

Sample: 214963 - AH-3 0-1'

Laboratory: Midland
Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 65350 Date Analyzed: 2009-11-16 Analyzed By: kg
Prep Batch: 55839 Sample Preparation: 2009-11-16 Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	3	136	mg/Kg	1	100	136	70 - 130

Sample: 214963 - AH-3 0-1'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 65457 Date Analyzed: 2009-11-20 Analyzed By: AG
Prep Batch: 55928 Sample Preparation: 2009-11-19 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.11	mg/Kg	1	2.00	106	65.3 - 115
4-Bromofluorobenzene (4-BFB)		1.82	mg/Kg	1	2.00	91	61.7 - 121.1

³High surrogate recovery. Sample non-detect, result bias high.

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Sample: 214964 - AH-3 1'-1.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-11-18	Analyzed By:	AR
QC Batch:	65388	Sample Preparation:	2009-11-17	Prepared By:	AR
Prep Batch:	55854				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		13900	mg/Kg	100	4.00

Sample: 214965 - AH-3 2'-2.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-11-18	Analyzed By:	AR
QC Batch:	65388	Sample Preparation:	2009-11-17	Prepared By:	AR
Prep Batch:	55854				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		6340	mg/Kg	100	4.00

Sample: 214966 - AH-3 3'-3.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-11-18	Analyzed By:	AR
QC Batch:	65388	Sample Preparation:	2009-11-17	Prepared By:	AR
Prep Batch:	55854				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5700	mg/Kg	100	4.00

Sample: 214967 - AH-3 4'-4.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-11-18	Analyzed By:	AR
QC Batch:	65388	Sample Preparation:	2009-11-17	Prepared By:	AR
Prep Batch:	55854				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		4030	mg/Kg	100	4.00

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Sample: 214968 - AH-3 5'-5.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-11-18	Analyzed By:	AR
QC Batch:	65388	Sample Preparation:	2009-11-17	Prepared By:	AR
Prep Batch:	55854				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2760	mg/Kg	100	4.00

Sample: 214969 - AH-3 6'-6.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-11-18	Analyzed By:	AR
QC Batch:	65388	Sample Preparation:	2009-11-17	Prepared By:	AR
Prep Batch:	55854				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2500	mg/Kg	100	4.00

Sample: 214970 - AH-3 7'-7.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-11-18	Analyzed By:	AR
QC Batch:	65389	Sample Preparation:	2009-11-17	Prepared By:	AR
Prep Batch:	55855				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2930	mg/Kg	100	4.00

Sample: 214971 - AH-3 8'-8.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-11-18	Analyzed By:	AR
QC Batch:	65389	Sample Preparation:	2009-11-17	Prepared By:	AR
Prep Batch:	55855				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2270	mg/Kg	100	4.00

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Sample: 214972 - AH-3 9'-9.5'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 65389

Prep Batch: 55855

Analytical Method: SM 4500-Cl B

Date Analyzed: 2009-11-18

Sample Preparation: 2009-11-17

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2160	mg/Kg	50	4.00

Sample: 214973 - AH-4 (BG) 0-1'

Laboratory: Midland

Analysis: BTEX

QC Batch: 65456

Prep Batch: 55928

Analytical Method: S 8021B

Date Analyzed: 2009-11-19

Sample Preparation: 2009-11-19

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		<0.0100	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.17	mg/Kg	1	2.00	108	64.4 - 111.2
4-Bromofluorobenzene (4-BFB)		1.39	mg/Kg	1	2.00	70	43.1 - 128.4

Sample: 214973 - AH-4 (BG) 0-1'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 65389

Prep Batch: 55855

Analytical Method: SM 4500-Cl B

Date Analyzed: 2009-11-18

Sample Preparation: 2009-11-17

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

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Sample: 214973 - AH-4 (BG) 0-1'

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2009-11-16	Analyzed By:	kg
QC Batch:	65341	Sample Preparation:	2009-11-16	Prepared By:	kg
Prep Batch:	55834				

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		<50.0	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		119	mg/Kg	1	100	119	70 - 130

Sample: 214973 - AH-4 (BG) 0-1'

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2009-11-20	Analyzed By:	AG
QC Batch:	65457	Sample Preparation:	2009-11-19	Prepared By:	AG
Prep Batch:	55928				

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<1.00	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.18	mg/Kg	1	2.00	109	65.3 - 115
4-Bromofluorobenzene (4-BFB)		1.89	mg/Kg	1	2.00	94	61.7 - 121.1

Sample: 214974 - AH-4 (BG) 1'-1.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-11-18	Analyzed By:	AR
QC Batch:	65389	Sample Preparation:	2009-11-17	Prepared By:	AR
Prep Batch:	55855				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

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Method Blank (1) QC Batch: 65341

QC Batch: 65341 Date Analyzed: 2009-11-16 Analyzed By: kg
Prep Batch: 55834 QC Preparation: 2009-11-16 Prepared By: kg

Parameter	Flag	MDL Result	Units	RL
DRO		<5.86	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		116	mg/Kg	1	100	116	70 - 130

Method Blank (1) QC Batch: 65350

QC Batch: 65350 Date Analyzed: 2009-11-16 Analyzed By: kg
Prep Batch: 55839 QC Preparation: 2009-11-16 Prepared By: kg

Parameter	Flag	MDL Result	Units	RL
DRO		<5.86	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		123	mg/Kg	1	100	123	70 - 130

Method Blank (1) QC Batch: 65378

QC Batch: 65378 Date Analyzed: 2009-11-18 Analyzed By: AR
Prep Batch: 55853 QC Preparation: 2009-11-17 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 65388

QC Batch: 65388 Date Analyzed: 2009-11-18 Analyzed By: AR
Prep Batch: 55854 QC Preparation: 2009-11-17 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

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Method Blank (1) QC Batch: 65389

QC Batch: 65389 Date Analyzed: 2009-11-18 Analyzed By: AR
Prep Batch: 55855 QC Preparation: 2009-11-17 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 65456

QC Batch: 65456 Date Analyzed: 2009-11-19 Analyzed By: AG
Prep Batch: 55928 QC Preparation: 2009-11-19 Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00410	mg/Kg	0.01
Toluene		<0.00310	mg/Kg	0.01
Ethylbenzene		<0.00240	mg/Kg	0.01
Xylene		<0.00650	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.15	mg/Kg	1	2.00	108	64.9 - 122.7
4-Bromofluorobenzene (4-BFB)		1.31	mg/Kg	1	2.00	66	43.9 - 121.9

Method Blank (1) QC Batch: 65457

QC Batch: 65457 Date Analyzed: 2009-11-20 Analyzed By: AG
Prep Batch: 55928 QC Preparation: 2009-11-19 Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
GRO		<0.396	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.21	mg/Kg	1	2.00	110	66.2 - 125
4-Bromofluorobenzene (4-BFB)		1.82	mg/Kg	1	2.00	91	62 - 120.5

Laboratory Control Spike (LCS-1)

QC Batch: 65341 Date Analyzed: 2009-11-16 Analyzed By: kg
Prep Batch: 55834 QC Preparation: 2009-11-16 Prepared By: kg

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Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	234	mg/Kg	1	250	<5.86	94	57.4 - 133.4

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	238	mg/Kg	1	250	<5.86	95	57.4 - 133.4	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	112	115	mg/Kg	1	100	112	115	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 65350
Prep Batch: 55839

