

SITE INFORMATION

Report Type: Closure Report

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AUG 10 2010

NMOCD AREA 'A'

General Site Information:

Site:	Skelly Unit #975
Company:	COG Operating LLC
Section, Township and Range	Section 23, T17S, R31 E Unit Letter - B
Lease Number:	
County:	Eddy County
GPS:	32.82596° N, 103.83884° W
Surface Owner:	Federal
Mineral Owner:	
Directions:	From intersection of 529 and 82, Go east on 82 (1.9m), turn left north (0.1m), turn right (0.2m), to location

Release Data:

Date Released:	12/28/2009
Type Release:	Oil
Source of Contamination:	1" nipple on the wellhead
Fluid Released:	30 barrels
Fluids Recovered:	25 barrels

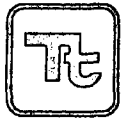
Official Communication:

Name:	Pat Ellis		Kim Dorey
Company:	COG Operating, LLC		Tetra Tech
Address:	550 W. Texas Ave. Ste. 1300		1910 N. Big Spring
P.O. Box			
City:	Midland Texas, 79701		Midland, Texas
Phone number:	(432) 686-3023		(432) 631-0348
Fax:	(432) 684-7137		
Email:	pellis@conchoresources.com		kim.dorey@tetrattech.com

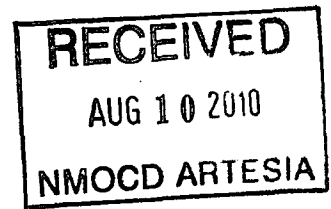
Ranking Criteria

Depth to Groundwater:	Ranking Score	Site Data
<50 ft	20	
50-99 ft	10	
>100 ft.	0	Ground water >300 ft
WellHead Protection:	Ranking Score	Site Data
Water Source <1,000 ft., Private <200 ft.	20	
Water Source >1,000 ft., Private >200 ft.	0	0
Surface Body of Water:	Ranking Score	Site Data
<200 ft.	20	
200 ft - 1,000 ft.	10	
>1,000 ft.	0	0
Total Ranking Score:	0	

Acceptable Soil RRAL (mg/kg)		
Benzene	Total BTEX	TPH
10	50	5,000



TETRA TECH



July 15, 2010

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

**Re: Closure Report for the COG Operating LLC., Skelly Unit #975,
Unit B, Section 23, Township 17 South, Range 31 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 Skelly Unit #975 located in Unit B, Section 23, Township 17 South, Range 31 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.82596°, W 103.83884°. 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 December 28, 2009, and released approximately thirty (30) barrels of oil from the wellhead. Twenty-five (25) barrels of standing fluids were recovered. The spill initiated from the wellhead and impacted an area 210' by 110' (tapering to 65') on the pad. The spill migrated west off of the pad and traveled for approximately 60'. The initial and final C-141 forms are enclosed in Appendix C.

Tetra Tech

1910 North Big Spring, Midland, TX 79705

Tel 432.682.4559 Fax 432.682.3946 www.tetrattech.com



Groundwater

No water wells were listed within Section 23. According to the *Geology and Groundwater Resources of Eddy County, New Mexico* (Report 3), one well is located in Section 34, with reported depth to water of 271' below surface. According to the NMOCD groundwater map, the average depth to groundwater in this area is greater than 300' 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 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 Analytical Results

On January 26, 2010, Tetra Tech personnel inspected and sampled the spill area. A total of eleven (11) auger holes (AH-1 through AH-11) were installed using a stainless steel hand auger to assess the impacted soils. Select samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix B. The results of the sampling are summarized in Table 1. The auger hole locations are shown on Figure 3.

Referring to Table 1, all the submitted samples were below RRAL for TPH and BTEX. Elevated chloride concentrations were detected for AH-1 of 1,890 mg/kg (6-6.5') and AH-2 of 748 mg/kg (4-4.5'). Additionally, AH-3, AH-4, AH-7, and AH-10 had elevated chloride concentrations of 5,060 mg/kg, 3,610 mg/kg, 11,700 mg/kg, and 7,400 mg/kg respectively, which decreased to less than 200 mg/kg at depth.



TETRA TECH

Remediation and Conclusion

On March 23, 2010, Tetra Tech personnel supervised the removal of impacted material near AH-1, AH-2, AH-3, AH-4, AH-7, and AH-10. The excavated soils, approximately 260 cubic yards, were transported offsite for disposal at Controlled Recovery, Inc., of Hobbs, New Mexico. Confirmation bottom hole samples were collected near AH-1 (CS-2) and near AH-2 (CS-1). Referring to Table 1, chloride concentrations from CS-1 and CS-2 were less than 200 mg/kg at 7'. All excavated areas were backfilled with clean material and brought up to surface grade.

Based on the results, COG requests closure of the site. The C-141 (Final) is included in Appendix C. If you have any questions or comments concerning the assessment or the remediation activities performed at the site, please call me at (432) 682-4559.

Respectfully submitted,
TETRA TECH

Kim Dorey
Staff Geologist

cc: Pat Ellis – COG
cc: Terry Gregston – BLM

FIGURES

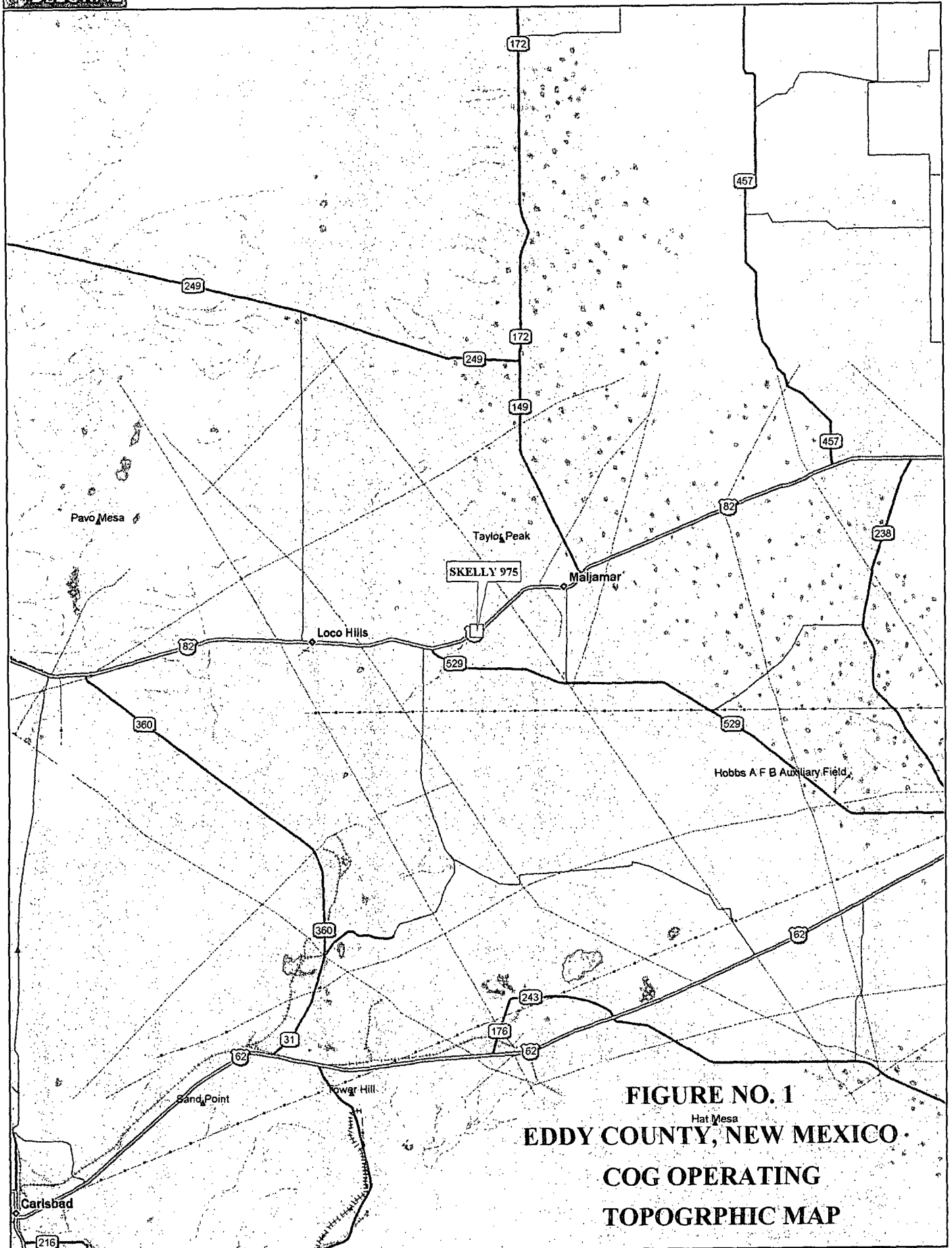
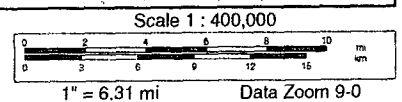


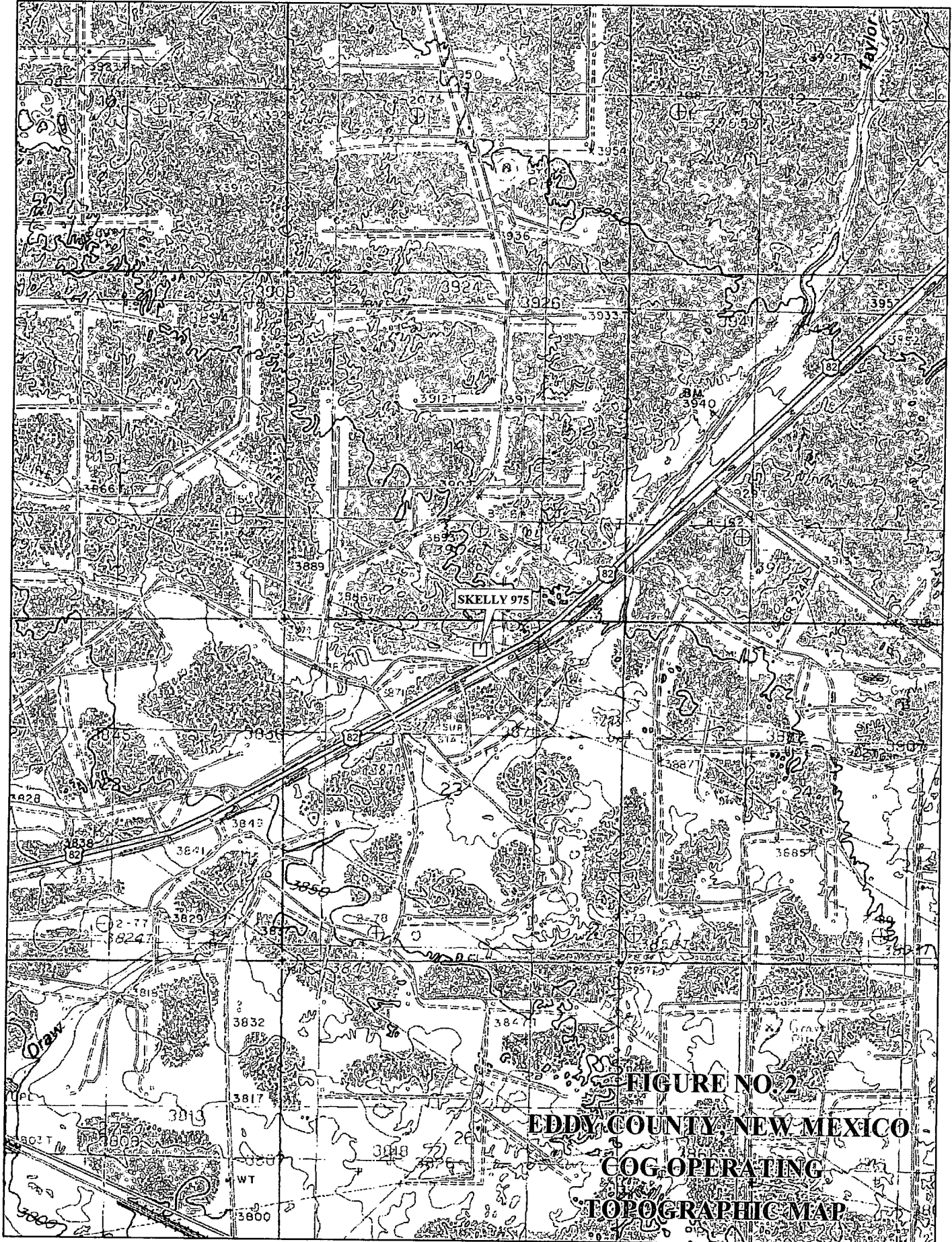
FIGURE NO. 1
 Hat Mesa
EDDY COUNTY, NEW MEXICO
COG OPERATING
TOPOGRAPHIC MAP

