SITE INFORMATION

Report Type: Closure Report

General Site Information:

Site:	**Harper State #5 Tank Battery**				
Company:	**COG Operating LLC**				
Section, Township and Range	**Sec 16**	**T17S**	**R30E**		
Lease Number:	**B-936**				
County:	**Eddy County**				
GPS:	**32.82856° N**		**103.96909° W**		
Surface Owner:	**State**				
Mineral Owner:					
Directions:	In Loco Hills, from the intersection of Goat Ropper Rd and Hwy 82, turn right on Goat Ropper Rd and travel 0.7 miles, turn right and travel 0.5 miles, turn right and travel 0.2 miles to site.				

Release Data:

Date Released:	Spill 1 5/6/2010	Spill 2 8/16/2010
Type Release:	Produced Fluid	Produced Fluid
Source of Contamination:	Tank	Flowline
Fluid Released:	450 bbls	24 bbls
Fluids Recovered:	450 bbls	15 bbls

Official Communication:

Name:	Pat Ellis		Ike Tavarez
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) 682-4559
Fax:	(432) 684-7137		
Email:	pellis@conchoresources.com		ike.tavarez@tetratech.com

Ranking Criteria

Depth to Groundwater:	***Ranking Score***	***Site Data***
<50 ft	20	
50-99 ft	10	
>100 ft.	**0**	**0**

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

February 14, 2012

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., Harper State #5 Tank Battery, Unit P, Section 16, Township 17 South, Range 30 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 Harper State #5 Tank Battery located in Unit P, Section 16, Township 17 South, Range 30 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.82856°, W 103.96909°. The site location is shown on Figures 1 and 2.

Background

Spill #1

According to the State of New Mexico C-141 Initial Report, the leak was discovered on May 6, 2010, and released approximately four hundred fifty (450) barrels of produced fluid from a water tank, due to an alarm recognition error. Four hundred fifty (450) barrels of standing fluids were recovered. The spill initiated on the southeast end of the pad and flowed west into the pasture affecting an area 200' long by 10' wide. The spill then migrated south top of a Chevron pipeline, affecting an area 80' x 170'. The initial C-141 form is enclosed in Appendix A.

Spill #2

On August 16, 2010, a second spill occurred and released approximately twenty four (24) barrels of produced fluid from a flow line near the tank battery. To alleviate the problem, COG personnel repaired the flow line and fifteen (15) barrels of standing fluids were recovered. The spill

Tetra Tech
1910 North Big Spring, Midland,TX 79705
Tel 432.682.4559 Fax 432.682.3946 www.tetratech.com

initiated on the east end of the tank battery pad affecting an area of approximately 15' x 60' in the pasture. The initial C-141 form is enclosed in Appendix A.

Groundwater

No water wells were listed within Section 16. According to the NMOCD groundwater map, the average depth to groundwater in this area is greater than 275' below surface. The groundwater information 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 May 17, 2010, Tetra Tech personnel inspected and sampled the spill area. Ten (10) auger holes (AH-1 through AH-10) 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 C. The sampling results are summarized in Table 1. The auger hole locations are shown on Figure 3.

Referring to Table 1, the areas of AH-1 and AH-9 did show TPH concentrations above the RRAL. Auger hole (AH-1) did declined below the RRAL at 1-1.5' below surface and AH-9 was not vertically defined. In addition, the total BTEX was not vertically defined in the area of AH-9.

A shallow chloride impact was detected in the areas of AH-1, AH-2, AH-3, AH-4, AH-6, AH-8 and AH-10. The remaining auger holes (AH-5, AH-7 and AH-9) showed a deeper chloride impact with significant decline at 6.0' to 8.0' below surface.

On August 16, 2010, the second spill occurred at the site. The spill area encompassed the areas of AH-4 and AH-5 (Figure 3). On September 15, 2010, backhoe trenches were installed in the areas of AH-3, AH-9 and AH-10 to define the extents of the chloride impact and the BTEX impact in the area of AH-9. Auger holes (AH-4 and AH-5) were re-assessed due to the second spill footprint. The trench locations are shown on Figure 3.

Referring to Table 1, the chlorides were not defined in T-3 (AH-5), T-4 (AH-7) and T-5 (AH-9). The chloride concentrations in the remaining areas T-1 (AH-3) and T-2 (AH-4) were defined at 14.0' below surface. In addition, the area of T-5 (AH-9) did show a total BTEX declining below the RRAL at 8.0' below surface.

In order to delineate the chloride concentration impact, soil borings were installed utilizing an air rotary drilling rig. On April 7, 2011, Tetra Tech personnel supervised the installation of soil bores (SB-1 through SB-4). Soil samples were collected to a depth of 60'. Referring to Table 1, chloride concentrations from all soil borings were vertically defined. The soil boring locations are shown on Figure 3.

Closure Activities

Based on the approved work plan, Tetra Tech personnel supervised the excavation of the site. The final excavation depths of the soil remediation were met as stated in the approved work plan. The spill area was excavated at depths ranging from 1.0' to 6.0' below surface. Additional backhoe trenches were installed in order to further define the impact in some the areas. In the areas of AH-3, AH-4, AH-5, AH-7 and AH-9, a 40 mil liner was installed at 4.0' below surface to cap the remaining impacted soil.

A total of 2,360 cubic yards of soil were excavated and hauled to proper disposal. Once excavated to the appropriate depths, the excavations were backfilled with clean soil to grade. The excavation areas, depths and liners are highlighted in Table 1 and shown on Figure 4.

TETRA TECH

Based on the remedial activities performed, COG request closure of the site. A copy of the C-141 (Final) is included in Appendix A. If you have any questions or comments concerning the remedial activities, please call at (432) 682-4559.

Respectfully submitted,
TETRA TECH

Ike Tavarez
Senior Project Manager

cc: Pat Ellis – COG

FIGURES

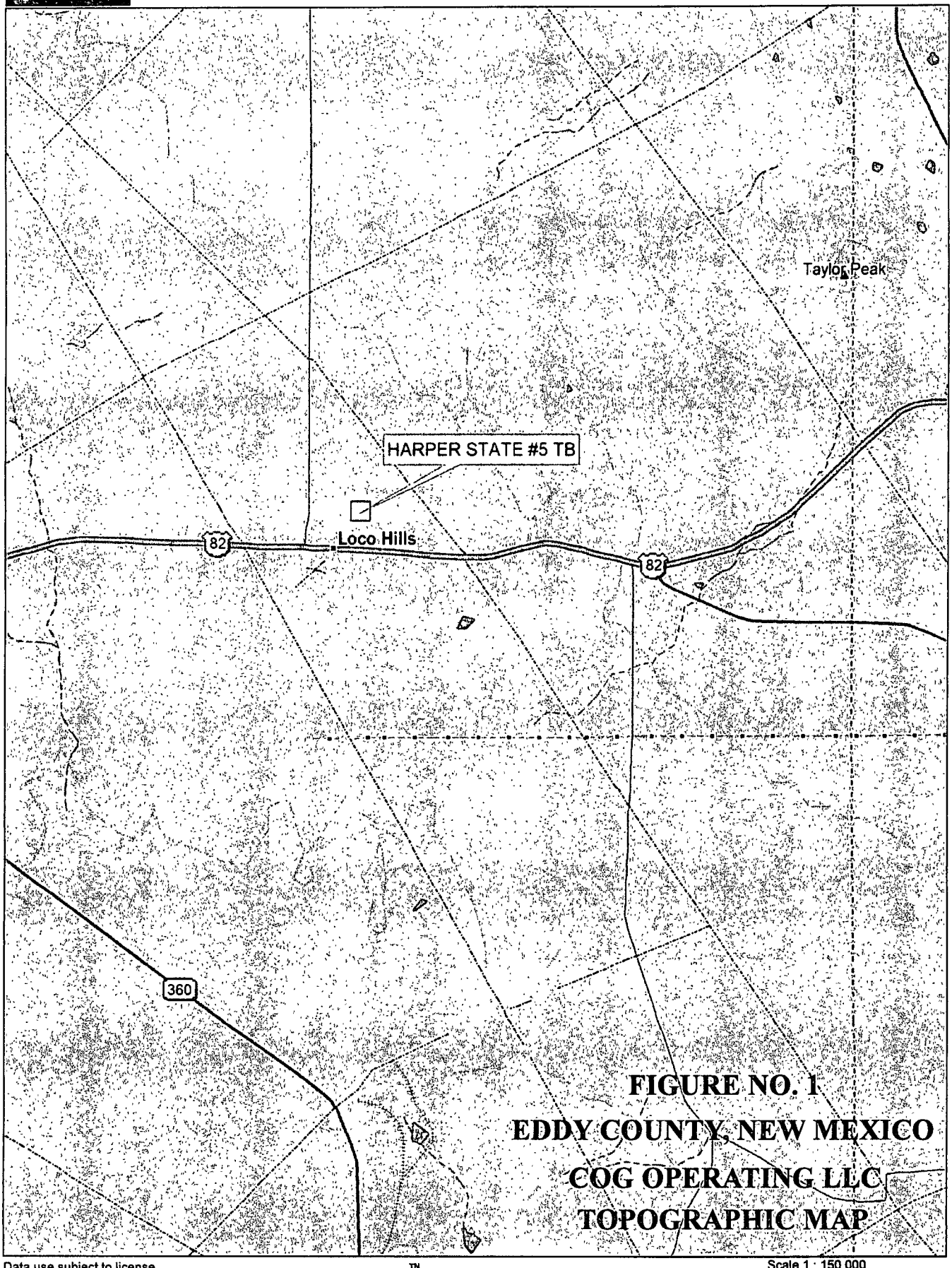


FIGURE NO. 1

EDDY COUNTY, NEW MEXICO

COG OPERATING LLC

TOPOGRAPHIC MAP

TN
MN (7.6°E)

