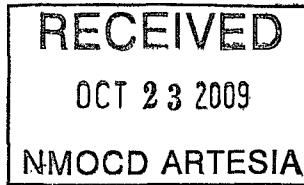




TETRA TECH



October 6, 2009

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

Re: Work Plan for the COG Operating LLC., RJU #110, Unit I, Section 27, Township 17 South, Range 29 East, Eddy County, New Mexico.

Mr. Bratcher:

Tetra Tech Inc. (Tetra Tech) was contacted by COG Operating LLC. (COG) to assess a spill from the RJU #110 located in Unit I, Section 27, Township 17 South, Range 29 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.80359°, W 104.05712°. 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 August 4, 2009. Approximately 200 barrels of produced water was released from a hole on a 2-inch injection line. The 2 inch poly line was repaired with new connections. Vacuum trucks were utilized to recover 150 barrels of standing fluids. The initial C-141 is enclosed in Appendix A.

Groundwater

No water wells were listed within Section 27. An abandoned water well was located in Section 35 and measured a total depth of 153' (dry). According to the Geology and Groundwater Resources of Eddy County, New Mexico (Report 3), one well is located in Section 22 (Bear Grass Draw) with a depth to water of 79.0' below surface. In addition, a well located in Section 29 was reported at 210 below surface. According to the NMOCD groundwater map the average depth to groundwater in this area is approximately 150' below surface. The Geology and Groundwater Resources of Eddy County, New Mexico (Report 3) well report data is shown in Appendix B.

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

Tetra Tech

1910 North Big Spring, Midland, TX 79705
Tel 432 682 4559 Fax 432 682 3946 www.tetrattech.com



TETRA TECH

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 5,000 mg/kg.

Soil Assessment and Results

On August 25, 2009, Tetra Tech personnel inspected the spill area, which measured approximately 35' x 140' along the COG pipeline and area southwest measuring approximately 35' x 50'. Prior to sampling, COG had excavated 1.0' to 2.0' of material from the site and hauled to proper disposal. In order to complete delineation of the chlorides, Tetra Tech personnel supervised the installation of ten (10) boreholes (SB-1 through SB-10) utilizing an air rotary rig. The borehole locations are shown on Figure 3.

The boreholes were extended to a maximum depth of 20 to 40 feet bgs with samples collected at 2 to 3 feet intervals for the first 10 feet and 5 feet intervals thereafter. Selected 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, none of the selected samples exceeded the TPH and BTEX RRAL. Elevated chloride concentrations were detected in all of the auger holes, with the exception of SB-4 and SB-10. The chlorides concentrations declined with depth and declined below 1,000 mg/kg at depths ranging 10.0' to 30.0' below surface.

Work Plan

Based on the results, Tetra Tech proposes to excavate the impacted soils and hauled to proper disposal. In addition, the 35' x 50' area will be capped (lined) with a 40 mil plastic liner. Once the areas are excavated to the appropriate depths, the excavation will be backfilled with clean soil. The liner will be installed at a depth of 4.0' below surface. The proposed excavation depths and liner installation areas are shown on Figure 4.

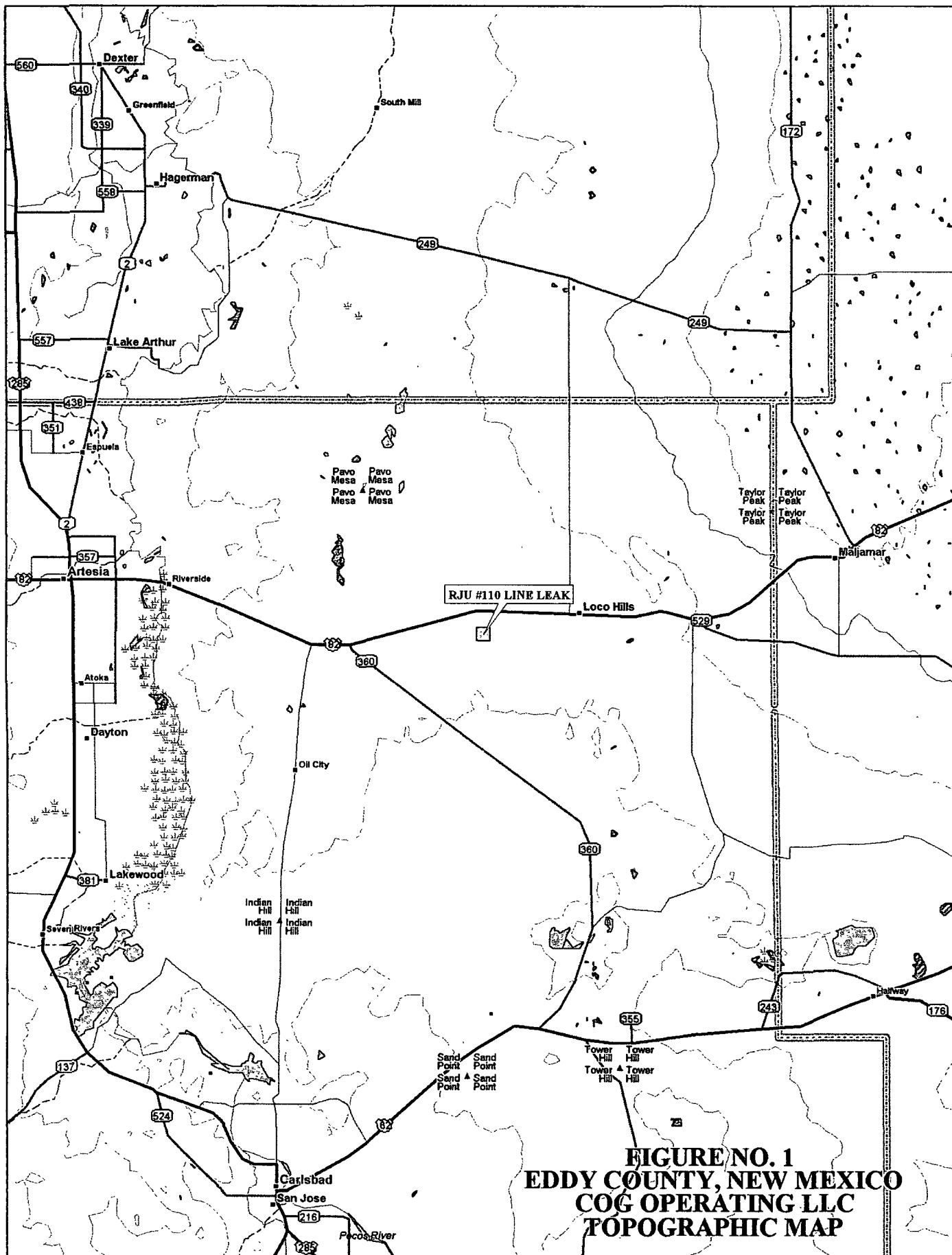
If you require any additional information or have any questions or comments concerning this work plan report, please call at (432) 682-4559.

Respectfully submitted,
TETRA TECH

Ike Tavarez, P.G.
Senior Project Manager

cc: Pat Ellis – COG

FIGURES

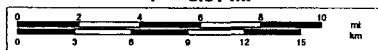


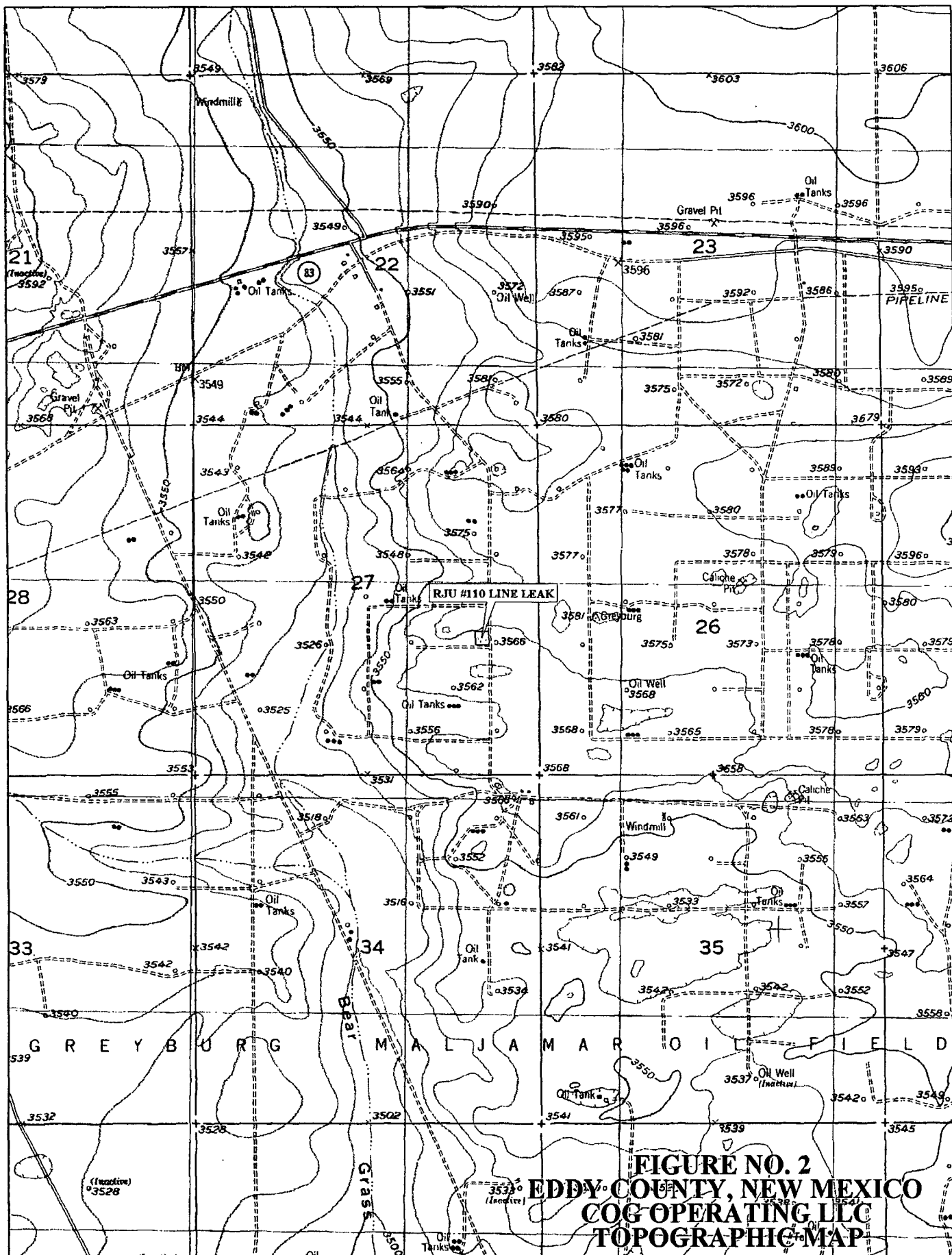
**FIGURE NO. 1
EDDY COUNTY, NEW MEXICO
COG OPERATING LLC
TOPOGRAPHIC MAP**



© 2002 DeLorme. 3-D TopoQuads ®. Data copyright of content owner.
www.delorme.com