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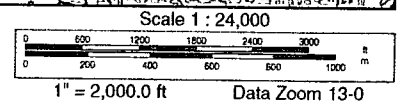


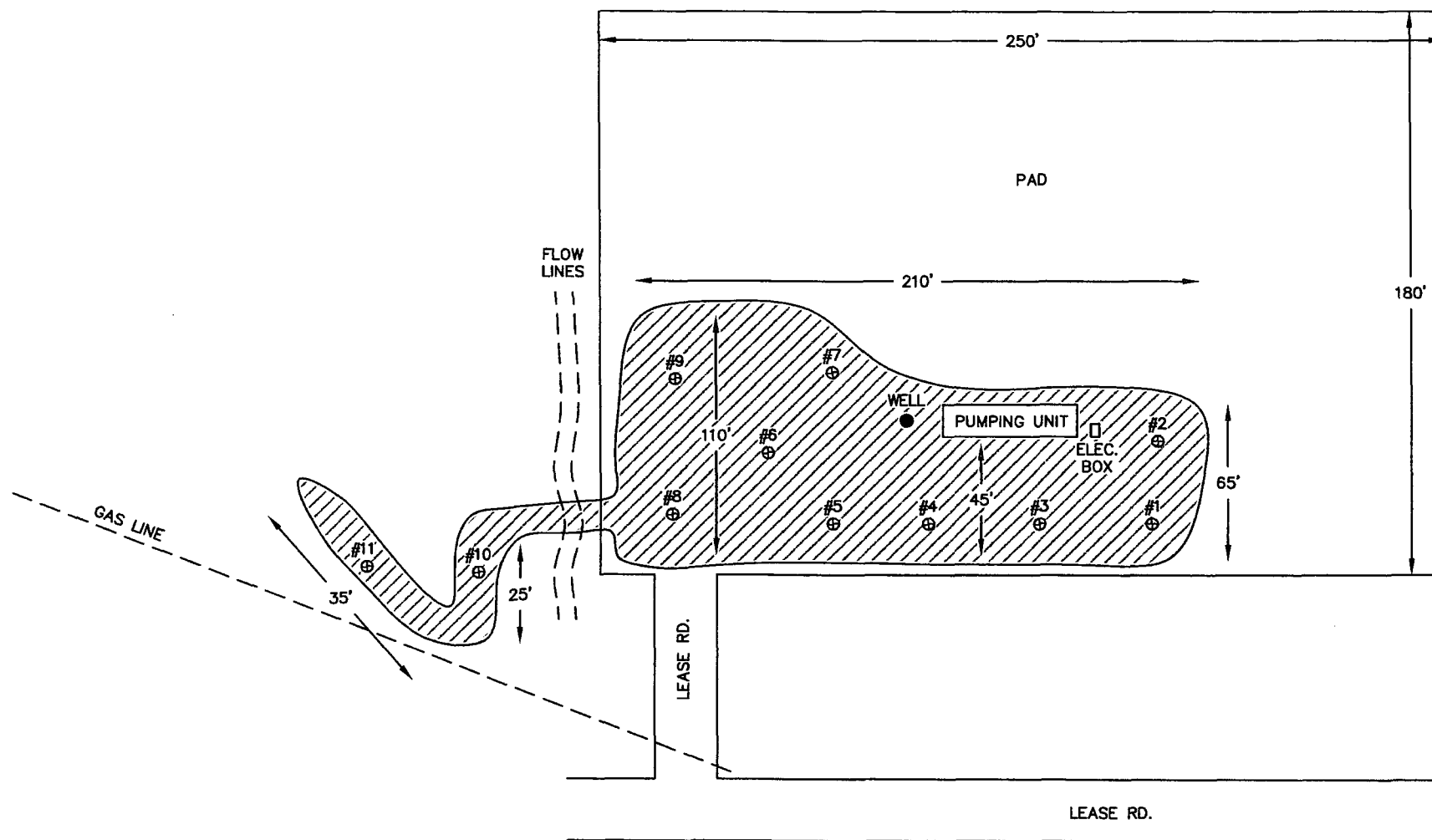


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SPILL AREA
SAMPLE LOCATIONS

NOT TO SCALE

DATE:
2/9/10
DWN. BY:
JJ
FILE:
H:\COG\0400400
HOLDING 03

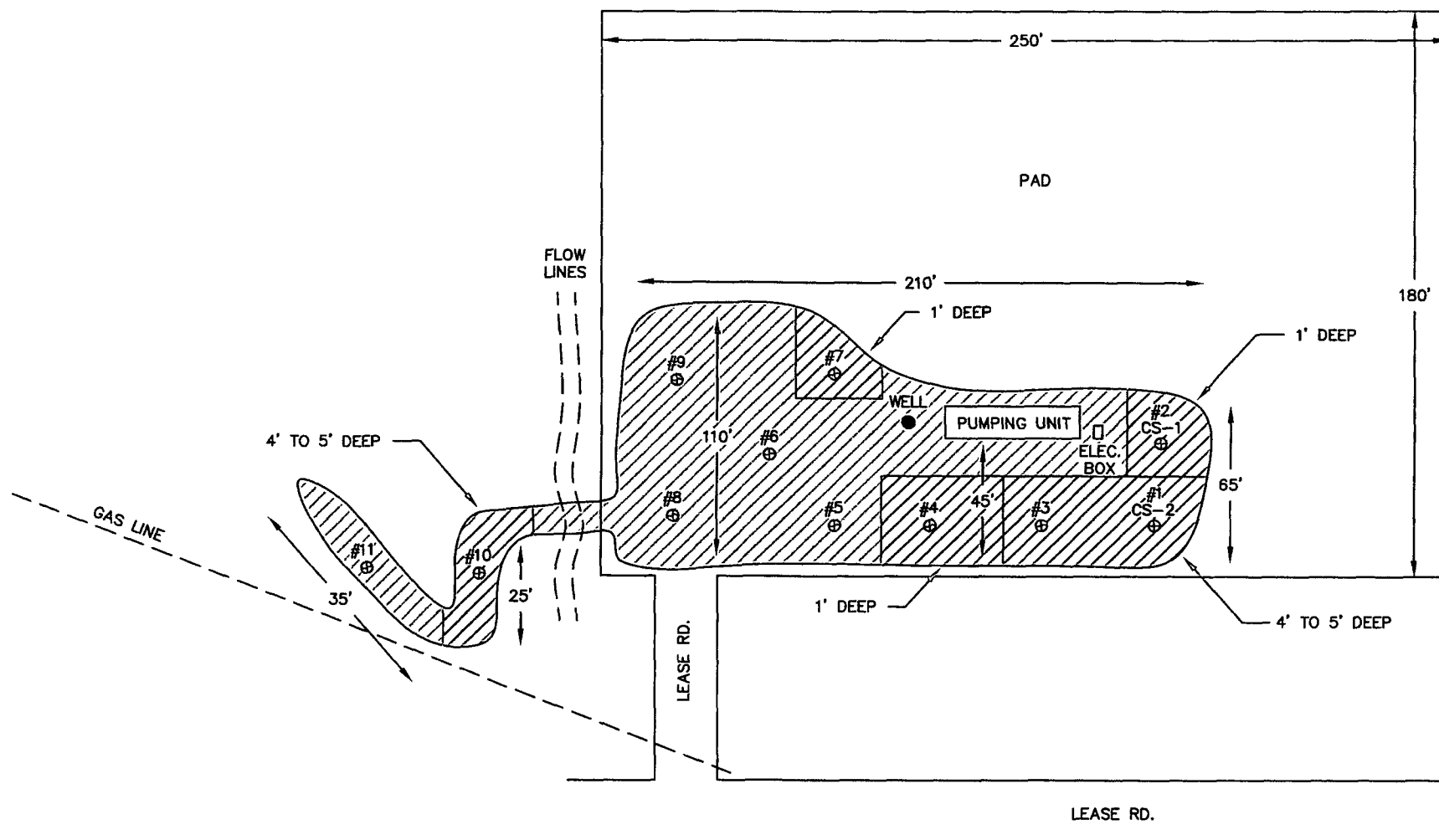
FIGURE NO. 3

EDDY COUNTY, NEW MEXICO

COG OPERATING LLC

SKELLY 975

TETRA TECH, INC.
MIDLAND, TEXAS



- SPILL AREA
- EXCAVATION AREA
- SAMPLE LOCATIONS
- CONFIRMATION SAMPLE LOCATIONS

NOT TO SCALE

DATE:
2/9/10
DWN. BY:
JJ
FILE:
H:\COG\0400408
SKELLY 975

FIGURE NO. 4

EDDY COUNTY, NEW MEXICO

COG OPERATING LLC

SKELLY 975

TETRA TECH, INC.
MIDLAND, TEXAS

TABLE

Table 1
COG Operating LLC.
Skelly 975

[illegible]

Table 1
COG Operating LLC.
Skelly 975
EDDY COUNTY, NEW MEXICO

[illegible]

Table 1
COG Operating LLC.
Skelly 975
EDDY COUNTY, NEW MEXICO

[illegible]

Table 1
COG Operating LLC.
Skelly 975
EDDY COUNTY, NEW MEXICO

Sample ID	Sample Date	Sample Depth (ft)	Depth (BEB)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	DRO	GRO	Total					
AH-11	1/26/2010	0-1'		X		167	250	427	<0.0500	0.0704	1.44	2.38	<200
		1-1.5'		X		--	--	--	--	--	--	--	<200
		2-2.5'		X		--	--	--	--	--	--	--	<200
		3-3.5'		X		--	--	--	--	--	--	--	<200
		4-4.5'		X		--	--	--	--	--	--	--	<200
		5-5.5'		X		--	--	--	--	--	--	--	<200
		6-6.5'		X		--	--	--	--	--	--	--	<200
		7-7.5'		X		--	--	--	--	--	--	--	<200

BEB Below Excavation Bottom

(--) Not Analyzed

☐ Excavated material

BS Bottom Hole Sample

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 1300 Midland, TX 79701	Telephone No.	432-685-4332
Facility Name	Skelly Unit 975	Facility Type	Battery
Surface Owner	Federal	Mineral Owner	
		Lease No.	30-015-36356

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	23	17S	31E	550	North	2310	East	Eddy

Latitude

Longitude

NATURE OF RELEASE

Type of Release-Oil	Volume of Release-30bbls	Volume Recovered- 25bbls
Source of Release- Wellhead	Date and Hour of Occurrence- 12/28/09	Date and Hour of Discovery 12/28/09
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher OCD	
By Whom? Rick Wright	Date and Hour 12/28/09	
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.*

A 1" nipple on the wellhead popped a hole.