Scale 1 : 150,000
1" = 2.37 mi
Data Zoom 9-7

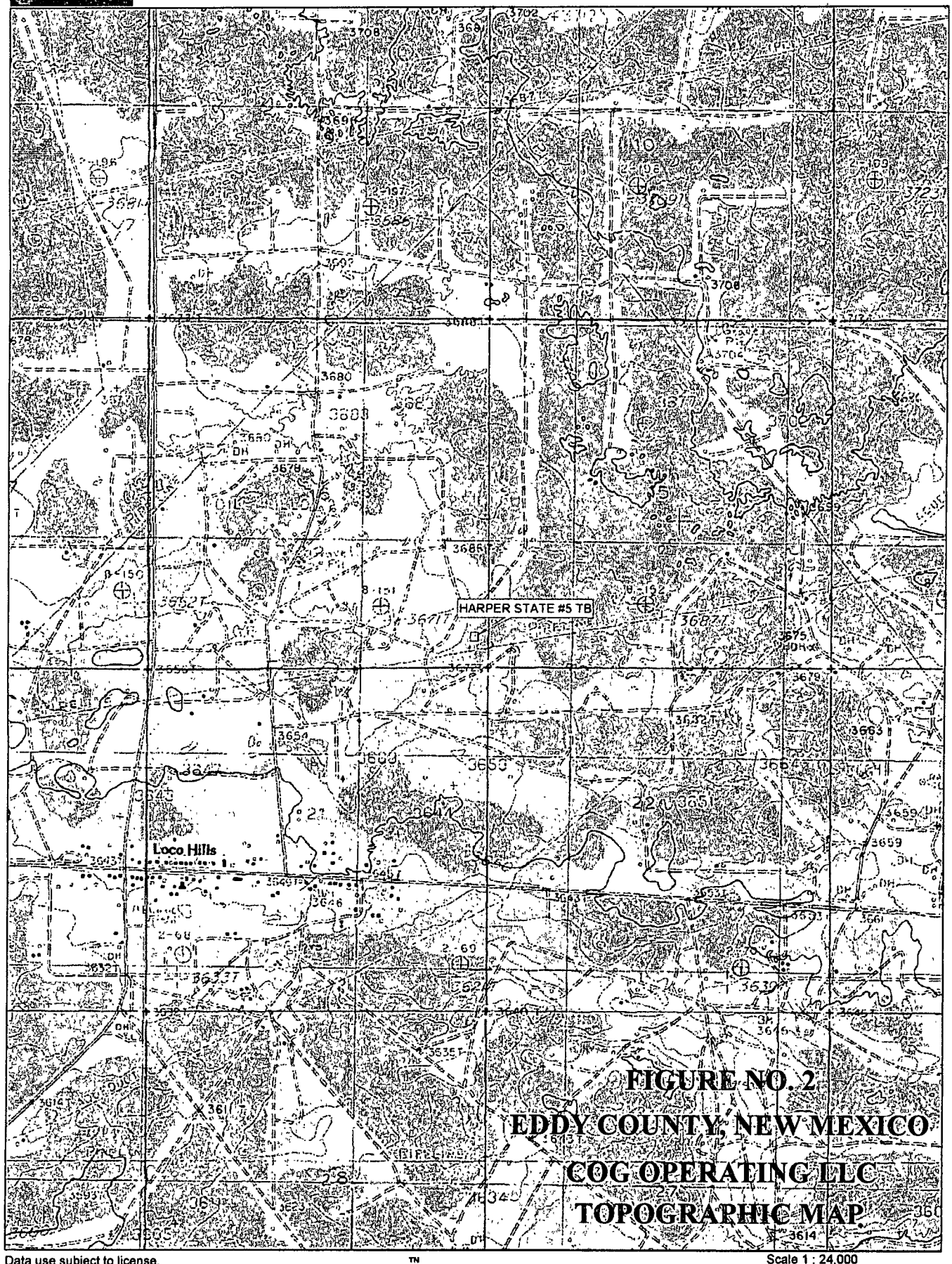
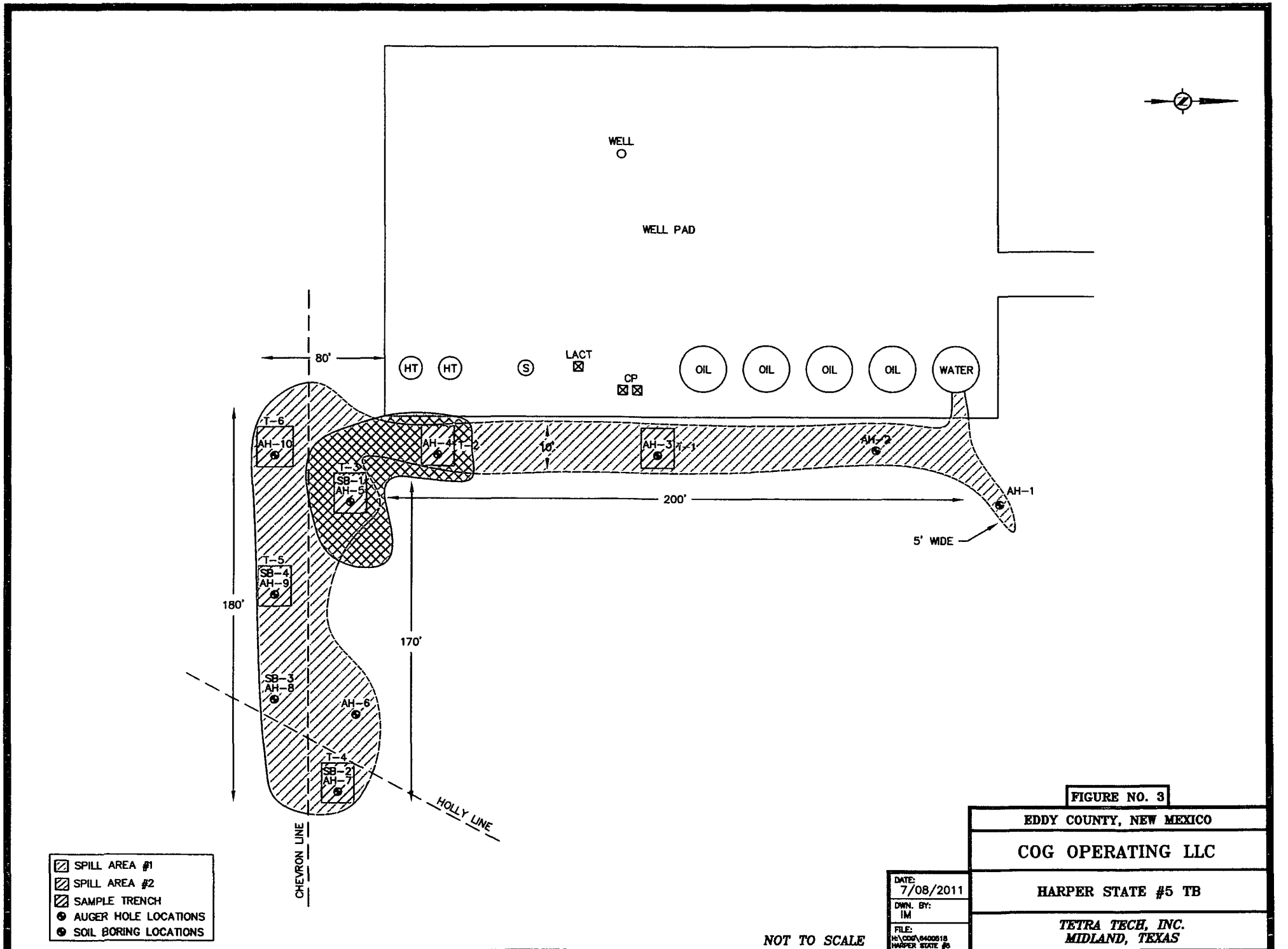
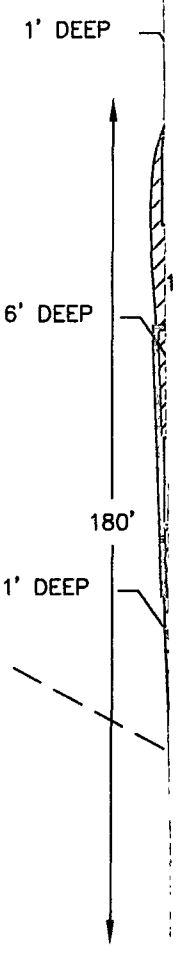


FIGURE NO. 2
EDDY COUNTY, NEW MEXICO
COG OPERATING LLC
TOPOGRAPHIC MAP

TN
MN (7.6°E)

Scale 1 : 24,000
1" = 2,000.0 ft
Data Zoom 13-6


WELL
WELL PAD
80'
HT
HT
S
LACT
CP
OIL
OIL
OIL
OIL
WATER
T-6
AH-10
AH-4
T-2
T-3
SB-1
AH-5
T-1
10'
AH-3
AH-2
AH-1
200'
5' WIDE
T-5
SB-4
AH-9
180'
170'
SB-3
AH-8
AH-6
T-4
SB-2
AH-7
HOLLY LINE
CHEVRON LINE
SPILL AREA #1
SPILL AREA #2
SAMPLE TRENCH
AUGER HOLE LOCATIONS
SOIL BORING LOCATIONS
NOT TO SCALE
DATE: 7/08/2011
DWN. BY: IM
FILE: H:\COG\6400618 HARPER STATE #5
FIGURE NO. 3
EDDY COUNTY, NEW MEXICO
COG OPERATING LLC
HARPER STATE #5 TB
TETRA TECH, INC.
MIDLAND, TEXAS



EXCAVATED DEPTHS
INSTALLED LINER
AUGER HOLE LOCATIONS
SOIL BORING LOCATIONS

FIGURE NO. 4

EDDY COUNTY, NEW MEXICO

COG OPERATING LLC

HARPER STATE #5 TB
EXCAVATION AREA & DEPTHS

TETRA TECH, INC.
MIDLAND, TEXAS

/2011
BY:
8400518
STATE #5

TABLES

Table 1
COG Operating LLC.
Harper State #5
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-1	5/17/2010	0-1'			X	4,290	1,190	5,480	<0.500	9.34	14.9	24.3	1,320
	"	1-1.5'		X		<50.0	<1.00	<50.0	-	-	-	-	578
	"	2-2.5'		X		-	-	-	-	-	-	-	<200
	"	3-3.5'		X		-	-	-	-	-	-	-	<200
	"	4-4.5'		X		-	-	-	-	-	-	-	<200
	"	5-5.5'		X		-	-	-	-	-	-	-	<200
AH-2	5/17/2010	0-1'			X	678	14.6	693	-	-	-	-	4,890
	"	1-1.5'		X		-	-	-	-	-	-	-	1,750
	"	2-2.5'		X		-	-	-	-	-	-	-	793
	"	3-3.5'		X		-	-	-	-	-	-	-	682
	"	4-4.5'		X		-	-	-	-	-	-	-	490
	"	5-5.5'		X		-	-	-	-	-	-	-	466

Table 1
COG Operating LLC.
Harper State #5
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-3	5/17/2010	0-1'			X	1,400	296	1,696	<0.100	<0.100	<0.100	0.438	1,830
	"	1-1.5'			X	-	-	-		-	-	-	661
	"	2-2.5'			X	-	-	-		-	-	-	1,010
	"	3-3.5'			X	-	-	-		-	-	-	1,340
	"	4-4.5'			X	-	-	-		-	-	-	802
	"	5-5.5'		X		-	-	-	-	-	-	-	641
T-1	9/15/2010	6'			X	-	-	-		-	-	-	2,570
	"	8'			X	-	-	-	-	-	-	-	7,910
	"	10'		X		-	-	-	-	-	-	-	1,010
	"	12'		X		-	-	-	-	-	-	-	926
	"	14'		X		-	-	-	-	-	-	-	304

Table 1
COG Operating LLC.
Harper State #5
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-4	5/17/2010	0-1'			X	1,780	691	2,471	<0.200	<0.200	<0.200	1.00	7,940
	"	1-1.5'			X	-	-	-	-	-	-	-	1,250
	"	2-2.5'			X	-	-	-	-	-	-	-	592
	"	3-3.5'			X	-	-	-	-	-	-	-	519
	"	4-4.5'			X	-	-	-	-	-	-	-	398
	"	5-5.5'			X	-	-	-	-	-	-	-	447
T-2	9/15/2010	2'			X	-	-	-	-	-	-	-	13,200
	"	4'			X	-	-	-	-	-	-	-	7,040
	"	6'		X		-	-	-	-	-	-	-	2,890
	"	8'		X		-	-	-	-	-	-	-	6,020
	"	10'		X		-	-	-	-	-	-	-	3,970
	"	12'		X		-	-	-	-	-	-	-	2,950
	"	14'		X		-	-	-	-	-	-	-	245

Table 1
COG Operating LLC.
Harper State #5
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-5	5/17/2010	0-1'			X	877	409	1,286	<0.100	<0.100	<0.100	0.638	6,930
	"	1-1.5'			X	-	-	-	-	-	-	-	4,950
	"	2-2.5'			X	-	-	-	-	-	-	-	2,900
	"	3-3.5'			X	-	-	-	-	-	-	-	985
	"	4-4.5'			X	-	-	-	-	-	-	-	11,500
	"	5-5.5'			X	-	-	-	-	-	-	-	10,100
	"	6-6.5'		X		-	-	-	-	-	-	-	3,770
	"	7-7.5'		X		-	-	-	-	-	-	-	1,920
	"	8-8.5'		X		-	-	-	-	-	-	-	2,120
	"	9-9.5'		X		-	-	-	-	-	-	-	268
T-3	9/15/2010	2'			X	-	-	-	-	-	-	-	3,690
	"	4'			X	-	-	-	-	-	-	-	2,580
	"	6'		X		-	-	-	-	-	-	-	1,950
	"	8'		X		-	-	-	-	-	-	-	5,860
	"	10'		X		-	-	-	-	-	-	-	3,060
	"	12'		X		-	-	-	-	-	-	-	6,440
	"	14'		X		-	-	-	-	-	-	-	4,200
SB-1	4/7/2011	10'		X		-	-	-	-	-	-	-	2,880
		15'		X		-	-	-	-	-	-	-	2,680
		20'		X		-	-	-	-	-	-	-	4,390
		25'		X		-	-	-	-	-	-	-	4,160
		30'		X		-	-	-	-	-	-	-	873
		40'		X		-	-	-	-	-	-	-	505
		50'		X		-	-	-	-	-	-	-	310

Table 1
COG Operating LLC.
Harper State #5
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-6	5/17/2010	0-1'			X	<50.0	<1.00	<50.0	-	-	-	-	6,860
	"	1-1.5'		X		-	-	-	-	-	-	-	1,430
	"	2-2.5'		X		-	-	-	-	-	-	-	<200
	"	3-3.5'		X		-	-	-	-	-	-	-	239
	"	4-4.5'		X		-	-	-	-	-	-	-	<200
	"	5-5.5'		X		-	-	-	-	-	-	-	225

Table 1
COG Operating LLC.
Harper State #5
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-7	5/17/2010	0-1'			X	<50.0	<1.00	<50.0	-	-	-	-	10,100
	"	1-1.5'			X	-	-	-	-	-	-	-	8,640
	"	2-2.5'			X	-	-	-	-	-	-	-	10,100
	"	3-3.5'			X	-	-	-	-	-	-	-	10,900
	"	4-4.5'			X	-	-	-	-	-	-	-	10,800
	"	5-5.5'			X	-	-	-	-	-	-	-	16,200
	"	6-6.5'		X		-	-	-	-	-	-	-	5,840
	"	7-7.5'		X		-	-	-	-	-	-	-	1,580
	"	7.5-8'		X		-	-	-	-	-	-	-	1,080
T-4	9/15/2010	8'		X		-	-	-	-	-	-	-	473
	"	10'		X		-	-	-	-	-	-	-	7,040
	"	12'		X		-	-	-	-	-	-	-	3,960
	"	14'		X		-	-	-	-	-	-	-	4,370
SB-2	4/7/2011	10'		X		-	-	-	-	-	-	-	208
		15'		X		-	-	-	-	-	-	-	552
		20'		X		-	-	-	-	-	-	-	<200