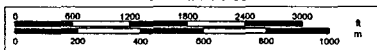
Scale 1 : 400,000
1" = 6.31 mi

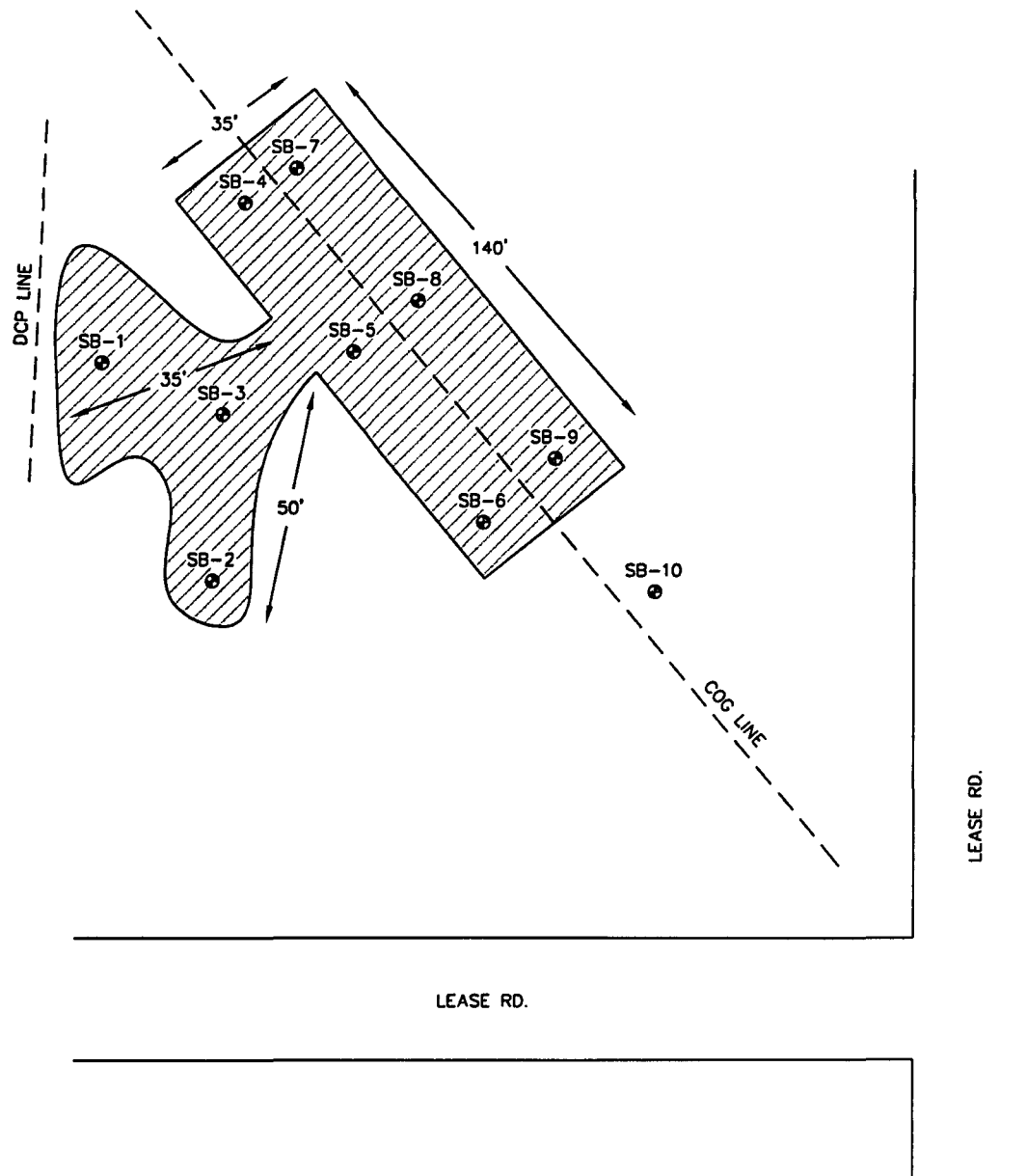




© 2002 DeLorme, 3-D TopoQuads®. Data copyright of content owner.
www.delorme.com

Scale 1 : 24,000
1" = 2000 ft





☒ SPILL AREA
☒ SAMPLE LOCATIONS

NOT TO SCALE

FIGURE NO. 3

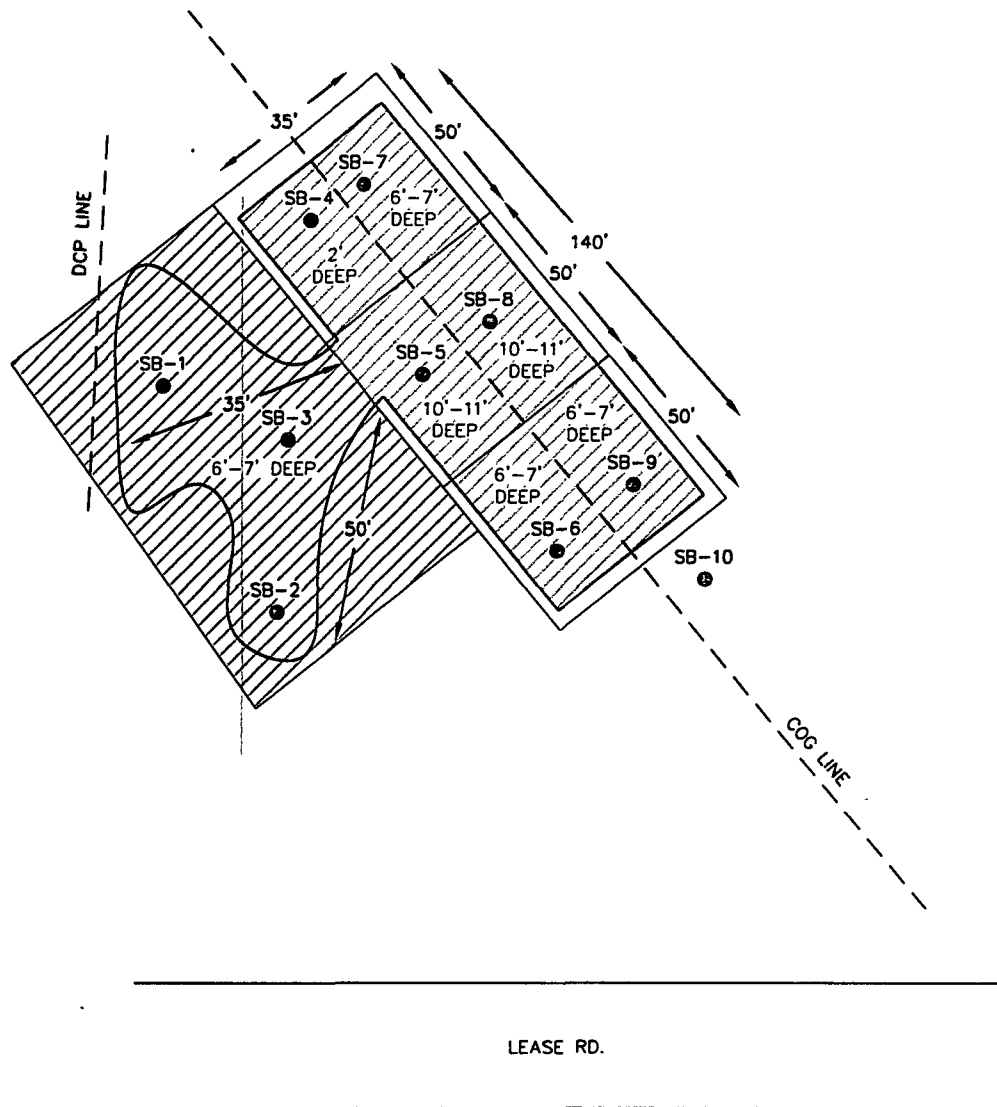
EDDY COUNTY, NEW MEXICO

COG OPERATING LLC

RJU UNIT #110

TETRA TECH, INC.
MIDLAND, TEXAS

DATE:
9/9/09
 DWN. BY:
JJ
 FILE:
H:\COG\8400278
RJU UNIT #110



- SPILL AREA
- PROPOSED EXCAVATION AREAS & DEPTHS
- PROPOSED LINER
- SAMPLE LOCATIONS

NOT TO SCALE

DATE:
9/9/09
DWN. BY:
JJ
FILE:
H:\COG\6400279
RJU UNIT #110

FIGURE NO. 4

EDDY COUNTY, NEW MEXICO

COG OPERATING LLC

RJU UNIT #110

TETRA TECH, INC.
MIDLAND, TEXAS

TABLES

Table 1
COG OPERATING LLC

[illegible]

Table 1
COG OPERATING LLC
RJU #110
Eddy County, New Mexico

[illegible]

Table 1
COG OPERATING LLC
RJU #110
Eddy County, New Mexico

Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	DRO	GRO	Total					
SB-7	8/26/2009	0-1'	X		<50.0	<1.00	<50.0	<0.0100	<0.0100	<0.0100	<0.0100	2,150
	8/26/2009	2-3'	X									2,920
	8/26/2009	4-5'	X									13,400
	8/26/2009	6-7'	X									9,280
	8/26/2009	10-11'	X									697
	8/26/2009	15-16'	X									<200
	8/26/2009	20-21'	X									201
SB-8	8/26/2009	0-1'	X		<50.0	<1.00	<50.0					<200
	8/26/2009	2-3'	X									1,310
	8/26/2009	4-5'	X									2,950
	8/26/2009	6-7'	X									7,150
	8/26/2009	10-11'	X									5,970
	8/26/2009	15-16'	X		-	-	-	-	-	-	-	1,490
	8/26/2009	20-21'	X		-	-	-	-	-	-	-	1,340
	8/26/2009	25-26'	X		-	-	-	-	-	-	-	331
	8/26/2009	30-31'	X		-	-	-	-	-	-	-	210
SB-9	8/26/2009	0-1'	X		<50.0	<1.00	<50.0	<0.0100	<0.0100	<0.0100	<0.0100	746
	8/26/2009	2-3'	X									1,440
	8/26/2009	4-5'	X									8,580
	8/26/2009	6-7'	X									7,540
	8/26/2009	10-11'	X		-	-	-	-	-	-	-	1,350
	8/26/2009	15-16'	X		-	-	-	-	-	-	-	407
	8/26/2009	20-21'	X		-	-	-	-	-	-	-	<200
SB-10	8/26/2009	0-1'	X		<50.0	<1.00	<50.0	-	-	-	-	<200
	8/26/2009	2-3'	X		-	-	-	-	-	-	-	<200
	8/26/2009	4-5'	X		-	-	-	-	-	-	-	<200
	8/26/2009	6-7'	X		-	-	-	-	-	-	-	<200
	8/26/2009	10-11'	X		-	-	-	-	-	-	-	<200
	8/26/2009	15-16'	X		-	-	-	-	-	-	-	<200
	8/26/2009	20-21'	X		-	-	-	-	-	-	-	<200

(-) Not Analyzed

 Proposed Excavation Depths
 Liner

APPENDIX A

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

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	COG OPERATING LLC	Contact	Kanicia Carrillo
Address	550 W. Texas, Suite 100 Midland, TX 79701	Telephone No.	432-685-4332
Facility Name	RJ Unit #110	Facility Type-	Battery
Surface Owner	BLM	Mineral Owner	
		Lease No.	30-015-03152

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	27	17S	29E	1980	South	660	East	Eddy

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release-Produced Water	Volume of Release-200bbls	Volume Recovered-150
Source of Release- Injection line	Date and Hour of Occurrence- 8/4/09- 4:00 pm	Date and Hour of Discovery 8/4/09-5:00pm
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bracher NMOCD District 2, Eddy Co. Terry Gregston BLM	
By Whom? Pat Ellis	Date and Hour 8/4/09 @ 5:08pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

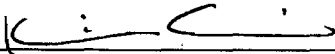
Injection line release. Picked up water and repaired injection line.

Describe Area Affected and Cleanup Action Taken.*

Release occurred in the pasture area. Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD for your approval prior to any significant remediation work.

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.

OIL CONSERVATION DIVISION

Signature: 	Approved by District Supervisor:		
Printed Name: Kanicia Carrillo			
Title: Regulatory Analyst	Approval Date:	Expiration Date:	
E-mail Address: kcarrillo@conchoresources.com	Conditions of Approval:		Attached ☐
Date: 08/05/09	Phone: 432-685-4332		

* Attach Additional Sheets If Necessary

APPENDIX B

Water Well Data
Average Depth to Groundwater (ft)
COG - RJU Unit #110
Eddy County, New Mexico

16 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	61	27	26	25
31	32	33	34	35	36

16 South			29 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
110	30	29	28	27	26
31	32	33	34	35	36

16 South			30 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

17 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	79	26	25
31	32	33	34	35	36

17 South			29 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	210	28	27	26
31	32	208'	SITE	35	36

17 South			30 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

18 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

18 South			29 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

18 South			30 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

GROUND WATER REPORT 3 PLATE 4

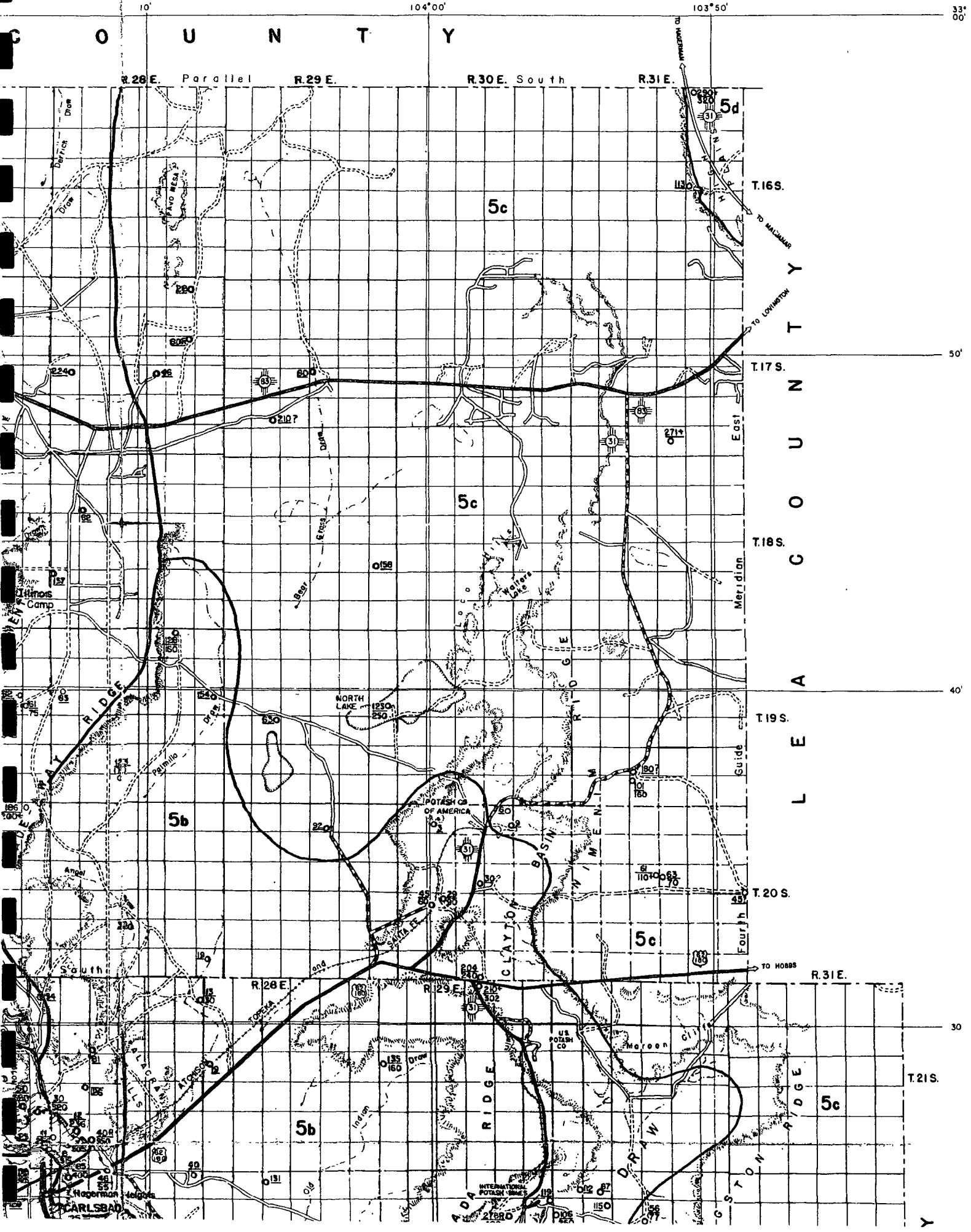


TABLE 1. RECORDS OF WELLS IN EDDY COUNTY, NEW MEXICO. (Continued)

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
17.28.2.240	Hal Bogle	-	Flat between mesas	-	-	6 (?)	Redbeds (?)	Dockum (?)
14.220	do.	-	Rolling	-	-	7	do.	do.
19.200	do.	-	do.	-	-	8	Redbeds, gypsum (?)	Chalk Bluff or Rustler
22.230	-	-	Flat between mesas	-	-	6	Redbeds (?)	Rustler or Dockum (?)
17.29.22.110	-	-	Bear Grass draw	3,550	-	6	do.	Dockum (?)
29.400	Bishop (?)	-	Flat	-	-	7	do.	do.
17.31.34.000	-	-	Rolling	-	-	6 (?)	Redbeds	Dockum
18.21.13.310	Andy Teel	1915	-	4,100	520	8	Limestone	San Andres
27.440	do.	1947	Broad valley	4,200	667	10	do.	do.
32.430	George Teel	1946	Rolling	4,300	815	6	do.	do.
18.23.6.140	Couhape Bros.	1941	S. of Rio Penasco	4,060	500	10	do.	do.
18.25.23.111	G. M. Phelps	-	Blackdom Terrace	-	-	-	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				
17.28.2.240	27.6	Dec. 1, 1948	3	W	S	Depth to water measured while pump- ing.
14.220	80	-	61	W	S & D	Driller: Cy Hinshaw. See analysis, Table 3.
19.200	224.3	Dec. 2, 1948	1.2	W	S	Depth to water measured while pump- ing.
22.230	45.5	Dec. 1, 1948	-	N	N	Abandoned stock well.
17.29.22.110	79.7	Nov. 29, 1948	3 E.	W	S	Depth to water measured while pump- ing.
29.400	210	Dec. 3, 1948	1.1	W	S	do.
17.31.34.000	271+	Dec. 6, 1948	3.5	W	S	do. See analysis, Table 3.
18.21.13.310	505	-	10 R.	W	S & D	Formerly C.C.C. well. Cased to 30 ft.
27.440	530	-	-	W	S	Cased to 120 ft.
32.430	800 (?)	-	12 R.	W	S & D	Lowered cylinder 5 ft. in 1948 because water level declined. Cased to 380 ft.
18.23.6.140	440	Jan. 12, 1950	-	W	S & D	
18.25.23.111	117.8	Jan. 1950	-	W	S	

See explanation at beginning of table.