Date Analyzed: 2009-11-16
QC Preparation: 2009-11-16

Analyzed By: kg
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	222	mg/Kg	1	250	<5.86	89	57.4 - 133.4

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	216	mg/Kg	1	250	<5.86	86	57.4 - 133.4	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	112	115	mg/Kg	1	100	112	115	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 65378
Prep Batch: 55853

Date Analyzed: 2009-11-18
QC Preparation: 2009-11-17

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	102	mg/Kg	1	100	<2.18	102	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	100	mg/Kg	1	100	<2.18	100	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 65388
Prep Batch: 55854

Date Analyzed: 2009-11-18
QC Preparation: 2009-11-17

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.6	mg/Kg	1	100	<2.18	99	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	99.4	mg/Kg	1	100	<2.18	99	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 65389
Prep Batch: 55855

Date Analyzed: 2009-11-18
QC Preparation: 2009-11-17

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	101	mg/Kg	1	100	<2.18	101	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	100	mg/Kg	1	100	<2.18	100	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 65456
Prep Batch: 55928

Date Analyzed: 2009-11-19
QC Preparation: 2009-11-19

Analyzed By: AG
Prepared By: AG

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.92	mg/Kg	1	2.00	<0.00410	96	75.4 - 115.7
Toluene	1.90	mg/Kg	1	2.00	<0.00310	95	78.4 - 113.6
Ethylbenzene	1.86	mg/Kg	1	2.00	<0.00240	93	76 - 114.2
Xylene	5.57	mg/Kg	1	6.00	<0.00650	93	76.9 - 113.6

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.94	mg/Kg	1	2.00	<0.00410	97	75.4 - 115.7	1	20
Toluene	1.93	mg/Kg	1	2.00	<0.00310	96	78.4 - 113.6	2	20
Ethylbenzene	1.90	mg/Kg	1	2.00	<0.00240	95	76 - 114.2	2	20
Xylene	5.69	mg/Kg	1	6.00	<0.00650	95	76.9 - 113.6	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.09	2.13	mg/Kg	1	2.00	104	106	65 - 122.9
4-Bromofluorobenzene (4-BFB)	1.34	1.37	mg/Kg	1	2.00	67	68	43.8 - 124.9

Laboratory Control Spike (LCS-1)

QC Batch: 65457
Prep Batch: 55928

Date Analyzed: 2009-11-20
QC Preparation: 2009-11-19

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	14.5	mg/Kg	1	20.0	<0.396	72	52.5 - 114.3

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	14.4	mg/Kg	1	20.0	<0.396	72	52.5 - 114.3	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.17	2.16	mg/Kg	1	2.00	108	108	66.2 - 128.7
4-Bromofluorobenzene (4-BFB)	1.87	1.84	mg/Kg	1	2.00	94	92	64.1 - 127.4

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Matrix Spike (MS-1) Spiked Sample: 214975

QC Batch: 65341 Date Analyzed: 2009-11-16 Analyzed By: kg
Prep Batch: 55834 QC Preparation: 2009-11-16 Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	135	mg/Kg	1	250	<5.86	54	35.2 - 167.1

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	138	mg/Kg	1	250	<5.86	55	35.2 - 167.1	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	118	116	mg/Kg	1	100	118	116	70 - 130

Matrix Spike (MS-1) Spiked Sample: 214846

QC Batch: 65350 Date Analyzed: 2009-11-16 Analyzed By: kg
Prep Batch: 55839 QC Preparation: 2009-11-16 Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	245	mg/Kg	1	250	<5.86	98	35.2 - 167.1

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	249	mg/Kg	1	250	<5.86	100	35.2 - 167.1	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	125	124	mg/Kg	1	100	125	124	70 - 130

Matrix Spike (MS-1) Spiked Sample: 214959

QC Batch: 65378 Date Analyzed: 2009-11-18 Analyzed By: AR
Prep Batch: 55853 QC Preparation: 2009-11-17 Prepared By: AR

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114-6400359

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Basic Myrtle Myra SWD

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Eddy Co., NM

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	12800	mg/Kg	100	10000	2890	99	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	13000	mg/Kg	100	10000	2890	101	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 214969

QC Batch: 65388
Prep Batch: 55854

Date Analyzed: 2009-11-18
QC Preparation: 2009-11-17

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	12500	mg/Kg	100	10000	2500	100	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	12600	mg/Kg	100	10000	2500	101	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 214979

QC Batch: 65389
Prep Batch: 55855

Date Analyzed: 2009-11-18
QC Preparation: 2009-11-17

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	12900	mg/Kg	100	10000	2910	100	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	13000	mg/Kg	100	10000	2910	101	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 214963

QC Batch: 65456
Prep Batch: 55928

Date Analyzed: 2009-11-19
QC Preparation: 2009-11-19

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.16	mg/Kg	1	2.00	<0.00410	108	57.7 - 140.7
Toluene	2.18	mg/Kg	1	2.00	<0.00310	109	53.4 - 146.6
Ethylbenzene	2.20	mg/Kg	1	2.00	<0.00240	110	62.1 - 141.6
Xylene	6.59	mg/Kg	1	6.00	<0.00650	110	61.2 - 142.7

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	⁴ 1.29	mg/Kg	1	2.00	<0.00410	64	57.7 - 140.7	50	20
Toluene	⁵ 1.32	mg/Kg	1	2.00	<0.00310	66	53.4 - 146.6	49	20
Ethylbenzene	⁶ 1.35	mg/Kg	1	2.00	<0.00240	68	62.1 - 141.6	48	20
Xylene	⁷ 4.03	mg/Kg	1	6.00	<0.00650	67	61.2 - 142.7	48	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.15	2.15	mg/Kg	1	2	108	108	62.7 - 119.6
4-Bromofluorobenzene (4-BFB)	1.39	1.39	mg/Kg	1	2	70	70	49.6 - 136.7

Matrix Spike (MS-1) Spiked Sample: 214963

QC Batch: 65457
Prep Batch: 55928

Date Analyzed: 2009-11-20
QC Preparation: 2009-11-19

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	13.9	mg/Kg	1	20.0	<0.396	70	10 - 198.3

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	15.0	mg/Kg	1	20.0	<0.396	75	10 - 198.3	8	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.04	2.12	mg/Kg	1	2	102	106	65.5 - 123
4-Bromofluorobenzene (4-BFB)	1.91	1.93	mg/Kg	1	2	96	96	58.6 - 140

⁴MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

⁵MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

⁶MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

⁷MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

Report Date: November 23, 2009
114-6400359

Work Order: 9111609
Basic Myrtle Myra SWD

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Eddy Co., NM

Standard (CCV-2)

QC Batch: 65341 Date Analyzed: 2009-11-16 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	255	102	80 - 120	2009-11-16

Standard (CCV-3)

QC Batch: 65341 Date Analyzed: 2009-11-16 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	260	104	80 - 120	2009-11-16

Standard (CCV-2)

QC Batch: 65350 Date Analyzed: 2009-11-16 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	248	99	80 - 120	2009-11-16

Standard (CCV-3)

QC Batch: 65350 Date Analyzed: 2009-11-16 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	283	113	80 - 120	2009-11-16

Standard (ICV-1)

QC Batch: 65378 Date Analyzed: 2009-11-18 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.2	99	85 - 115	2009-11-18

Standard (CCV-1)

QC Batch: 65378

Date Analyzed: 2009-11-18

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2009-11-18

Standard (ICV-1)