Describe Area Affected and Cleanup Action Taken.*

Mostly all the fluid remained on the pad. An area of about 2'x25' of fluid ran off the west side of the pad. The pad has been scraped, but has not been cleaned. 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/BLM 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.

Signature: 	OIL CONSERVATION DIVISION		
Printed Name: Chasity Jackson	Approved by District Supervisor:		
Title: Agent for COG	Approval Date:	Expiration Date:	
E-mail Address: cjackson@conchoresources.com	Conditions of Approval:		Attached ☐
Date: 01/07/10	Phone: 432-686-3087		

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
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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 Pat Ellis	
Address 550 W. Texas, Suite 1300 Midland, Texas 79701	Telephone No. (432) 685-4332	
Facility Name Skelly Unit 975	Facility Type Tank Battery	
Surface Owner Federal	Mineral Owner	Lease No. 30-015-36356

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	23	17S	31E	550	North	2310	East	Eddy

Latitude N 32.82596°

Longitude 103.83884°

NATURE OF RELEASE

Type of Release Oil	Volume of Release 30 bbls	Volume Recovered 25 bbls
Source of Release Wellhead	Date and Hour of Occurrence 12/28/09	Date and Hour of Discovery 12/28/09
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher - OCD	
By Whom? Rick Wright	Date and Hour 12/28/09	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	
If a Watercourse was Impacted, Describe Fully.* N/A		
Describe Cause of Problem and Remedial Action Taken.* A 1" nipple on the wellhead popped a hole.		
Describe Area Affected and Cleanup Action Taken.* Tetra Tech inspected site and collected samples to define spills extent. All samples were below the RRAL. Tetra Tech prepared closure report and submitted to NMOCD for review.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Signature:	OIL CONSERVATION DIVISION	
Printed Name: Pat Ellis	Approved by District Supervisor:	
Title: Environmental and Safety Supervisor	Approval Date:	Expiration Date:
E-mail Address: PEllis@conchoresources.com	Conditions of Approval:	Attached ☐
Date: 12/7/09	Phone: (432) 686-3023	

* Attach Additional Sheets If Necessary

APPENDIX B

Water Well Data
Average Depth to Groundwater (ft)
COG - Skelly Unit #975
Eddy County, New Mexico

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

16 South 31 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

16 South 32 East					
6	5	4	3	65	2
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 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 31 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 32 East					
6	5	4	82	3	2
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	180	29	28	27	26
31	dry	32	33	34	35

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

18 South 31 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 32 East					
6	5	4	65	3	2
7	460	8	9	10	11
18	82	17	16	15	14
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

-  New Mexico State Engineers Well Reports
-  USGS Well Reports
-  Geology and Groundwater Conditions in Southern Eddy, County, NM
-  NMOCD - Groundwater Data
-  Field water level
-  New Mexico Water and Infrastructure Data System



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

POD Number	Sub basin	Use	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
RA 11590 POD1			ED	2	1	3	32	17S	31E	603315	3628545	158		
RA 11590 POD3			ED	3	1	2	32	17S	31E	603932	3629260	60		
RA 11590 POD4			ED	4	1	1	32	17S	31E	603308	3629253	55		

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 3

PLSS Search:

Section(s): 1-36

Township: 17S

Range: 31E

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

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.

APPENDIX C

Summary Report

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

Report Date: February 8, 2010

Work Order: 10012917



Project Location: Eddy County, NM
Project Name: COG/Skelly 975
Project Number: 114-6400408

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
221190	AH-1 0-1'	soil	2010-01-26	00:00	2010-01-28
221191	AH-1 1-1.5'	soil	2010-01-26	00:00	2010-01-28
221192	AH-1 2-2.5'	soil	2010-01-26	00:00	2010-01-28
221193	AH-1 3-3.5'	soil	2010-01-26	00:00	2010-01-28
221194	AH-1 4-4.5'	soil	2010-01-26	00:00	2010-01-28
221195	AH-1 5-5.5'	soil	2010-01-26	00:00	2010-01-28
221196	AH-1 6-6.5'	soil	2010-01-26	00:00	2010-01-28
221197	AH-2 0-1'	soil	2010-01-26	00:00	2010-01-28
221198	AH-2 1-1.5'	soil	2010-01-26	00:00	2010-01-28
221199	AH-2 2-2.5'	soil	2010-01-26	00:00	2010-01-28
221200	AH-2 3-3.5'	soil	2010-01-26	00:00	2010-01-28
221201	AH-2 4-4.5'	soil	2010-01-26	00:00	2010-01-28
221202	AH-3 0-1'	soil	2010-01-26	00:00	2010-01-28
221203	AH-3 1-1.5'	soil	2010-01-26	00:00	2010-01-28
221204	AH-3 2-2.5'	soil	2010-01-26	00:00	2010-01-28
221205	AH-3 3-3.5'	soil	2010-01-26	00:00	2010-01-28
221206	AH-3 4-4.5'	soil	2010-01-26	00:00	2010-01-28
221207	AH-4 0-1'	soil	2010-01-26	00:00	2010-01-28
221208	AH-4 1-1.5'	soil	2010-01-26	00:00	2010-01-28
221209	AH-4 2-2.5'	soil	2010-01-26	00:00	2010-01-28
221210	AH-5 0-1'	soil	2010-01-26	00:00	2010-01-28
221211	AH-5 1-1.5'	soil	2010-01-26	00:00	2010-01-28
221212	AH-5 2-2.5'	soil	2010-01-26	00:00	2010-01-28
221213	AH-6 0-1'	soil	2010-01-26	00:00	2010-01-28
221214	AH-6 1-1.5'	soil	2010-01-26	00:00	2010-01-28
221215	AH-6 2-2.5'	soil	2010-01-26	00:00	2010-01-28
221216	AH-7 0-1'	soil	2010-01-26	00:00	2010-01-28
221217	AH-7 1-1.5'	soil	2010-01-26	00:00	2010-01-28
221218	AH-7 2-2.5'	soil	2010-01-26	00:00	2010-01-28
221219	AH-8 0-1'	soil	2010-01-26	00:00	2010-01-28

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
221220	AH-8 1-1.5'	soil	2010-01-26	00:00	2010-01-28
221221	AH-8 2-2.5'	soil	2010-01-26	00:00	2010-01-28
221222	AH-9 0-1'	soil	2010-01-26	00:00	2010-01-28
221223	AH-9 1-1.5'	soil	2010-01-26	00:00	2010-01-28
221224	AH-9 2-2.5'	soil	2010-01-26	00:00	2010-01-28
221225	AH-10 0-1'	soil	2010-01-26	00:00	2010-01-28
221226	AH-10 1-1.5'	soil	2010-01-26	00:00	2010-01-28
221227	AH-10 2-2.5'	soil	2010-01-26	00:00	2010-01-28
221228	AH-10 3-3.5'	soil	2010-01-26	00:00	2010-01-28
221229	AH-10 4-4.5'	soil	2010-01-26	00:00	2010-01-28
221230	AH-10 5-5.5'	soil	2010-01-26	00:00	2010-01-28
221231	AH-10 6-6.5'	soil	2010-01-26	00:00	2010-01-28
221232	AH-10 7-7.5'	soil	2010-01-26	00:00	2010-01-28
221233	AH-11 0-1'	soil	2010-01-26	00:00	2010-01-28
221234	AH-11 1-1.5'	soil	2010-01-26	00:00	2010-01-28
221235	AH-11 2-2.5'	soil	2010-01-26	00:00	2010-01-28
221236	AH-11 3-3.5'	soil	2010-01-26	00:00	2010-01-28
221237	AH-11 4-4.5'	soil	2010-01-26	00:00	2010-01-28
221238	AH-11 5-5.5'	soil	2010-01-26	00:00	2010-01-28
221239	AH-11 6-6.5'	soil	2010-01-26	00:00	2010-01-28
221240	AH-11 7-7.5'	soil	2010-01-26	00:00	2010-01-28

Sample - Field Code	BTEX				TPH DRO - NEW	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
221190 - AH-1 0-1'					<50.0	<1.00
221197 - AH-2 0-1'					<50.0	<1.00
221202 - AH-3 0-1'	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
221207 - AH-4 0-1'					<50.0	<1.00
221210 - AH-5 0-1'					<50.0	<1.00
221213 - AH-6 0-1'					<50.0	<1.00
221216 - AH-7 0-1'	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
221219 - AH-8 0-1'	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
221222 - AH-9 0-1'					<50.0	<1.00
221225 - AH-10 0-1'	<0.0500	2.92	5.13	6.05	477	392
221233 - AH-11 0-1'	<0.0500	0.0704	1.44	2.38	167	250

Sample: 221190 - AH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		7130	mg/Kg	4.00

Sample: 221191 - AH-1 1-1.5'

Param	Flag	Result	Units	RL
Chloride		3540	mg/Kg	4.00

Sample: 221192 - AH-1 2-2.5'

Param	Flag	Result	Units	RL
Chloride		2950	mg/Kg	4.00

Sample: 221193 - AH-1 3-3.5'

Param	Flag	Result	Units	RL
Chloride		3730	mg/Kg	4.00

Sample: 221194 - AH-1 4-4.5'

Param	Flag	Result	Units	RL
Chloride		5160	mg/Kg	4.00

Sample: 221195 - AH-1 5-5.5'

Param	Flag	Result	Units	RL
Chloride		4420	mg/Kg	4.00

Sample: 221196 - AH-1 6-6.5'

Param	Flag	Result	Units	RL
Chloride		1890	mg/Kg	4.00

Sample: 221197 - AH-2 0-1'

Param	Flag	Result	Units	RL
Chloride		2330	mg/Kg	4.00

Sample: 221198 - AH-2 1-1.5'

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

Sample: 221199 - AH-2 2-2.5'

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

Sample: 221200 - AH-2 3-3.5'

Param	Flag	Result	Units	RL
Chloride		512	mg/Kg	4.00

Sample: 221201 - AH-2 4-4.5'

Param	Flag	Result	Units	RL
Chloride		748	mg/Kg	4.00

Sample: 221202 - AH-3 0-1'

Param	Flag	Result	Units	RL
Chloride		5060	mg/Kg	4.00

Sample: 221203 - AH-3 1-1.5'

Param	Flag	Result	Units	RL
Chloride		3380	mg/Kg	4.00

Sample: 221204 - AH-3 2-2.5'

Param	Flag	Result	Units	RL
Chloride		2390	mg/Kg	4.00

Sample: 221205 - AH-3 3-3.5'