Table 1
COG Operating LLC.
Harper State #5
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-8	5/17/2010	0-1'			X	599	259	858					2,920
	"	1-1.5'		X		-	-	-	-	-	-	-	306
	"	2-2.5'		X		-	-	-	-	-	-	-	850
	"	3-3.5'		X		-	-	-	-	-	-	-	1,520
	"	4-4.5'		X		-	-	-	-	-	-	-	626
	"	5-5.5'		X		-	-	-	-	-	-	-	220
	"	6-6.5'		X		-	-	-	-	-	-	-	<200
SB-3	4/7/2011	10'		X		<50.0	<2.00	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	431
		15'		X		-	-	-	-	-	-	-	373
		20'		X		-	-	-	-	-	-	-	<200
		25'		X		-	-	-	-	-	-	-	1,200
		30'		X		-	-	-	-	-	-	-	712
		40'		X		-	-	-	-	-	-	-	1,130
		50'		X		-	-	-	-	-	-	-	<200
		60'		X		-	-	-	-	-	-	-	<200

Table 1
COG Operating LLC.
Harper State #5
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-9	5/17/2010	0-1'			X	8,460	3,660	12,120	1.46	16.8	31.8	52.1	2,210
	"	1-1.5'			X	3,080	2,420	5,500	18.3	79.2	38.3	67.3	4,480
	"	2-2.5'			X	3,320	3,620	6,940	13.1	105	54.8	97.2	4,140
	"	3-3.5'			X	2,770	4,280	7,050	11.6	120	66.9	117	4,460
	"	4-4.5'			X	734	2,790	3,524	13.7	115	54.8	89.1	6,080
	"	5-5.5'			X	1,020	1,780	2,800	0.416	34	35.8	53.1	2,360
	"	6-6.5'			X	1,040	2,350	3,390	3.8	64.8	47.3	63.4	864
T-5	9/15/2010	8'		X		74.9	<2.00	74.9	<0.0200	<0.0200	<0.0200	<0.0200	10,900
	"	10'		X		83.1	<2.00	83.1	<0.0200	<0.0200	<0.0200	<0.0200	3,220
SB-4	4/7/2011	10'		X		<50.0	<2.00	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	5,970
		15'		X		-	-	-	-	-	-	-	7,400
		20'		X		-	-	-	-	-	-	-	4,210
		25'		X		-	-	-	-	-	-	-	<200
		30'		X		-	-	-	-	-	-	-	862
		40'		X		-	-	-	-	-	-	-	<200
		50'		X		-	-	-	-	-	-	-	<200

Table 1
COG Operating LLC.
Harper State #5
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-10	5/17/2010	0-1'			X	334	697	1,031	0.478	4.46	5.08	9.48	1,340
	"	1-1.5'		X		-	-	-	-	-	-	-	599
	"	2-2.5'		X		-	-	-	-	-	-	-	<200
	"	3-3.5'		X		-	-	-	-	-	-	-	934
	"	4-4.5'		X		-	-	-	-	-	-	-	671
T-6	9/15/2010	6'		X		-	-	-	-	-	-	-	874
	"	8'		X		-	-	-	-	-	-	-	508
	"	10'		X		-	-	-	-	-	-	-	752
	"	12'		X		-	-	-	-	-	-	-	410
	"	14'		X		-	-	-	-	-	-	-	707

BEB Below Excavation Bottom

(--) Not Analyzed

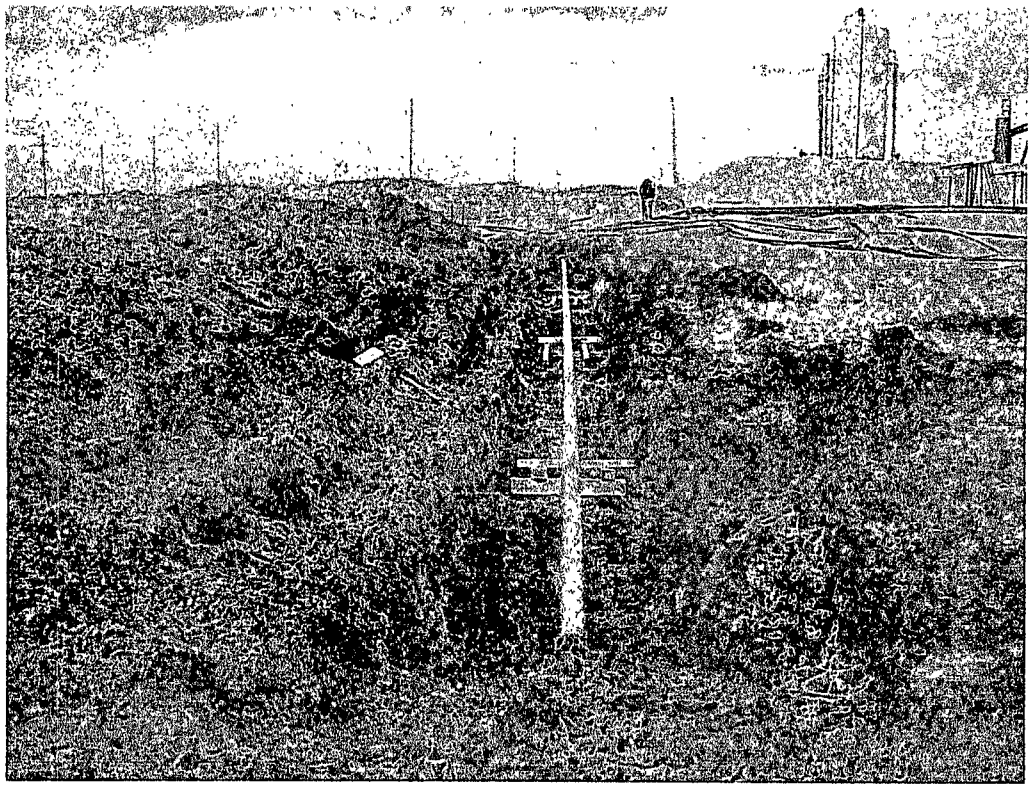
Excavated depths (ft)