QC Batch: 65388

Date Analyzed: 2009-11-18

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2009-11-18

Standard (CCV-1)

QC Batch: 65388

Date Analyzed: 2009-11-18

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.9	100	85 - 115	2009-11-18

Standard (ICV-1)

QC Batch: 65389

Date Analyzed: 2009-11-18

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.2	99	85 - 115	2009-11-18

Standard (CCV-1)

QC Batch: 65389

Date Analyzed: 2009-11-18

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2009-11-18

Standard (CCV-1)

QC Batch: 65456

Date Analyzed: 2009-11-19

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0923	92	80 - 120	2009-11-19
Toluene		mg/Kg	0.100	0.0906	91	80 - 120	2009-11-19
Ethylbenzene		mg/Kg	0.100	0.0898	90	80 - 120	2009-11-19
Xylene		mg/Kg	0.300	0.269	90	80 - 120	2009-11-19

Standard (CCV-2)

QC Batch: 65456

Date Analyzed: 2009-11-19

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0961	96	80 - 120	2009-11-19
Toluene		mg/Kg	0.100	0.0945	94	80 - 120	2009-11-19
Ethylbenzene		mg/Kg	0.100	0.0925	92	80 - 120	2009-11-19
Xylene		mg/Kg	0.300	0.274	91	80 - 120	2009-11-19

Standard (CCV-1)

QC Batch: 65457

Date Analyzed: 2009-11-20

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.955	96	80 - 120	2009-11-20

Standard (CCV-2)

QC Batch: 65457

Date Analyzed: 2009-11-20

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.921	92	80 - 120	2009-11-20

Order # 9111609

Analysis Request of Chain of Custody Record

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TETRA TECH

1910 N. Big Spring St.
Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:
Basic

SITE MANAGER:
Ike Tavaraz

PROJECT NO.:
114-L400359

PROJECT NAME:
Basic / Myrtle Myra SWD
Eddy Co, NM
SAMPLE IDENTIFICATION

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION		NUMBER OF	FILTERED (Y)	HCL	HNO3	ICE	NONE	BTEX 8021B	PH 8015	PAH 8270	RCRA Metals	TCLP Metals	TCLP Volatiles	TCLP Semi V	RCI	GC/MS Vol. I	GC/MS Semi	PCB's 8080/	Pest. 808/60	Chloride	Gamma Spec	Alpha Beta I	PLM (Asbes	Major Anion
214958	11/11		S		X	AH-1	0-1'	1				X		XX											X					
959						AH-1	1'-1.5'																							
960						AH-1	2'-2.5'																							
961						AH-2	0-1'							XX																
962						AH-2	1'-1.5'																							
963						AH-3	0-1'							XX																
964						AH-3	1'-1.5'																							
965						AH-3	2'-2.5'																							
966						AH-3	3'-3.5'																							
967						AH-3	4'-4.5'																							

RELINQUISHED BY: (Signature) <i>[Signature]</i>	Date: <i>11/12/09</i> Time: <i>1505</i>	RECEIVED BY: (Signature) <i>[Signature]</i>	Date: <i>11/12/09</i> Time: <i>1505</i>	SAMPLED BY: (Print & Initial) <i>IT/ICG</i>	Date: <i>11/11/09</i> Time: <i>1505</i>
RELINQUISHED BY: (Signature) <i>[Signature]</i>	Date: _____ Time: _____	RECEIVED BY: (Signature) _____	Date: _____ Time: _____	SAMPLE SHIPPED BY: (Circle) ☒ FEDEX ☐ BUS ☒ HAND DELIVERED ☐ UPS	AIRBILL #: _____ OTHER: _____
RELINQUISHED BY: (Signature) _____	Date: _____ Time: _____	RECEIVED BY: (Signature) _____	Date: _____ Time: _____	TETRA TECH CONTACT PERSON: <i>Ike Tavaraz</i>	
RECEIVING LABORATORY: <i>TR61</i> ADDRESS: _____ CITY: <i>Midland</i> STATE: <i>TX</i> ZIP: _____ CONTACT: _____ PHONE: _____ DATE: _____ TIME: _____				RESULTS by: _____ RUSH Charges Authorized: _____ Yes No	

SAMPLE CONDITION WHEN RECEIVED: *812°C intact*

REMARKS: *IF total TPH exceeds 100 mg/kg run deeper horizons*

Order #: 9111609

Analysis Request of Chain of Custody Record

PAGE: 2 OF: 2

**TETRA TECH**
 1910 N. Big Spring St.
 Midland, Texas 79705
 (432) 682-4559 • Fax (432) 682-3946

 ANALYSIS REQUEST
 (Circle or Specify Method No.)

CLIENT NAME:

Basic

SITE MANAGER:

Ike Tovar

PROJECT NO.:

114-6400359

PROJECT NAME:

 Basic / Myrtle M. ra SWD
 Eddy Co, NM
 SAMPLE IDENTIFICATION
LAB I.D.
NUMBERDATE
2009

TIME

MATRIX

COMP

GRAB

214968

11/1

S

X

AH-3

5'-5.5'

969

AH-3

6'-6.5'

970

AH-3

7'-7.5'

971

AH-3

8'-8.5'

972

AH-3

9'-9.5'

973

AH-4 (BG)

0-1'

974

AH-4 (BG)

1'-1.5'



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 119 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lah@traceanalysis.com

Certifications

WBENC: 237019

HUB: 1752439743100-86536
NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

Lubbock: T104704219-08-TX
LELAP-02003
Kansas E-10317

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

Ike Tavaréz
Tetra Tech
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: January 4, 2010

Work Order: 9122313



Project Location: Eddy Co., NM
Project Name: Basic Myrtle Myra SWD
Project Number: 114-6400359

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
218168	T-1 (2')	soil	2009-12-21	00:00	2009-12-22
218169	T-1 (3')	soil	2009-12-21	00:00	2009-12-22
218170	T-1 (4')	soil	2009-12-21	00:00	2009-12-22
218171	T-1 (5')	soil	2009-12-21	00:00	2009-12-22
218172	T-1 (6')	soil	2009-12-21	00:00	2009-12-22
218173	T-1 (8')	soil	2009-12-21	00:00	2009-12-22
218174	T-1 (10')	soil	2009-12-21	00:00	2009-12-22
218175	T-2 (2')	soil	2009-12-21	00:00	2009-12-22
218176	T-2 (3')	soil	2009-12-21	00:00	2009-12-22
218177	T-2 (4')	soil	2009-12-21	00:00	2009-12-22