Param	Flag	Result	Units	RL
Chloride		2300	mg/Kg	4.00

Sample: 221206 - AH-3 4-4.5'

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

Sample: 221207 - AH-4 0-1'

Param	Flag	Result	Units	RL
Chloride		3610	mg/Kg	4.00

Sample: 221208 - AH-4 1-1.5'

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

Sample: 221209 - AH-4 2-2.5'

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

Sample: 221210 - AH-5 0-1'

Param	Flag	Result	Units	RL
Chloride		586	mg/Kg	4.00

Sample: 221211 - AH-5 1-1.5'

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

Sample: 221212 - AH-5 2-2.5'

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

Sample: 221213 - AH-6 0-1'

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

Sample: 221214 - AH-6 1-1.5'

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

Sample: 221215 - AH-6 2-2.5'

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

Sample: 221216 - AH-7 0-1'

Param	Flag	Result	Units	RL
Chloride		11700	mg/Kg	4.00

Sample: 221217 - AH-7 1-1.5'

Param	Flag	Result	Units	RL
Chloride		2010	mg/Kg	4.00

Sample: 221218 - AH-7 2-2.5'

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

Sample: 221219 - AH-8 0-1'

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

Sample: 221220 - AH-8 1-1.5'

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

Sample: 221221 - AH-8 2-2.5'

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

Sample: 221222 - AH-9 0-1'

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

Sample: 221223 - AH-9 1-1.5'

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

Sample: 221224 - AH-9 2-2.5'

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

Sample: 221225 - AH-10 0-1'

Param	Flag	Result	Units	RL
Chloride		7400	mg/Kg	4.00

Sample: 221226 - AH-10 1-1.5'

Param	Flag	Result	Units	RL
Chloride		6200	mg/Kg	4.00

Sample: 221227 - AH-10 2-2.5'

Param	Flag	Result	Units	RL
Chloride		6730	mg/Kg	4.00

Sample: 221228 - AH-10 3-3.5'

Param	Flag	Result	Units	RL
Chloride		4250	mg/Kg	4.00

Sample: 221229 - AH-10 4-4.5'

Param	Flag	Result	Units	RL
Chloride		4350	mg/Kg	4.00

Sample: 221230 - AH-10 5-5.5'

Param	Flag	Result	Units	RL
Chloride		299	mg/Kg	4.00

Sample: 221231 - AH-10 6-6.5'

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

Sample: 221232 - AH-10 7-7.5'

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

Sample: 221233 - AH-11 0-1'

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

Sample: 221234 - AH-11 1-1.5'

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

Sample: 221235 - AH-11 2-2.5'

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

Sample: 221236 - AH-11 3-3.5'

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

Sample: 221237 - AH-11 4-4.5'

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

Sample: 221238 - AH-11 5-5.5'

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

Sample: 221239 - AH-11 6-6.5'

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

Sample: 221240 - AH-11 7-7.5'

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



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6015 Harris Parkway, Suite 110 Ft. Worth, Texas 76132 817•201•5260
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Certifications

WBENC: 237019

HUB: 1752439743100-86536
NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

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

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

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

Report Date: February 8, 2010

Work Order: 10012917



Project Location: Eddy County, NM
Project Name: COG/Skelly 975
Project Number: 114-6400408

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
221190	AH-1 0-1'	soil	2010-01-26	00:00	2010-01-28
221191	AH-1 1-1.5'	soil	2010-01-26	00:00	2010-01-28
221192	AH-1 2-2.5'	soil	2010-01-26	00:00	2010-01-28
221193	AH-1 3-3.5'	soil	2010-01-26	00:00	2010-01-28
221194	AH-1 4-4.5'	soil	2010-01-26	00:00	2010-01-28
221195	AH-1 5-5.5'	soil	2010-01-26	00:00	2010-01-28
221196	AH-1 6-6.5'	soil	2010-01-26	00:00	2010-01-28
221197	AH-2 0-1'	soil	2010-01-26	00:00	2010-01-28
221198	AH-2 1-1.5'	soil	2010-01-26	00:00	2010-01-28
221199	AH-2 2-2.5'	soil	2010-01-26	00:00	2010-01-28

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
221200	AH-2 3-3.5'	soil	2010-01-26	00:00	2010-01-28
221201	AH-2 4-4.5'	soil	2010-01-26	00:00	2010-01-28
221202	AH-3 0-1'	soil	2010-01-26	00:00	2010-01-28
221203	AH-3 1-1.5'	soil	2010-01-26	00:00	2010-01-28
221204	AH-3 2-2.5'	soil	2010-01-26	00:00	2010-01-28
221205	AH-3 3-3.5'	soil	2010-01-26	00:00	2010-01-28
221206	AH-3 4-4.5'	soil	2010-01-26	00:00	2010-01-28
221207	AH-4 0-1'	soil	2010-01-26	00:00	2010-01-28
221208	AH-4 1-1.5'	soil	2010-01-26	00:00	2010-01-28
221209	AH-4 2-2.5'	soil	2010-01-26	00:00	2010-01-28
221210	AH-5 0-1'	soil	2010-01-26	00:00	2010-01-28
221211	AH-5 1-1.5'	soil	2010-01-26	00:00	2010-01-28
221212	AH-5 2-2.5'	soil	2010-01-26	00:00	2010-01-28
221213	AH-6 0-1'	soil	2010-01-26	00:00	2010-01-28
221214	AH-6 1-1.5'	soil	2010-01-26	00:00	2010-01-28
221215	AH-6 2-2.5'	soil	2010-01-26	00:00	2010-01-28
221216	AH-7 0-1'	soil	2010-01-26	00:00	2010-01-28
221217	AH-7 1-1.5'	soil	2010-01-26	00:00	2010-01-28
221218	AH-7 2-2.5'	soil	2010-01-26	00:00	2010-01-28
221219	AH-8 0-1'	soil	2010-01-26	00:00	2010-01-28
221220	AH-8 1-1.5'	soil	2010-01-26	00:00	2010-01-28
221221	AH-8 2-2.5'	soil	2010-01-26	00:00	2010-01-28
221222	AH-9 0-1'	soil	2010-01-26	00:00	2010-01-28
221223	AH-9 1-1.5'	soil	2010-01-26	00:00	2010-01-28
221224	AH-9 2-2.5'	soil	2010-01-26	00:00	2010-01-28
221225	AH-10 0-1'	soil	2010-01-26	00:00	2010-01-28
221226	AH-10 1-1.5'	soil	2010-01-26	00:00	2010-01-28
221227	AH-10 2-2.5'	soil	2010-01-26	00:00	2010-01-28
221228	AH-10 3-3.5'	soil	2010-01-26	00:00	2010-01-28
221229	AH-10 4-4.5'	soil	2010-01-26	00:00	2010-01-28
221230	AH-10 5-5.5'	soil	2010-01-26	00:00	2010-01-28
221231	AH-10 6-6.5'	soil	2010-01-26	00:00	2010-01-28
221232	AH-10 7-7.5'	soil	2010-01-26	00:00	2010-01-28
221233	AH-11 0-1'	soil	2010-01-26	00:00	2010-01-28
221234	AH-11 1-1.5'	soil	2010-01-26	00:00	2010-01-28
221235	AH-11 2-2.5'	soil	2010-01-26	00:00	2010-01-28
221236	AH-11 3-3.5'	soil	2010-01-26	00:00	2010-01-28
221237	AH-11 4-4.5'	soil	2010-01-26	00:00	2010-01-28
221238	AH-11 5-5.5'	soil	2010-01-26	00:00	2010-01-28
221239	AH-11 6-6.5'	soil	2010-01-26	00:00	2010-01-28
221240	AH-11 7-7.5'	soil	2010-01-26	00:00	2010-01-28

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 43 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/Skelly 975 were received by TraceAnalysis, Inc. on 2010-01-28 and assigned to work order 10012917. Samples for work order 10012917 were received intact at a temperature of 4.0 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	57614	2010-02-05 at 12:30	67360	2010-02-05 at 17:50
Chloride (Titration)	SM 4500-Cl B	57472	2010-02-01 at 11:47	67253	2010-02-03 at 13:10
Chloride (Titration)	SM 4500-Cl B	57473	2010-02-01 at 11:48	67254	2010-02-03 at 13:11
Chloride (Titration)	SM 4500-Cl B	57474	2010-02-01 at 11:48	67255	2010-02-03 at 13:12
Chloride (Titration)	SM 4500-Cl B	57475	2010-02-01 at 11:49	67256	2010-02-03 at 13:13
Chloride (Titration)	SM 4500-Cl B	57476	2010-02-01 at 11:49	67257	2010-02-03 at 13:14
Chloride (Titration)	SM 4500-Cl B	57477	2010-02-01 at 11:50	67258	2010-02-03 at 13:14
TPH DRO - NEW	Mod. 8015B	57509	2010-02-02 at 10:51	67243	2010-02-02 at 10:51
TPH DRO - NEW	Mod. 8015B	57513	2010-02-02 at 10:51	67248	2010-02-02 at 10:51
TPH GRO	S 8015B	57614	2010-02-05 at 12:30	67361	2010-02-05 at 18:18

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 10012917 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: February 8, 2010
114-6400408

Work Order: 10012917
COG/Skelly 975

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Eddy County, NM

Analytical Report

Sample: 221190 - AH-1 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67253	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57472				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		7130	mg/Kg	100	4.00

Sample: 221190 - AH-1 0-1'

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-02-02	Analyzed By:	kg
QC Batch:	67248	Sample Preparation:	2010-02-02	Prepared By:	kg
Prep Batch:	57513				

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		114	mg/Kg	1	100	114	70 - 130

Sample: 221190 - AH-1 0-1'

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-02-05	Analyzed By:	AG
QC Batch:	67361	Sample Preparation:	2010-02-05	Prepared By:	AG
Prep Batch:	57614				

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.47	mg/Kg	1	2.00	124	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.30	mg/Kg	1	2.00	115	61.7 - 131.1

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Sample: 221191 - AH-1 1-1.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67253	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57472				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3540	mg/Kg	100	4.00

Sample: 221192 - AH-1 2-2.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67253	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57472				

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

Sample: 221193 - AH-1 3-3.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67253	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57472				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3730	mg/Kg	100	4.00

Sample: 221194 - AH-1 4-4.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67253	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57472				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5160	mg/Kg	100	4.00

Report Date: February 8, 2010
114-6400408

Work Order: 10012917
COG/Skelly 975

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Eddy County, NM

Sample: 221195 - AH-1 5-5.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67253	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57472				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		4420	mg/Kg	100	4.00

Sample: 221196 - AH-1 6-6.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67253	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57472				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1890	mg/Kg	50	4.00

Sample: 221197 - AH-2 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67253	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57472				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2330	mg/Kg	100	4.00

Sample: 221197 - AH-2 0-1'

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-02-02	Analyzed By:	kg
QC Batch:	67248	Sample Preparation:	2010-02-02	Prepared By:	kg
Prep Batch:	57513				

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

Report Date: February 8, 2010
114-6400408

Work Order: 10012917
COG/Skelly 975

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Eddy County, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		114	mg/Kg	1	100	114	70 - 130

Sample: 221197 - AH-2 0-1'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 67361 Date Analyzed: 2010-02-05 Analyzed By: AG
Prep Batch: 57614 Sample Preparation: 2010-02-05 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.32	mg/Kg	1	2.00	116	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.10	mg/Kg	1	2.00	105	61.7 - 131.1