Liner Installed

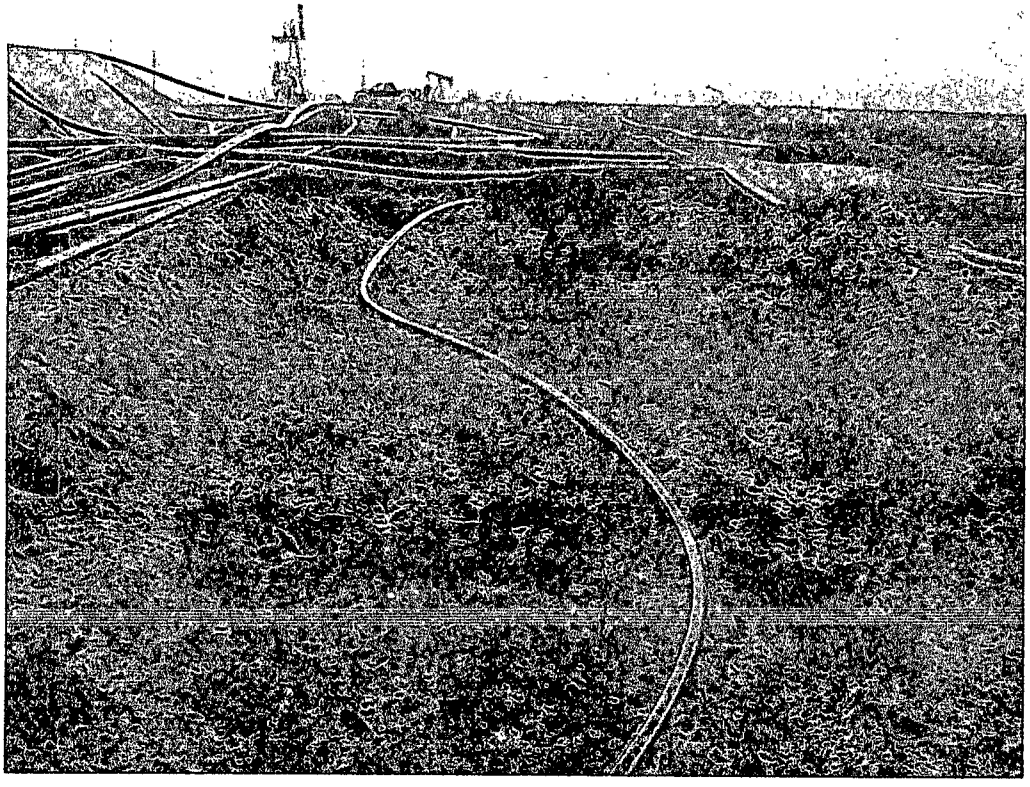
PHOTOGRAPHS

COG Operating LLC
Harper State #5
Eddy County, New Mexico

TETRA TECH



Chevron Line

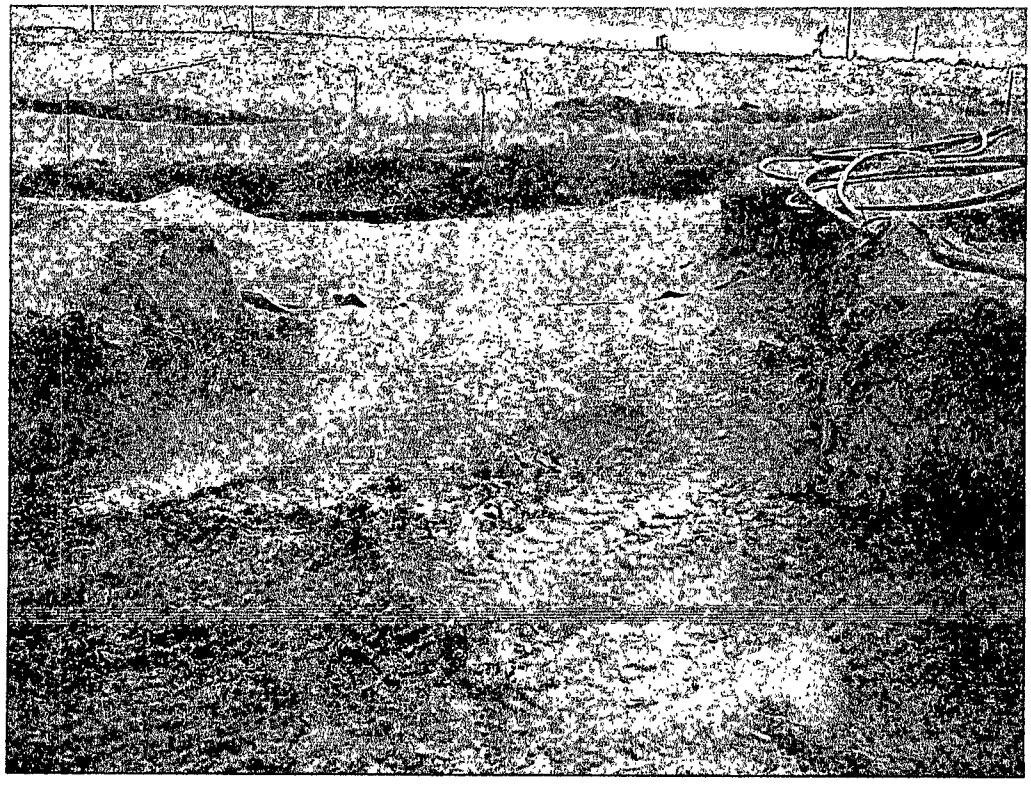


View North—AH-1 and 2

COG Operating LLC
Harper State #5
Eddy County, New Mexico

TETRA TECH

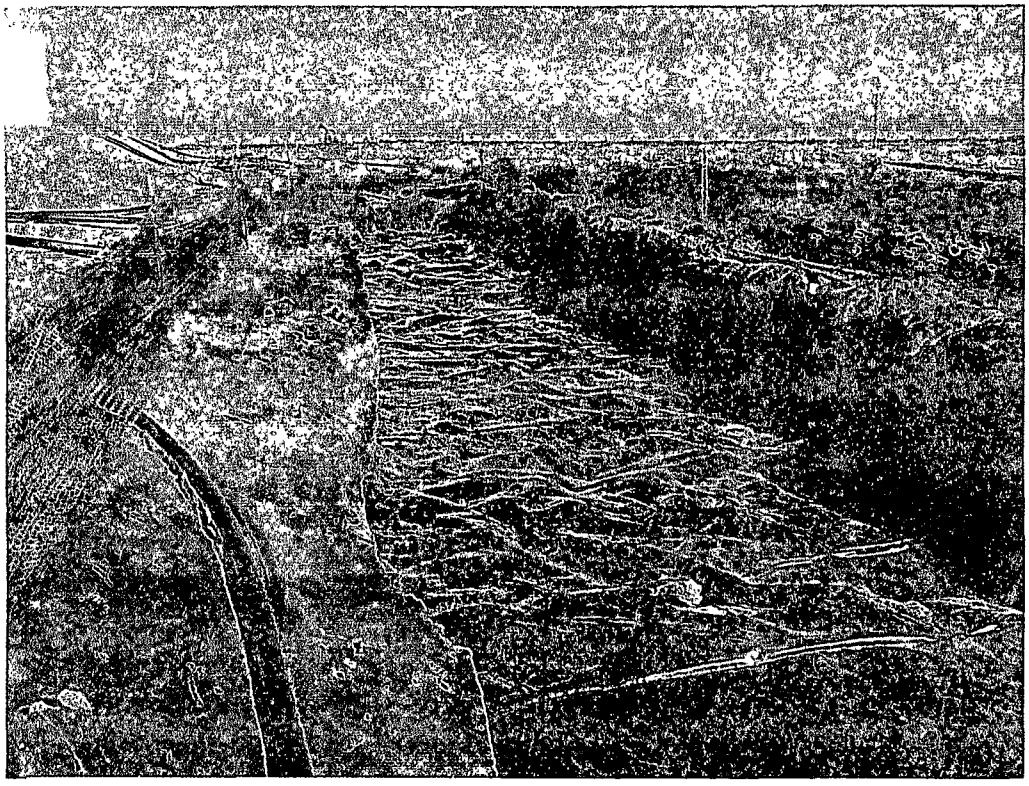
View North—AH-3 and 4



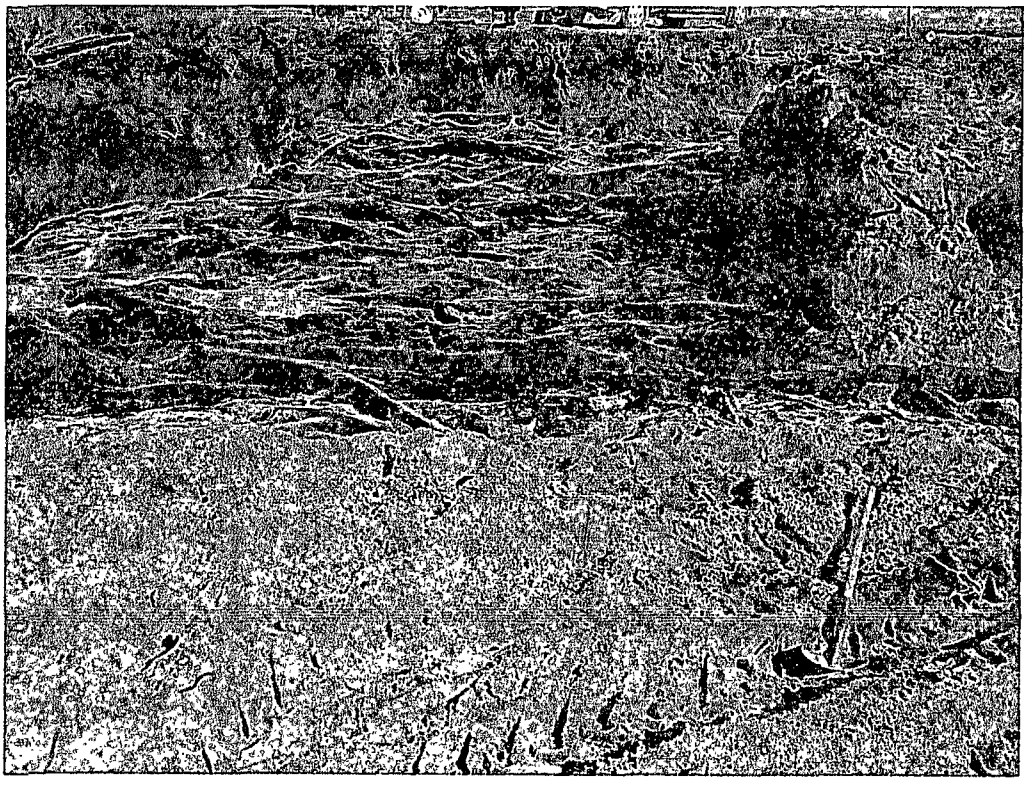
View South—Liner and backfill

COG Operating LLC
Harper State #5
Eddy County, New Mexico

TETRA TECH



View North--Liner



View North--Liner

APPENDIX A

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company **COG Operating LLC**	Contact **Pat Ellis**
Address **550 W. Texas, Suite 1300 Midland, Texas 79701**	Telephone No. **(432) 230-0077**
Facility Name Harper State #5	Facility Type **Tank Battery**

Surface Owner: State	Mineral Owner	Lease No. B-936

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	16	17S	30E					Eddy

Latitude 32 49.715 **Longitude** 103.58.145

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release 450 bbls	Volume Recovered 450 bbls
Source of Release: Water Tank	Date and Hour of Occurrence 05/06/2010	Date and Hour of Discovery 05/07/2010
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Mike Bratcher--OCD**	
By Whom? Ronnie Tice	Date and Hour 05/07/2010 5:15 p.m.	
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.*

The release was caused due to an alarm recognition error.

Describe Area Affected and Cleanup Action Taken.*

Tetra Tech personal inspected the site and collected samples to define the spills extent. Impacted soil was removed and liners were installed in the proposed areas according to the approved work plan. The soil was hauled away for proper disposal and the site was then brought up to surface grade with clean backfill material. Tetra Tech prepared a closure report and submitted it to the 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: Ike Tavarez (Agent for COG)	Approved by District Supervisor:	
Title: Project Manager	Approval Date:	Expiration Date:
E-mail Address: Ike.Tavarez@TetraTech.com	Conditions of Approval:	Attached ☐
Date: 2-14-12 Phone: (432) 682-4559		

* Attach Additional Sheets If Necessary

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 **Pat Ellis**
Address **550 W. Texas, Suite 1300 Midland, Texas 79701**	Telephone No. **(432) 230-0077**
Facility Name Harper State #5	Facility Type **Tank Battery**

Surface Owner: State	Mineral Owner	Lease No. B-936

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	16	17S	30E					Eddy

Latitude 32 49.715 **Longitude** 103.58.145

NATURE OF RELEASE

Type of Release: Produced Fluid	Volume of Release 24 bbls	Volume Recovered 15 bbls
Source of Release: Flowline	Date and Hour of Occurrence 08/16/2010	Date and Hour of Discovery 08/16/2010 4:30 p.m.
Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour 05/07/2010 5:15 p.m.	
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 hole developed in the Harper State #5 flowline. The defective section of pipe was completely removed and replaced with a new section.

Describe Area Affected and Cleanup Action Taken.*

Tetra Tech personal inspected the site and collected samples to define the spills extent. Impacted soil was removed and liners were installed in the proposed areas according to the approved work plan. The soil was hauled away for proper disposal and the site was then brought up to surface grade with clean backfill material. Tetra Tech prepared a closure report and submitted it to the 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: Ike Tavarez (Agent for COG)	Approved by District Supervisor:	
Title: Project Manager	Approval Date:	Expiration Date:
E-mail Address: Ike.Tavarez@TetraTech.com	Conditions of Approval:	Attached ☐
Date: 2-14-12 Phone: (432) 682-4559		

* Attach Additional Sheets If Necessary

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	Pat Ellis
Address	550 W. Texas, Suite 100, Midland, TX 79701	Telephone No.	432-230-0077
Facility Name	HARPER STATE #5	Facility Type	TANK BATTERY

Surface Owner STATE	Mineral Owner	Lease No. B-936

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	16	17S	30E					Eddy

Latitude 32 49.715 **Longitude** 103 58.145

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 450bbls	Volume Recovered 450bbls
Source of Release Water Tank	Date and Hour of Occurrence 05/06/2010	Date and Hour of Discovery 05/07/2010
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher - OCD	
By Whom? Ronnie Tice	Date and Hour 05/07/2010 5:15 p.m.	
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.*

The release was caused due to an alarm recognition error.

Describe Area Affected and Cleanup Action Taken.*

450bbls or produced water was initially released and 450bbls was immediately recovered by a vacuum truck. The produced water ran off from the water tank covering an area 20' x 120', then pooled in an area with the dimensions of 75' x 200'. Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD for approval before 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: Josh Russo	Approved by District Supervisor:
Title: HSE Coordinator	Approval Date: / Expiration Date:
E-mail Address: jrusso@conchoresources.com	Conditions of Approval: / Attached ☐
Date: 05/10/2010 Phone: 432-212-2399	

* Attach Additional Sheets If Necessary

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	Pat Ellis
Address	550 W. Texas, Suite 100, Midland, TX 79701	Telephone No.	432-230-0077
Facility Name	Harper State #5	Facility Type	Flowline

Surface Owner State	Mineral Owner	Lease No. (API#) 31-015-34571

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	16	17S	30E					Eddy

Latitude 32 49.693 **Longitude** 103 58.118

NATURE OF RELEASE

Type of Release Produced fluid	Volume of Release 24bbls	Volume Recovered 15bbls
Source of Release Flowline	Date and Hour of Occurrence 08/16/2010	Date and Hour of Discovery 08/16/2010 4:30 p.m.
Was Immediate Notice Given? ☐ Yes ☒ No ☒ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
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 hole developed in the Harper State #5 flowline. The defective section of pipe was completely removed and replaced with a new section.

Describe Area Affected and Cleanup Action Taken.*

Initially 24bbls of produced fluid was released from the Harper State #5 flowline. We were able to recover 15bbls of produced fluid with a vacuum truck. The dimensions of the release were a 2' x 50' stream that followed the similar path of a previous release directly behind the Harper State #5 Tank Battery. The closest well location to the release is 50' west of the spill area and is the Harper State #1well: 430' FSL 330' FEL, Sec.16-T17S-R30E, Eddy Co., NM. B-936. API# 30-015-30831). Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD for 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: Josh Russo	Approved by District Supervisor:
Title: HSE Coordinator	Approval Date: / Expiration Date:
E-mail Address: jrusso@conchoresources.com	Conditions of Approval: / Attached ☐
Date: 08/28/2010 Phone: 432-212-2399	

* Attach Additional Sheets If Necessary

APPENDIX B

Water Well Data
Average Depth to Groundwater (ft)
COG - Harper State #5
Eddy County, New Mexico

16 South 29 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19 **110**	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

16 South 30 East

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

16 South 31 East

6	5	4	3	2
7	8	9	10	11
18	17	16	15	14
19	20	21	22	23
30	29	28	27	26
31 **290**	32	33	34	35

17 South 29 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22 **80**	23	24
30	29 **210** **208'**	28	27	26	25
31	32	33	34	35 153	36

17 South 30 East

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16 SITE	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
7	8	9	10	11
18	17	16	15	14
19	20	21	22	23
30	29	28	27	26
31	32	33	34 **271**	35

18 South 29 East

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

18 South 30 East

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

18 South 31 East

6	5	4	3	2
7	8	9	10	11
18	17	16	15	14 **317**
19	20	21	22	23
30	29	28	27	26
31	32	33	34	35 **261**

New Mexico State Engineers Well Reports

USGS Well Reports

Geology and Groundwater Conditions in Southern Eddy, County, NM

NMOCD - Groundwater Data

APPENDIX C

Summary Report

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

Report Date: October 4, 2010

Work Order: 10092008

Project Location: Eddy County, NM
Project Name: COG/Harper State #5
Project Number: 114-6400518

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
245155	T-1 6'	soil	2010-09-15	00:00	2010-09-17
245156	T-1 8'	soil	2010-09-15	00:00	2010-09-17
245157	T-1 10'	soil	2010-09-15	00:00	2010-09-17
245158	T-1 12'	soil	2010-09-15	00:00	2010-09-17
245159	T-1 14'	soil	2010-09-15	00:00	2010-09-17
245160	T-2 2'	soil	2010-09-15	00:00	2010-09-17
245161	T-2 4'	soil	2010-09-15	00:00	2010-09-17
245162	T-2 6'	soil	2010-09-15	00:00	2010-09-17
245163	T-2 8'	soil	2010-09-15	00:00	2010-09-17
245164	T-2 10'	soil	2010-09-15	00:00	2010-09-17
245165	T-2 12'	soil	2010-09-15	00:00	2010-09-17
245166	T-2 14'	soil	2010-09-15	00:00	2010-09-17
245168	T-3 2'	soil	2010-09-15	00:00	2010-09-17
245169	T-3 4'	soil	2010-09-15	00:00	2010-09-17
245170	T-3 6'	soil	2010-09-15	00:00	2010-09-17
245171	T-3 8'	soil	2010-09-15	00:00	2010-09-17
245172	T-3 10'	soil	2010-09-15	00:00	2010-09-17
245173	T-3 12'	soil	2010-09-15	00:00	2010-09-17
245174	T-3 14'	soil	2010-09-15	00:00	2010-09-17
245179	T-4 8'	soil	2010-09-15	00:00	2010-09-17
245180	T-4 10'	soil	2010-09-15	00:00	2010-09-17
245181	T-4 12'	soil	2010-09-15	00:00	2010-09-17
245182	T-4 14'	soil	2010-09-15	00:00	2010-09-17
245187	T-5 8'	soil	2010-09-15	00:00	2010-09-17
245188	T-5 10'	soil	2010-09-15	00:00	2010-09-17
245193	T-6 6'	soil	2010-09-15	00:00	2010-09-17
245194	T-6 8'	soil	2010-09-15	00:00	2010-09-17
245195	T-6 10'	soil	2010-09-15	00:00	2010-09-17
245196	T-6 12'	soil	2010-09-15	00:00	2010-09-17
245197	T-6 14'	soil	2010-09-15	00:00	2010-09-17

Sample - Field Code	BTEX Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	TPH DRO - NEW DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
245187 - T-5 8'	<0.0200	<0.0200	<0.0200	<0.0200	**74.9**	<2.00
245188 - T-5 10'	<0.0200	<0.0200	<0.0200	<0.0200	**83.1**	<2.00