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
218178	T-2 (5')	soil	2009-12-21	00:00	2009-12-22
218179	T-2 (6')	soil	2009-12-21	00:00	2009-12-22
218180	T-2 (8')	soil	2009-12-21	00:00	2009-12-22
218181	T-2 (10')	soil	2009-12-21	00:00	2009-12-22
218182	T-2 (12')	soil	2009-12-21	00:00	2009-12-22
218183	T-2 (14')	soil	2009-12-21	00:00	2009-12-22
218184	T-2 (16')	soil	2009-12-21	00:00	2009-12-22
218185	T-3 (8')	soil	2009-12-21	00:00	2009-12-22
218186	T-3 (10')	soil	2009-12-21	00:00	2009-12-22
218187	T-3 (12')	soil	2009-12-21	00:00	2009-12-22
218188	T-3 (14')	soil	2009-12-21	00:00	2009-12-22
218189	T-3 (16')	soil	2009-12-21	00:00	2009-12-22
218190	T-4 (1')	soil	2009-12-21	00:00	2009-12-22
218191	T-4 (2')	soil	2009-12-21	00:00	2009-12-22
218192	T-4 (3')	soil	2009-12-21	00:00	2009-12-22
218193	T-4 (4')	soil	2009-12-21	00:00	2009-12-22
218194	T-4 (5')	soil	2009-12-21	00:00	2009-12-22
218195	T-4 (6')	soil	2009-12-21	00:00	2009-12-22
218196	T-4 (8')	soil	2009-12-21	00:00	2009-12-22
218197	T-4 (10')	soil	2009-12-21	00:00	2009-12-22
218198	T-4 (12')	soil	2009-12-21	00:00	2009-12-22

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 17 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Basic Myrtle Myra SWD were received by TraceAnalysis, Inc. on 2009-12-22 and assigned to work order 9122313. Samples for work order 9122313 were received intact at a temperature of 3.3 deg. C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (Titration)	SM 4500-Cl B	56710	2009-12-29 at 12:34	66356	2009-12-30 at 11:03
Chloride (Titration)	SM 4500-Cl B	56711	2009-12-29 at 12:34	66357	2009-12-30 at 11:04
Chloride (Titration)	SM 4500-Cl B	56712	2009-12-29 at 12:35	66358	2009-12-30 at 11:05
Chloride (Titration)	SM 4500-Cl B	56713	2009-12-29 at 12:36	66417	2010-01-04 at 09:06

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 9122313 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 218168 - T-1 (2')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-12-30	Analyzed By:	AR
QC Batch:	66356	Sample Preparation:	2009-12-29	Prepared By:	AR
Prep Batch:	56710				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2380	mg/Kg	100	4.00

Sample: 218169 - T-1 (3')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-12-30	Analyzed By:	AR
QC Batch:	66356	Sample Preparation:	2009-12-29	Prepared By:	AR
Prep Batch:	56710				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1650	mg/Kg	50	4.00

Sample: 218170 - T-1 (4')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-12-30	Analyzed By:	AR
QC Batch:	66356	Sample Preparation:	2009-12-29	Prepared By:	AR
Prep Batch:	56710				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2420	mg/Kg	100	4.00

Sample: 218171 - T-1 (5')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-12-30	Analyzed By:	AR
QC Batch:	66356	Sample Preparation:	2009-12-29	Prepared By:	AR
Prep Batch:	56710				

Report Date: January 4, 2010
114-6400359

Work Order: 9122313
Basic Myrtle Myra SWD

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Eddy Co., NM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		4560	mg/Kg	100	4.00

Sample: 218172 - T-1 (6')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66356 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56710 Sample Preparation: 2009-12-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2010	mg/Kg	50	4.00

Sample: 218173 - T-1 (8')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66356 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56710 Sample Preparation: 2009-12-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2580	mg/Kg	100	4.00

Sample: 218174 - T-1 (10')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66356 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56710 Sample Preparation: 2009-12-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1690	mg/Kg	50	4.00

Sample: 218175 - T-2 (2')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66356 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56710 Sample Preparation: 2009-12-29 Prepared By: AR

Report Date: January 4, 2010
114-6400359

Work Order: 9122313
Basic Myrtle Myra SWD

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Eddy Co., NM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1670	mg/Kg	50	4.00

Sample: 218176 - T-2 (3')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66356 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56710 Sample Preparation: 2009-12-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2340	mg/Kg	100	4.00

Sample: 218177 - T-2 (4')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66356 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56710 Sample Preparation: 2009-12-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1080	mg/Kg	50	4.00

Sample: 218178 - T-2 (5')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66357 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56711 Sample Preparation: 2009-12-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		978	mg/Kg	50	4.00

Sample: 218179 - T-2 (6')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66357 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56711 Sample Preparation: 2009-12-29 Prepared By: AR

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Eddy Co., NM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1340	mg/Kg	50	4.00

Sample: 218180 - T-2 (8')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66357 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56711 Sample Preparation: 2009-12-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2500	mg/Kg	100	4.00

Sample: 218181 - T-2 (10')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66357 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56711 Sample Preparation: 2009-12-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2680	mg/Kg	100	4.00

Sample: 218182 - T-2 (12')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66357 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56711 Sample Preparation: 2009-12-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2660	mg/Kg	100	4.00

Sample: 218183 - T-2 (14')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66357 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56711 Sample Preparation: 2009-12-29 Prepared By: AR

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Eddy Co., NM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2370	mg/Kg	100	4.00

Sample: 218184 - T-2 (16')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66357 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56711 Sample Preparation: 2009-12-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2080	mg/Kg	100	4.00

Sample: 218185 - T-3 (8')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66357 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56711 Sample Preparation: 2009-12-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2020	mg/Kg	50	4.00

Sample: 218186 - T-3 (10')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66357 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56711 Sample Preparation: 2009-12-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2260	mg/Kg	100	4.00

Sample: 218187 - T-3 (12')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66357 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56711 Sample Preparation: 2009-12-29 Prepared By: AR

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Eddy Co., NM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		4890	mg/Kg	100	4.00

Sample: 218188 - T-3 (14')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66358 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56712 Sample Preparation: 2009-12-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3140	mg/Kg	100	4.00

Sample: 218189 - T-3 (16')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66358 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56712 Sample Preparation: 2009-12-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3870	mg/Kg	100	4.00

Sample: 218190 - T-4 (1')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66358 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56712 Sample Preparation: 2009-12-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 218191 - T-4 (2')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66358 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56712 Sample Preparation: 2009-12-29 Prepared By: AR

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Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 218192 - T-4 (3')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66358 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56712 Sample Preparation: 2009-12-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		229	mg/Kg	50	4.00

Sample: 218193 - T-4 (4')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66358 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56712 Sample Preparation: 2009-12-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		<200	mg/Kg	50	4.00

Sample: 218194 - T-4 (5')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66358 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56712 Sample Preparation: 2009-12-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		309	mg/Kg	50	4.00

Sample: 218195 - T-4 (6')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66358 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56712 Sample Preparation: 2009-12-29 Prepared By: AR

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Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		274	mg/Kg	50	4.00

Sample: 218196 - T-4 (8')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66358 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56712 Sample Preparation: 2009-12-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		229	mg/Kg	50	4.00

Sample: 218197 - T-4 (10')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66358 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56712 Sample Preparation: 2009-12-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		214	mg/Kg	50	4.00

Sample: 218198 - T-4 (12')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66417 Date Analyzed: 2010-01-04 Analyzed By: AR
Prep Batch: 56713 Sample Preparation: 2009-12-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		257	mg/Kg	50	4.00

Method Blank (1) QC Batch: 66356

QC Batch: 66356 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56710 QC Preparation: 2009-12-29 Prepared By: AR

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Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 66357

QC Batch: 66357	Date Analyzed: 2009-12-30	Analyzed By: AR
Prep Batch: 56711	QC Preparation: 2009-12-29	Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 66358

QC Batch: 66358	Date Analyzed: 2009-12-30	Analyzed By: AR
Prep Batch: 56712	QC Preparation: 2009-12-29	Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 66417

QC Batch: 66417	Date Analyzed: 2010-01-04	Analyzed By: AR
Prep Batch: 56713	QC Preparation: 2009-12-29	Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Laboratory Control Spike (LCS-1)

QC Batch: 66356	Date Analyzed: 2009-12-30	Analyzed By: AR
Prep Batch: 56710	QC Preparation: 2009-12-29	Prepared By: AR

continued ...