1 Measured Dec. 3, 1948.



[USGS Home](#)
[Contact USGS](#)
[Search USGS](#)

National Water Information System: Web Interface

[USGS Water Resources](#)

Data Category:
Ground Water

Geographic Area:
New Mexico

[News](#) [New Mapper](#) and [Experimental Real-Time Web Service](#) - updated August 2009

Ground-water levels for New Mexico

Search Results -- 1 sites found

Search Criteria

site_no list = 324855104093101
Minimum number of levels = 1

[Save file of selected sites to local disk for future upload](#)

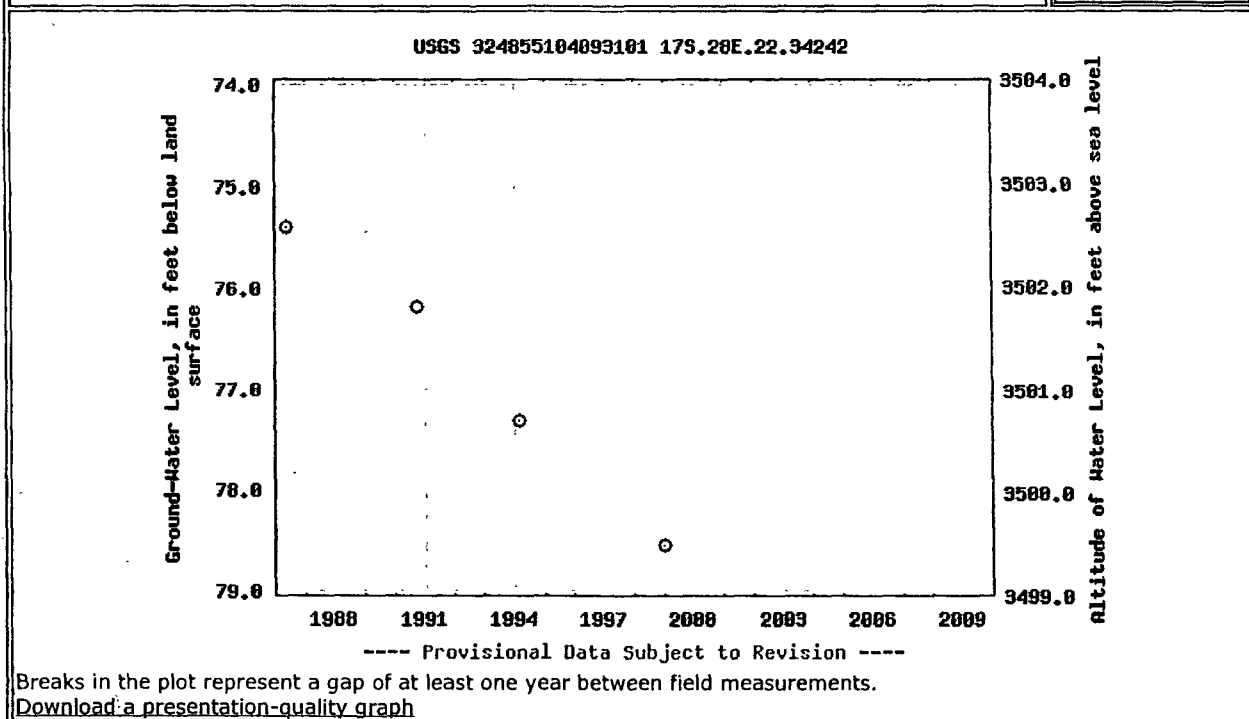
USGS 324855104093101 17S.28E.22.34242

Available data for this site Ground-water: Field measurements

Eddy County, New Mexico
Hydrologic Unit Code 13060011
Latitude 32°48'55", Longitude 104°09'31" NAD27
Land-surface elevation 3,578 feet above sea level NGVD29
The depth of the well is 95.00 feet below land surface.
This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

Output formats

[Table of data](#)
[Tab-separated data](#)
[Graph of data](#)
[Reselect period](#)



[Questions about sites/data?](#)
[Feedback on this web site](#)
[Automated retrievals](#)

[Top](#)
[Explanation of terms](#)
[Subscribe for system changes](#)
[News](#)

APPENDIX C

Summary Report

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

Report Date: September 4, 2009

Work Order: 9082731



Project Location: Eddy Co., NM
Project Name: COG/RJU #110
Project Number: 114-6400279

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
208175	SB-1 0-1'	soil	2009-08-25	00:00	2009-08-27
208176	SB-1 2-3'	soil	2009-08-25	00:00	2009-08-27
208177	SB-1 4-5'	soil	2009-08-25	00:00	2009-08-27
208178	SB-1 6-7'	soil	2009-08-25	00:00	2009-08-27
208179	SB-1 10-11'	soil	2009-08-25	00:00	2009-08-27
208180	SB-1 15-16'	soil	2009-08-25	00:00	2009-08-27
208181	SB-1 20-21'	soil	2009-08-25	00:00	2009-08-27
208182	SB-1 25-26'	soil	2009-08-25	00:00	2009-08-27
208183	SB-1 30-31'	soil	2009-08-25	00:00	2009-08-27
208184	SB-1 40-41'	soil	2009-08-25	00:00	2009-08-27
208185	SB-2 0-1'	soil	2009-08-25	00:00	2009-08-27
208186	SB-2 2-3'	soil	2009-08-25	00:00	2009-08-27
208187	SB-2 4-5'	soil	2009-08-25	00:00	2009-08-27
208188	SB-2 6-7'	soil	2009-08-25	00:00	2009-08-27
208189	SB-2 10-11'	soil	2009-08-25	00:00	2009-08-27
208190	SB-2 15-16'	soil	2009-08-25	00:00	2009-08-27
208191	SB-2 20-21'	soil	2009-08-25	00:00	2009-08-27
208192	SB-2 25-26'	soil	2009-08-25	00:00	2009-08-27
208193	SB-2 30-31'	soil	2009-08-25	00:00	2009-08-27
208194	SB-3 0-1'	soil	2009-08-25	00:00	2009-08-27
208195	SB-3 2-3'	soil	2009-08-25	00:00	2009-08-27
208196	SB-3 4-5'	soil	2009-08-25	00:00	2009-08-27
208197	SB-3 6-7'	soil	2009-08-25	00:00	2009-08-27
208198	SB-3 10-11'	soil	2009-08-25	00:00	2009-08-27
208199	SB-3 15-16'	soil	2009-08-25	00:00	2009-08-27
208200	SB-3 20-21'	soil	2009-08-25	00:00	2009-08-27
208201	SB-3 25-26'	soil	2009-08-25	00:00	2009-08-27
208202	SB-3 30-31'	soil	2009-08-25	00:00	2009-08-27
208203	SB-3 40-41'	soil	2009-08-25	00:00	2009-08-27
208204	SB-4 0-1'	soil	2009-08-25	00:00	2009-08-27

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
208205	SB-4 2-3'	soil	2009-08-25	00:00	2009-08-27
208206	SB-4 4-5'	soil	2009-08-25	00:00	2009-08-27
208207	SB-4 6-7'	soil	2009-08-25	00:00	2009-08-27
208208	SB-4 10-11'	soil	2009-08-25	00:00	2009-08-27
208209	SB-4 15-16'	soil	2009-08-25	00:00	2009-08-27
208210	SB-4 20-21'	soil	2009-08-25	00:00	2009-08-27
208211	SB-4 25-26'	soil	2009-08-25	00:00	2009-08-27
208212	SB-5 0-1'	soil	2009-08-25	00:00	2009-08-27
208213	SB-5 2-3'	soil	2009-08-25	00:00	2009-08-27
208214	SB-5 4-5'	soil	2009-08-25	00:00	2009-08-27
208215	SB-5 6-7'	soil	2009-08-25	00:00	2009-08-27
208216	SB-5 10-11'	soil	2009-08-25	00:00	2009-08-27
208217	SB-5 15-16'	soil	2009-08-25	00:00	2009-08-27
208218	SB-5 20-21'	soil	2009-08-25	00:00	2009-08-27
208219	SB-5 25-26'	soil	2009-08-25	00:00	2009-08-27
208220	SB-5 30-31'	soil	2009-08-25	00:00	2009-08-27
208221	SB-6 0-1'	soil	2009-08-25	00:00	2009-08-27
208222	SB-6 2-3'	soil	2009-08-25	00:00	2009-08-27
208223	SB-6 4-5'	soil	2009-08-25	00:00	2009-08-27
208224	SB-6 6-7'	soil	2009-08-25	00:00	2009-08-27
208225	SB-6 10-11'	soil	2009-08-25	00:00	2009-08-27
208226	SB-6 15-16'	soil	2009-08-25	00:00	2009-08-27
208227	SB-6 20-21'	soil	2009-08-25	00:00	2009-08-27
208228	SB-7 0-1'	soil	2009-08-26	00:00	2009-08-27
208229	SB-7 2-3'	soil	2009-08-26	00:00	2009-08-27
208230	SB-7 4-5'	soil	2009-08-26	00:00	2009-08-27
208231	SB-7 6-7'	soil	2009-08-26	00:00	2009-08-27
208232	SB-7 10-11'	soil	2009-08-26	00:00	2009-08-27
208233	SB-7 15-16'	soil	2009-08-26	00:00	2009-08-27
208234	SB-7 20-21'	soil	2009-08-26	00:00	2009-08-27
208235	SB-8 0-1'	soil	2009-08-26	00:00	2009-08-27
208236	SB-8 2-3'	soil	2009-08-26	00:00	2009-08-27
208237	SB-8 4-5'	soil	2009-08-26	00:00	2009-08-27
208238	SB-8 6-7'	soil	2009-08-26	00:00	2009-08-27
208239	SB-8 10-11'	soil	2009-08-26	00:00	2009-08-27
208240	SB-8 15-16'	soil	2009-08-26	00:00	2009-08-27
208241	SB-8 20-21'	soil	2009-08-26	00:00	2009-08-27
208242	SB-8 25-26'	soil	2009-08-26	00:00	2009-08-27
208243	SB-8 30-31'	soil	2009-08-26	00:00	2009-08-27
208244	SB-9 0-1'	soil	2009-08-26	00:00	2009-08-27
208245	SB-9 2-3'	soil	2009-08-26	00:00	2009-08-27
208246	SB-9 4-5'	soil	2009-08-26	00:00	2009-08-27
208247	SB-9 6-7'	soil	2009-08-26	00:00	2009-08-27
208248	SB-9 10-11'	soil	2009-08-26	00:00	2009-08-27
208249	SB-9 15-16'	soil	2009-08-26	00:00	2009-08-27
208250	SB-9 20-21'	soil	2009-08-26	00:00	2009-08-27
208251	SB-10 0-1'	soil	2009-08-26	00:00	2009-08-27
208252	SB-10 2-3'	soil	2009-08-26	00:00	2009-08-27
208253	SB-10 4-5'	soil	2009-08-26	00:00	2009-08-27

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
208254	SB-10 6-7'	soil	2009-08-26	00:00	2009-08-27
208255	SB-10 10-11'	soil	2009-08-26	00:00	2009-08-27
208256	SB-10 15-16'	soil	2009-08-26	00:00	2009-08-27
208257	SB-10 20-21'	soil	2009-08-26	00:00	2009-08-27

Sample - Field Code	BTEX				TPH DRO	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
208175 - SB-1 0-1'					<50.0	<1.00
208185 - SB-2 0-1'					<50.0	<1.00
208194 - SB-3 0-1'					<50.0	<1.00
208204 - SB-4 0-1'					<50.0	<1.00
208212 - SB-5 0-1'					<50.0	<1.00
208221 - SB-6 0-1'	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
208228 - SB-7 0-1'	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
208235 - SB-8 0-1'					<50.0	<1.00
208244 - SB-9 0-1'	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
208251 - SB-10 0-1'					<50.0	<1.00

Sample: 208175 - SB-1 0-1'

Param	Flag	Result	Units	RL
Chloride		2600	mg/Kg	4.00

Sample: 208176 - SB-1 2-3'

Param	Flag	Result	Units	RL
Chloride		621	mg/Kg	4.00

Sample: 208177 - SB-1 4-5'

Param	Flag	Result	Units	RL
Chloride		11400	mg/Kg	4.00

Sample: 208178 - SB-1 6-7'

Param	Flag	Result	Units	RL
Chloride		12200	mg/Kg	4.00

Sample: 208179 - SB-1 10-11'

Param	Flag	Result	Units	RL
Chloride		7820	mg/Kg	4.00

Sample: 208180 - SB-1 15-16'

Param	Flag	Result	Units	RL
Chloride		9340	mg/Kg	4.00

Sample: 208181 - SB-1 20-21'

Param	Flag	Result	Units	RL
Chloride		4730	mg/Kg	4.00

Sample: 208182 - SB-1 25-26'

Param	Flag	Result	Units	RL
Chloride		1470	mg/Kg	4.00

Sample: 208183 - SB-1 30-31'

Param	Flag	Result	Units	RL
Chloride		482	mg/Kg	4.00

Sample: 208184 - SB-1 40-41'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 208185 - SB-2 0-1'

Param	Flag	Result	Units	RL
Chloride		12000	mg/Kg	4.00

Sample: 208186 - SB-2 2-3'

Param	Flag	Result	Units	RL
Chloride		13700	mg/Kg	4.00

Sample: 208187 - SB-2 4-5'

Param	Flag	Result	Units	RL
Chloride		8300	mg/Kg	4.00

Sample: 208188 - SB-2 6-7'

Param	Flag	Result	Units	RL
Chloride		5720	mg/Kg	4.00

Sample: 208189 - SB-2 10-11'

Param	Flag	Result	Units	RL
Chloride		6640	mg/Kg	4.00

Sample: 208190 - SB-2 15-16'

Param	Flag	Result	Units	RL
Chloride		6180	mg/Kg	4.00

Sample: 208191 - SB-2 20-21'