Sample: 245155 - T-1 6'

Param	Flag	Result	Units	RL
Chloride		**2570**	mg/Kg	4.00

Sample: 245156 - T-1 8'

Param	Flag	Result	Units	RL
Chloride		**7910**	mg/Kg	4.00

Sample: 245157 - T-1 10'

Param	Flag	Result	Units	RL
Chloride		**1010**	mg/Kg	4.00

Sample: 245158 - T-1 12'

Param	Flag	Result	Units	RL
Chloride		**926**	mg/Kg	4.00

Sample: 245159 - T-1 14'

Param	Flag	Result	Units	RL
Chloride		**304**	mg/Kg	4.00

Sample: 245160 - T-2 2'

Param	Flag	Result	Units	RL
Chloride		**13200**	mg/Kg	4.00

Sample: 245161 - T-2 4'

Param	Flag	Result	Units	RL
Chloride		**7040**	mg/Kg	4.00

Sample: 245162 - T-2 6'

Param	Flag	Result	Units	RL
Chloride		**2890**	mg/Kg	4.00

Sample: 245163 - T-2 8'

Param	Flag	Result	Units	RL
Chloride		**6020**	mg/Kg	4.00

Sample: 245164 - T-2 10'

Param	Flag	Result	Units	RL
Chloride		**3970**	mg/Kg	4.00

Sample: 245165 - T-2 12'

Param	Flag	Result	Units	RL
Chloride		**2950**	mg/Kg	4.00

Sample: 245166 - T-2 14'

Param	Flag	Result	Units	RL
Chloride		**245**	mg/Kg	4.00

Sample: 245168 - T-3 2'

Param	Flag	Result	Units	RL
Chloride		**3690**	mg/Kg	4.00

Sample: 245169 - T-3 4'

Param	Flag	Result	Units	RL
Chloride		**2580**	mg/Kg	4.00

Sample: 245170 - T-3 6'

Param	Flag	Result	Units	RL
Chloride		**1950**	mg/Kg	4.00

Sample: 245171 - T-3 8'

Param	Flag	Result	Units	RL
Chloride		**5860**	mg/Kg	4.00

Sample: 245172 - T-3 10'

Param	Flag	Result	Units	RL
Chloride		**3060**	mg/Kg	4.00

Sample: 245173 - T-3 12'

Param	Flag	Result	Units	RL
Chloride		**6440**	mg/Kg	4.00

Sample: 245174 - T-3 14'

Param	Flag	Result	Units	RL
Chloride		**4200**	mg/Kg	4.00

Sample: 245179 - T-4 8'

Param	Flag	Result	Units	RL
Chloride		**473**	mg/Kg	4.00

Sample: 245180 - T-4 10'

Param	Flag	Result	Units	RL
Chloride		**7040**	mg/Kg	4.00

Sample: 245181 - T-4 12'

Param	Flag	Result	Units	RL
Chloride		**3960**	mg/Kg	4.00

Sample: 245182 - T-4 14'

Param	Flag	Result	Units	RL
Chloride		**4370**	mg/Kg	4.00

Sample: 245187 - T-5 8'

Param	Flag	Result	Units	RL
Chloride		**10900**	mg/Kg	4.00

Sample: 245188 - T-5 10'

Param	Flag	Result	Units	RL
Chloride		**3220**	mg/Kg	4.00

Sample: 245193 - T-6 6'

Param	Flag	Result	Units	RL
Chloride		**874**	mg/Kg	4.00

Sample: 245194 - T-6 8'

Param	Flag	Result	Units	RL
Chloride		**508**	mg/Kg	4.00

Sample: 245195 - T-6 10'

Param	Flag	Result	Units	RL
Chloride		**752**	mg/Kg	4.00

Sample: 245196 - T-6 12'

Param	Flag	Result	Units	RL
Chloride		**410**	mg/Kg	4.00

Sample: 245197 - T-6 14'

Param	Flag	Result	Units	RL
Chloride		**707**	mg/Kg	4.00

TRACEANALYSIS, INC.

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

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

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: October 4, 2010

Work Order: 10092008

Project Location: Eddy County, NM
Project Name: COG/Harper State #5
Project Number: 114-6400518

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
245155	T-1 6'	soil	2010-09-15	00:00	2010-09-17
245156	T-1 8'	soil	2010-09-15	00:00	2010-09-17
245157	T-1 10'	soil	2010-09-15	00:00	2010-09-17
245158	T-1 12'	soil	2010-09-15	00:00	2010-09-17
245159	T-1 14'	soil	2010-09-15	00:00	2010-09-17
245160	T-2 2'	soil	2010-09-15	00:00	2010-09-17
245161	T-2 4'	soil	2010-09-15	00:00	2010-09-17
245162	T-2 6'	soil	2010-09-15	00:00	2010-09-17
245163	T-2 8'	soil	2010-09-15	00:00	2010-09-17
245164	T-2 10'	soil	2010-09-15	00:00	2010-09-17

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
245165	T-2 12'	soil	2010-09-15	00:00	2010-09-17
245166	T-2 14'	soil	2010-09-15	00:00	2010-09-17
245168	T-3 2'	soil	2010-09-15	00:00	2010-09-17
245169	T-3 4'	soil	2010-09-15	00:00	2010-09-17
245170	T-3 6'	soil	2010-09-15	00:00	2010-09-17
245171	T-3 8'	soil	2010-09-15	00:00	2010-09-17
245172	T-3 10'	soil	2010-09-15	00:00	2010-09-17
245173	T-3 12'	soil	2010-09-15	00:00	2010-09-17
245174	T-3 14'	soil	2010-09-15	00:00	2010-09-17
245179	T-4 8'	soil	2010-09-15	00:00	2010-09-17
245180	T-4 10'	soil	2010-09-15	00:00	2010-09-17
245181	T-4 12'	soil	2010-09-15	00:00	2010-09-17
245182	T-4 14'	soil	2010-09-15	00:00	2010-09-17
245187	T-5 8'	soil	2010-09-15	00:00	2010-09-17
245188	T-5 10'	soil	2010-09-15	00:00	2010-09-17
245193	T-6 6'	soil	2010-09-15	00:00	2010-09-17
245194	T-6 8'	soil	2010-09-15	00:00	2010-09-17
245195	T-6 10'	soil	2010-09-15	00:00	2010-09-17
245196	T-6 12'	soil	2010-09-15	00:00	2010-09-17
245197	T-6 14'	soil	2010-09-15	00:00	2010-09-17

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.

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/Harper State #5 were received by TraceAnalysis, Inc. on 2010-09-17 and assigned to work order 10092008. Samples for work order 10092008 were received intact at a temperature of 1.5 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	63320	2010-09-23 at 10:45	73881	2010-09-24 at 17:08
Chloride (Titration)	SM 4500-Cl B	63402	2010-09-28 at 08:11	73955	2010-09-29 at 13:37
Chloride (Titration)	SM 4500-Cl B	63403	2010-09-28 at 08:11	74016	2010-09-30 at 14:00
Chloride (Titration)	SM 4500-Cl B	63404	2010-09-28 at 10:12	74017	2010-09-30 at 14:00
Chloride (Titration)	SM 4500-Cl B	63405	2010-09-28 at 10:12	74018	2010-09-30 at 14:00
TPH DRO - NEW	S 8015 D	63205	2010-09-20 at 15:06	73674	2010-09-20 at 15:06
TPH GRO	S 8015 D	63320	2010-09-23 at 10:45	73827	2010-09-24 at 17:36

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 10092008 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Analytical Report

Sample: 245155 - T-1 6'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	73955	Date Analyzed:	2010-09-29	Analyzed By:	AR
Prep Batch:	63402	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**2570**	mg/Kg	100	4.00

Sample: 245156 - T-1 8'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	73955	Date Analyzed:	2010-09-29	Analyzed By:	AR
Prep Batch:	63402	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**7910**	mg/Kg	100	4.00

Sample: 245157 - T-1 10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	73955	Date Analyzed:	2010-09-29	Analyzed By:	AR
Prep Batch:	63402	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**1010**	mg/Kg	100	4.00

Sample: 245158 - T-1 12'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	73955	Date Analyzed:	2010-09-29	Analyzed By:	AR
Prep Batch:	63402	Sample Preparation:	2010-09-28	Prepared By:	AR

continued ...

sample 245158 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**926**	mg/Kg	50	4.00

Sample: 245159 - T-1 14'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	73955	Date Analyzed:	2010-09-29	Analyzed By:	AR
Prep Batch:	63402	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**304**	mg/Kg	50	4.00

Sample: 245160 - T-2 2'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	73955	Date Analyzed:	2010-09-29	Analyzed By:	AR
Prep Batch:	63402	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**13200**	mg/Kg	100	4.00

Sample: 245161 - T-2 4'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	73955	Date Analyzed:	2010-09-29	Analyzed By:	AR
Prep Batch:	63402	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**7040**	mg/Kg	100	4.00

Sample: 245162 - T-2 6'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	73955	Date Analyzed:	2010-09-29	Analyzed By:	AR
Prep Batch:	63402	Sample Preparation:	2010-09-28	Prepared By:	AR

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

Sample: 245163 - T-2 8'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	73955	Date Analyzed:	2010-09-29	Analyzed By:	AR
Prep Batch:	63402	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**6020**	mg/Kg	100	4.00

Sample: 245164 - T-2 10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74016	Date Analyzed:	2010-09-30	Analyzed By:	AR
Prep Batch:	63403	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**3970**	mg/Kg	100	4.00

Sample: 245165 - T-2 12'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74016	Date Analyzed:	2010-09-30	Analyzed By:	AR
Prep Batch:	63403	Sample Preparation:	2010-09-28	Prepared By:	AR

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

Sample: 245166 - T-2 14'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74016	Date Analyzed:	2010-09-30	Analyzed By:	AR
Prep Batch:	63403	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**245**	mg/Kg	50	4.00

Sample: 245168 - T-3 2'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74016	Date Analyzed:	2010-09-30	Analyzed By:	AR
Prep Batch:	63403	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**3690**	mg/Kg	100	4.00

Sample: 245169 - T-3 4'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74016	Date Analyzed:	2010-09-30	Analyzed By:	AR
Prep Batch:	63403	Sample Preparation:	2010-09-28	Prepared By:	AR

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

Sample: 245170 - T-3 6'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74016	Date Analyzed:	2010-09-30	Analyzed By:	AR
Prep Batch:	63403	Sample Preparation:	2010-09-28	Prepared By:	AR

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

Sample: 245171 - T-3 8'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74016	Date Analyzed:	2010-09-30	Analyzed By:	AR
Prep Batch:	63403	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**5860**	mg/Kg	100	4.00

Sample: 245172 - T-3 10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74016	Date Analyzed:	2010-09-30	Analyzed By:	AR
Prep Batch:	63403	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**3060**	mg/Kg	100	4.00

Sample: 245173 - T-3 12'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74016	Date Analyzed:	2010-09-30	Analyzed By:	AR
Prep Batch:	63403	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**6440**	mg/Kg	100	4.00

Sample: 245174 - T-3 14'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74017	Date Analyzed:	2010-09-30	Analyzed By:	AR
Prep Batch:	63404	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**4200**	mg/Kg	100	4.00

Sample: 245179 - T-4 8'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74017	Date Analyzed:	2010-09-30	Analyzed By:	AR
Prep Batch:	63404	Sample Preparation:	2010-09-28	Prepared By:	AR

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

Sample: 245180 - T-4 10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74017	Date Analyzed:	2010-09-30	Analyzed By:	AR
Prep Batch:	63404	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**7040**	mg/Kg	100	4.00

Sample: 245181 - T-4 12'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74017	Date Analyzed:	2010-09-30	Analyzed By:	AR
Prep Batch:	63404	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**3960**	mg/Kg	100	4.00

Sample: 245182 - T-4 14'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74017	Date Analyzed:	2010-09-30	Analyzed By:	AR
Prep Batch:	63404	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**4370**	mg/Kg	100	4.00

Sample: 245187 - T-5 8'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	73881	Date Analyzed:	2010-09-24	Analyzed By:	AG
Prep Batch:	63320	Sample Preparation:	2010-09-23	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.10	mg/Kg	1	2.00	105	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.56	mg/Kg	1	2.00	78	38.4 - 157

Sample: 245187 - T-5 8'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74017	Date Analyzed:	2010-09-30	Analyzed By:	AR
Prep Batch:	63404	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**10900**	mg/Kg	100	4.00

Sample: 245187 - T-5 8'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	73674	Date Analyzed:	2010-09-20	Analyzed By:	kg
Prep Batch:	63205	Sample Preparation:	2010-09-20	Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**74.9**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		124	mg/Kg	1	100	124	70 - 130

Sample: 245187 - T-5 8'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	73827	Date Analyzed:	2010-09-24	Analyzed By:	AG
Prep Batch:	63320	Sample Preparation:	2010-09-23	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.07	mg/Kg	1	2.00	104	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.52	mg/Kg	1	2.00	76	42 - 159