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control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	101	mg/Kg	1	100	<2.18	101	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	103	mg/Kg	1	100	<2.18	103	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 66357
Prep Batch: 56711

Date Analyzed: 2009-12-30
QC Preparation: 2009-12-29

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.1	mg/Kg	1	100	<2.18	98	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	98.8	mg/Kg	1	100	<2.18	99	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 66358
Prep Batch: 56712

Date Analyzed: 2009-12-30
QC Preparation: 2009-12-29

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.7	mg/Kg	1	100	<2.18	100	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	97.2	mg/Kg	1	100	<2.18	97	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Laboratory Control Spike (LCS-1)

QC Batch: 66417
Prep Batch: 56713

Date Analyzed: 2010-01-04
QC Preparation: 2009-12-29

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.8	mg/Kg	1	100	<2.18	99	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	100	mg/Kg	1	100	<2.18	100	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 218177

QC Batch: 66356
Prep Batch: 56710

Date Analyzed: 2009-12-30
QC Preparation: 2009-12-29

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	11800	mg/Kg	100	10000	1080	107	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	12000	mg/Kg	100	10000	1080	109	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 218187

QC Batch: 66357
Prep Batch: 56711

Date Analyzed: 2009-12-30
QC Preparation: 2009-12-29

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	16100	mg/Kg	100	10000	4890	112	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	15500	mg/Kg	100	10000	4890	106	85 - 115	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Matrix Spike (MS-1) Spiked Sample: 218197

QC Batch: 66358 Date Analyzed: 2009-12-30 Analyzed By: AR
Prep Batch: 56712 QC Preparation: 2009-12-29 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	9910	mg/Kg	100	10000	<218	97	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	10100	mg/Kg	100	10000	<218	99	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 218220

QC Batch: 66417 Date Analyzed: 2010-01-04 Analyzed By: AR
Prep Batch: 56713 QC Preparation: 2009-12-29 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	15900	mg/Kg	100	10000	7360	85	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	16000	mg/Kg	100	10000	7360	86	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 66356 Date Analyzed: 2009-12-30 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	95.4	95	85 - 115	2009-12-30

Standard (CCV-1)

QC Batch: 66356 Date Analyzed: 2009-12-30 Analyzed By: AR

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114-6400359

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	105	105	85 - 115	2009-12-30

Standard (ICV-1)

QC Batch: 66357 Date Analyzed: 2009-12-30 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.4	99	85 - 115	2009-12-30

Standard (CCV-1)

QC Batch: 66357 Date Analyzed: 2009-12-30 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2009-12-30

Standard (ICV-1)

QC Batch: 66358 Date Analyzed: 2009-12-30 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.4	99	85 - 115	2009-12-30

Standard (CCV-1)

QC Batch: 66358 Date Analyzed: 2009-12-30 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2009-12-30

Standard (ICV-1)

QC Batch: 66417 Date Analyzed: 2010-01-04 Analyzed By: AR

Report Date: January 4, 2010
114-6400359

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Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	103	103	85 - 115	2010-01-04

Standard (CCV-1)

QC Batch: 66417

Date Analyzed: 2010-01-04

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	97.0	97	85 - 115	2010-01-04

Order #: 9122313

Analysis Request of Chain of Custody Record

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**TETRA TECH**
 1910 N. Big Spring St.
 Midland, Texas 79705
 (432) 682-4559 • Fax (432) 682-3946

 ANALYSIS REQUEST
 (Circle or Specify Method No.)

CLIENT NAME:

Basic Energy

SITE MANAGER:

IK Tavuz

PROJECT NO.:

114-640 0359

PROJECT NAME:

Myrtle Myra SWD

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS FILTERED (Y/N)	PRESERVATIVE METHOD				BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/824	GC/MS Semi. Vol. 8270/825	PCB's 8080/608	Pest. 809/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
								HCL	HNO3	ICE	NONE																	
218168	12/21/09		S	✓		T-1 (2')	1				✓													✓				
169	12/21/09		S	✓		T-1 (3')	1				✓													✓				
170	12/21/09		S	✓		T-1 (4')	1				✓													✓				
171	12/21/09		S	✓		T-1 (5')	1				✓													✓				
172	12/21/09		S	✓		T-1 (6')	1				✓													✓				
173	12/21/09		S	✓		T-1 (8')	1				✓													✓				
174	12/21/09		S	✓		T-1 (10')	1				✓													✓				
175	12/21/09		S	✓		T-2 (2')	1				✓													✓				
176	12/21/09		S	✓		T-2 (3')	1				✓													✓				
177	12/21/09		S	✓		T-2 (4')	1				✓													✓				

RELINQUISHED BY: (Signature)

Jeffrey Kindy

Date: 12/22/09

Time: 1300

RECEIVED BY: (Signature)

Date:

Time:

SAMPLED BY: (Print & Initial)

Jeffrey Kindy (JWK)

Date: 12/22/09

Time: 1300

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

SAMPLE SHIPPED BY: (Circle)

FEDEX

BUS

AIRBILL #:

HAND DELIVERED

UPS

OTHER:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

TETRA TECH CONTACT PERSON:

Jeff Kindy / IK Tavuz

Results by:

RECEIVING LABORATORY: Trans Analysis

RECEIVED BY: (Signature)

ADDRESS:

CITY: Midland

STATE: TX

ZIP:

CONTACT:

PHONE:

DATE: 12-22-09

TIME: 13:00

SAMPLE CONDITION WHEN RECEIVED:

3.3' c intact

REMARKS:

RUSH Charges

Authorized:

Yes No

Please fill out all copies - Laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.

Order #: 9122313

Analysis Request of Chain of Custody Record

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**TETRA TECH**
 1910 N. Big Spring St.
 Midland, Texas 79705
 (432) 682-4559 • Fax (432) 682-3946

 ANALYSIS REQUEST
 (Circle or Specify Method No.)

CLIENT NAME:

Basic Energy

SITE MANAGER:

Ike Tavares

PROJECT NO.:

114-640-0359

PROJECT NAME:

Myrtle Myra SWD

LAB I.D.
NUMBER

DATE

TIME

MATRIX
COMP
GRAB

SAMPLE IDENTIFICATION

NUMBER OF CONTAINERS
FILTERED (Y/N)PRESERVATIVE
METHOD

HCL

HNO3

ICE

NONE

BTX 8021B

TPH 8015 MOD. TX1005 (Ext. to C35)

PAH 8270

RCRA Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Volatiles

TCLP Semi Volatiles

PCI

GC/MS Vol. 8240/8260/624

GC/MS Semi. Vol. 8270/625

PCB's 8080/608

Pest. 808/608

Chloride

Gamma Spec.