Param	Flag	Result	Units	RL
Chloride		4790	mg/Kg	4.00

Sample: 208192 - SB-2 25-26'

Param	Flag	Result	Units	RL
Chloride		995	mg/Kg	4.00

Sample: 208193 - SB-2 30-31'

Param	Flag	Result	Units	RL
Chloride		528	mg/Kg	4.00

Sample: 208194 - SB-3 0-1'

Param	Flag	Result	Units	RL
Chloride		863	mg/Kg	4.00

Sample: 208195 - SB-3 2-3'

Param	Flag	Result	Units	RL
Chloride		4170	mg/Kg	4.00

Sample: 208196 - SB-3 4-5'

Param	Flag	Result	Units	RL
Chloride		10800	mg/Kg	4.00

Sample: 208197 - SB-3 6-7'

Param	Flag	Result	Units	RL
Chloride		9080	mg/Kg	4.00

Sample: 208198 - SB-3 10-11'

Param	Flag	Result	Units	RL
Chloride		7350	mg/Kg	4.00

Sample: 208199 - SB-3 15-16'

Param	Flag	Result	Units	RL
Chloride		6680	mg/Kg	4.00

Sample: 208200 - SB-3 20-21'

Param	Flag	Result	Units	RL
Chloride		3180	mg/Kg	4.00

Sample: 208201 - SB-3 25-26'

Param	Flag	Result	Units	RL
Chloride		473	mg/Kg	4.00

Sample: 208202 - SB-3 30-31'

Param	Flag	Result	Units	RL
Chloride		302	mg/Kg	4.00

Sample: 208203 - SB-3 40-41'

Param	Flag	Result	Units	RL
Chloride		216	mg/Kg	4.00

Sample: 208204 - SB-4 0-1'

Param	Flag	Result	Units	RL
Chloride		861	mg/Kg	4.00

Sample: 208205 - SB-4 2-3'

Param	Flag	Result	Units	RL
Chloride		700	mg/Kg	4.00

Sample: 208206 - SB-4 4-5'

Param	Flag	Result	Units	RL
Chloride		395	mg/Kg	4.00

Sample: 208207 - SB-4 6-7'

Param	Flag	Result	Units	RL
Chloride		479	mg/Kg	4.00

Sample: 208208 - SB-4 10-11'

Param	Flag	Result	Units	RL
Chloride		774	mg/Kg	4.00

Sample: 208209 - SB-4 15-16'

Param	Flag	Result	Units	RL
Chloride		311	mg/Kg	4.00

Sample: 208210 - SB-4 20-21'

Param	Flag	Result	Units	RL
Chloride		300	mg/Kg	4.00

Sample: 208211 - SB-4 25-26'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 208212 - SB-5 0-1'

Param	Flag	Result	Units	RL
Chloride		4990	mg/Kg	4.00

Sample: 208213 - SB-5 2-3'

Param	Flag	Result	Units	RL
Chloride		4960	mg/Kg	4.00

Sample: 208214 - SB-5 4-5'

Param	Flag	Result	Units	RL
Chloride		4730	mg/Kg	4.00

Sample: 208215 - SB-5 6-7'

Param	Flag	Result	Units	RL
Chloride		10800	mg/Kg	4.00

Sample: 208216 - SB-5 10-11'

Param	Flag	Result	Units	RL
Chloride		6130	mg/Kg	4.00

Sample: 208217 - SB-5 15-16'

Param	Flag	Result	Units	RL
Chloride		1880	mg/Kg	4.00

Sample: 208218 - SB-5 20-21'

Param	Flag	Result	Units	RL
Chloride		857	mg/Kg	4.00

Sample: 208219 - SB-5 25-26'

Param	Flag	Result	Units	RL
Chloride		315	mg/Kg	4.00

Sample: 208220 - SB-5 30-31'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 208221 - SB-6 0-1'

Param	Flag	Result	Units	RL
Chloride		6580	mg/Kg	4.00

Sample: 208222 - SB-6 2-3'

Param	Flag	Result	Units	RL
Chloride		12000	mg/Kg	4.00

Sample: 208223 - SB-6 4-5'

Param	Flag	Result	Units	RL
Chloride		3600	mg/Kg	4.00

Sample: 208224 - SB-6 6-7'

Param	Flag	Result	Units	RL
Chloride		2780	mg/Kg	4.00

Sample: 208225 - SB-6 10-11'

Param	Flag	Result	Units	RL
Chloride		1600	mg/Kg	4.00

Sample: 208226 - SB-6 15-16'

Param	Flag	Result	Units	RL
Chloride		753	mg/Kg	4.00

Sample: 208227 - SB-6 20-21'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 208228 - SB-7 0-1'

Param	Flag	Result	Units	RL
Chloride		2150	mg/Kg	4.00

Sample: 208229 - SB-7 2-3'

Param	Flag	Result	Units	RL
Chloride		2920	mg/Kg	4.00

Sample: 208230 - SB-7 4-5'

Param	Flag	Result	Units	RL
Chloride		13400	mg/Kg	4.00

Sample: 208231 - SB-7 6-7'

Param	Flag	Result	Units	RL
Chloride		9280	mg/Kg	4.00

Sample: 208232 - SB-7 10-11'

Param	Flag	Result	Units	RL
Chloride		697	mg/Kg	4.00

Sample: 208233 - SB-7 15-16'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 208234 - SB-7 20-21'

Param	Flag	Result	Units	RL
Chloride		201	mg/Kg	4.00

Sample: 208235 - SB-8 0-1'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 208236 - SB-8 2-3'

Param	Flag	Result	Units	RL
Chloride		1310	mg/Kg	4.00

Sample: 208237 - SB-8 4-5'

Param	Flag	Result	Units	RL
Chloride		2950	mg/Kg	4.00

Sample: 208238 - SB-8 6-7'

Param	Flag	Result	Units	RL
Chloride		7150	mg/Kg	4.00

Sample: 208239 - SB-8 10-11'

Param	Flag	Result	Units	RL
Chloride		5970	mg/Kg	4.00

Sample: 208240 - SB-8 15-16'

Param	Flag	Result	Units	RL
Chloride		1490	mg/Kg	4.00

Sample: 208241 - SB-8 20-21'

Param	Flag	Result	Units	RL
Chloride		1340	mg/Kg	4.00

Sample: 208242 - SB-8 25-26'

Param	Flag	Result	Units	RL
Chloride		331	mg/Kg	4.00

Sample: 208243 - SB-8 30-31'

Param	Flag	Result	Units	RL
Chloride		210	mg/Kg	4.00

Sample: 208244 - SB-9 0-1'

Param	Flag	Result	Units	RL
Chloride		746	mg/Kg	4.00

Sample: 208245 - SB-9 2-3'

Param	Flag	Result	Units	RL
Chloride		1440	mg/Kg	4.00

Sample: 208246 - SB-9 4-5'

Param	Flag	Result	Units	RL
Chloride		8580	mg/Kg	4.00

Sample: 208247 - SB-9 6-7'

Param	Flag	Result	Units	RL
Chloride		7540	mg/Kg	4.00

Sample: 208248 - SB-9 10-11'

Param	Flag	Result	Units	RL
Chloride		1350	mg/Kg	4.00

Sample: 208249 - SB-9 15-16'

Param	Flag	Result	Units	RL
Chloride		407	mg/Kg	4.00

Sample: 208250 - SB-9 20-21'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 208251 - SB-10 0-1'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 208252 - SB-10 2-3'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 208253 - SB-10 4-5'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 208254 - SB-10 6-7'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 208255 - SB-10 10-11'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 208256 - SB-10 15-16'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00

Sample: 208257 - SB-10 20-21'

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4.00



6701 Aberdeen Avenue, Suite 9
200 East Sunset Road, Suite E
5002 Basin Street, Suite A1
6015 Harris Parkway, Suite 110

Lubbock, Texas 79424
El Paso, Texas 79922
Midland, Texas 79703
Ft. Worth, Texas 76132

800•378•1296
888•588•3443

806•794•1296
915•585•3443
432•689•6301
817•201•5260

FAX 806•794•1298
FAX 915•585•4944
FAX 432•689•6313

E-Mail: lab@traceanalysis.com

Certifications

WBENC: 237019

HUB: 1752439743100-86536
NCTRCA WFVB38444Y0909

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

Report Date: September 4, 2009

Work Order: 9082731



Project Location: Eddy Co., NM
Project Name: COG/RJU #110
Project Number: 114-6400279

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
208175	SB-1 0-1'	soil	2009-08-25	00:00	2009-08-27
208176	SB-1 2-3'	soil	2009-08-25	00:00	2009-08-27
208177	SB-1 4-5'	soil	2009-08-25	00:00	2009-08-27
208178	SB-1 6-7'	soil	2009-08-25	00:00	2009-08-27
208179	SB-1 10-11'	soil	2009-08-25	00:00	2009-08-27
208180	SB-1 15-16'	soil	2009-08-25	00:00	2009-08-27
208181	SB-1 20-21'	soil	2009-08-25	00:00	2009-08-27
208182	SB-1 25-26'	soil	2009-08-25	00:00	2009-08-27
208183	SB-1 30-31'	soil	2009-08-25	00:00	2009-08-27
208184	SB-1 40-41'	soil	2009-08-25	00:00	2009-08-27

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
208185	SB-2 0-1'	soil	2009-08-25	00:00	2009-08-27
208186	SB-2 2-3'	soil	2009-08-25	00:00	2009-08-27
208187	SB-2 4-5'	soil	2009-08-25	00:00	2009-08-27
208188	SB-2 6-7'	soil	2009-08-25	00:00	2009-08-27
208189	SB-2 10-11'	soil	2009-08-25	00:00	2009-08-27
208190	SB-2 15-16'	soil	2009-08-25	00:00	2009-08-27
208191	SB-2 20-21'	soil	2009-08-25	00:00	2009-08-27
208192	SB-2 25-26'	soil	2009-08-25	00:00	2009-08-27
208193	SB-2 30-31'	soil	2009-08-25	00:00	2009-08-27
208194	SB-3 0-1'	soil	2009-08-25	00:00	2009-08-27
208195	SB-3 2-3'	soil	2009-08-25	00:00	2009-08-27
208196	SB-3 4-5'	soil	2009-08-25	00:00	2009-08-27
208197	SB-3 6-7'	soil	2009-08-25	00:00	2009-08-27
208198	SB-3 10-11'	soil	2009-08-25	00:00	2009-08-27
208199	SB-3 15-16'	soil	2009-08-25	00:00	2009-08-27
208200	SB-3 20-21'	soil	2009-08-25	00:00	2009-08-27
208201	SB-3 25-26'	soil	2009-08-25	00:00	2009-08-27
208202	SB-3 30-31'	soil	2009-08-25	00:00	2009-08-27
208203	SB-3 40-41'	soil	2009-08-25	00:00	2009-08-27
208204	SB-4 0-1'	soil	2009-08-25	00:00	2009-08-27
208205	SB-4 2-3'	soil	2009-08-25	00:00	2009-08-27
208206	SB-4 4-5'	soil	2009-08-25	00:00	2009-08-27
208207	SB-4 6-7'	soil	2009-08-25	00:00	2009-08-27
208208	SB-4 10-11'	soil	2009-08-25	00:00	2009-08-27
208209	SB-4 15-16'	soil	2009-08-25	00:00	2009-08-27
208210	SB-4 20-21'	soil	2009-08-25	00:00	2009-08-27
208211	SB-4 25-26'	soil	2009-08-25	00:00	2009-08-27
208212	SB-5 0-1'	soil	2009-08-25	00:00	2009-08-27
208213	SB-5 2-3'	soil	2009-08-25	00:00	2009-08-27
208214	SB-5 4-5'	soil	2009-08-25	00:00	2009-08-27
208215	SB-5 6-7'	soil	2009-08-25	00:00	2009-08-27
208216	SB-5 10-11'	soil	2009-08-25	00:00	2009-08-27
208217	SB-5 15-16'	soil	2009-08-25	00:00	2009-08-27
208218	SB-5 20-21'	soil	2009-08-25	00:00	2009-08-27
208219	SB-5 25-26'	soil	2009-08-25	00:00	2009-08-27
208220	SB-5 30-31'	soil	2009-08-25	00:00	2009-08-27
208221	SB-6 0-1'	soil	2009-08-25	00:00	2009-08-27
208222	SB-6 2-3'	soil	2009-08-25	00:00	2009-08-27
208223	SB-6 4-5'	soil	2009-08-25	00:00	2009-08-27
208224	SB-6 6-7'	soil	2009-08-25	00:00	2009-08-27
208225	SB-6 10-11'	soil	2009-08-25	00:00	2009-08-27
208226	SB-6 15-16'	soil	2009-08-25	00:00	2009-08-27
208227	SB-6 20-21'	soil	2009-08-25	00:00	2009-08-27
208228	SB-7 0-1'	soil	2009-08-26	00:00	2009-08-27
208229	SB-7 2-3'	soil	2009-08-26	00:00	2009-08-27
208230	SB-7 4-5'	soil	2009-08-26	00:00	2009-08-27

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
208231	SB-7 6-7'	soil	2009-08-26	00:00	2009-08-27
208232	SB-7 10-11'	soil	2009-08-26	00:00	2009-08-27
208233	SB-7 15-16'	soil	2009-08-26	00:00	2009-08-27
208234	SB-7 20-21'	soil	2009-08-26	00:00	2009-08-27
208235	SB-8 0-1'	soil	2009-08-26	00:00	2009-08-27
208236	SB-8 2-3'	soil	2009-08-26	00:00	2009-08-27
208237	SB-8 4-5'	soil	2009-08-26	00:00	2009-08-27
208238	SB-8 6-7'	soil	2009-08-26	00:00	2009-08-27
208239	SB-8 10-11'	soil	2009-08-26	00:00	2009-08-27
208240	SB-8 15-16'	soil	2009-08-26	00:00	2009-08-27
208241	SB-8 20-21'	soil	2009-08-26	00:00	2009-08-27
208242	SB-8 25-26'	soil	2009-08-26	00:00	2009-08-27
208243	SB-8 30-31'	soil	2009-08-26	00:00	2009-08-27
208244	SB-9 0-1'	soil	2009-08-26	00:00	2009-08-27
208245	SB-9 2-3'	soil	2009-08-26	00:00	2009-08-27
208246	SB-9 4-5'	soil	2009-08-26	00:00	2009-08-27
208247	SB-9 6-7'	soil	2009-08-26	00:00	2009-08-27
208248	SB-9 10-11'	soil	2009-08-26	00:00	2009-08-27
208249	SB-9 15-16'	soil	2009-08-26	00:00	2009-08-27
208250	SB-9 20-21'	soil	2009-08-26	00:00	2009-08-27
208251	SB-10 0-1'	soil	2009-08-26	00:00	2009-08-27
208252	SB-10 2-3'	soil	2009-08-26	00:00	2009-08-27
208253	SB-10 4-5'	soil	2009-08-26	00:00	2009-08-27
208254	SB-10 6-7'	soil	2009-08-26	00:00	2009-08-27
208255	SB-10 10-11'	soil	2009-08-26	00:00	2009-08-27
208256	SB-10 15-16'	soil	2009-08-26	00:00	2009-08-27
208257	SB-10 20-21'	soil	2009-08-26	00:00	2009-08-27