Sample: 245188 - T-5 10'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	73881	Date Analyzed:	2010-09-24	Analyzed By:	AG
Prep Batch:	63320	Sample Preparation:	2010-09-23	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.07	mg/Kg	1	2.00	104	52.8 - 137
4-Bromofluorobenzene (4-BFB)		1.51	mg/Kg	1	2.00	76	38.4 - 157

Sample: 245188 - T-5 10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74017	Date Analyzed:	2010-09-30	Analyzed By:	AR
Prep Batch:	63404	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**3220**	mg/Kg	100	4.00

Sample: 245188 - T-5 10'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	73674	Date Analyzed:	2010-09-20	Analyzed By:	kg
Prep Batch:	63205	Sample Preparation:	2010-09-20	Prepared By:	kg

Parameter	Flag	Result	RL Result	Units	Dilution	RL
DRO			**83.1**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		124	mg/Kg	1	100	124	70 - 130

Sample: 245188 - T-5 10'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	73827	Date Analyzed:	2010-09-24	Analyzed By:	AG
Prep Batch:	63320	Sample Preparation:	2010-09-23	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.10	mg/Kg	1	2.00	105	48.5 - 152
4-Bromofluorobenzene (4-BFB)		1.47	mg/Kg	1	2.00	74	42 - 159

Sample: 245193 - T-6 6'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74017	Date Analyzed:	2010-09-30	Analyzed By:	AR
Prep Batch:	63404	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**874**	mg/Kg	50	4.00

Sample: 245194 - T-6 8'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74017	Date Analyzed:	2010-09-30	Analyzed By:	AR
Prep Batch:	63404	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**508**	mg/Kg	50	4.00

Sample: 245195 - T-6 10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74017	Date Analyzed:	2010-09-30	Analyzed By:	AR
Prep Batch:	63404	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**752**	mg/Kg	50	4.00

Sample: 245196 - T-6 12'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74018	Date Analyzed:	2010-09-30	Analyzed By:	AR
Prep Batch:	63405	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**410**	mg/Kg	50	4.00

Sample: 245197 - T-6 14'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	74018	Date Analyzed:	2010-09-30	Analyzed By:	AR
Prep Batch:	63405	Sample Preparation:	2010-09-28	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**707**	mg/Kg	50	4.00

Method Blank (1) QC Batch: 73674

QC Batch: 73674 | Date Analyzed: 2010-09-20 | Analyzed By: kg
Prep Batch: 63205 | QC Preparation: 2010-09-20 | Prepared By: kg

Parameter	Flag	MDL Result	Units	RL
DRO		<14.5	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		125	mg/Kg	1	100	125	70 - 130

Method Blank (1) QC Batch: 73827

QC Batch: 73827 | Date Analyzed: 2010-09-24 | Analyzed By: AG
Prep Batch: 63320 | QC Preparation: 2010-09-23 | Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
GRO		<1.65	mg/Kg	2

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.96	mg/Kg	1	2.00	98	67.6 - 150
4-Bromofluorobenzene (4-BFB)		1.43	mg/Kg	1	2.00	72	52.4 - 130

Method Blank (1) QC Batch: 73881

QC Batch: 73881 | Date Analyzed: 2010-09-24 | Analyzed By: AG
Prep Batch: 63320 | QC Preparation: 2010-09-23 | Prepared By: AG

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.0150	mg/Kg	0.02
Toluene		<0.00950	mg/Kg	0.02
Ethylbenzene		<0.0106	mg/Kg	0.02
Xylene		<0.00930	mg/Kg	0.02

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.93	mg/Kg	1	2.00	96	66.6 - 122
4-Bromofluorobenzene (4-BFB)		1.46	mg/Kg	1	2.00	73	55.4 - 132

Method Blank (1) QC Batch: 73955

QC Batch:	73955	Date Analyzed:	2010-09-29	Analyzed By:	AR
Prep Batch:	63402	QC Preparation:	2010-09-28	Prepared By:	AR

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

Method Blank (1) QC Batch: 74016

QC Batch:	74016	Date Analyzed:	2010-09-30	Analyzed By:	AR
Prep Batch:	63403	QC Preparation:	2010-09-28	Prepared By:	AR

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

Method Blank (1) QC Batch: 74017

QC Batch:	74017	Date Analyzed:	2010-09-30	Analyzed By:	AR
Prep Batch:	63404	QC Preparation:	2010-09-28	Prepared By:	AR

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

Method Blank (1) QC Batch: 74018

QC Batch:	74018	Date Analyzed:	2010-09-30	Analyzed By:	AR
Prep Batch:	63405	QC Preparation:	2010-09-28	Prepared By:	AR

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

Laboratory Control Spike (LCS-1)

QC Batch:	73674	Date Analyzed:	2010-09-20	Analyzed By:	kg
Prep Batch:	63205	QC Preparation:	2010-09-20	Prepared By:	kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	328	mg/Kg	1	250	<14.5	131	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	330	mg/Kg	1	250	<14.5	132	57.4 - 133.4	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	120	118	mg/Kg	1	100	120	118	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 73827 | Date Analyzed: 2010-09-24 | Analyzed By: AG
Prep Batch: 63320 | QC Preparation: 2010-09-23 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	14.7	mg/Kg	1	20.0	<1.65	74	69.9 - 95.4

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
GRO	14.7	mg/Kg	1	20.0	<1.65	74	69.9 - 95.4	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
Trifluorotoluene (TFT)	1.93	1.92	mg/Kg	1	2.00	96	96	61.9 - 142
4-Bromofluorobenzene (4-BFB)	1.46	1.44	mg/Kg	1	2.00	73	72	65.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch: 73881 | Date Analyzed: 2010-09-24 | Analyzed By: AG
Prep Batch: 63320 | QC Preparation: 2010-09-23 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.98	mg/Kg	1	2.00	<0.0150	99	81.9 - 108
Toluene	1.99	mg/Kg	1	2.00	<0.00950	100	81.9 - 107
Ethylbenzene	2.00	mg/Kg	1	2.00	<0.0106	100	78.4 - 107

continued ...

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Xylene	5.86	mg/Kg	1	6.00	<0.00930	98	79.1 - 107

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.92	mg/Kg	1	2.00	<0.0150	96	81.9 - 108	3	20
Toluene	1.94	mg/Kg	1	2.00	<0.00950	97	81.9 - 107	2	20
Ethylbenzene	1.95	mg/Kg	1	2.00	<0.0106	98	78.4 - 107	2	20
Xylene	5.71	mg/Kg	1	6.00	<0.00930	95	79.1 - 107	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)	2.05	1.99	mg/Kg	1	2.00	102	100	70.2 - 114
4-Bromofluorobenzene (4-BFB)	1.63	1.55	mg/Kg	1	2.00	82	78	69.8 - 121

Laboratory Control Spike (LCS-1)

QC Batch: 73955 | Date Analyzed: 2010-09-29 | Analyzed By: AR
Prep Batch: 63402 | QC Preparation: 2010-09-28 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	96.5	mg/Kg	1	100	<2.18	96	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	102	mg/Kg	1	100	<2.18	102	85 - 115	6	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: 74016 | Date Analyzed: 2010-09-30 | Analyzed By: AR
Prep Batch: 63403 | QC Preparation: 2010-09-28 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.0	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	102	mg/Kg	1	100	<2.18	102	85 - 115	4	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: 74017 | Date Analyzed: 2010-09-30 | Analyzed By: AR
Prep Batch: 63404 | QC Preparation: 2010-09-28 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	97.8	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	102	mg/Kg	1	100	<2.18	102	85 - 115	4	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: 74018 | Date Analyzed: 2010-09-30 | Analyzed By: AR
Prep Batch: 63405 | QC Preparation: 2010-09-28 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	97.7	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	102	mg/Kg	1	100	<2.18	102	85 - 115	4	20

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

Matrix Spike (MS-1) Spiked Sample: 245188

QC Batch: 73674 | Date Analyzed: 2010-09-20 | Analyzed By: kg
Prep Batch: 63205 | QC Preparation: 2010-09-20 | Prepared By: kg

continued ...

matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	318	mg/Kg	1	250	83.1	94	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	373	mg/Kg	1	250	83.1	116	35.2 - 167.1	16	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	117	114	mg/Kg	1	100	117	114	70 - 130

Matrix Spike (MS-1) Spiked Sample: 245188

QC Batch: 73827 | Date Analyzed: 2010-09-24 | Analyzed By: AG
Prep Batch: 63320 | QC Preparation: 2010-09-23 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	17.2	mg/Kg	1	20.0	<1.65	86	61.8 - 114

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	17.6	mg/Kg	1	20.0	<1.65	88	61.8 - 114	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
Trifluorotoluene (TFT)	2.24	2.16	mg/Kg	1	2	112	108	50 - 162
4-Bromofluorobenzene (4-BFB)	1.67	1.62	mg/Kg	1	2	84	81	50 - 162

Matrix Spike (MS-1) Spiked Sample: 245187

QC Batch: 73881 | Date Analyzed: 2010-09-24 | Analyzed By: AG
Prep Batch: 63320 | QC Preparation: 2010-09-23 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.10	mg/Kg	1	2.00	<0.0150	105	80.5 - 112
Toluene	2.13	mg/Kg	1	2.00	<0.00950	106	82.4 - 113
Ethylbenzene	2.20	mg/Kg	1	2.00	<0.0106	110	83.9 - 114
Xylene	6.42	mg/Kg	1	6.00	<0.00930	107	84 - 114

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	1.98	mg/Kg	1	2.00	<0.0150	99	80.5 - 112	6	20
Toluene	2.02	mg/Kg	1	2.00	<0.00950	101	82.4 - 113	5	20
Ethylbenzene	2.08	mg/Kg	1	2.00	<0.0106	104	83.9 - 114	6	20
Xylene	6.06	mg/Kg	1	6.00	<0.00930	101	84 - 114	6	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.15	2.04	mg/Kg	1	2	108	102	41.3 - 117
4-Bromofluorobenzene (4-BFB)	1.67	1.52	mg/Kg	1	2	84	76	35.5 - 129

Matrix Spike (MS-1) Spiked Sample: 245163

QC Batch: 73955 | Date Analyzed: 2010-09-29 | Analyzed By: AR
Prep Batch: 63402 | QC Preparation: 2010-09-28 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	15900	mg/Kg	100	10000	6020	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	16100	mg/Kg	100	10000	6020	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: 245173

QC Batch: 74016 | Date Analyzed: 2010-09-30 | Analyzed By: AR
Prep Batch: 63403 | QC Preparation: 2010-09-28 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	15800	mg/Kg	100	10000	6440	94	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	16200	mg/Kg	100	10000	6440	98	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: 245195

QC Batch: 74017 | Date Analyzed: 2010-09-30 | Analyzed By: AR
Prep Batch: 63404 | QC Preparation: 2010-09-28 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10600	mg/Kg	100	10000	752	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	10900	mg/Kg	100	10000	752	101	85 - 115	3	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: 245264

QC Batch: 74018 | Date Analyzed: 2010-09-30 | Analyzed By: AR
Prep Batch: 63405 | QC Preparation: 2010-09-28 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	12200	mg/Kg	100	10000	2120	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	12500	mg/Kg	100	10000	2120	104	85 - 115	2	20

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

Standard (CCV-1)

QC Batch: 73674 | Date Analyzed: 2010-09-20 | Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	288	115	80 - 120	2010-09-20

Standard (CCV-2)

QC Batch: 73674 Date Analyzed: 2010-09-20 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	201	80	80 - 120	2010-09-20

Standard (CCV-1)

QC Batch: 73827 Date Analyzed: 2010-09-24 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	1.05	105	80 - 120	2010-09-24

Standard (CCV-2)

QC Batch: 73827 Date Analyzed: 2010-09-24 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	1.01	101	80 - 120	2010-09-24

Standard (CCV-3)

QC Batch: 73827 Date Analyzed: 2010-09-24 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.843	84	80 - 120	2010-09-24

Standard (CCV-1)

QC Batch: 73881 Date Analyzed: 2010-09-24 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	0.105	105	80 - 120	2010-09-24
Toluene		mg/Kg	0.100	0.105	105	80 - 120	2010-09-24
Ethylbenzene		mg/Kg	0.100	0.104	104	80 - 120	2010-09-24
Xylene		mg/Kg	0.300	0.313	104	80 - 120	2010-09-24

Standard (CCV-2)

QC Batch: 73881 Date Analyzed: 2010-09-24 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	0.0921	92	80 - 120	2010-09-24
Toluene		mg/Kg	0.100	0.0921	92	80 - 120	2010-09-24
Ethylbenzene		mg/Kg	0.100	0.0921	92	80 - 120	2010-09-24
Xylene		mg/Kg	0.300	0.268	89	80 - 120	2010-09-24

Standard (CCV-3)

QC Batch: 73881 Date Analyzed: 2010-09-24 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	0.0957	96	80 - 120	2010-09-24
Toluene		mg/Kg	0.100	0.0946	95	80 - 120	2010-09-24
Ethylbenzene		mg/Kg	0.100	0.0909	91	80 - 120	2010-09-24
Xylene		mg/Kg	0.300	0.267	89	80 - 120	2010-09-24

Standard (ICV-1)

QC Batch: 73955 Date Analyzed: 2010-09-29 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.6	99	85 - 115	2010-09-29