Alpha Beta (Air)

PLM (Asbestos)

Major Anions/Cations, pH, TDS

21878 12/21/09 S ✓ T-2 (5')

179 12/21/09 S ✓ T-2 (6')

180 12/21/09 S ✓ T-2 (8')

181 12/21/09 S ✓ T-2 (10')

182 12/21/09 S ✓ T-2 (12')

183 12/21/09 S ✓ T-2 (14')

184 12/21/09 S ✓ T-2 (16')

185 12/21/09 S ✓ T-3 (8')

186 12/21/09 S ✓ T-3 (10')

187 12/21/09 S ✓ T-3 (12')

RELINQUISHED BY: (Signature)

Jeffery Kindy

Date: 12/22/09

Time: 1300

RECEIVED BY: (Signature)

Jeffery Kindy

Date: 12/22/09

Time: 1300

SAMPLED BY: (Print & Initial)

Jeffery Kindy JWK

Date: 12/22/09

Time: 1300

RELINQUISHED BY: (Signature)

Date: 12/22/09

Time: 1300

RECEIVED BY: (Signature)

Jeffery Kindy

Date: 12/22/09

Time: 1300

SAMPLE SHIPPED BY: (Circle)

FEDEX

BUS

AIRBILL #:

HAND DELIVERED

UPS

OTHER:

RELINQUISHED BY: (Signature)

Date: 12/22/09

Time: 1300

RECEIVED BY: (Signature)

Jeffery Kindy

Date: 12/22/09

Time: 1300

TETRA TECH CONTACT PERSON:

Jeffery Kindy / Ike Tavares

Results by:

RUSH Charges Authorized:

Yes No

RECEIVING LABORATORY:

ADDRESS:

CITY: Midland

STATE: TX

ZIP:

CONTACT:

PHONE:

RECEIVED BY: (Signature)

Jeffery Kindy

DATE: 12-22-09

TIME: 13:00

SAMPLE CONDITION WHEN RECEIVED:

3.3 c water

REMARKS:

Please fill out all copies - Laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1298
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019

HUB: 1752439743100-86536
NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

Lubbock: T104704219-08-TX
LELAP-02003
Kansas E-10317

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

Ike Tavaréz
Tetra Tech
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: April 1, 2010

Work Order: 10032908



Project Location: Eddy Co., NM
Project Name: Basic Myrtle Myra SWD
Project Number: 114-6400359

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
226819	BH-1 (15')	soil	2010-03-25	00:00	2010-03-26
226820	BH-1 (20')	soil	2010-03-25	00:00	2010-03-26
226821	BH-1 (25')	soil	2010-03-25	00:00	2010-03-26
226822	BH-2 (20')	soil	2010-03-25	00:00	2010-03-26
226823	BH-2 (25')	soil	2010-03-25	00:00	2010-03-26
226824	BH-2 (30')	soil	2010-03-25	00:00	2010-03-26
226825	BH-2 (35')	soil	2010-03-25	00:00	2010-03-26
226826	BH-3 (20')	soil	2010-03-25	00:00	2010-03-26
226827	BH-3 (25')	soil	2010-03-25	00:00	2010-03-26
226828	BH-3 (30')	soil	2010-03-25	00:00	2010-03-26

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
226829	BH-3 (35')	soil	2010-03-25	00:00	2010-03-26
226830	BH-3 (40')	soil	2010-03-25	00:00	2010-03-26

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 9 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Basic Myrtle Myra SWD were received by TraceAnalysis, Inc. on 2010-03-26 and assigned to work order 10032908. Samples for work order 10032908 were received intact at a temperature of 21.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (Titration)	SM 4500-Cl B	58758	2010-03-29 at 11:23	68697	2010-03-30 at 11:32
Chloride (Titration)	SM 4500-Cl B	58759	2010-03-29 at 11:24	68747	2010-03-31 at 14:21

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 10032908 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: April 1, 2010
114-6400359

Work Order: 10032908
Basic Myrtle Myra SWD

Page Number: 4 of 9
Eddy Co., NM

Analytical Report

Sample: 226819 - BH-1 (15')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-03-30	Analyzed By:	AR
QC Batch:	68697	Sample Preparation:	2010-03-29	Prepared By:	AR
Prep Batch:	58758				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		392	mg/Kg	50	4.00

Sample: 226820 - BH-1 (20')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-03-30	Analyzed By:	AR
QC Batch:	68697	Sample Preparation:	2010-03-29	Prepared By:	AR
Prep Batch:	58758				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		504	mg/Kg	50	4.00

Sample: 226821 - BH-1 (25')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-03-30	Analyzed By:	AR
QC Batch:	68697	Sample Preparation:	2010-03-29	Prepared By:	AR
Prep Batch:	58758				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		214	mg/Kg	50	4.00

Sample: 226822 - BH-2 (20')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-03-30	Analyzed By:	AR
QC Batch:	68697	Sample Preparation:	2010-03-29	Prepared By:	AR
Prep Batch:	58758				

Report Date: April 1, 2010
114-6400359

Work Order: 10032908
Basic Myrtle Myra SWD

Page Number: 5 of 9
Eddy Co., NM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		571	mg/Kg	50	4.00

Sample: 226823 - BH-2 (25')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 68697 Date Analyzed: 2010-03-30 Analyzed By: AR
Prep Batch: 58758 Sample Preparation: 2010-03-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1160	mg/Kg	50	4.00

Sample: 226824 - BH-2 (30')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 68697 Date Analyzed: 2010-03-30 Analyzed By: AR
Prep Batch: 58758 Sample Preparation: 2010-03-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		239	mg/Kg	50	4.00

Sample: 226825 - BH-2 (35')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 68697 Date Analyzed: 2010-03-30 Analyzed By: AR
Prep Batch: 58758 Sample Preparation: 2010-03-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		219	mg/Kg	50	4.00

Sample: 226826 - BH-3 (20')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 68697 Date Analyzed: 2010-03-30 Analyzed By: AR
Prep Batch: 58758 Sample Preparation: 2010-03-29 Prepared By: AR

Report Date: April 1, 2010
114-6400359

Work Order: 10032908
Basic Myrtle Myra SWD

Page Number: 6 of 9
Eddy Co., NM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2340	mg/Kg	100	4.00

Sample: 226827 - BH-3 (25')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 68697 Date Analyzed: 2010-03-30 Analyzed By: AR
Prep Batch: 58758 Sample Preparation: 2010-03-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		968	mg/Kg	50	4.00

Sample: 226828 - BH-3 (30')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 68747 Date Analyzed: 2010-03-31 Analyzed By: AR
Prep Batch: 58759 Sample Preparation: 2010-03-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2620	mg/Kg	100	4.00

Sample: 226829 - BH-3 (35')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 68747 Date Analyzed: 2010-03-31 Analyzed By: AR
Prep Batch: 58759 Sample Preparation: 2010-03-29 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1750	mg/Kg	50	4.00

Sample: 226830 - BH-3 (40')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 68747 Date Analyzed: 2010-03-31 Analyzed By: AR
Prep Batch: 58759 Sample Preparation: 2010-03-29 Prepared By: AR

Report Date: April 1, 2010
114-6400359

Work Order: 10032908
Basic Myrtle Myra SWD

Page Number: 7 of 9
Eddy Co., NM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2900	mg/Kg	100	4.00

Method Blank (1) QC Batch: 68697

QC Batch: 68697 Date Analyzed: 2010-03-30 Analyzed By: AR
Prep Batch: 58758 QC Preparation: 2010-03-29 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 68747

QC Batch: 68747 Date Analyzed: 2010-03-31 Analyzed By: AR
Prep Batch: 58759 QC Preparation: 2010-03-29 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Laboratory Control Spike (LCS-1)