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 54 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 COG/RJU #110 were received by TraceAnalysis, Inc. on 2009-08-27 and assigned to work order 9082731. Samples for work order 9082731 were received intact at a temperature of 11.4 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	53872	2009-08-31 at 10:00	63121	2009-08-31 at 11:22
Chloride (Titration)	SM 4500-Cl B	53782	2009-08-28 at 08:43	63059	2009-08-31 at 11:04
Chloride (Titration)	SM 4500-Cl B	53783	2009-08-28 at 11:45	63060	2009-08-31 at 11:05
Chloride (Titration)	SM 4500-Cl B	53784	2009-08-28 at 11:45	63084	2009-08-31 at 16:02
Chloride (Titration)	SM 4500-Cl B	53785	2009-08-28 at 11:46	63086	2009-08-31 at 16:03
Chloride (Titration)	SM 4500-Cl B	53786	2009-08-28 at 11:46	63156	2009-09-02 at 10:22
Chloride (Titration)	SM 4500-Cl B	53787	2009-08-28 at 11:47	63157	2009-09-02 at 10:23
Chloride (Titration)	SM 4500-Cl B	53788	2009-08-28 at 11:48	63158	2009-09-02 at 10:24
Chloride (Titration)	SM 4500-Cl B	53789	2009-08-28 at 11:48	63073	2009-08-31 at 13:58
Chloride (Titration)	SM 4500-Cl B	53885	2009-09-01 at 12:30	63209	2009-09-03 at 09:29
Chloride (Titration)	SM 4500-Cl B	53886	2009-09-01 at 12:31	63211	2009-09-03 at 09:30
TPH DRO	Mod. 8015B	53793	2009-08-28 at 11:05	63022	2009-08-28 at 11:05
TPH GRO	S 8015B	53872	2009-08-31 at 10:00	63119	2009-08-31 at 11:50

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 9082731 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: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 5 of 54
Eddy Co., NM

Analytical Report

Sample: 208175 - SB-1 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-08-31	Analyzed By:	AR
QC Batch:	63059	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53782				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2600	mg/Kg	100	4.00

Sample: 208175 - SB-1 0-1'

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO	Date Analyzed:	2009-08-28	Analyzed By:	kg
QC Batch:	63022	Sample Preparation:	2009-08-28	Prepared By:	kg
Prep Batch:	53793				

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-Triacontane		119	mg/Kg	1	100	119	13.2 - 219.3

Sample: 208175 - SB-1 0-1'

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2009-08-31	Analyzed By:	AG
QC Batch:	63119	Sample Preparation:	2009-08-31	Prepared By:	AG
Prep Batch:	53872				

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)		1.92	mg/Kg	1	2.00	96	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.49	mg/Kg	1	2.00	74	31 - 135

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 6 of 54
Eddy Co., NM

Sample: 208176 - SB-1 2-3'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-08-31	Analyzed By:	AR
QC Batch:	63060	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53783				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		621	mg/Kg	50	4.00

Sample: 208177 - SB-1 4-5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-08-31	Analyzed By:	AR
QC Batch:	63060	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53783				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		11400	mg/Kg	100	4.00

Sample: 208178 - SB-1 6-7'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-08-31	Analyzed By:	AR
QC Batch:	63060	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53783				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		12200	mg/Kg	100	4.00

Sample: 208179 - SB-1 10-11'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-08-31	Analyzed By:	AR
QC Batch:	63060	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53783				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		7820	mg/Kg	100	4.00

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 7 of 54
Eddy Co., NM

Sample: 208180 - SB-1 15-16'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-08-31	Analyzed By:	AR
QC Batch:	63060	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53783				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		9340	mg/Kg	100	4.00

Sample: 208181 - SB-1 20-21'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-08-31	Analyzed By:	AR
QC Batch:	63060	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53783				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		4730	mg/Kg	100	4.00

Sample: 208182 - SB-1 25-26'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-08-31	Analyzed By:	AR
QC Batch:	63060	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53783				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1470	mg/Kg	50	4.00

Sample: 208183 - SB-1 30-31'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-08-31	Analyzed By:	AR
QC Batch:	63060	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53783				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		482	mg/Kg	50	4.00

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 8 of 54
Eddy Co., NM

Sample: 208184 - SB-1 40-41'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-08-31	Analyzed By:	AR
QC Batch:	63060	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53783				

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

Sample: 208185 - SB-2 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-08-31	Analyzed By:	AR
QC Batch:	63060	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53783				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		12000	mg/Kg	100	4.00

Sample: 208185 - SB-2 0-1'

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO	Date Analyzed:	2009-08-28	Analyzed By:	kg
QC Batch:	63022	Sample Preparation:	2009-08-28	Prepared By:	kg
Prep Batch:	53793				

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-Triacontane		115	mg/Kg	1	100	115	13.2 - 219.3

Sample: 208185 - SB-2 0-1'

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2009-08-31	Analyzed By:	AG
QC Batch:	63119	Sample Preparation:	2009-08-31	Prepared By:	AG
Prep Batch:	53872				

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 9 of 54
Eddy Co., NM

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)		1.90	mg/Kg	1	2.00	95	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.41	mg/Kg	1	2.00	70	31 - 135

Sample: 208186 - SB-2 2-3'

Laboratory: Midland	Analytical Method: SM 4500-Cl B	Prep Method: N/A
Analysis: Chloride (Titration)	Date Analyzed: 2009-08-31	Analyzed By: AR
QC Batch: 63084	Sample Preparation: 2009-08-28	Prepared By: AR
Prep Batch: 53784		

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		13700	mg/Kg	100	4.00

Sample: 208187 - SB-2 4-5'

Laboratory: Midland	Analytical Method: SM 4500-Cl B	Prep Method: N/A
Analysis: Chloride (Titration)	Date Analyzed: 2009-08-31	Analyzed By: AR
QC Batch: 63084	Sample Preparation: 2009-08-28	Prepared By: AR
Prep Batch: 53784		

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		8300	mg/Kg	100	4.00

Sample: 208188 - SB-2 6-7'

Laboratory: Midland	Analytical Method: SM 4500-Cl B	Prep Method: N/A
Analysis: Chloride (Titration)	Date Analyzed: 2009-08-31	Analyzed By: AR
QC Batch: 63084	Sample Preparation: 2009-08-28	Prepared By: AR
Prep Batch: 53784		

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5720	mg/Kg	100	4.00

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 10 of 54
Eddy Co., NM

Sample: 208189 - SB-2 10-11'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-08-31	Analyzed By:	AR
QC Batch:	63084	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53784				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		6640	mg/Kg	100	4.00

Sample: 208190 - SB-2 15-16'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-08-31	Analyzed By:	AR
QC Batch:	63084	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53784				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		6180	mg/Kg	100	4.00

Sample: 208191 - SB-2 20-21'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-08-31	Analyzed By:	AR
QC Batch:	63084	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53784				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		4790	mg/Kg	100	4.00

Sample: 208192 - SB-2 25-26'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-08-31	Analyzed By:	AR
QC Batch:	63084	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53784				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		995	mg/Kg	50	4.00

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 11 of 54
Eddy Co., NM

Sample: 208193 - SB-2 30-31'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 63084
Prep Batch: 53784

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-08-31
Sample Preparation: 2009-08-28

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		528	mg/Kg	50	4.00

Sample: 208194 - SB-3 0-1'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 63084
Prep Batch: 53784

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-08-31
Sample Preparation: 2009-08-28

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		863	mg/Kg	50	4.00

Sample: 208194 - SB-3 0-1'

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 63022
Prep Batch: 53793

Analytical Method: Mod. 8015B
Date Analyzed: 2009-08-28
Sample Preparation: 2009-08-28

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-Triacontane		116	mg/Kg	1	100	116	13.2 - 219.3

Sample: 208194 - SB-3 0-1'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 63119
Prep Batch: 53872

Analytical Method: S 8015B
Date Analyzed: 2009-08-31
Sample Preparation: 2009-08-31

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

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 12 of 54
Eddy Co., NM

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)		1.90	mg/Kg	1	2.00	95	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.60	mg/Kg	1	2.00	80	31 - 135

Sample: 208195 - SB-3 2-3'

Laboratory: Midland	Analytical Method: SM 4500-Cl B	Prep Method: N/A
Analysis: Chloride (Titration)	Date Analyzed: 2009-08-31	Analyzed By: AR
QC Batch: 63084	Sample Preparation: 2009-08-28	Prepared By: AR
Prep Batch: 53784		

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		4170	mg/Kg	100	4.00

Sample: 208196 - SB-3 4-5'

Laboratory: Midland	Analytical Method: SM 4500-Cl B	Prep Method: N/A
Analysis: Chloride (Titration)	Date Analyzed: 2009-08-31	Analyzed By: AR
QC Batch: 63086	Sample Preparation: 2009-08-28	Prepared By: AR
Prep Batch: 53785		

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		10800	mg/Kg	100	4.00

Sample: 208197 - SB-3 6-7'

Laboratory: Midland	Analytical Method: SM 4500-Cl B	Prep Method: N/A
Analysis: Chloride (Titration)	Date Analyzed: 2009-08-31	Analyzed By: AR
QC Batch: 63086	Sample Preparation: 2009-08-28	Prepared By: AR
Prep Batch: 53785		

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		9080	mg/Kg	100	4.00

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 13 of 54
Eddy Co., NM

Sample: 208198 - SB-3 10-11'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-08-31	Analyzed By:	AR
QC Batch:	63086	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53785				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		7350	mg/Kg	100	4.00

Sample: 208199 - SB-3 15-16'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-08-31	Analyzed By:	AR
QC Batch:	63086	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53785				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		6680	mg/Kg	100	4.00

Sample: 208200 - SB-3 20-21'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-08-31	Analyzed By:	AR
QC Batch:	63086	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53785				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3180	mg/Kg	100	4.00

Sample: 208201 - SB-3 25-26'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-08-31	Analyzed By:	AR
QC Batch:	63086	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53785				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		473	mg/Kg	50	4.00

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 14 of 54
Eddy Co., NM

Sample: 208202 - SB-3 30-31'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-08-31	Analyzed By:	AR
QC Batch:	63086	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53785				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		302	mg/Kg	50	4.00

Sample: 208203 - SB-3 40-41'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-08-31	Analyzed By:	AR
QC Batch:	63086	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53785				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		216	mg/Kg	50	4.00

Sample: 208204 - SB-4 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-08-31	Analyzed By:	AR
QC Batch:	63086	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53785				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		861	mg/Kg	50	4.00

Sample: 208204 - SB-4 0-1'

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO	Date Analyzed:	2009-08-28	Analyzed By:	kg
QC Batch:	63022	Sample Preparation:	2009-08-28	Prepared By:	kg
Prep Batch:	53793				

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

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 15 of 54
Eddy Co., NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		114	mg/Kg	1	100	114	13.2 - 219.3

Sample: 208204 - SB-4 0-1'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 63119
Prep Batch: 53872

Analytical Method: S 8015B
Date Analyzed: 2009-08-31
Sample Preparation: 2009-08-31

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)		1.89	mg/Kg	1	2.00	94	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.37	mg/Kg	1	2.00	68	31 - 135

Sample: 208205 - SB-4 2-3'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 63086
Prep Batch: 53785

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-08-31
Sample Preparation: 2009-08-28

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		700	mg/Kg	50	4.00

Sample: 208206 - SB-4 4-5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 63156
Prep Batch: 53786

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-09-02
Sample Preparation: 2009-08-28

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		395	mg/Kg	50	4.00

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 16 of 54
Eddy Co., NM

Sample: 208207 - SB-4 6-7'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-02	Analyzed By:	AR
QC Batch:	63156	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53786				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		479	mg/Kg	50	4.00

Sample: 208208 - SB-4 10-11'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-02	Analyzed By:	AR
QC Batch:	63156	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53786				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		774	mg/Kg	50	4.00

Sample: 208209 - SB-4 15-16'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-02	Analyzed By:	AR
QC Batch:	63156	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53786				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		311	mg/Kg	50	4.00

Sample: 208210 - SB-4 20-21'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-02	Analyzed By:	AR
QC Batch:	63156	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53786				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		300	mg/Kg	50	4.00

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 17 of 54
Eddy Co., NM

Sample: 208211 - SB-4 25-26'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 63156
Prep Batch: 53786

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-09-02
Sample Preparation: 2009-08-28

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

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

Sample: 208212 - SB-5 0-1'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 63156
Prep Batch: 53786

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-09-02
Sample Preparation: 2009-08-28

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		4990	mg/Kg	100	4.00

Sample: 208212 - SB-5 0-1'

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 63022
Prep Batch: 53793

Analytical Method: Mod. 8015B
Date Analyzed: 2009-08-28
Sample Preparation: 2009-08-28

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-Triacontane	--	112	mg/Kg	1	100	112	13.2 - 219.3

Sample: 208212 - SB-5 0-1'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 63119
Prep Batch: 53872

Analytical Method: S 8015B
Date Analyzed: 2009-08-31
Sample Preparation: 2009-08-31

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

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 18 of 54
Eddy Co., NM

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)		1.89	mg/Kg	1	2.00	94	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.34	mg/Kg	1	2.00	67	31 - 135

Sample: 208213 - SB-5 2-3'

Laboratory: Midland			
Analysis: Chloride (Titration)	Analytical Method: SM 4500-Cl B	Prep Method: N/A	
QC Batch: 63156	Date Analyzed: 2009-09-02	Analyzed By: AR	
Prep Batch: 53786	Sample Preparation: 2009-08-28	Prepared By: AR	

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		4960	mg/Kg	100	4.00

Sample: 208214 - SB-5 4-5'

Laboratory: Midland			
Analysis: Chloride (Titration)	Analytical Method: SM 4500-Cl B	Prep Method: N/A	
QC Batch: 63156	Date Analyzed: 2009-09-02	Analyzed By: AR	
Prep Batch: 53786	Sample Preparation: 2009-08-28	Prepared By: AR	

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		4730	mg/Kg	100	4.00

Sample: 208215 - SB-5 6-7'