Standard (CCV-1)

QC Batch: 73955 Date Analyzed: 2010-09-29 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	2010-09-29

Standard (ICV-1)

QC Batch: 74016 Date Analyzed: 2010-09-30 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2010-09-30

Standard (CCV-1)

QC Batch: 74016 Date Analyzed: 2010-09-30 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.3	99	85 - 115	2010-09-30

Standard (ICV-1)

QC Batch: 74017 Date Analyzed: 2010-09-30 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	101	101	85 - 115	2010-09-30

Standard (CCV-1)

QC Batch: 74017 Date Analyzed: 2010-09-30 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.2	99	85 - 115	2010-09-30

Standard (ICV-1)

QC Batch: 74018 Date Analyzed: 2010-09-30 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.9	100	85 - 115	2010-09-30

Standard (CCV-1)

QC Batch: 74018 | Date Analyzed: 2010-09-30 | Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	100	100	85 - 115	2010-09-30

WO #: 10092008

Analysis Request of Chain of Custody Record

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

PAGE: 1 Of. 5

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 112-G400518

PROJECT NAME: COG / Harper State #5 Eddy Co, NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd 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. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
245154	9/15/10		S		X	T-1 4'	1				X													X				
155						T-1 6'																		X				
156						T-1 8'																		X				
157						T-1 10'																		X				
158						T-1 12'																		X				
159						T-1 14'																		X				
TRF						Surface																						
160						T-2 2'																		X				
161						T-2 4'																		X				
162						T-2 6'																		X				

RELINQUISHED BY: (Signature) Date: 9-17-10 Time: 14:07

RECEIVED BY: (Signature) Date: 9/17/10 Time: 14:07

SAMPLED BY: (Print & Initial) Robert Grubbs Jr. Date: 9-13-10 Time:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS

AIRBILL #:

OTHER:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

RECEIVING LABORATORY: Trace

ADDRESS:

CITY: Midland STATE: TX ZIP:

CONTACT: Sandra PHONE:

RECEIVED BY: (Signature)

DATE: TIME:

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 1.5°C intact

REMARKS: All tests Midland

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

WO#: 1009200f

Analysis Request of Chain of Custody Record

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

CLIENT NAME: COG

SITE MANAGER: Tec Tavarez

PROJECT NO.: 114-6400516

PROJECT NAME: COG / Harper State #5 Eddy Co, NM

LAB I.D. NUMBER	DATE 2010	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE
245163	5/15		S		X	T-2 8'	1				X	
164						T-2 10'						
165						T-2 12'						
166						T-2 14'						
167						T-3 Surface						
168						T-3 2						
169						T-3 4						
170						T-3 6						
171						T-3 8						
172	↓		↓		↓	T-3 10	↓				↓	

ANALYSIS REQUEST (Circle or Specify Method No.)

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. 8081/608; Chloride; Gamma Spec.; Alpha Beta (Air); PLM (Asbestos); Major Anions/Cations, pH, TDS

RELINQUISHED BY: (Signature)	Date: 9-17-10 Time: 11:08	RECEIVED BY: (Signature)	Date: 9/17/10 Time: 14:08
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:

SAMPLED BY: (Print & Initial) Robert Gubbs Jr Date: 9-15-10 Time:

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS AIRBILL #: OTHER:

TETRA TECH CONTACT PERSON: Tec Tavarez

Results by:

RUSH Charges Authorized: Yes No

RECEIVING LABORATORY: Test America
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: Mesilo PHONE: DATE: TIME:
RECEIVED BY: (Signature)

SAMPLE CONDITION WHEN RECEIVED: 1.5° C Intact

REMARKS:

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

WO#: 10092008

Analysis Request of Chain of Custody Record

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

CLIENT NAME: COG

SITE MANAGER: Mike Taverez

PROJECT NO.: 114-640058

PROJECT NAME: COG / Harper State #5 Eddy Co, NM

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	ANALYSIS REQUEST: 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. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
24173	9/15		S		X	T-3 12'	1				X													X				
174						T-3 14'																		X				
175						T-4 Surface																						
176						T-4 2'																						
177						T-4 4'																						
178						T-4 6'																						
179						T-4 8'																		X				
180						T-4 10'																		X				
181						T-4 12'																		X				
182	↓	↓	↓		↓	T-4 14'	↓				↓													X				

RELINQUISHED BY: (Signature) — Date: 9-17-10 Time: 14:08

RECEIVED BY: (Signature) — Date: 9/17/10 Time: 14:58

SAMPLED BY: (Print & Initial) Robert Hubbs TH — Date: — Time:

RELINQUISHED BY: (Signature) — Date: — Time:

RECEIVED BY: (Signature) — Date: — Time:

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS — AIRBILL #: — OTHER:

RELINQUISHED BY: (Signature) — Date: — Time:

RECEIVED BY: (Signature) — Date: — Time:

TETRA TECH CONTACT PERSON: Mike Taverez — Results by:

RECEIVING LABORATORY: Traca

ADDRESS:

CITY: Midland STATE: TX ZIP:

CONTACT: Mandy PHONE:

RECEIVED BY: (Signature)

DATE: TIME:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 1.5°C intact

REMARKS:

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

WO#: 10092008

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 5

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:	SITE MANAGER:
COG	Ike Tavarez

PROJECT NO.:	PROJECT NAME:
114-6406516	COG / Harper State #5 Eddy Co, NM

LAB I.D. NUMBER	DATE 2010	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. (Ext. to C35) TX1005	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. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
24183	9/13		S		X	T-5 Surface	1				X																	
184						T-5 2'																						
185						T-5 4'																						
186						T-5 6'																						
187						T-5 8'							X	X										X				
188						T-5 10'							X	X										X				
189						T-5 12'																			Hold			
190						T-5 14'																			Hold			
191						T-6 Surface																						
192						T-6 4'																			Hold			

RELINQUISHED BY: (Signature)	Date: 9-14-10 Time: 1409	RECEIVED BY: (Signature)	Date: 9/14/10 Time: 14:09	SAMPLED BY: (Print & Initial) Robert Gubbs Jr	Date: Time:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:	SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS	AIRBILL #: OTHER:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:	TETRA TECH CONTACT PERSON: Ike Tavarez	Results by:
RECEIVING LABORATORY: Trace ADDRESS: CITY: Midland STATE: TX ZIP: CONTACT: PHONE:		RECEIVED BY: (Signature) DATE: TIME:			RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 1.5°C Intact

REMARKS:

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

WO #: 10092008

Analysis Request of Chain of Custody Record

PAGE: 5 OF: 5

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6400518

PROJECT NAME: Harper Grade #5

LAB I.D. NUMBER	DATE 2010	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd 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. 808/608	Chlorides	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
245193	9/15		S		X	T-6 6'	1				X													X				
194	↓		↓		↓	T-6 8'	↓				↓													X				
195						T-6 10'																	X					
196						T-6 12'																	X					
197	↓		↓		↓	T-6 14'	↓				↓													X				

ANALYSIS REQUEST (Circle or Specify Method No.)

RELINQUISHED BY: (Signature)	Date: 9-17-10 Time: 14:09	RECEIVED BY: (Signature)	Date: 9/17/10 Time: 14:09
SAMPLED BY: (Print & Initial) RG	Date: 9-15-10 Time:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS	AIRBILL #: OTHER:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
TETRA TECH CONTACT PERSON: Ike Tavarez	Results by:		
RECEIVING LABORATORY: Trace ADDRESS: CITY: Midland STATE: TX ZIP: CONTACT: PHONE:	RECEIVED BY: (Signature) DATE: TIME:		RUSH Charges Authorized: Yes No
SAMPLE CONDITION WHEN RECEIVED: 15 C intact	REMARKS:		

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

Summary Report

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

Report Date: April 18, 2011

Work Order: 11040821

Project Location: Eddy Co., NM
Project Name: COG/Harper State #5
Project Number: 114-6400518

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
263073	SB-1 10'	soil	2011-04-07	00:00	2011-04-08
263074	SB-1 15'	soil	2011-04-07	00:00	2011-04-08
263075	SB-1 20'	soil	2011-04-07	00:00	2011-04-08
263076	SB-1 25'	soil	2011-04-07	00:00	2011-04-08
263077	SB-1 30'	soil	2011-04-07	00:00	2011-04-08
263078	SB-1 40'	soil	2011-04-07	00:00	2011-04-08
263079	SB-1 50'	soil	2011-04-07	00:00	2011-04-08
263080	SB-2 10'	soil	2011-04-07	00:00	2011-04-08
263081	SB-2 15'	soil	2011-04-07	00:00	2011-04-08
263082	SB-2 20'	soil	2011-04-07	00:00	2011-04-08
263083	SB-3 10'	soil	2011-04-07	00:00	2011-04-08
263084	SB-3 15'	soil	2011-04-07	00:00	2011-04-08
263085	SB-3 20'	soil	2011-04-07	00:00	2011-04-08
263086	SB-3 25'	soil	2011-04-07	00:00	2011-04-08
263087	SB-3 30'	soil	2011-04-07	00:00	2011-04-08
263088	SB-3 40'	soil	2011-04-07	00:00	2011-04-08
263089	SB-3 50'	soil	2011-04-07	00:00	2011-04-08
263090	SB-3 60'	soil	2011-04-07	00:00	2011-04-08
263091	SB-4 10'	soil	2011-04-07	00:00	2011-04-08
263092	SB-4 15'	soil	2011-04-07	00:00	2011-04-08
263093	SB-4 20'	soil	2011-04-07	00:00	2011-04-08
263094	SB-4 25'	soil	2011-04-07	00:00	2011-04-08
263095	SB-4 30'	soil	2011-04-07	00:00	2011-04-08
263096	SB-4 40'	soil	2011-04-07	00:00	2011-04-08
263097	SB-4 50'	soil	2011-04-07	00:00	2011-04-08

Sample - Field Code	BTEX Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	TPH DRO - NEW DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
263083 - SB-3 10'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
263091 - SB-4 10'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00

Sample: 263073 - SB-1 10'

Param	Flag	Result	Units	RL
Chloride		**2880**	mg/Kg	4.00

Sample: 263074 - SB-1 15'

Param	Flag	Result	Units	RL
Chloride		**2680**	mg/Kg	4.00

Sample: 263075 - SB-1 20'

Param	Flag	Result	Units	RL
Chloride		**4390**	mg/Kg	4.00

Sample: 263076 - SB-1 25'

Param	Flag	Result	Units	RL
Chloride		**4160**	mg/Kg	4.00

Sample: 263077 - SB-1 30'

Param	Flag	Result	Units	RL
Chloride		**873**	mg/Kg	4.00

Sample: 263078 - SB-1 40'

Param	Flag	Result	Units	RL
Chloride		**505**	mg/Kg	4.00

Sample: 263079 - SB-1 50'

Param	Flag	Result	Units	RL
Chloride		**310**	mg/Kg	4.00

Sample: 263080 - SB-2 10'

Param	Flag	Result	Units	RL
Chloride		**208**	mg/Kg	4.00

Sample: 263081 - SB-2 15'

Param	Flag	Result	Units	RL
Chloride		**552**	mg/Kg	4.00

Sample: 263082 - SB-2 20'

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

Sample: 263083 - SB-3 10'

Param	Flag	Result	Units	RL
Chloride		**431**	mg/Kg	4.00

Sample: 263084 - SB-3 15'

Param	Flag	Result	Units	RL
Chloride		**373**	mg/Kg	4.00

Sample: 263085 - SB-3 20'

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

Sample: 263086 - SB-3 25'

Param	Flag	Result	Units	RL
Chloride		**1200**	mg/Kg	4.00

Sample: 263087 - SB-3 30'

Param	Flag	Result	Units	RL
Chloride		**712**	mg/Kg	4.00

Sample: 263088 - SB-3 40'

Param	Flag	Result	Units	RL
Chloride		**1130**	mg/Kg	4.00

Sample: 263089 - SB-3 50'

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

Sample: 263090 - SB-3 60'

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

Sample: 263091 - SB-4 10'

Param	Flag	Result	Units	RL
Chloride		**5970**	mg/Kg	4.00

Sample: 263092 - SB-4 15'

Param	Flag	Result	Units	RL
Chloride		**7400**	mg/Kg	4.00

Sample: 263093 - SB-4 20'

Param	Flag	Result	Units	RL
Chloride		**4210**	mg/Kg	4.00

Sample: 263094 - SB-4 25'

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

Sample: 263095 - SB-4 30'

Param	Flag	Result	Units	RL
Chloride		**862**	mg/Kg	4.00

Sample: 263096 - SB-4 40'

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

Sample: 263097 - SB-4 50'

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

TRACEANALYSIS, INC.