QC Batch: 68697 Date Analyzed: 2010-03-30 Analyzed By: AR
Prep Batch: 58758 QC Preparation: 2010-03-29 Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	97.5	mg/Kg	1	100	<2.18	98	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	99.6	mg/Kg	1	100	<2.18	100	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: April 1, 2010
114-6400359

Work Order: 10032908
Basic Myrtle Myra SWD

Page Number: 8 of 9
Eddy Co., NM

Laboratory Control Spike (LCS-1)

QC Batch: 68747
Prep Batch: 58759

Date Analyzed: 2010-03-31
QC Preparation: 2010-03-29

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.0	mg/Kg	1	100	<2.18	99	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	100	mg/Kg	1	100	<2.18	100	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 226827

QC Batch: 68697
Prep Batch: 58758

Date Analyzed: 2010-03-30
QC Preparation: 2010-03-29

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	11000	mg/Kg	100	10000	968	100	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	11100	mg/Kg	100	10000	968	101	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 226841

QC Batch: 68747
Prep Batch: 58759

Date Analyzed: 2010-03-31
QC Preparation: 2010-03-29

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	11300	mg/Kg	100	10000	899	104	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	11400	mg/Kg	100	10000	899	105	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: April 1, 2010
114-6400359

Work Order: 10032908
Basic Myrtle Myra SWD

Page Number: 9 of 9
Eddy Co., NM

Standard (ICV-1)

QC Batch: 68697 Date Analyzed: 2010-03-30 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	104	104	85 - 115	2010-03-30

Standard (CCV-1)

QC Batch: 68697 Date Analyzed: 2010-03-30 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	96.0	96	85 - 115	2010-03-30

Standard (ICV-1)

QC Batch: 68747 Date Analyzed: 2010-03-31 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.5	98	85 - 115	2010-03-31

Standard (CCV-1)

QC Batch: 68747 Date Analyzed: 2010-03-31 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2010-03-31

WDA 10032908

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 2

**TETRA TECH**

1910 N. Big Spring St.

Midland, Texas 79705

(432) 682-4559 • Fax (432) 682-3946

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:

Basic Energy

SITE MANAGER:

IKE Taverney

PROJECT NO.:

114-640 0359

PROJECT NAME:

Myrtle Myra

LAB I.D.
NUMBER

DATE

TIME

MATRIX
COMP
GRAB

SAMPLE IDENTIFICATION

NUMBER OF CONTAINERS

FILTERED (Y/N)

PRESERVATIVE
METHOD

HCL

HNO3

ICE

NONE

BTEX 8021B

TPH 8015 MOD. TX1005 (Ext. to C35)

PAH 8270

RCRA Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Volatiles

TCLP Semi Volatiles

RCI

GC/MS Vol. 8240/8260/824

GC/MS Semi. Vol. 8270/825

PCB's 8080/608

Pest. 808/608

Chloride

Gamma Spec.

Alpha Beta (Air)

PLM (Asbestos)

Major Anions/Cations, pH, TDS

226819 03/25/10 S ✓ BH-1 (15')

820 03/25/10 S ✓ BH-1 (20')

821 03/25/10 S ✓ BH-1 (25')

822 03/25/10 S ✓ BH-2 (20')

823 03/25/10 S ✓ BH-2 (25')

824 03/25/10 S ✓ BH-2 (30')

825 03/25/10 S ✓ BH-2 (35')

826 03/25/10 S ✓ BH-3 (20')

827 03/25/10 S ✓ BH-3 (25')

828 03/25/10 S ✓ BH-3 (30')

RELINQUISHED BY: (Signature)

Date: March 26, 2010

Time: 1530

RECEIVED BY: (Signature)

Date: 3/26/10

Time: 1530

SAMPLED BY: (Print & Initial)

Jeff Kindy Gawk

Date: March 26, 2010

Time:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

SAMPLE SHIPPED BY: (Circle)

FEDEX BUS

AIRBILL #:

HAND DELIVERED UPS

OTHER:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

RECEIVING LABORATORY:

True Analysis

RECEIVED BY: (Signature)

ADDRESS:

CITY: Midland

STATE: TX

ZIP:

CONTACT:

PHONE:

DATE:

TIME:

SAMPLE CONDITION WHEN RECEIVED:

REMARKS:

21.0°C intact

TETRA TECH CONTACT PERSON:

Jeff Kindy

Results by:

RUSH Charges

Authorized:

Yes No

WD # 10032908

Analysis Request of Chain of Custody Record

PAGE: 2 OF: 2

**TETRA TECH**

1910 N. Big Spring St.

Midland, Texas 79705

(432) 682-4559 • Fax (432) 682-3946

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:

Basic Energy

SITE MANAGER:

J. K. TAVEL

PROJECT NO.:

114-640 0359

PROJECT NAME:

myrtle myra

LAB I.D.
NUMBER

DATE

TIME

MATRIX

COMP

GRAB

SAMPLE IDENTIFICATION

NUMBER OF CONTAINERS

FILTERED (Y/N)

PRESERVATIVE
METHOD

HCL

HNO3

ICE

NONE

BTX 8021B

TPH 8015 MOD. TX1005 (Ext. to C35)

PAH 8270

RCRA Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Metals Ag As Ba Cd Vr Pd Hg Se

TCLP Volatiles

TCLP Semi Volatiles

RCI

GC/MS Vol. 8240/8250/624

GC/MS Semi. Vol. 8270/625

PCB's 8080/608

Post 808/608

Chloride

Gamma Spec.

Alpha Beta (Air)

PLM (Asbestos)

Major Anions/Cations, pH, TDS

RELINQUISHED BY: (Signature)

Date:

March 24, 2010

RECEIVED BY: (Signature)

Date:

3/26/10

SAMPLED BY: (Print & Initial)

Date: March 24, 2010

RELINQUISHED BY: (Signature)

Date:

15:30

RECEIVED BY: (Signature)

Date:

15:30

SAMPLE SHIPPED BY: (Circle)

AIRBILL #:

RELINQUISHED BY: (Signature)

Date:

RECEIVED BY: (Signature)

Date:

FEDEX

BUS

OTHER:

RELINQUISHED BY: (Signature)

Date:

RECEIVED BY: (Signature)

Date:

HAND DELIVERED

UPS

OTHER:

RELINQUISHED BY: (Signature)

Date:

RECEIVED BY: (Signature)

Date:

TETRA TECH CONTACT PERSON:

Results by:

RECEIVING LABORATORY:

Tetra Analysis

RECEIVED BY: (Signature)

ADDRESS:

CITY: Midland

STATE: TX

ZIP:

CONTACT:

PHONE:

DATE:

TIME:

Jeff Kindley

RUSH Charges

Authorized:

Yes No

SAMPLE CONDITION WHEN RECEIVED:

REMARKS:

26.0°C intact

Please fill out all copies - Laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800•378•1296 806•794•1296 FAX 806•794•1296
200 East Sunset Road, Suite E El Paso, Texas 79922 888•588•3443 915•585•3443 FAX 915•585•4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432•689•6301 FAX 432•689•6313
6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019

HUB: 1752439743100-86536
NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

Lubbock: T104704219-08-TX
LELAP-02003
Kansas E-10317

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

Jeff Kindley
Tetra Tech
1910 N. Big Spring Street
Midland, TX, 79705

Report Date: July 2, 2010

Work Order: 10061811



Project Location: Eddy Co., NM
Project Name: Basic/Myrtle Myra SWD
Project Number: 114-6400359