Laboratory: Midland			
Analysis: Chloride (Titration)	Analytical Method: SM 4500-Cl B	Prep Method: N/A	
QC Batch: 63156	Date Analyzed: 2009-09-02	Analyzed By: AR	
Prep Batch: 53786	Sample Preparation: 2009-08-28	Prepared By: AR	

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		10800	mg/Kg	100	4.00

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 19 of 54
Eddy Co., NM

Sample: 208216 - SB-5 10-11'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-02	Analyzed By:	AR
QC Batch:	63157	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53787				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		6130	mg/Kg	100	4.00

Sample: 208217 - SB-5 15-16'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-02	Analyzed By:	AR
QC Batch:	63157	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53787				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1880	mg/Kg	50	4.00

Sample: 208218 - SB-5 20-21'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-02	Analyzed By:	AR
QC Batch:	63157	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53787				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		857	mg/Kg	50	4.00

Sample: 208219 - SB-5 25-26'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-02	Analyzed By:	AR
QC Batch:	63157	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53787				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		315	mg/Kg	50	4.00

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 20 of 54
Eddy Co., NM

Sample: 208220 - SB-5 30-31'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 63157
Prep Batch: 53787

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-09-02
Sample Preparation: 2009-08-28

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

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

Sample: 208221 - SB-6 0-1'

Laboratory: Midland
Analysis: BTEX
QC Batch: 63121
Prep Batch: 53872

Analytical Method: S 8021B
Date Analyzed: 2009-08-31
Sample Preparation: 2009-08-31

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)		2.01	mg/Kg	1	2.00	100	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.19	mg/Kg	1	2.00	60	45.2 - 144.3

Sample: 208221 - SB-6 0-1'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 63157
Prep Batch: 53787

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-09-02
Sample Preparation: 2009-08-28

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		6580	mg/Kg	100	4.00

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 21 of 54
Eddy Co., NM

Sample: 208221 - SB-6 0-1'

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 63022
Prep Batch: 53793

Analytical Method: Mod. 8015B
Date Analyzed: 2009-08-28
Sample Preparation: 2009-08-28

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-Triacontane		112	mg/Kg	1	100	112	13.2 - 219.3

Sample: 208221 - SB-6 0-1'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 63119
Prep Batch: 53872

Analytical Method: S 8015B
Date Analyzed: 2009-08-31
Sample Preparation: 2009-08-31

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)		1.91	mg/Kg	1	2.00	96	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.35	mg/Kg	1	2.00	68	31 - 135

Sample: 208222 - SB-6 2-3'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 63157
Prep Batch: 53787

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-09-02
Sample Preparation: 2009-08-28

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		12000	mg/Kg	100	4.00

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 22 of 54
Eddy Co., NM

Sample: 208223 - SB-6 4-5'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	63157	Date Analyzed:	2009-09-02
Prep Batch:	53787	Sample Preparation:	2009-08-28
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3600	mg/Kg	100	4.00

Sample: 208224 - SB-6 6-7'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	63157	Date Analyzed:	2009-09-02
Prep Batch:	53787	Sample Preparation:	2009-08-28
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2780	mg/Kg	100	4.00

Sample: 208225 - SB-6 10-11'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	63157	Date Analyzed:	2009-09-02
Prep Batch:	53787	Sample Preparation:	2009-08-28
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1600	mg/Kg	50	4.00

Sample: 208226 - SB-6 15-16'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	63158	Date Analyzed:	2009-09-02
Prep Batch:	53788	Sample Preparation:	2009-08-28
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		753	mg/Kg	50	4.00

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 23 of 54
Eddy Co., NM

Sample: 208227 - SB-6 20-21'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 63158
Prep Batch: 53788

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-09-02
Sample Preparation: 2009-08-28

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

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

Sample: 208228 - SB-7 0-1'

Laboratory: Midland
Analysis: BTEX
QC Batch: 63121
Prep Batch: 53872

Analytical Method: S 8021B
Date Analyzed: 2009-08-31
Sample Preparation: 2009-08-31

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)		2.01	mg/Kg	1	2.00	100	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.22	mg/Kg	1	2.00	61	45.2 - 144.3

Sample: 208228 - SB-7 0-1'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 63158
Prep Batch: 53788

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-09-02
Sample Preparation: 2009-08-28

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2150	mg/Kg	100	4.00

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 24 of 54
Eddy Co., NM

Sample: 208228 - SB-7 0-1'

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 63022
Prep Batch: 53793

Analytical Method: Mod. 8015B
Date Analyzed: 2009-08-28
Sample Preparation: 2009-08-28

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-Triacontane		118	mg/Kg	1	100	118	13.2 - 219.3

Sample: 208228 - SB-7 0-1'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 63119
Prep Batch: 53872

Analytical Method: S 8015B
Date Analyzed: 2009-08-31
Sample Preparation: 2009-08-31

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)		1.92	mg/Kg	1	2.00	96	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.35	mg/Kg	1	2.00	68	31 - 135

Sample: 208229 - SB-7 2-3'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 63158
Prep Batch: 53788

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-09-02
Sample Preparation: 2009-08-28

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2920	mg/Kg	100	4.00

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 25 of 54
Eddy Co., NM

Sample: 208230 - SB-7 4-5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-02	Analyzed By:	AR
QC Batch:	63158	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53788				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		13400	mg/Kg	100	4.00

Sample: 208231 - SB-7 6-7'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-02	Analyzed By:	AR
QC Batch:	63158	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53788				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		9280	mg/Kg	100	4.00

Sample: 208232 - SB-7 10-11'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-02	Analyzed By:	AR
QC Batch:	63158	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53788				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		697	mg/Kg	50	4.00

Sample: 208233 - SB-7 15-16'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-02	Analyzed By:	AR
QC Batch:	63158	Sample Preparation:	2009-08-28	Prepared By:	AR
Prep Batch:	53788				

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

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 26 of 54
Eddy Co., NM

Sample: 208234 - SB-7 20-21'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 63158 Date Analyzed: 2009-09-02 Analyzed By: AR
Prep Batch: 53788 Sample Preparation: 2009-08-28 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		201	mg/Kg	50	4.00

Sample: 208235 - SB-8 0-1'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 63158 Date Analyzed: 2009-09-02 Analyzed By: AR
Prep Batch: 53788 Sample Preparation: 2009-08-28 Prepared By: AR

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

Sample: 208235 - SB-8 0-1'

Laboratory: Midland
Analysis: TPH DRO Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 63022 Date Analyzed: 2009-08-28 Analyzed By: kg
Prep Batch: 53793 Sample Preparation: 2009-08-28 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-Triacontane		117	mg/Kg	1	100	117	13.2 - 219.3

Sample: 208235 - SB-8 0-1'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 63119 Date Analyzed: 2009-08-31 Analyzed By: AG
Prep Batch: 53872 Sample Preparation: 2009-08-31 Prepared By: AG

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 27 of 54
Eddy Co., NM

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)		1.89	mg/Kg	1	2.00	94	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.31	mg/Kg	1	2.00	66	31 - 135

Sample: 208236 - SB-8 2-3'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 63073

Prep Batch: 53789

Analytical Method: SM 4500-Cl B

Date Analyzed: 2009-08-31

Sample Preparation: 2009-08-31

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: 208237 - SB-8 4-5'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 63073

Prep Batch: 53789

Analytical Method: SM 4500-Cl B

Date Analyzed: 2009-08-31

Sample Preparation: 2009-08-31

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2950	mg/Kg	100	4.00

Sample: 208238 - SB-8 6-7'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 63209

Prep Batch: 53885

Analytical Method: SM 4500-Cl B

Date Analyzed: 2009-09-03

Sample Preparation: 2009-09-01

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		7150	mg/Kg	100	4.00

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 28 of 54
Eddy Co., NM

Sample: 208239 - SB-8 10-11'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-03	Analyzed By:	AR
QC Batch:	63209	Sample Preparation:	2009-09-01	Prepared By:	AR
Prep Batch:	53885				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5970	mg/Kg	100	4.00

Sample: 208240 - SB-8 15-16'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-03	Analyzed By:	AR
QC Batch:	63209	Sample Preparation:	2009-09-01	Prepared By:	AR
Prep Batch:	53885				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1490	mg/Kg	50	4.00

Sample: 208241 - SB-8 20-21'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-03	Analyzed By:	AR
QC Batch:	63209	Sample Preparation:	2009-09-01	Prepared By:	AR
Prep Batch:	53885				

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

Sample: 208242 - SB-8 25-26'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-03	Analyzed By:	AR
QC Batch:	63209	Sample Preparation:	2009-09-01	Prepared By:	AR
Prep Batch:	53885				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		331	mg/Kg	50	4.00

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 29 of 54
Eddy Co., NM

Sample: 208243 - SB-8 30-31'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 63209
Prep Batch: 53885

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-09-03
Sample Preparation: 2009-09-01

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		210	mg/Kg	50	4.00

Sample: 208244 - SB-9 0-1'

Laboratory: Midland
Analysis: BTEX
QC Batch: 63121
Prep Batch: 53872

Analytical Method: S 8021B
Date Analyzed: 2009-08-31
Sample Preparation: 2009-08-31

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)		1.96	mg/Kg	1	2.00	98	49 - 129.7
4-Bromofluorobenzene (4-BFB)		1.21	mg/Kg	1	2.00	60	45.2 - 144.3

Sample: 208244 - SB-9 0-1'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 63209
Prep Batch: 53885

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-09-03
Sample Preparation: 2009-09-01

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		746	mg/Kg	50	4.00

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 30 of 54
Eddy Co., NM

Sample: 208244 - SB-9 0-1'

Laboratory: Midland
Analysis: TPH DRO
QC Batch: 63022
Prep Batch: 53793

Analytical Method: Mod. 8015B
Date Analyzed: 2009-08-28
Sample Preparation: 2009-08-28

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-Triacontane		114	mg/Kg	1	100	114	13.2 - 219.3

Sample: 208244 - SB-9 0-1'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 63119
Prep Batch: 53872

Analytical Method: S 8015B
Date Analyzed: 2009-08-31
Sample Preparation: 2009-08-31

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)		1.89	mg/Kg	1	2.00	94	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.34	mg/Kg	1	2.00	67	31 - 135

Sample: 208245 - SB-9 2-3'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 63209
Prep Batch: 53885

Analytical Method: SM 4500-Cl B
Date Analyzed: 2009-09-03
Sample Preparation: 2009-09-01

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1440	mg/Kg	50	4.00

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 31 of 54
Eddy Co., NM

Sample: 208246 - SB-9 4-5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-03	Analyzed By:	AR
QC Batch:	63209	Sample Preparation:	2009-09-01	Prepared By:	AR
Prep Batch:	53885				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		8580	mg/Kg	100	4.00

Sample: 208247 - SB-9 6-7'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-03	Analyzed By:	AR
QC Batch:	63209	Sample Preparation:	2009-09-01	Prepared By:	AR
Prep Batch:	53885				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		7540	mg/Kg	100	4.00

Sample: 208248 - SB-9 10-11'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-03	Analyzed By:	AR
QC Batch:	63211	Sample Preparation:	2009-09-01	Prepared By:	AR
Prep Batch:	53886				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1350	mg/Kg	50	4.00

Sample: 208249 - SB-9 15-16'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-03	Analyzed By:	AR
QC Batch:	63211	Sample Preparation:	2009-09-01	Prepared By:	AR
Prep Batch:	53886				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		407	mg/Kg	50	4.00

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 32 of 54
Eddy Co., NM

Sample: 208250 - SB-9 20-21'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-03	Analyzed By:	AR
QC Batch:	63211	Sample Preparation:	2009-09-01	Prepared By:	AR
Prep Batch:	53886				

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

Sample: 208251 - SB-10 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-03	Analyzed By:	AR
QC Batch:	63211	Sample Preparation:	2009-09-01	Prepared By:	AR
Prep Batch:	53886				

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

Sample: 208251 - SB-10 0-1'

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO	Date Analyzed:	2009-08-28	Analyzed By:	kg
QC Batch:	63022	Sample Preparation:	2009-08-28	Prepared By:	kg
Prep Batch:	53793				

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-Triacontane		115	mg/Kg	1	100	115	13.2 - 219.3

Sample: 208251 - SB-10 0-1'

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2009-08-31	Analyzed By:	AG
QC Batch:	63119	Sample Preparation:	2009-08-31	Prepared By:	AG
Prep Batch:	53872				

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 33 of 54
Eddy Co., NM

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)		1.89	mg/Kg	1	2.00	94	68.5 - 119.4
4-Bromofluorobenzene (4-BFB)		1.28	mg/Kg	1	2.00	64	31 - 135

Sample: 208252 - SB-10 2-3'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 63211 Date Analyzed: 2009-09-03 Analyzed By: AR
Prep Batch: 53886 Sample Preparation: 2009-09-01 Prepared By: AR

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

Sample: 208253 - SB-10 4-5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 63211 Date Analyzed: 2009-09-03 Analyzed By: AR
Prep Batch: 53886 Sample Preparation: 2009-09-01 Prepared By: AR

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

Sample: 208254 - SB-10 6-7'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 63211 Date Analyzed: 2009-09-03 Analyzed By: AR
Prep Batch: 53886 Sample Preparation: 2009-09-01 Prepared By: AR

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

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 34 of 54
Eddy Co., NM

Sample: 208255 - SB-10 10-11'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-03	Analyzed By:	AR
QC Batch:	63211	Sample Preparation:	2009-09-01	Prepared By:	AR
Prep Batch:	53886				

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

Sample: 208256 - SB-10 15-16'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-03	Analyzed By:	AR
QC Batch:	63211	Sample Preparation:	2009-09-01	Prepared By:	AR
Prep Batch:	53886				

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

Sample: 208257 - SB-10 20-21'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2009-09-03	Analyzed By:	AR
QC Batch:	63211	Sample Preparation:	2009-09-01	Prepared By:	AR
Prep Batch:	53886				

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

Method Blank (1) QC Batch: 63022

QC Batch:	63022	Date Analyzed:	2009-08-28	Analyzed By:	kg
Prep Batch:	53793	QC Preparation:	2009-08-28	Prepared By:	kg

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

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 35 of 54
Eddy Co., NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Triacontane		123	mg/Kg	1	100	123	13 - 178.5

Method Blank (1) QC Batch: 63059

QC Batch: 63059 Date Analyzed: 2009-08-31 Analyzed By: AR
Prep Batch: 53782 QC Preparation: 2009-08-28 Prepared By: AR

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

Method Blank (1) QC Batch: 63060

QC Batch: 63060 Date Analyzed: 2009-08-31 Analyzed By: AR
Prep Batch: 53783 QC Preparation: 2009-08-28 Prepared By: AR