Sample: 221198 - AH-2 1-1.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 67253 Date Analyzed: 2010-02-03 Analyzed By: AR
Prep Batch: 57472 Sample Preparation: 2010-02-01 Prepared By: AR

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

Sample: 221199 - AH-2 2-2.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 67254 Date Analyzed: 2010-02-03 Analyzed By: AR
Prep Batch: 57473 Sample Preparation: 2010-02-01 Prepared By: AR

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

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Sample: 221200 - AH-2 3-3.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67254	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57473				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		512	mg/Kg	50	4.00

Sample: 221201 - AH-2 4-4.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67254	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57473				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		748	mg/Kg	50	4.00

Sample: 221202 - AH-3 0-1'

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2010-02-05	Analyzed By:	AG
QC Batch:	67360	Sample Preparation:	2010-02-05	Prepared By:	AG
Prep Batch:	57614				

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)		1.94	mg/Kg	1	2.00	97	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.89	mg/Kg	1	2.00	94	43.1 - 158.4

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Sample: 221202 - AH-3 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67254	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57473				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5060	mg/Kg	100	4.00

Sample: 221202 - AH-3 0-1'

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-02-02	Analyzed By:	kg
QC Batch:	67248	Sample Preparation:	2010-02-02	Prepared By:	kg
Prep Batch:	57513				

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

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

Sample: 221202 - AH-3 0-1'

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-02-05	Analyzed By:	AG
QC Batch:	67361	Sample Preparation:	2010-02-05	Prepared By:	AG
Prep Batch:	57614				

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.43	mg/Kg	1	2.00	122	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.25	mg/Kg	1	2.00	112	61.7 - 131.1

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Sample: 221203 - AH-3 1-1.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67254	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57473				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3380	mg/Kg	100	4.00

Sample: 221204 - AH-3 2-2.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67254	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57473				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2390	mg/Kg	100	4.00

Sample: 221205 - AH-3 3-3.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67254	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57473				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2300	mg/Kg	50	4.00

Sample: 221206 - AH-3 4-4.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67254	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57473				

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

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Sample: 221207 - AH-4 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67254	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57473				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3610	mg/Kg	100	4.00

Sample: 221207 - AH-4 0-1'

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-02-02	Analyzed By:	kg
QC Batch:	67248	Sample Preparation:	2010-02-02	Prepared By:	kg
Prep Batch:	57513				

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		114	mg/Kg	1	100	114	70 - 130

Sample: 221207 - AH-4 0-1'

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-02-05	Analyzed By:	AG
QC Batch:	67361	Sample Preparation:	2010-02-05	Prepared By:	AG
Prep Batch:	57614				

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.46	mg/Kg	1	2.00	123	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.29	mg/Kg	1	2.00	114	61.7 - 131.1

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Sample: 221208 - AH-4 1-1.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67254	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57473				

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

Sample: 221209 - AH-4 2-2.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67255	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57474				

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

Sample: 221210 - AH-5 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67255	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57474				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		586	mg/Kg	50	4.00

Sample: 221210 - AH-5 0-1'

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-02-02	Analyzed By:	kg
QC Batch:	67248	Sample Preparation:	2010-02-02	Prepared By:	kg
Prep Batch:	57513				

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

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		111	mg/Kg	1	100	111	70 - 130

Sample: 221210 - AH-5 0-1'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 67361
Prep Batch: 57614

Analytical Method: S 8015B
Date Analyzed: 2010-02-05
Sample Preparation: 2010-02-05

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.36	mg/Kg	1	2.00	118	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.23	mg/Kg	1	2.00	112	61.7 - 131.1

Sample: 221211 - AH-5 1-1.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 67255
Prep Batch: 57474

Analytical Method: SM 4500-Cl B
Date Analyzed: 2010-02-03
Sample Preparation: 2010-02-01

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: 221212 - AH-5 2-2.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 67255
Prep Batch: 57474

Analytical Method: SM 4500-Cl B
Date Analyzed: 2010-02-03
Sample Preparation: 2010-02-01

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

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

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Sample: 221213 - AH-6 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67255	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57474				

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

Sample: 221213 - AH-6 0-1'

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-02-02	Analyzed By:	kg
QC Batch:	67248	Sample Preparation:	2010-02-02	Prepared By:	kg
Prep Batch:	57513				

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		113	mg/Kg	1	100	113	70 - 130

Sample: 221213 - AH-6 0-1'

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-02-05	Analyzed By:	AG
QC Batch:	67361	Sample Preparation:	2010-02-05	Prepared By:	AG
Prep Batch:	57614				

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.28	mg/Kg	1	2.00	114	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.14	mg/Kg	1	2.00	107	61.7 - 131.1

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Sample: 221214 - AH-6 1-1.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67255	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57474				

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

Sample: 221215 - AH-6 2-2.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67255	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57474				

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

Sample: 221216 - AH-7 0-1'

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2010-02-05	Analyzed By:	AG
QC Batch:	67360	Sample Preparation:	2010-02-05	Prepared By:	AG
Prep Batch:	57614				

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)		1.56	mg/Kg	1	2.00	78	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.57	mg/Kg	1	2.00	78	43.1 - 158.4

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Sample: 221216 - AH-7 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67255	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57474				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		11700	mg/Kg	100	4.00

Sample: 221216 - AH-7 0-1'

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-02-02	Analyzed By:	kg
QC Batch:	67248	Sample Preparation:	2010-02-02	Prepared By:	kg
Prep Batch:	57513				

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		114	mg/Kg	1	100	114	70 - 130

Sample: 221216 - AH-7 0-1'

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-02-05	Analyzed By:	AG
QC Batch:	67361	Sample Preparation:	2010-02-05	Prepared By:	AG
Prep Batch:	57614				

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)		1.96	mg/Kg	1	2.00	98	65.3 - 145
4-Bromofluorobenzene (4-BFB)		1.86	mg/Kg	1	2.00	93	61.7 - 131.1

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Sample: 221217 - AH-7 1-1.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67255	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57474				

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2010	mg/Kg	100	4.00

Sample: 221218 - AH-7 2-2.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67255	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57474				

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

Sample: 221219 - AH-8 0-1'

Laboratory:	Midland	Analytical Method:	S 8021B	Prep Method:	S 5035
Analysis:	BTEX	Date Analyzed:	2010-02-05	Analyzed By:	AG
QC Batch:	67360	Sample Preparation:	2010-02-05	Prepared By:	AG
Prep Batch:	57614				

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)		1.78	mg/Kg	1	2.00	89	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.76	mg/Kg	1	2.00	88	43.1 - 158.4

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Sample: 221219 - AH-8 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67256	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57475				

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

Sample: 221219 - AH-8 0-1'

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-02-02	Analyzed By:	kg
QC Batch:	67243	Sample Preparation:	2010-02-02	Prepared By:	kg
Prep Batch:	57509				

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		105	mg/Kg	1	100	105	70 - 130

Sample: 221219 - AH-8 0-1'

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-02-05	Analyzed By:	AG
QC Batch:	67361	Sample Preparation:	2010-02-05	Prepared By:	AG
Prep Batch:	57614				

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.24	mg/Kg	1	2.00	112	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.09	mg/Kg	1	2.00	104	61.7 - 131.1

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Sample: 221220 - AH-8 1-1.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67256	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57475				

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

Sample: 221221 - AH-8 2-2.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67256	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57475				

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

Sample: 221222 - AH-9 0-1'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67256	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57475				

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

Sample: 221222 - AH-9 0-1'

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-02-02	Analyzed By:	kg
QC Batch:	67243	Sample Preparation:	2010-02-02	Prepared By:	kg
Prep Batch:	57509				

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

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		111	mg/Kg	1	100	111	70 - 130

Sample: 221222 - AH-9 0-1'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 67361 Date Analyzed: 2010-02-05 Analyzed By: AG
Prep Batch: 57614 Sample Preparation: 2010-02-05 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.04	mg/Kg	1	2.00	102	65.3 - 145
4-Bromofluorobenzene (4-BFB)		1.91	mg/Kg	1	2.00	96	61.7 - 131.1

Sample: 221223 - AH-9 1-1.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 67256 Date Analyzed: 2010-02-03 Analyzed By: AR
Prep Batch: 57475 Sample Preparation: 2010-02-01 Prepared By: AR

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

Sample: 221224 - AH-9 2-2.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 67256 Date Analyzed: 2010-02-03 Analyzed By: AR
Prep Batch: 57475 Sample Preparation: 2010-02-01 Prepared By: AR

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

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Sample: 221225 - AH-10 0-1'

Laboratory: Midland
Analysis: BTEX
QC Batch: 67360
Prep Batch: 57614

Analytical Method: S 8021B
Date Analyzed: 2010-02-05
Sample Preparation: 2010-02-05

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

Parameter	Flag	RL		Units	Dilution	RL
		Result				
Benzene		<0.0500		mg/Kg	5	0.0100
Toluene		2.92		mg/Kg	5	0.0100
Ethylbenzene		5.13		mg/Kg	5	0.0100
Xylene		6.05		mg/Kg	5	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		4.58	mg/Kg	5	5.00	92	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		6.35	mg/Kg	5	5.00	127	43.1 - 158.4

Sample: 221225 - AH-10 0-1'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 67256
Prep Batch: 57475

Analytical Method: SM 4500-Cl B
Date Analyzed: 2010-02-03
Sample Preparation: 2010-02-01

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

Parameter	Flag	RL		Units	Dilution	RL
		Result				
Chloride		7400		mg/Kg	100	4.00

Sample: 221225 - AH-10 0-1'

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 67243
Prep Batch: 57509

Analytical Method: Mod. 8015B
Date Analyzed: 2010-02-02
Sample Preparation: 2010-02-02

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

Parameter	Flag	RL		Units	Dilution	RL
		Result				
DRO		477		mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	¹	145	mg/Kg	1	100	145	70 - 130

¹High surrogate recovery due to peak interference.