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
235088	BH-3 (45')	soil	2010-06-17	00:00	2010-06-18
235089	BH-3 (50')	soil	2010-06-17	00:00	2010-06-18
235090	BH-3 (55')	soil	2010-06-17	00:00	2010-06-18
235091	BH-3 (60')	soil	2010-06-17	00:00	2010-06-18
235092	BH-3 (65')	soil	2010-06-17	00:00	2010-06-18
235093	BH-3 (70')	soil	2010-06-17	00:00	2010-06-18

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 8 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

A handwritten signature in black ink that reads "Michael Abel". The signature is written in a cursive, flowing style.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Case Narrative

Samples for project Basic/Myrtle Myra SWD were received by TraceAnalysis, Inc. on 2010-06-18 and assigned to work order 10061811. Samples for work order 10061811 were received intact at a temperature of 24.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (Titration)	SM 4500-Cl B	61036	2010-06-28 at 12:43	71386	2010-06-30 at 15:58
Chloride (Titration)	SM 4500-Cl B	61115	2010-06-30 at 14:35	71387	2010-07-01 at 12:59

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 10061811 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: July 2, 2010
114-6400359

Work Order: 10061811
Basic/Myrtle Myra SWD

Page Number: 4 of 8
Eddy Co., NM

Analytical Report

Sample: 235088 - BH-3 (45')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-06-30	Analyzed By:	AR
QC Batch:	71386	Sample Preparation:	2010-06-30	Prepared By:	AR
Prep Batch:	61036				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2580	mg/Kg	100	4.00

Sample: 235089 - BH-3 (50')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-07-01	Analyzed By:	AR
QC Batch:	71387	Sample Preparation:	2010-06-30	Prepared By:	AR
Prep Batch:	61115				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1950	mg/Kg	100	4.00

Sample: 235090 - BH-3 (55')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-07-01	Analyzed By:	AR
QC Batch:	71387	Sample Preparation:	2010-06-30	Prepared By:	AR
Prep Batch:	61115				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		679	mg/Kg	100	4.00

Sample: 235091 - BH-3 (60')

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-07-01	Analyzed By:	AR
QC Batch:	71387	Sample Preparation:	2010-06-30	Prepared By:	AR
Prep Batch:	61115				

Report Date: July 2, 2010
114-6400359

Work Order: 10061811
Basic/Myrtle Myra SWD

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Eddy Co., NM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1020	mg/Kg	100	4.00

Sample: 235092 - BH-3 (65')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 71387 Date Analyzed: 2010-07-01 Analyzed By: AR
Prep Batch: 61115 Sample Preparation: 2010-06-30 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		231	mg/Kg	50	4.00

Sample: 235093 - BH-3 (70')

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 71387 Date Analyzed: 2010-07-01 Analyzed By: AR
Prep Batch: 61115 Sample Preparation: 2010-06-30 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		391	mg/Kg	50	4.00

Method Blank (1) QC Batch: 71386

QC Batch: 71386 Date Analyzed: 2010-06-30 Analyzed By: AR
Prep Batch: 61036 QC Preparation: 2010-06-28 Prepared By: AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Method Blank (1) QC Batch: 71387

QC Batch: 71387 Date Analyzed: 2010-07-01 Analyzed By: AR
Prep Batch: 61115 QC Preparation: 2010-06-30 Prepared By: AR

Report Date: July 2, 2010
114-6400359

Work Order: 10061811
Basic/Myrtle Myra SWD

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Parameter	Flag	MDL Result	Units	RL
Chloride		<2.18	mg/Kg	4

Laboratory Control Spike (LCS-1)

QC Batch: 71386
Prep Batch: 61036

Date Analyzed: 2010-06-30
QC Preparation: 2010-06-28

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.2	mg/Kg	1	100	<2.18	99	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	102	mg/Kg	1	100	<2.18	102	85 - 115	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Laboratory Control Spike (LCS-1)

QC Batch: 71387
Prep Batch: 61115

Date Analyzed: 2010-07-01
QC Preparation: 2010-06-30

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.5	mg/Kg	1	100	<2.18	98	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	101	mg/Kg	1	100	<2.18	101	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 235088

QC Batch: 71386
Prep Batch: 61036

Date Analyzed: 2010-06-30
QC Preparation: 2010-06-28

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	13100	mg/Kg	100	10000	2580	105	85 - 115

Report Date: July 2, 2010
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Work Order: 10061811
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Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	13300	mg/Kg	100	10000	2580	107	85 - 115	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Matrix Spike (MS-1) Spiked Sample: 235925

QC Batch: 71387
Prep Batch: 61115

Date Analyzed: 2010-07-01
QC Preparation: 2010-06-30

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	25500	mg/Kg	100	10000	15800	97	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	25800	mg/Kg	100	10000	15800	100	85 - 115	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Standard (ICV-1)

QC Batch: 71386

Date Analyzed: 2010-06-30

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2010-06-30

Standard (CCV-1)

QC Batch: 71386

Date Analyzed: 2010-06-30

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.6	99	85 - 115	2010-06-30

Standard (ICV-1)

QC Batch: 71387

Date Analyzed: 2010-07-01

Analyzed By: AR

Report Date: July 2, 2010
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Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.0	99	85 - 115	2010-07-01

Standard (CCV-1)

QC Batch: 71387

Date Analyzed: 2010-07-01

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2010-07-01

Order #: 10061811

Analysis Request of Chain of Custody Record

**TETRA TECH**

1910 N. Big Spring St.

Midland, Texas 79705

(432) 682-4559 • Fax (432) 682-3946

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ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:

Basic Energy

SITE MANAGER:

Jeff Kindly

PROJECT NO.:

114-6400359

PROJECT NAME:

Myrtle Myra Saltwater Diagonal

LAB I.D.
NUMBER

DATE

TIME

MATRIX
COMP.
GRAB

SAMPLE IDENTIFICATION

NUMBER OF CONTAINERS

FILTERED (Y/N)

PRESERVATIVE
METHOD

HCL

HNO3

ICE

NONE

BTEX 8021B

TPH 8015 MOD. TX1005 (Ext. to C35)

PAH 8270

RCRA Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Metals Ag As Ba Cd Vt Pd Hg Se

TCLP Volatiles

TCLP Semi Volatiles

RCI

GC/MS Vol. 8240/8260/824

GC/MS Semi. Vol. 8270/825

PCB's 8080/608

Pest 808/608

Chloride

Gamma Spec.

Alpha Beta (Air)

PLM (Asbestos)

Major Anions/Cations, pH, TDS

RELINQUISHED BY: (Signature)

Date: 6/18/10

Time: 9:40

RECEIVED BY: (Signature)

Date: 6/18/10

Time: 9:50

SAMPLED BY: (Print & Initial)

Jeff Kindly JWK

Date: June 18, 2010

Time:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

SAMPLE SHIPPED BY: (Circle)

FEDEX BUS

HAND DELIVERED UPS

AIRBILL #:

OTHER:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

RECEIVING LABORATORY:

ADDRESS:

CITY: Midland

STATE: TX

ZIP:

CONTACT:

PHONE:

RECEIVED BY: (Signature)

DATE:

TIME:

TETRA TECH CONTACT PERSON:

Jeff Kindly

Results by:

RUSH Charges
Authorized:

Yes No

SAMPLE CONDITION WHEN RECEIVED:

REMARKS:

24.0°C intact

* All tests Midland

Please fill out all copies - Laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.