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

Method Blank (1) QC Batch: 63073

QC Batch: 63073 Date Analyzed: 2009-08-31 Analyzed By: AR
Prep Batch: 53789 QC Preparation: 2009-08-28 Prepared By: AR

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

Method Blank (1) QC Batch: 63084

QC Batch: 63084 Date Analyzed: 2009-08-31 Analyzed By: AR
Prep Batch: 53784 QC Preparation: 2009-08-28 Prepared By: AR

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

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 36 of 54
Eddy Co., NM

Method Blank (1) QC Batch: 63086

QC Batch: 63086
Prep Batch: 53785

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-28

Analyzed By: AR
Prepared By: AR

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

Method Blank (1) QC Batch: 63119

QC Batch: 63119
Prep Batch: 53872

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: AG
Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
GRO		<0.482	mg/Kg	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.90	mg/Kg	1	2.00	95	71.9 - 115
4-Bromofluorobenzene (4-BFB)		1.45	mg/Kg	1	2.00	72	38.1 - 146.2

Method Blank (1) QC Batch: 63121

QC Batch: 63121
Prep Batch: 53872

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: AG
Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.00100	mg/Kg	0.01
Toluene		<0.00100	mg/Kg	0.01
Ethylbenzene		<0.00110	mg/Kg	0.01
Xylene		<0.00360	mg/Kg	0.01

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.96	mg/Kg	1	2.00	98	65.6 - 130.6
4-Bromofluorobenzene (4-BFB)		1.30	mg/Kg	1	2.00	65	51.9 - 128.1

Method Blank (1) QC Batch: 63156

QC Batch: 63156
Prep Batch: 53786

Date Analyzed: 2009-09-02
QC Preparation: 2009-08-28

Analyzed By: AR
Prepared By: AR

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 37 of 54
Eddy Co., NM

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

Method Blank (1) QC Batch: 63157

QC Batch: 63157 Date Analyzed: 2009-09-02 Analyzed By: AR
Prep Batch: 53787 QC Preparation: 2009-08-28 Prepared By: AR

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

Method Blank (1) QC Batch: 63158

QC Batch: 63158 Date Analyzed: 2009-09-02 Analyzed By: AR
Prep Batch: 53788 QC Preparation: 2009-08-28 Prepared By: AR

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

Method Blank (1) QC Batch: 63209

QC Batch: 63209 Date Analyzed: 2009-09-03 Analyzed By: AR
Prep Batch: 53885 QC Preparation: 2009-09-01 Prepared By: AR

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

Method Blank (1) QC Batch: 63211

QC Batch: 63211 Date Analyzed: 2009-09-03 Analyzed By: AR
Prep Batch: 53886 QC Preparation: 2009-09-01 Prepared By: AR

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

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 38 of 54
Eddy Co., NM

Laboratory Control Spike (LCS-1)

QC Batch: 63022
Prep Batch: 53793

Date Analyzed: 2009-08-28
QC Preparation: 2009-08-28

Analyzed By: kg
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	173	mg/Kg	1	250	<5.86	69	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	182	mg/Kg	1	250	<5.86	73	57.4 - 133.4	5	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-Triacontane	113	118	mg/Kg	1	100	113	118	48.5 - 146.7

Laboratory Control Spike (LCS-1)

QC Batch: 63059
Prep Batch: 53782

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-28

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.4	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	99.9	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: 63060
Prep Batch: 53783

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-28

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.

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 39 of 54
Eddy Co., NM

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	99.7	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: 63073
Prep Batch: 53789

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-28

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	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.

Laboratory Control Spike (LCS-1)

QC Batch: 63084
Prep Batch: 53784

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-28

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	100	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	101	mg/Kg	1	100	<2.18	101	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: 63086
Prep Batch: 53785

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-28

Analyzed By: AR
Prepared By: AR

continued ...

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 40 of 54
Eddy Co., NM

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	98.3	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	99.1	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: 63119
Prep Batch: 53872

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	17.6	mg/Kg	1	20.0	<0.482	88	60.5 - 120.1

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	17.5	mg/Kg	1	20.0	<0.482	88	60.5 - 120.1	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)	1.92	1.94	mg/Kg	1	2.00	96	97	78.8 - 124.7
4-Bromofluorobenzene (4-BFB)	1.63	1.68	mg/Kg	1	2.00	82	84	66.1 - 128.3

Laboratory Control Spike (LCS-1)

QC Batch: 63121
Prep Batch: 53872

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.87	mg/Kg	1	2.00	<0.00100	94	72.7 - 129.8
Toluene	1.89	mg/Kg	1	2.00	<0.00100	94	71.6 - 129.6
Ethylbenzene	1.90	mg/Kg	1	2.00	<0.00110	95	70.8 - 129.7

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Xylene	5.37	mg/Kg	1	6.00	<0.00360	90	70.9 - 129.4

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

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.82	mg/Kg	1	2.00	<0.00100	91	72.7 - 129.8	3	20
Toluene	1.85	mg/Kg	1	2.00	<0.00100	92	71.6 - 129.6	2	20
Ethylbenzene	1.88	mg/Kg	1	2.00	<0.00110	94	70.8 - 129.7	1	20
Xylene	5.42	mg/Kg	1	6.00	<0.00360	90	70.9 - 129.4	1	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.99	1.97	mg/Kg	1	2.00	100	98	65.9 - 132
4-Bromofluorobenzene (4-BFB)	1.40	1.41	mg/Kg	1	2.00	70	70	55.2 - 128.9

Laboratory Control Spike (LCS-1)

QC Batch: 63156
Prep Batch: 53786

Date Analyzed: 2009-09-02
QC Preparation: 2009-08-28

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.9	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	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	102	mg/Kg	1	100	<2.18	102	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: 63157
Prep Batch: 53787

Date Analyzed: 2009-09-02
QC Preparation: 2009-08-28

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.6	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.

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 42 of 54
Eddy Co., NM

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	0	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: 63158
Prep Batch: 53788

Date Analyzed: 2009-09-02
QC Preparation: 2009-08-28

Analyzed By: AR
Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.1	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	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.

Laboratory Control Spike (LCS-1)

QC Batch: 63209
Prep Batch: 53885

Date Analyzed: 2009-09-03
QC Preparation: 2009-09-01

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.

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	99.9	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: 63211
Prep Batch: 53886

Date Analyzed: 2009-09-03
QC Preparation: 2009-09-01

Analyzed By: AR
Prepared By: AR

continued ...

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 43 of 54
Eddy Co., NM

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	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	99.9	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: 208244

QC Batch: 63022
Prep Batch: 53793

Date Analyzed: 2009-08-28
QC Preparation: 2009-08-28

Analyzed By: kg
Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	207	mg/Kg	1	250	<5.86	83	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	174	mg/Kg	1	250	<5.86	70	35.2 - 167.1	17	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-Triacontane	106	94.0	mg/Kg	1	100	106	94	34.5 - 178.4

Matrix Spike (MS-1) Spiked Sample: 208175

QC Batch: 63059
Prep Batch: 53782

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-28

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	12300	mg/Kg	100	10000	2600	97	85 - 115

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

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 44 of 54
Eddy Co., NM

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	12500	mg/Kg	100	10000	2600	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: 208185

QC Batch: 63060
Prep Batch: 53783

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-28

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	22000	mg/Kg	100	10000	12000	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	22100	mg/Kg	100	10000	12000	101	85 - 115	0	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: 208610

QC Batch: 63073
Prep Batch: 53789

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-28

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	11100	mg/Kg	100	10000	755	103	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	11200	mg/Kg	100	10000	755	104	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: 208195

QC Batch: 63084
Prep Batch: 53784

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-28

Analyzed By: AR
Prepared By: AR

continued ...

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 45 of 54
Eddy Co., NM

matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	14200	mg/Kg	100	10000	4170	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	14300	mg/Kg	100	10000	4170	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: 208205

QC Batch: 63086
Prep Batch: 53785

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-28

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10500	mg/Kg	100	10000	700	98	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	10700	mg/Kg	100	10000	700	100	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: 208251

QC Batch: 63119
Prep Batch: 53872

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	13.3	mg/Kg	1	20.0	<0.482	66	12.8 - 175.2

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	15.7	mg/Kg	1	20.0	<0.482	78	12.8 - 175.2	17	20

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

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 46 of 54
Eddy Co., NM

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.81	1.86	mg/Kg	1	2	90	93	60.8 - 132.1
4-Bromofluorobenzene (4-BFB)	1.38	1.43	mg/Kg	1	2	69	72	31.3 - 161.7

Matrix Spike (MS-1) Spiked Sample: 208516

QC Batch: 63121
Prep Batch: 53872

Date Analyzed: 2009-08-31
QC Preparation: 2009-08-31

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.73	mg/Kg	1	2.00	<0.00100	86	58.6 - 165.2
Toluene	1.74	mg/Kg	1	2.00	<0.00100	87	64.2 - 153.8
Ethylbenzene	1.78	mg/Kg	1	2.00	<0.00110	89	61.6 - 159.4
Xylene	5.02	mg/Kg	1	6.00	<0.00360	84	64.4 - 155.3

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
Benzene	1.88	mg/Kg	1	2.00	<0.00100	94	58.6 - 165.2	8	20
Toluene	1.88	mg/Kg	1	2.00	<0.00100	94	64.2 - 153.8	8	20
Ethylbenzene	1.96	mg/Kg	1	2.00	<0.00110	98	61.6 - 159.4	10	20
Xylene	5.54	mg/Kg	1	6.00	<0.00360	92	64.4 - 155.3	10	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)	1.96	2.03	mg/Kg	1	2	98	102	76 - 127.9
4-Bromofluorobenzene (4-BFB)	^{1 2} 1.20	1.20	mg/Kg	1	2	60	60	72 - 127.8

Matrix Spike (MS-1) Spiked Sample: 208215

QC Batch: 63156
Prep Batch: 53786

Date Analyzed: 2009-09-02
QC Preparation: 2009-08-28

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	20700	mg/Kg	100	10000	10800	99	85 - 115

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

¹Surrogate out due to peak interference.

²Surrogate out due to peak interference.

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 47 of 54
Eddy Co., NM

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	20800	mg/Kg	100	10000	10800	100	85 - 115	0	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: 208225

QC Batch: 63157
Prep Batch: 53787

Date Analyzed: 2009-09-02
QC Preparation: 2009-08-28

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	11800	mg/Kg	100	10000	1600	102	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	12300	mg/Kg	100	10000	1600	107	85 - 115	4	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: 208235

QC Batch: 63158
Prep Batch: 53788

Date Analyzed: 2009-09-02
QC Preparation: 2009-08-28

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10100	mg/Kg	100	10000	<218	101	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	10200	mg/Kg	100	10000	<218	102	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: 208247

QC Batch: 63209
Prep Batch: 53885

Date Analyzed: 2009-09-03
QC Preparation: 2009-09-01

Analyzed By: AR
Prepared By: AR

continued ...

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 48 of 54
Eddy Co., NM

matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	17600	mg/Kg	100	10000	7540	101	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	17800	mg/Kg	100	10000	7540	103	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: 208257

QC Batch: 63211
Prep Batch: 53886

Date Analyzed: 2009-09-03
QC Preparation: 2009-09-01

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10200	mg/Kg	100	10000	<218	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	10400	mg/Kg	100	10000	<218	102	85 - 115	2	20

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

Standard (CCV-1)

QC Batch: 63022

Date Analyzed: 2009-08-28

Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	225	90	80 - 120	2009-08-28

Standard (CCV-2)

QC Batch: 63022

Date Analyzed: 2009-08-28

Analyzed By: kg

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 49 of 54
Eddy Co., NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	238	95	80 - 120	2009-08-28

Standard (CCV-3)

QC Batch: 63022 Date Analyzed: 2009-08-28 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	201	80	80 - 120	2009-08-28

Standard (ICV-1)

QC Batch: 63059 Date Analyzed: 2009-08-31 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.9	100	85 - 115	2009-08-31

Standard (CCV-1)

QC Batch: 63059 Date Analyzed: 2009-08-31 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2009-08-31

Standard (ICV-1)

QC Batch: 63060 Date Analyzed: 2009-08-31 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2009-08-31

Standard (CCV-1)

QC Batch: 63060 Date Analyzed: 2009-08-31 Analyzed By: AR

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 50 of 54
Eddy Co., NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.5	100	85 - 115	2009-08-31

Standard (ICV-1)

QC Batch: 63073

Date Analyzed: 2009-08-31

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.6	100	85 - 115	2009-08-31

Standard (CCV-1)

QC Batch: 63073

Date Analyzed: 2009-08-31

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2009-08-31

Standard (ICV-1)

QC Batch: 63084

Date Analyzed: 2009-08-31

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	2009-08-31

Standard (CCV-1)

QC Batch: 63084

Date Analyzed: 2009-08-31

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	2009-08-31

Standard (ICV-1)

QC Batch: 63086

Date Analyzed: 2009-08-31

Analyzed By: AR

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 51 of 54
Eddy Co., NM

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	2009-08-31

Standard (CCV-1)

QC Batch: 63086

Date Analyzed: 2009-08-31

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.3	99	85 - 115	2009-08-31

Standard (CCV-1)

QC Batch: 63119

Date Analyzed: 2009-08-31

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	1.04	104	80 - 120	2009-08-31

Standard (CCV-2)

QC Batch: 63119

Date Analyzed: 2009-08-31

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	0.990	99	80 - 120	2009-08-31

Standard (CCV-3)

QC Batch: 63119

Date Analyzed: 2009-08-31

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	1.11	111	80 - 120	2009-08-31

Standard (CCV-1)

QC Batch: 63121

Date Analyzed: 2009-08-31

Analyzed By: AG

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 52 of 54
Eddy Co., NM

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.0990	99	80 - 120	2009-08-31
Toluene		mg/Kg	0.100	0.101	101	80 - 120	2009-08-31
Ethylbenzene		mg/Kg	0.100	0.103	103	80 - 120	2009-08-31
Xylene		mg/Kg	0.300	0.297	99	80 - 120	2009-08-31

Standard (CCV-2)

QC Batch: 63121

Date Analyzed: 2009-08-31

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	0.0977	98	80 - 120	2009-08-31
Toluene		mg/Kg	0.100	0.0979	98	80 - 120	2009-08-31
Ethylbenzene		mg/Kg	0.100	0.0987	99	80 - 120	2009-08-31
Xylene		mg/Kg	0.300	0.283	94	80 - 120	2009-08-31

Standard (ICV-1)

QC Batch: 63156

Date Analyzed: 2009-09-02

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	2009-09-02

Standard (CCV-1)

QC Batch: 63156

Date Analyzed: 2009-09-02

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	2009-09-02

Standard (ICV-1)