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Sample: 221225 - AH-10 0-1'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 67361
Prep Batch: 57614

Analytical Method: S 8015B
Date Analyzed: 2010-02-05
Sample Preparation: 2010-02-05

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

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		392	mg/Kg	5	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5.74	mg/Kg	5	5.00	115	65.3 - 145
4-Bromofluorobenzene (4-BFB)		6.53	mg/Kg	5	5.00	131	61.7 - 131.1

Sample: 221226 - AH-10 1-1.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 67256
Prep Batch: 57475

Analytical Method: SM 4500-Cl B
Date Analyzed: 2010-02-03
Sample Preparation: 2010-02-01

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		6200	mg/Kg	100	4.00

Sample: 221227 - AH-10 2-2.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 67256
Prep Batch: 57475

Analytical Method: SM 4500-Cl B
Date Analyzed: 2010-02-03
Sample Preparation: 2010-02-01

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

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		6730	mg/Kg	100	4.00

Sample: 221228 - AH-10 3-3.5'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 67256
Prep Batch: 57475

Analytical Method: SM 4500-Cl B
Date Analyzed: 2010-02-03
Sample Preparation: 2010-02-01

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

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Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		4250	mg/Kg	100	4.00

Sample: 221229 - AH-10 4-4.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 67257 Date Analyzed: 2010-02-03 Analyzed By: AR
Prep Batch: 57476 Sample Preparation: 2010-02-01 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		4350	mg/Kg	100	4.00

Sample: 221230 - AH-10 5-5.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 67257 Date Analyzed: 2010-02-03 Analyzed By: AR
Prep Batch: 57476 Sample Preparation: 2010-02-01 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		299	mg/Kg	50	4.00

Sample: 221231 - AH-10 6-6.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 67257 Date Analyzed: 2010-02-03 Analyzed By: AR
Prep Batch: 57476 Sample Preparation: 2010-02-01 Prepared By: AR

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

Sample: 221232 - AH-10 7-7.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 67257 Date Analyzed: 2010-02-03 Analyzed By: AR
Prep Batch: 57476 Sample Preparation: 2010-02-01 Prepared By: AR

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

Sample: 221233 - AH-11 0-1'

Laboratory: Midland

Analysis: BTEX

QC Batch: 67360

Prep Batch: 57614

Analytical Method: S 8021B

Date Analyzed: 2010-02-05

Sample Preparation: 2010-02-05

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0500	mg/Kg	5	0.0100
Toluene		0.0704	mg/Kg	5	0.0100
Ethylbenzene		1.44	mg/Kg	5	0.0100
Xylene		2.38	mg/Kg	5	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		4.67	mg/Kg	5	5.00	93	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		6.05	mg/Kg	5	5.00	121	43.1 - 158.4

Sample: 221233 - AH-11 0-1'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 67257

Prep Batch: 57476

Analytical Method: SM 4500-Cl B

Date Analyzed: 2010-02-03

Sample Preparation: 2010-02-01

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: 221233 - AH-11 0-1'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 67243

Prep Batch: 57509

Analytical Method: Mod. 8015B

Date Analyzed: 2010-02-02

Sample Preparation: 2010-02-02

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		167	mg/Kg	1	50.0

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Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		109	mg/Kg	1	100	109	70 - 130

Sample: 221233 - AH-11 0-1'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 67361 Date Analyzed: 2010-02-05 Analyzed By: AG
Prep Batch: 57614 Sample Preparation: 2010-02-05 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		250	mg/Kg	5	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5.91	mg/Kg	5	5.00	118	65.3 - 145
4-Bromofluorobenzene (4-BFB)	²	7.46	mg/Kg	5	5.00	149	61.7 - 131.1

Sample: 221234 - AH-11 1-1.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 67257 Date Analyzed: 2010-02-03 Analyzed By: AR
Prep Batch: 57476 Sample Preparation: 2010-02-01 Prepared By: AR

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

Sample: 221235 - AH-11 2-2.5'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 67257 Date Analyzed: 2010-02-03 Analyzed By: AR
Prep Batch: 57476 Sample Preparation: 2010-02-01 Prepared By: AR

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

²High surrogate recovery due to peak interference.

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Sample: 221236 - AH-11 3-3.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67257	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57476				

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

Sample: 221237 - AH-11 4-4.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67257	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57476				

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

Sample: 221238 - AH-11 5-5.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67257	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57476				

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

Sample: 221239 - AH-11 6-6.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67258	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57477				

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

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Sample: 221240 - AH-11 7-7.5'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-02-03	Analyzed By:	AR
QC Batch:	67258	Sample Preparation:	2010-02-01	Prepared By:	AR
Prep Batch:	57477				

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

Method Blank (1) QC Batch: 67243

QC Batch:	67243	Date Analyzed:	2010-02-02	Analyzed By:	kg
Prep Batch:	57509	QC Preparation:	2010-02-02	Prepared By:	kg

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		92.2	mg/Kg	1	100	92	70 - 130

Method Blank (1) QC Batch: 67248

QC Batch:	67248	Date Analyzed:	2010-02-02	Analyzed By:	kg
Prep Batch:	57513	QC Preparation:	2010-02-02	Prepared By:	kg

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		102	mg/Kg	1	100	102	70 - 130

Method Blank (1) QC Batch: 67253

QC Batch:	67253	Date Analyzed:	2010-02-03	Analyzed By:	AR
Prep Batch:	57472	QC Preparation:	2010-02-01	Prepared By:	AR

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

Method Blank (1) QC Batch: 67254

QC Batch: 67254 Date Analyzed: 2010-02-03 Analyzed By: AR
Prep Batch: 57473 QC Preparation: 2010-02-01 Prepared By: AR

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

Method Blank (1) QC Batch: 67255

QC Batch: 67255 Date Analyzed: 2010-02-03 Analyzed By: AR
Prep Batch: 57474 QC Preparation: 2010-02-01 Prepared By: AR

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

Method Blank (1) QC Batch: 67256

QC Batch: 67256 Date Analyzed: 2010-02-03 Analyzed By: AR
Prep Batch: 57475 QC Preparation: 2010-02-01 Prepared By: AR

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

Method Blank (1) QC Batch: 67257

QC Batch: 67257 Date Analyzed: 2010-02-03 Analyzed By: AR
Prep Batch: 57476 QC Preparation: 2010-02-01 Prepared By: AR

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

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Method Blank (1) QC Batch: 67258

QC Batch: 67258
Prep Batch: 57477

Date Analyzed: 2010-02-03
QC Preparation: 2010-02-01

Analyzed By: AR
Prepared By: AR

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

Method Blank (1) QC Batch: 67360

QC Batch: 67360
Prep Batch: 57614

Date Analyzed: 2010-02-05
QC Preparation: 2010-02-05

Analyzed By: AG
Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.77	mg/Kg	1	2.00	88	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.77	mg/Kg	1	2.00	88	43.9 - 141.9

Method Blank (1) QC Batch: 67361

QC Batch: 67361
Prep Batch: 57614

Date Analyzed: 2010-02-05
QC Preparation: 2010-02-05

Analyzed By: AG
Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.27	mg/Kg	1	2.00	114	66.2 - 145
4-Bromofluorobenzene (4-BFB)		2.10	mg/Kg	1	2.00	105	62 - 120.5

Laboratory Control Spike (LCS-1)

QC Batch: 67243
Prep Batch: 57509

Date Analyzed: 2010-02-02
QC Preparation: 2010-02-02

Analyzed By: kg
Prepared By: kg

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Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	242	mg/Kg	1	250	<5.86	97	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	241	mg/Kg	1	250	<5.86	96	57.4 - 133.4	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	103	103	mg/Kg	1	100	103	103	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 67248
Prep Batch: 57513

Date Analyzed: 2010-02-02
QC Preparation: 2010-02-02

Analyzed By: kg
Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	246	mg/Kg	1	250	<5.86	98	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	245	mg/Kg	1	250	<5.86	98	57.4 - 133.4	0	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	123	122	mg/Kg	1	100	123	122	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 67253
Prep Batch: 57472

Date Analyzed: 2010-02-03
QC Preparation: 2010-02-01

Analyzed By: AR
Prepared By: AR

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

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

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Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	99.4	mg/Kg	1	100	<2.18	99	85 - 115	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: 67254
Prep Batch: 57473

Date Analyzed: 2010-02-03
QC Preparation: 2010-02-01

Analyzed By: AR
Prepared By: AR

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

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	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: 67255
Prep Batch: 57474

Date Analyzed: 2010-02-03
QC Preparation: 2010-02-01

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	100	mg/Kg	1	100	<2.18	100	85 - 115	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 67256
Prep Batch: 57475

Date Analyzed: 2010-02-03
QC Preparation: 2010-02-01

Analyzed By: AR
Prepared By: AR

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
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
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: 67257
Prep Batch: 57476

Date Analyzed: 2010-02-03
QC Preparation: 2010-02-01

Analyzed By: AR
Prepared By: AR

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

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	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: 67258
Prep Batch: 57477

Date Analyzed: 2010-02-03
QC Preparation: 2010-02-01

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: 67360
Prep Batch: 57614

Date Analyzed: 2010-02-05
QC Preparation: 2010-02-05

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.12	mg/Kg	1	2.00	<0.00410	106	75.4 - 115.7
Toluene	1.95	mg/Kg	1	2.00	<0.00310	98	78.4 - 113.6
Ethylbenzene	1.89	mg/Kg	1	2.00	<0.00240	94	76 - 114.2
Xylene	5.74	mg/Kg	1	6.00	<0.00650	96	76.9 - 113.6

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.03	mg/Kg	1	2.00	<0.00410	102	75.4 - 115.7	4	20
Toluene	1.88	mg/Kg	1	2.00	<0.00310	94	78.4 - 113.6	4	20
Ethylbenzene	1.85	mg/Kg	1	2.00	<0.00240	92	76 - 114.2	2	20
Xylene	5.59	mg/Kg	1	6.00	<0.00650	93	76.9 - 113.6	3	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.76	1.71	mg/Kg	1	2.00	88	86	65 - 142.9
4-Bromofluorobenzene (4-BFB)	1.85	1.82	mg/Kg	1	2.00	92	91	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 67361
Prep Batch: 57614

Date Analyzed: 2010-02-05
QC Preparation: 2010-02-05

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	18.5	mg/Kg	1	20.0	<0.396	92	52.5 - 114.3

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	18.0	mg/Kg	1	20.0	<0.396	90	52.5 - 114.3	3	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.24	2.04	mg/Kg	1	2.00	112	102	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	2.20	2.04	mg/Kg	1	2.00	110	102	64.1 - 127.4

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Matrix Spike (MS-1) Spiked Sample: 221222

QC Batch: 67243
Prep Batch: 57509

Date Analyzed: 2010-02-02
QC Preparation: 2010-02-02

Analyzed By: kg
Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	199	mg/Kg	1	250	<5.86	80	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	203	mg/Kg	1	250	<5.86	81	35.2 - 167.1	2	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	97.3	96.9	mg/Kg	1	100	97	97	70 - 130

Matrix Spike (MS-1) Spiked Sample: 221213

QC Batch: 67248
Prep Batch: 57513

Date Analyzed: 2010-02-02
QC Preparation: 2010-02-02

Analyzed By: kg
Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	203	mg/Kg	1	250	<5.86	81	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	211	mg/Kg	1	250	<5.86	84	35.2 - 167.1	4	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	104	107	mg/Kg	1	100	104	107	70 - 130

Matrix Spike (MS-1) Spiked Sample: 221198

QC Batch: 67253
Prep Batch: 57472

Date Analyzed: 2010-02-03
QC Preparation: 2010-02-01

Analyzed By: AR
Prepared By: AR

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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: 221208

QC Batch: 67254
Prep Batch: 57473

Date Analyzed: 2010-02-03
QC Preparation: 2010-02-01

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	9770	mg/Kg	100	10000	<218	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	9920	mg/Kg	100	10000	<218	99	85 - 115	2	20

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

Matrix Spike (MS-1) Spiked Sample: 221218

QC Batch: 67255
Prep Batch: 57474

Date Analyzed: 2010-02-03
QC Preparation: 2010-02-01

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	9870	mg/Kg	100	10000	<218	99	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	9960	mg/Kg	100	10000	<218	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: 221228

QC Batch: 67256
Prep Batch: 57475

Date Analyzed: 2010-02-03
QC Preparation: 2010-02-01

Analyzed By: AR
Prepared By: AR

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Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	14300	mg/Kg	100	10000	4250	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	14500	mg/Kg	100	10000	4250	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: 221238

QC Batch: 67257
Prep Batch: 57476

Date Analyzed: 2010-02-03
QC Preparation: 2010-02-01

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	9960	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	10100	mg/Kg	100	10000	<218	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: 221240

QC Batch: 67258
Prep Batch: 57477

Date Analyzed: 2010-02-03
QC Preparation: 2010-02-01

Analyzed By: AR
Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	9700	mg/Kg	100	10000	<218	97	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	9890	mg/Kg	100	10000	<218	99	85 - 115	2	20

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

Matrix Spike (MS-1) Spiked Sample: 221730

QC Batch: 67360
Prep Batch: 57614

Date Analyzed: 2010-02-05
QC Preparation: 2010-02-05

Analyzed By: AG
Prepared By: AG

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Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.98	mg/Kg	1	2.00	<0.00410	99	57.7 - 140.7
Toluene	1.87	mg/Kg	1	2.00	<0.00310	94	53.4 - 146.6
Ethylbenzene	1.84	mg/Kg	1	2.00	<0.00240	92	62.1 - 141.6
Xylene	5.60	mg/Kg	1	6.00	<0.00650	93	61.2 - 142.7

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.89	mg/Kg	1	2.00	<0.00410	94	57.7 - 140.7	5	20
Toluene	1.77	mg/Kg	1	2.00	<0.00310	88	53.4 - 146.6	6	20
Ethylbenzene	1.78	mg/Kg	1	2.00	<0.00240	89	62.1 - 141.6	3	20
Xylene	5.37	mg/Kg	1	6.00	<0.00650	90	61.2 - 142.7	4	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)	1.71	1.48	mg/Kg	1	2	86	74	62.7 - 139.6
4-Bromofluorobenzene (4-BFB)	1.75	1.53	mg/Kg	1	2	88	76	49.6 - 146.7

Matrix Spike (MS-1) Spiked Sample: 221222

QC Batch: 67361
Prep Batch: 57614

Date Analyzed: 2010-02-05
QC Preparation: 2010-02-05

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.8	mg/Kg	1	20.0	<0.396	84	10 - 198.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	19.5	mg/Kg	1	20.0	<0.396	98	10 - 198.3	15	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.08	2.22	mg/Kg	1	2	104	111	65.5 - 143
4-Bromofluorobenzene (4-BFB)	2.06	2.23	mg/Kg	1	2	103	112	58.6 - 140

Standard (CCV-1)

QC Batch: 67243

Date Analyzed: 2010-02-02

Analyzed By: kg

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	228	91	80 - 120	2010-02-02

Standard (CCV-2)

QC Batch: 67243 Date Analyzed: 2010-02-02 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	256	102	80 - 120	2010-02-02

Standard (CCV-3)

QC Batch: 67243 Date Analyzed: 2010-02-02 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	251	100	80 - 120	2010-02-02

Standard (CCV-1)

QC Batch: 67248 Date Analyzed: 2010-02-02 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	251	100	80 - 120	2010-02-02

Standard (CCV-2)

QC Batch: 67248 Date Analyzed: 2010-02-02 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	251	100	80 - 120	2010-02-02

Standard (CCV-3)

QC Batch: 67248 Date Analyzed: 2010-02-02 Analyzed By: kg

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	247	99	80 - 120	2010-02-02

Standard (ICV-1)

QC Batch: 67253 Date Analyzed: 2010-02-03 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	2010-02-03

Standard (CCV-1)

QC Batch: 67253 Date Analyzed: 2010-02-03 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.1	99	85 - 115	2010-02-03

Standard (ICV-1)

QC Batch: 67254 Date Analyzed: 2010-02-03 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.3	98	85 - 115	2010-02-03

Standard (CCV-1)

QC Batch: 67254 Date Analyzed: 2010-02-03 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2010-02-03

Standard (ICV-1)

QC Batch: 67255 Date Analyzed: 2010-02-03 Analyzed By: AR

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Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2010-02-03

Standard (CCV-1)

QC Batch: 67255 Date Analyzed: 2010-02-03 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.9	99	85 - 115	2010-02-03

Standard (ICV-1)

QC Batch: 67256 Date Analyzed: 2010-02-03 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	2010-02-03

Standard (CCV-1)

QC Batch: 67256 Date Analyzed: 2010-02-03 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2010-02-03

Standard (ICV-1)

QC Batch: 67257 Date Analyzed: 2010-02-03 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2010-02-03

Standard (CCV-1)

QC Batch: 67257 Date Analyzed: 2010-02-03 Analyzed By: AR

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Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.7	100	85 - 115	2010-02-03

Standard (ICV-1)

QC Batch: 67258

Date Analyzed: 2010-02-03

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.9	100	85 - 115	2010-02-03

Standard (CCV-1)

QC Batch: 67258

Date Analyzed: 2010-02-03

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2010-02-03

Standard (CCV-1)

QC Batch: 67360

Date Analyzed: 2010-02-05

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	0.101	101	80 - 120	2010-02-05
Toluene		mg/Kg	0.100	0.0943	94	80 - 120	2010-02-05
Ethylbenzene		mg/Kg	0.100	0.0906	91	80 - 120	2010-02-05
Xylene		mg/Kg	0.300	0.274	91	80 - 120	2010-02-05

Standard (CCV-2)

QC Batch: 67360

Date Analyzed: 2010-02-05

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	0.102	102	80 - 120	2010-02-05
Toluene		mg/Kg	0.100	0.0949	95	80 - 120	2010-02-05
Ethylbenzene		mg/Kg	0.100	0.0922	92	80 - 120	2010-02-05

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standard continued ...

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Xylene		mg/Kg	0.300	0.279	93	80 - 120	2010-02-05

Standard (CCV-3)

QC Batch: 67360

Date Analyzed: 2010-02-05

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	0.102	102	80 - 120	2010-02-05
Toluene		mg/Kg	0.100	0.0926	93	80 - 120	2010-02-05
Ethylbenzene		mg/Kg	0.100	0.0893	89	80 - 120	2010-02-05
Xylene		mg/Kg	0.300	0.269	90	80 - 120	2010-02-05

Standard (CCV-1)

QC Batch: 67361

Date Analyzed: 2010-02-05

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	1.13	113	80 - 120	2010-02-05

Standard (CCV-2)

QC Batch: 67361

Date Analyzed: 2010-02-05

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	1.07	107	80 - 120	2010-02-05

Standard (CCV-3)

QC Batch: 67361

Date Analyzed: 2010-02-05

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	1.03	103	80 - 120	2010-02-05

NO #: 10012917

Analysis Request of Chain of Custody Record



TETRA TECH

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Midland, Texas 79705
(432) 682-4559 • Fax (432) 682-3946

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ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:

COG

SITE MANAGER:

Ike Tavarre

PROJECT NO.:

114-6400408

PROJECT NAME:

COG / skelly 975

Eddy Co, NM
SAMPLE IDENTIFICATION

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION		NUMBER OF FILTERED (Y)	HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015	PAH 8270	RCRA Metals	TCLP Metals	TCLP Volatiles	TCLP Semi	RCI	GC/MS Vol. 1	GC/MS Semi	PCB's 8080	Pest. 808/60	Chloride	Gamma Spec	Alpha Beta (	PLM (Asbes)	Major Anion	
22190	2/26		S	X		AH-1	0-1'	1			X		X												X					
191						AH-1	1'-1.5'																							
192						AH-1	2'-2.5'																							
193						AH-1	3'-3.5'																							
194						AH-1	4'-4.5'																							
195						AH-1	5'-5.5'																							
196						AH-1	6'-6.5'																							
197						AH-2	0-1'						X																	
198						AH-2	1'-1.5'																							
199						AH-2	2'-2.5'																							

RELINQUISHED BY: (Signature)

Date: 1/26/10

Time: 16:10

RECEIVED BY: (Signature)

Date: 1/26/10

Time: 16:10

SAMPLED BY: (Print & Initial)

IT/RC

Date: 1/26/10

Time: 16:10

RELINQUISHED BY: (Signature)

Date: 1/26/10

Time: 16:10

RECEIVED BY: (Signature)

Date: 1/26/10

Time: 16:10

SAMPLE SHIPPED BY: (Circle)

FEDEX

BUS

AIRBILL #:

HAND DELIVERED

UPS

OTHER:

RELINQUISHED BY: (Signature)

Date: 1/26/10

Time: 16:10

RECEIVED BY: (Signature)

Date: 1/26/10

Time: 16:10

TETRA TECH CONTACT PERSON:

Ike Tavarre

Results by:

RUSH Charges Authorized:

Yes No

RECEIVING LABORATORY:

ADDRESS:

CITY: Midland

STATE: TX

ZIP:

CONTACT:

PHONE:

RECEIVED BY: (Signature)

Date: 1/26/10

Time: 16:10

SAMPLE CONDITION WHEN RECEIVED:

4.0°C intact

REMARKS:

If total TPH exceed 5,000 mg/kg run deeper samples. Run 6 BTEX w/ 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.

WU #: 10012917

Analysis Request of Chain of Custody Record

PAGE: 2 OF: 6



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 Tovar

PROJECT NO.:
114-6400408

PROJECT NAME:
COG / skelly 975

LAB I.D. NUMBER DATE TIME MATRIX COMP GRAB SAMPLE IDENTIFICATION
2010 Eddy Co, NM

NUMBER	2010		MAT	CON	GRA			NUM	FILT	HCL	HNO	ICE	NON		BTX	TPH	PAH	RCR	TCL	TCL	TCL	RCI	GC	GC	PCB	Pest	Chlor	Gamma	Alpha	PLM	Maj																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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RELINQUISHED BY: (Signature) <i>[Signature]</i>	Date: 1/26/10	RECEIVED BY: (Signature) <i>[Signature]</i>	Date: 1/28/10	SAMPLED BY: (Print & Initial) JT/RG	Date: 1/26/10
RELINQUISHED BY: (Signature)	Date:	RECEIVED BY: (Signature)	Date:	SAMPLE SHIPPED BY: (Circle) FEDEX BUS	AIRBILL #:
RELINQUISHED BY: (Signature)	Date:	RECEIVED BY: (Signature)	Date:	HAND DELIVERED UPS	OTHER:
RECEIVING LABORATORY: Tetra	RECEIVED BY: (Signature)	TETRA TECH CONTACT PERSON: Ike Tovar		Results by:	
ADDRESS: Midland STATE: TX ZIP:	DATE:	TIME:		RUSH Charges Authorized: Yes No	

SAMPLE CONDITION WHEN RECEIVED: 4.0, intact

REMARKS: If total TPH exceed 5,000 mg/kg, run deeper samples, Run 6 BTX w/ highest TPH

WO#: 10012917

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: 4 OF: 6

 ANALYSIS REQUEST
 (Circle or Specify Method No.)

CLIENT NAME:

COG

SITE MANAGER:

Ike Tovar

PROJECT NO.:

114-6400408

PROJECT NAME:

COG / skelly 975

LAB I.D.
NUMBER

DATE

TIME

MATRIX

COMP

GRAB

 Eddy Co, NM
 SAMPLE IDENTIFICATION

NUMBER OF CONTAINERS

FILTERED (Y/N)

HCL

HNO3

ICE

NONE

PRESERVATIVE
METHOD
 (BTEX 8021B) par: Mundi 2/8/10
 TPH 8015 MOD TX1005 (Ext. to C35)

PAH 8270

RCRA Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Volatiles

TCLP Semi Volatiles

RCI

GC/MS Vol. 8240/8260/824

GC/MS Semi. Vol. 8270/825

PCB's 8080/608

Pest. 808/608

Chloride

Gamma Spec.