QC Batch: 63157

Date Analyzed: 2009-09-02

Analyzed By: AR

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 53 of 54
Eddy Co., NM

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.9	99	85 - 115	2009-09-02

Standard (CCV-1)

QC Batch: 63157 Date Analyzed: 2009-09-02 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	2009-09-02

Standard (ICV-1)

QC Batch: 63158 Date Analyzed: 2009-09-02 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	2009-09-02

Standard (CCV-1)

QC Batch: 63158 Date Analyzed: 2009-09-02 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	0.00		85 - 115	2009-09-02

Standard (ICV-1)

QC Batch: 63209 Date Analyzed: 2009-09-03 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.1	99	85 - 115	2009-09-03

Standard (CCV-1)

QC Batch: 63209 Date Analyzed: 2009-09-03 Analyzed By: AR

Report Date: September 4, 2009
114-6400279

Work Order: 9082731
COG/RJU #110

Page Number: 54 of 54
Eddy Co., NM

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	2009-09-03

Standard (ICV-1)

QC Batch: 63211

Date Analyzed: 2009-09-03

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	2009-09-03

Standard (CCV-1)

QC Batch: 63211

Date Analyzed: 2009-09-03

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.8	99	85 - 115	2009-09-03

Analysis Request of Chain of Custody Record



TETRA TECH

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

PAGE: 1 OF: 9

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG

SITE MANAGER: Ike Tavares

PROJECT NO.: 114-6400279

PROJECT NAME: COG / RJU #110

LAB I.D. NUMBER: 208175 DATE: 8/25 TIME: MATRIX: S COMP: X GRAB: SAMPLE IDENTIFICATION: Eddy Co., NM

NUMBER	2009		MAT	CON	GRA		NUM	FILT	HCL	HNO	ICE	NON	BTE	TPH	PAH	RCR	TCL	TCL	TCL	RCI	GC.N	GC.N	PCB	Pest	Chlor	Gamma	Alpha	PLM	Major			
208175	8/25		S	X	SB-1	0-1'	1					X		X											X							
176					SB-1	2-3'																			X							
177					SB-1	4-5'																			X							
178					SB-1	6-7'																			X							
179					SB-1	10-11'																			X							
180					SB-1	15-16'																			X							
181					SB-1	20-21'																			X							
182					SB-1	25-26'																			X							
183					SB-1	30-31'																			X							
184					SB-1	40-41'																			X							

RELINQUISHED BY: (Signature) [Signature]

Date: 8-27-07

RECEIVED BY: (Signature) [Signature]

Date: 8/27/07

SAMPLED BY: (Print & Initial) Kim

Date: 8/25/07

RELINQUISHED BY: (Signature)

Date:

RECEIVED BY: (Signature)

Date:

SAMPLE SHIPPED BY: (Circle)

ARBILL #:

RELINQUISHED BY: (Signature)

Date:

RECEIVED BY: (Signature)

Date:

HAND DELIVERED

OTHER:

RECEIVING LABORATORY: TRACE

RECEIVED BY: (Signature)

ADDRESS: Midland STATE: TX ZIP:

CONTACT: PHONE:

DATE: TIME:

TETRA TECH CONTACT PERSON:

Results by:

Ike Tavares

RUSH Charges Authorized:
Yes No

SAMPLE CONDITION WHEN RECEIVED:

REMARKS: IF TPH > 5,000 m/kg - Run deeper samples.

11.4c 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.

Run (3) BTEX on highest TPH

Analysis Request of Chain of Custody Record

PAGE: 2 OF: 9



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: COG

SITE MANAGER: Ike Tavaraz

PROJECT NO.: 114-6400279

PROJECT NAME: COG / RJU #110
Eddy Co., NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. (Ext. to C95)	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. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
208185	8/25		S	X		SB-2 0-1'	1					X	X												X				
186						SB-2 2-3'																			X				
187						SB-2 4-5'																			X				
188						SB-2 6-7'																			X				
189						SB-2 10-11'																			X				
190						SB-2 15-16'																			X				
191						SB-2 20-21'																			X				
192						SB-2 25-26'																			X				
193						SB-2 30-31'																			X				
194						SB-3 0-1'							X												X				

RELINQUISHED BY: (Signature) _____

Date: 8-27-09
Time: 2:25

RECEIVED BY: (Signature) _____

Date: 8/27/09
Time: 10:23

SAMPLED BY: (Print & Initial) Kim

Date: 8/25/09
Time: _____

RELINQUISHED BY: (Signature) _____

Date: _____
Time: _____

RECEIVED BY: (Signature) _____

Date: _____
Time: _____

SAMPLE SHIPPED BY: (Circle)

AIRBILL #: _____

FEDEX
HAND DELIVERED

BUS
UPS

OTHER: _____

RELINQUISHED BY: (Signature) _____

Date: _____
Time: _____

RECEIVED BY: (Signature) _____

Date: _____
Time: _____

TETRA TECH CONTACT PERSON:

Results by:

RECEIVING LABORATORY: TRACE

RECEIVED BY: (Signature) _____

ADDRESS: _____
CITY: Midland STATE: TX ZIP: _____
CONTACT: _____ PHONE: _____

DATE: _____ TIME: _____

Ike Tavaraz

RUSH Charges
Authorized:
Yes No

SAMPLE CONDITION WHEN RECEIVED:

REMARKS: DF TPH > 5000 mg/kg Run deeper samples.

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.

Run (3) BTEX on highest TPH.

Analysis Request of Chain of Custody Record



TETRA TECH

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

PAGE: 3 OF: 9

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG SITE MANAGER: Ike Tavaraz

PROJECT NO.: 114-6400279 PROJECT NAME: COG / RJV #110

LAB I.D. NUMBER: DATE: TIME: MATRIX: COMP: GRAB: SAMPLE IDENTIFICATION: Eddy Co., NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	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 Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/824	GC/MS Semi. Vol. 8270/825	PCBs 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
208195	8/25		S	X		SB-3 2-3'	1					X													X				
196						SB-3 4-5'																			X				
197						SB-3 6-7'																			X				
198						SB-3 10-11'																			X				
199						SB-3 15-16'																			X				
200						SB-3 20-21'																			X				
201						SB-3 25-26'																			X				
202						SB-3 30-31'																			X				
203						SB-3 40-41'																			X				
204						SB-4 0-1'								X											X				

RELINQUISHED BY: (Signature) Date: 8-27-09 RECEIVED BY: (Signature) Date: 8/27/09 SAMPLED BY: (Print & Initial) Kim Date: 8/25/09
Time: 2:25 Time: 14:25 Time: _____
RELINQUISHED BY: (Signature) Date: _____ RECEIVED BY: (Signature) Date: _____ SAMPLE SHIPPED BY: (Circle) FEDEX BUS AIRBILL #: _____
Time: _____ Time: _____ Time: _____
RELINQUISHED BY: (Signature) Date: _____ RECEIVED BY: (Signature) Date: _____ HAND DELIVERED UPS OTHER: _____
Time: _____ Time: _____ Time: _____

RECEIVING LABORATORY: TRACE RECEIVED BY: (Signature) _____
ADDRESS: _____
CITY: Midland STATE: TX ZIP: _____
CONTACT: _____ PHONE: _____ DATE: _____ TIME: _____
TETRA TECH CONTACT PERSON: Ike Tavaraz Results by: _____

SAMPLE CONDITION WHEN RECEIVED: 11.4°e intact REMARKS: IF TPH > 5000 mg/kg - Run deeper samples All tests - Midland
Run(3) BTEX on highest TPH

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

Analysis Request of Chain of Custody Record



TETRA TECH

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

PAGE: 84 OF: 9

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG

SITE MANAGER: Ike Tavaraz

PROJECT NO.: 114-6400279

PROJECT NAME: COG / RTJ #110

LAB I.D. NUMBER: 2009 DATE: 8/25 TIME: MATRIX: S COMP: X GRAB: Eldo Co., NM
SAMPLE IDENTIFICATION

NUMBER	2009		MAT	CON	GRA		NUM	FILT	HCL	HNO	ICE	NON		BTEX	TPH	PAH	RCRA	TCL1	TCL2	TCL3	RCI	GC.N	GC.M	PCB	Pest	Chlor	Gamma	Alpha	PLM	Major
208205	8/25		S	X	SB-4	2-3'	1					X																		
206					SD-4	4-5'																								
207					SB-4	6-7'																								
208					SB-4	10-11'																								
209					SB-4	15-16'																								
210					SB-4	20-21'																								
211					SB-4	25-26'																								
212					SB-5	0-1'									X															
213					SB-5	2-3'																								
214					SB-5	4-5'																								

RELINQUISHED BY: (Signature)

Date: 8-22-09
Time: 2:25

RECEIVED BY: (Signature)

Date: 8-22-09
Time: 14:23

SAMPLED BY: (Print & Initial)

Kim

Date: 8/25/09
Time:

RELINQUISHED BY: (Signature)

Date:
Time:

RECEIVED BY: (Signature)

Date:
Time:

SAMPLE SHIPPED BY: (Circle)

FEDEX HAND DELIVERED BUS UPS

AIRBILL #:

OTHER:

RELINQUISHED BY: (Signature)

Date:
Time:

RECEIVED BY: (Signature)

Date:
Time:

TETRA TECH CONTACT PERSON:

Ike Tavaraz

Results by:

RUSH Charges
Authorized:
Yes No

RECEIVING LABORATORY: TRACE

ADDRESS: Midland STATE: TX ZIP:

CONTACT: PHONE: DATE: TIME:

SAMPLE CONDITION WHEN RECEIVED:

114°C intact

REMARKS: IF TPH > 5000 mg/kg - Run deeper samples

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.

Run(3) BTEX on highest TPH

PAGE: 6 OF: 8



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

ANALYSIS REQUEST
(Circle or Specify Method No.)

SITE MANAGER:
Ike Tavaroz

PROJECT NAME: COG/RJU #110

LAB I.D. NUMBER	DATE	TIME	RIX	MP	B	Eddy Co., NM SAMPLE IDENTIFICATION
--------------------	------	------	-----	----	---	---------------------------------------

NUMBER	2009	MAT	COM	GRA		
208225	8/25	S	X	SB-6	10-11'	
2216	8/25			SB-6	15-16'	
227	8/25			SB-6	20-21'	
228	8/26			SB-7	0-1'	
229	8/26			SB-7	2-3	
230	8/26			SB-7	4-5	
231	8/26			SB-7	6-7	
232	8/26			SB-7	10-11'	
233	8/26			SB-7	15-16'	
234	8/26			SB-7	20-21'	

NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD			
		HCL	HNO3	ICE	NONE
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					
39					
40					
41					
42					
43					
44					
45					
46					
47					
48					
49					
50					
51					
52					
53					
54					
55					
56					
57					
58					
59					
60					
61					
62					
63					
64					
65					
66					
67					
68					
69					
70					
71					
72					
73					
74					
75					
76					
77					
78					
79					
80					
81					
82					
83					
84					
85					
86					
87					
88					
89					
90					
91					
92					
93					
94					
95					
96					
97					
98					
99					
100					

[illegible]

Date: 8/25/09
Time: _____

AIRBILL #:

OTHER: _____

Results by:

RUSH Charges	
Authorized:	
Yes	No

REMARKS: *DP TPH > 5,000 mg/kg - Run deeper samples.*

11.4% 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.

Run (3) BTEX on highest TPH

Analysis Request of Chain of Custody Record



TETRA TECH

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

PAGE: 7 OF: 9

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:

COG

SITE MANAGER:

Ike Tavaraz

PROJECT NO.:

1146400279

PROJECT NAME:

COG / RJU #110

LAB I.D.
NUMBER

DATE

TIME

MATRIX

COMP

GRAB

Eddy Co., NM
SAMPLE IDENTIFICATION

NUMBER OF CONTAINERS

FILTERED (Y/N)

PRESERVATIVE
METHOD

HCL

HNO3

ICE

NONE

BTEX 8021B

PH 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. 8240/8260/624

GC/MS Semi. Vol. 8270/625

PCBs 8080/608

Pest. 808/608

Chloride

Gamma Spec.

Alpha Beta (Air)

PLM (Asbestos)

Major Anions/Cations, pH, TDS

208235

8/26

S

X

SB-8 0-1'

1

X

X

X

236

SB-8 2-3'

1

X

X

237

SB-8 4-5'

1

X

X

238

SB-8 6-7'

1

X

X

239

SB-8 10-11'

1

X

X

240

SB-8 15-16'

1

X

X

241

SB-8 20-21'

1

X

X

242

SB-8 25-26'

1

X

X

243

SB-8 30-31'

1

X

X

244

SB-9 0-1'

1

X

X

X

RELINQUISHED BY: (Signature)

Date: 8-27-09

RECEIVED BY: (Signature)

Date: 8/27/09

Analysis Request of Chain of Custody Record



TETRA TECH

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

PAGE: 8 OF: 9

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:

COG

SITE MANAGER:

Ike Tavares

PROJECT NO.:

114-6400279

PROJECT NAME:

COG / RJU # 110

Eddy Co., NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION		NUMBER OF	FILTERED (Y)	HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015	PAH 8270	RCRA Metals	TCLP Metals	TCLP Volatiles	TCLP Semi V	RCI	GC-MS Vol. 8	GC-MS Semi	PCB's 8080/6	Pest. 808/608	Chloride	Gamma Spec	Alpha Beta (a	PLM (Asbestos	Major Anions
	2009																													
208246	8/26		S	X		SB-9	2-3'	1					X													X				
246			S	X			4-5'	1					X													X				
247		S	X			6-7'	1					X													X					
248		S	X			10-11'	1					X													X					
249		S	X			15-16'	1					X													X					
250		S	X			20-21'	1					X													X					
251			S	X		SB-10	0-1'	1					X		X										X					
252			S	X			2-3'	1					X												X					
253			S	X			4-5'	1					X												X					
254			S	X			6-7'	1					X												X					

RELINQUISHED BY: (Signature)

Date: 8-27-09
Time: 2:25

RECEIVED BY: (Signature)

Date: 8/27/09
Time: 14:25

SAMPLED BY: (Print & Initial)

Kim

Date: 8/24/09
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: _____

TETRA TECH CONTACT PERSON:

Ike Tavares

Results by:

RUSH Charges Authorized:

Yes No

RECEIVING LABORATORY:

TRACE

RECEIVED BY: (Signature)

ADDRESS:

CITY: Midland

STATE: TX

ZIP: _____

CONTACT:

PHONE: _____

DATE: _____

TIME: _____

SAMPLE CONDITION WHEN RECEIVED:

REMARKS:

IF TPH > 5,000 mg/kg - Run deeper samples

11.7 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.

Run (3) BTEX on highest TPH