Alpha Beta (Air)

PLM (Asbestos)

Major Anions/Cations, pH, TDS

221220

1/26

S

X

AH-8

1'-1.5'

1

X

221

222

223

224

225

226

227

228

229

RELINQUISHED BY: (Signature)

Date: 1/28/10

Time: 16:10

RECEIVED BY: (Signature)

Date: 1/28/10

Time: 16:10

SAMPLED BY: (Print & Initial)

JR/RC

Date: 1/28/10

Time:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

SAMPLE SHIPPED BY: (Circle)

FEDEX

BUS

AIRBILL #:

OTHER:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

TETRA TECH CONTACT PERSON:

Results by:

RECEIVING LABORATORY:

ADDRESS:

CITY: Midland

STATE: TX

ZIP:

CONTACT:

PHONE:

DATE:

TIME:

SAMPLE CONDITION WHEN RECEIVED:

REMARKS:

4.0°C intact

If total TPH exceed 5,000 mg/kg run deeper samples. Run 6 BTEX w/ highest TPH

Ike Tovar

 RUSH Charges
 Authorized:
 Yes No

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

WO #: 10012917

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: 5 OF: 6

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG				SITE MANAGER: Ike Tavaroz				NUMBER OF CONTAINERS		PRESERVATIVE METHOD		(BTEX 8021B) (TPH 8015 MOD) TX1005 (Ext. to C35) PAH 8270 RCRA Metals Ag As Ba Cd Cr Pb Hg Se TCLP Metals Ag As Ba Cd Vr Pd Hg Se TCLP Volatiles TCLP Semi Volatiles RCI GC/MS Vol. 8240/8260/624 GC/MS Semi. Vol. 8270/625 PCB's 8080/608 Pest. 809/608 Chloride Gamma Spec. Alpha Beta (Air) PLM (Asbestos) Major Anions/Cations, pH, TDS															
PROJECT NO.: 114-6400408				PROJECT NAME: COG / skelly 975				FILTERED (Y/N)																			
LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP	GRAB	SAMPLE IDENTIFICATION				HCL	HNO3	ICE	NONE														
221230	7/26		S	X		AH-10	5'-5.5'					X															
231						AH-10	6'-6.5'																				
232						AH-10	7'-7.5'																				
233						AH-11	0-1'																				
234						AH-11	1'-1.5'																				
235						AH-11	2'-2.5'																				
236						AH-11	3'-3.5'																				
237						AH-11	4'-4.5'																				
238						AH-11	5'-5.5'																				
239						AH-11	6'-6.5'																				
RELINQUISHED BY: (Signature) <i>[Signature]</i>				Date: 7/26/10				RECEIVED BY: (Signature) <i>[Signature]</i>				Date: 7/28/10				SAMPLED BY: (Print & Initial) JT/RG				Date: 7/26/10							
RELINQUISHED BY: (Signature)				Date: 7/26/10				RECEIVED BY: (Signature)				Date: 7/26/10				SAMPLE SHIPPED BY: (Circle) FEDEX BUS				AIRBILL #: _____							
RELINQUISHED BY: (Signature)				Date: _____				RECEIVED BY: (Signature)				Date: _____				HAND DELIVERED UPS				OTHER: _____							
RECEIVING LABORATORY: <i>Tetra</i>								RECEIVED BY: (Signature)								TETRA TECH CONTACT PERSON: <i>Ike Tavaroz</i>								Results by:			
ADDRESS: <i>Midland</i> STATE: <i>TX</i> ZIP: _____																								RUSH Charges Authorized: Yes No			
CITY: <i>Midland</i> PHONE: _____																											
CONTACT: _____																											
SAMPLE CONDITION WHEN RECEIVED: <i>4.0 c intact</i>								REMARKS: <i>If total TPH exceed 5,000 mg/kg run deeper samples. Run 6 BTEX w/ highest TPH</i>																			

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

WO # 10012917

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: 6 OF: 6

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:

COG

SITE MANAGER:

Ike Tovar

PROJECT NO.:

114-6400408

PROJECT NAME:

COG / skelly 975

LAB I.D. NUMBER DATE TIME MATRIX COMP GRAB
221240 1/26 5 X AH-11 7-7.5
SAMPLE IDENTIFICATION

NUMBER OF CONTAINERS
FILTERED (Y/N)
HCL
HNO3
ICE
NONE

PRESERVATIVE METHOD
BTEX 8021B
TPH 8015 MOD. TX1005 (Ext. to C35)
PAH 8270
RCRA Metals Ag As Ba Cd Cr Pb Hg Se
TCLP Metals Ag As Ba Cd Vr Pd Hg Se
TCLP Volatiles
TCLP Semi Volatiles
RCI
GC/MS Vol. 8240/8260/624
GC/MS Semi. Vol. 8270/625
PCB's 8080/608
Pest. 809/608
Chloride
Gamma Spec.
Alpha Beta (Air)
PLM (Asbestos)
Major Anions/Cations, pH, TDS

RELINQUISHED BY: (Signature)

Date:

1/28/10

RECEIVED BY: (Signature)

Date:

1/28/10

SAMPLED BY: (Print & Initial)

JR/RG

Date:

1/28/10

RELINQUISHED BY: (Signature)

Date:

1/28/10

RECEIVED BY: (Signature)

Date:

1/28/10

SAMPLE SHIPPED BY: (Circle)

FEDEX

AIRBILL #:

OTHER:

RELINQUISHED BY: (Signature)

Date:

1/28/10

RECEIVED BY: (Signature)

Date:

1/28/10

TETRA TECH CONTACT PERSON:

Ike Tovar

Results by:

RUSH Charges

RECEIVING LABORATORY:

ADDRESS:

CITY: Midland

STATE: TX

ZIP:

CONTACT:

PHONE:

RECEIVED BY: (Signature)

Date:

TIME:

SAMPLE CONDITION WHEN RECEIVED:

40°C intact

REMARKS:

If total TPH exceed 5,000 mg/kg run deeper samples. Run 6 BTEX w/ highest TPH

Summary Report

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

Report Date: March 31, 2010

Work Order: 10032628



Project Location: Eddy County, NM
Project Name: COG/Skelly 975
Project Number: 114-6400408

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
226756	CS-1 7' BS	soil	2010-03-23	00:00	2010-03-26
226757	CS-1 9' BS	soil	2010-03-23	00:00	2010-03-26
226758	CS-1 11' BS	soil	2010-03-23	00:00	2010-03-26
226759	CS-2 7' BS	soil	2010-03-23	00:00	2010-03-26
226760	CS-2 9' BS	soil	2010-03-23	00:00	2010-03-26
226761	CS-2 11' BS	soil	2010-03-23	00:00	2010-03-26

Sample: 226756 - CS-1 7' BS

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

Sample: 226757 - CS-1 9' BS

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

Sample: 226758 - CS-1 11' BS

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

Sample: 226759 - CS-2 7' BS

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

Sample: 226760 - CS-2 9' BS

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

Sample: 226761 - CS-2 11' BS

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



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

Certifications

WBENC: 237019

HUB: 1752439743100-86536
NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

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

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

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

Report Date: March 31, 2010

Work Order: 10032628



Project Location: Eddy County, NM
Project Name: COG/Skelly 975
Project Number: 114-6400408

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
226756	CS-1 7' BS	soil	2010-03-23	00:00	2010-03-26
226757	CS-1 9' BS	soil	2010-03-23	00:00	2010-03-26
226758	CS-1 11' BS	soil	2010-03-23	00:00	2010-03-26
226759	CS-2 7' BS	soil	2010-03-23	00:00	2010-03-26
226760	CS-2 9' BS	soil	2010-03-23	00:00	2010-03-26
226761	CS-2 11' BS	soil	2010-03-23	00:00	2010-03-26

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

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

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

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

Standard Flags

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

Case Narrative

Samples for project COG/Skelly 975 were received by TraceAnalysis, Inc. on 2010-03-26 and assigned to work order 10032628. Samples for work order 10032628 were received intact at a temperature of 21.0 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (Titration)	SM 4500-Cl B	58757	2010-03-29 at 11:23	68696	2010-03-30 at 11:31
Chloride (Titration)	SM 4500-Cl B	58758	2010-03-29 at 11:23	68697	2010-03-30 at 11:32

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 10032628 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: March 31, 2010
114-6400408

Work Order: 10032628
COG/Skelly 975

Page Number: 4 of 8
Eddy County, NM

Analytical Report

Sample: 226756 - CS-1 7' BS

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-03-30	Analyzed By:	AR
QC Batch:	68696	Sample Preparation:	2010-03-29	Prepared By:	AR
Prep Batch:	58757				

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

Sample: 226757 - CS-1 9' BS

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-03-30	Analyzed By:	AR
QC Batch:	68696	Sample Preparation:	2010-03-29	Prepared By:	AR
Prep Batch:	58757				

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

Sample: 226758 - CS-1 11' BS

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-03-30	Analyzed By:	AR
QC Batch:	68696	Sample Preparation:	2010-03-29	Prepared By:	AR
Prep Batch:	58757				

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

Sample: 226759 - CS-2 7' BS

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2010-03-30	Analyzed By:	AR
QC Batch:	68696	Sample Preparation:	2010-03-29	Prepared By:	AR
Prep Batch:	58757				

continued ...

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sample 226759 continued ...

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

Sample: 226760 - CS-2 9' BS

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 68696 Date Analyzed: 2010-03-30 Analyzed By: AR
Prep Batch: 58757 Sample Preparation: 2010-03-29 Prepared By: AR

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

Sample: 226761 - CS-2 11' BS

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

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

Method Blank (1) QC Batch: 68696

QC Batch: 68696 Date Analyzed: 2010-03-30 Analyzed By: AR
Prep Batch: 58757 QC Preparation: 2010-03-29 Prepared By: AR

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

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Method Blank (1) QC Batch: 68697

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

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

Laboratory Control Spike (LCS-1)

QC Batch: 68696 Date Analyzed: 2010-03-30 Analyzed By: AR
Prep Batch: 58757 QC Preparation: 2010-03-29 Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.2	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	99.4	mg/Kg	1	100	<2.18	99	85 - 115	1	20

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

Laboratory Control Spike (LCS-1)

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

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

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

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

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

Matrix Spike (MS-1) Spiked Sample: 226760

QC Batch: 68696 Date Analyzed: 2010-03-30 Analyzed By: AR
Prep Batch: 58757 QC Preparation: 2010-03-29 Prepared By: AR

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Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10000	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	10100	mg/Kg	100	10000	<218	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: 226827

QC Batch: 68697
Prep Batch: 58758

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

Analyzed By: AR
Prepared By: AR

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

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

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

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

Standard (ICV-1)

QC Batch: 68696

Date Analyzed: 2010-03-30

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2010-03-30

Standard (CCV-1)

QC Batch: 68696

Date Analyzed: 2010-03-30

Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.0	98	85 - 115	2010-03-30

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Standard (ICV-1)

QC Batch: 68697

Date Analyzed: 2010-03-30

Analyzed By: AR

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

Standard (CCV-1)

QC Batch: 68697

Date Analyzed: 2010-03-30

Analyzed By: AR

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