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

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

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: April 18, 2011

Work Order: 11040821

Project Location: Eddy Co., NM
Project Name: COG/Harper State #5
Project Number: 114-6400518

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
263073	SB-1 10'	soil	2011-04-07	00:00	2011-04-08
263074	SB-1 15'	soil	2011-04-07	00:00	2011-04-08
263075	SB-1 20'	soil	2011-04-07	00:00	2011-04-08
263076	SB-1 25'	soil	2011-04-07	00:00	2011-04-08
263077	SB-1 30'	soil	2011-04-07	00:00	2011-04-08
263078	SB-1 40'	soil	2011-04-07	00:00	2011-04-08
263079	SB-1 50'	soil	2011-04-07	00:00	2011-04-08
263080	SB-2 10'	soil	2011-04-07	00:00	2011-04-08
263081	SB-2 15'	soil	2011-04-07	00:00	2011-04-08
263082	SB-2 20'	soil	2011-04-07	00:00	2011-04-08

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
263083	SB-3 10'	soil	2011-04-07	00:00	2011-04-08
263084	SB-3 15'	soil	2011-04-07	00:00	2011-04-08
263085	SB-3 20'	soil	2011-04-07	00:00	2011-04-08
263086	SB-3 25'	soil	2011-04-07	00:00	2011-04-08
263087	SB-3 30'	soil	2011-04-07	00:00	2011-04-08
263088	SB-3 40'	soil	2011-04-07	00:00	2011-04-08
263089	SB-3 50'	soil	2011-04-07	00:00	2011-04-08
263090	SB-3 60'	soil	2011-04-07	00:00	2011-04-08
263091	SB-4 10'	soil	2011-04-07	00:00	2011-04-08
263092	SB-4 15'	soil	2011-04-07	00:00	2011-04-08
263093	SB-4 20'	soil	2011-04-07	00:00	2011-04-08
263094	SB-4 25'	soil	2011-04-07	00:00	2011-04-08
263095	SB-4 30'	soil	2011-04-07	00:00	2011-04-08
263096	SB-4 40'	soil	2011-04-07	00:00	2011-04-08
263097	SB-4 50'	soil	2011-04-07	00:00	2011-04-08

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.

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/Harper State #5 were received by TraceAnalysis, Inc. on 2011-04-08 and assigned to work order 11040821. Samples for work order 11040821 were received intact at a temperature of 26.4 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	68184	2011-04-14 at 08:31	80344	2011-04-14 at 08:31
Chloride (Titration)	SM 4500-Cl B	68087	2011-04-11 at 09:47	80273	2011-04-12 at 15:22
Chloride (Titration)	SM 4500-Cl B	68087	2011-04-11 at 09:47	80274	2011-04-12 at 15:22
Chloride (Titration)	SM 4500-Cl B	68087	2011-04-11 at 09:47	80275	2011-04-12 at 15:23
TPH DRO - NEW	S 8015 D	68234	2011-04-15 at 10:44	80392	2011-04-15 at 10:44
TPH GRO	S 8015 D	68184	2011-04-14 at 08:31	80345	2011-04-14 at 08:31

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 11040821 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.

Samples were received without ice.

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

Analytical Report

Sample: 263073 - SB-1 10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80273	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**2880**	mg/Kg	100	4.00

Sample: 263074 - SB-1 15'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80273	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

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

Sample: 263075 - SB-1 20'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80273	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**4390**	mg/Kg	100	4.00

Sample: 263076 - SB-1 25'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80273	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

continued ...

sample 263076 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**4160**	mg/Kg	100	4.00

Sample: 263077 - SB-1 30'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80273	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**873**	mg/Kg	50	4.00

Sample: 263078 - SB-1 40'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80273	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**505**	mg/Kg	50	4.00

Sample: 263079 - SB-1 50'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80274	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**310**	mg/Kg	50	4.00

Sample: 263080 - SB-2 10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80274	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**208**	mg/Kg	50	4.00

Sample: 263081 - SB-2 15'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80274	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**552**	mg/Kg	50	4.00

Sample: 263082 - SB-2 20'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80274	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

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

Sample: 263083 - SB-3 10'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	80344	Date Analyzed:	2011-04-14	Analyzed By:	ME
Prep Batch:	68184	Sample Preparation:	2011-04-14	Prepared By:	ME

Parameter	Flag	Result	RL Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200

continued ...

sample 263083 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.19	mg/Kg	1	2.00	110	52.8 - 137
4-Bromofluorobenzene (4-BFB)		2.26	mg/Kg	1	2.00	113	38.4 - 157

Sample: 263083 - SB-3 10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80274	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**431**	mg/Kg	50	4.00

Sample: 263083 - SB-3 10'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	80392	Date Analyzed:	2011-04-15	Analyzed By:	kg
Prep Batch:	68234	Sample Preparation:	2011-04-15	Prepared By:	kg

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		84.0	mg/Kg	1	100	84	70 - 130

Sample: 263083 - SB-3 10'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	80345	Date Analyzed:	2011-04-14	Analyzed By:	ME
Prep Batch:	68184	Sample Preparation:	2011-04-14	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.21	mg/Kg	1	2.00	110	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.07	mg/Kg	1	2.00	104	42 - 159

Sample: 263084 - SB-3 15'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80274	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**373**	mg/Kg	50	4.00

Sample: 263085 - SB-3 20'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80274	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

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

Sample: 263086 - SB-3 25'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80274	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1200**	mg/Kg	100	4.00

Sample: 263087 - SB-3 30'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80274	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**712**	mg/Kg	50	4.00

Sample: 263088 - SB-3 40'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80274	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1130**	mg/Kg	100	4.00

Sample: 263089 - SB-3 50'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80275	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

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

Sample: 263090 - SB-3 60'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80275	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

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

Sample: 263091 - SB-4 10'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	80344	Date Analyzed:	2011-04-14	Analyzed By:	ME
Prep Batch:	68184	Sample Preparation:	2011-04-14	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0200	mg/Kg	1	0.0200
Toluene		<0.0200	mg/Kg	1	0.0200
Ethylbenzene		<0.0200	mg/Kg	1	0.0200
Xylene		<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.14	mg/Kg	1	2.00	107	52.8 - 137
4-Bromofluorobenzene (4-BFB)		2.26	mg/Kg	1	2.00	113	38.4 - 157

Sample: 263091 - SB-4 10'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80275	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

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

Sample: 263091 - SB-4 10'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	80392	Date Analyzed:	2011-04-15	Analyzed By:	kg
Prep Batch:	68234	Sample Preparation:	2011-04-15	Prepared By:	kg

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		81.6	mg/Kg	1	100	82	70 - 130

Sample: 263091 - SB-4 10'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	80345	Date Analyzed:	2011-04-14	Analyzed By:	ME
Prep Batch:	68184	Sample Preparation:	2011-04-14	Prepared By:	ME

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		<2.00	mg/Kg	1	2.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.17	mg/Kg	1	2.00	108	48.5 - 152
4-Bromofluorobenzene (4-BFB)		2.05	mg/Kg	1	2.00	102	42 - 159

Sample: 263092 - SB-4 15'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80275	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

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

Sample: 263093 - SB-4 20'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80275	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**4210**	mg/Kg	100	4.00

Sample: 263094 - SB-4 25'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80275	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

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

Sample: 263095 - SB-4 30'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80275	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**862**	mg/Kg	50	4.00

Sample: 263096 - SB-4 40'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80275	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

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

Sample: 263097 - SB-4 50'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	80275	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	Sample Preparation:	2011-04-11	Prepared By:	AR

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

Method Blank (1) QC Batch: 80273

QC Batch:	80273	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	QC Preparation:	2011-04-11	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<3.85	mg/Kg	4

Method Blank (1) QC Batch: 80274

QC Batch:	80274	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	QC Preparation:	2011-04-11	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<3.85	mg/Kg	4

Method Blank (1) QC Batch: 80275

QC Batch:	80275	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	QC Preparation:	2011-04-11	Prepared By:	AR

Parameter	Flag	MDL Result	Units	RL
Chloride		<3.85	mg/Kg	4

Method Blank (1) QC Batch: 80344

QC Batch:	80344	Date Analyzed:	2011-04-14	Analyzed By:	ME
Prep Batch:	68184	QC Preparation:	2011-04-14	Prepared By:	ME

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.0118	mg/Kg	0.02
Toluene		<0.00600	mg/Kg	0.02
Ethylbenzene		<0.00850	mg/Kg	0.02
Xylene		<0.00613	mg/Kg	0.02

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.88	mg/Kg	1	2.00	94	66.6 - 122
4-Bromofluorobenzene (4-BFB)		1.95	mg/Kg	1	2.00	98	55.4 - 124

Method Blank (1) QC Batch: 80345

QC Batch:	80345	Date Analyzed:	2011-04-14	Analyzed By:	ME
Prep Batch:	68184	QC Preparation:	2011-04-14	Prepared By:	ME

Parameter	Flag	MDL Result	Units	RL
GRO		<0.753	mg/Kg	2

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.90	mg/Kg	1	2.00	95	67.6 - 150
4-Bromofluorobenzene (4-BFB)		1.79	mg/Kg	1	2.00	90	52.4 - 130

Method Blank (1) QC Batch: 80392

QC Batch:	80392	Date Analyzed:	2011-04-15	Analyzed By:	kg
Prep Batch:	68234	QC Preparation:	2011-04-15	Prepared By:	kg

Parameter	Flag	MDL Result	Units	RL
DRO		<15.7	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		88.5	mg/Kg	1	100	88	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch:	80273	Date Analyzed:	2011-04-12	Analyzed By:	AR
Prep Batch:	68087	QC Preparation:	2011-04-11	Prepared By:	AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	97.5	mg/Kg	1	100	<3.85	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	103	mg/Kg	1	100	<3.85	103	85 - 115	6	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: 80274 | Date Analyzed: 2011-04-12 | Analyzed By: AR
Prep Batch: 68087 | QC Preparation: 2011-04-11 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	97.1	mg/Kg	1	100	<3.85	97	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	102	mg/Kg	1	100	<3.85	102	85 - 115	5	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: 80275 | Date Analyzed: 2011-04-12 | Analyzed By: AR
Prep Batch: 68087 | QC Preparation: 2011-04-11 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	96.0	mg/Kg	1	100	<3.85	96	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	103	mg/Kg	1	100	<3.85	103	85 - 115	7	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: 80344 | Date Analyzed: 2011-04-14 | Analyzed By: ME
Prep Batch: 68184 | QC Preparation: 2011-04-14 | Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.96	mg/Kg	1	2.00	<0.0118	98	81.9 - 108
Toluene	1.96	mg/Kg	1	2.00	<0.00600	98	81.9 - 107
Ethylbenzene	1.91	mg/Kg	1	2.00	<0.00850	96	78.4 - 107
Xylene	5.79	mg/Kg	1	6.00	<0.00613	96	79.1 - 107

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	2.00	mg/Kg	1	2.00	<0.0118	100	81.9 - 108	2	20
Toluene	2.02	mg/Kg	1	2.00	<0.00600	101	81.9 - 107	3	20
Ethylbenzene	2.01	mg/Kg	1	2.00	<0.00850	100	78.4 - 107	5	20
Xylene	6.05	mg/Kg	1	6.00	<0.00613	101	79.1 - 107	4	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)	1.88	1.76	mg/Kg	1	2.00	94	88	70.2 - 114
4-Bromofluorobenzene (4-BFB)	2.04	1.94	mg/Kg	1	2.00	102	97	69.8 - 121

Laboratory Control Spike (LCS-1)

QC Batch: 80345 | Date Analyzed: 2011-04-14 | Analyzed By: ME
Prep Batch: 68184 | QC Preparation: 2011-04-14 | Prepared By: ME

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.8	mg/Kg	1	20.0	<0.753	84	60.9 - 95.4

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
GRO	17.4	mg/Kg	1	20.0	<0.753	87	60.9 - 95.4	4	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)	1.73	1.67	mg/Kg	1	2.00	86	84	61.9 - 142
4-Bromofluorobenzene (4-BFB)	1.73	1.67	mg/Kg	1	2.00	86	84	68.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch: 80392 | Date Analyzed: 2011-04-15 | Analyzed By: kg
Prep Batch: 68234 | QC Preparation: 2011-04-15 | Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	252	mg/Kg	1	250	<15.7	101	47.5 - 144.1

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO	252	mg/Kg	1	250	<15.7	101	47.5 - 144.1	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	102	104	mg/Kg	1	100	102	104	70 - 130

Matrix Spike (MS-1) Spiked Sample: 263078

QC Batch: 80273 | Date Analyzed: 2011-04-12 | Analyzed By: AR
Prep Batch: 68087 | QC Preparation: 2011-04-11 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10600	mg/Kg	100	10000	505	101	80 - 120

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	10800	mg/Kg	100	10000	505	103	80 - 120	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: 263088

QC Batch: 80274 | Date Analyzed: 2011-04-12 | Analyzed By: AR
Prep Batch: 68087 | QC Preparation: 2011-04-11 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	11100	mg/Kg	100	10000	1130	100	80 - 120

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	11400	mg/Kg	100	10000	1130	103	80 - 120	3	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: 263097

QC Batch: 80275 | Date Analyzed: 2011-04-12 | Analyzed By: AR
Prep Batch: 68087 | QC Preparation: 2011-04-11 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10800	mg/Kg	100	10000	<385	108	80 - 120

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	11000	mg/Kg	100	10000	<385	110	80 - 120	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: 263091

QC Batch: 80344 | Date Analyzed: 2011-04-14 | Analyzed By: ME
Prep Batch: 68184 | QC Preparation: 2011-04-14 | Prepared By: ME

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.97	mg/Kg	1	2.00	<0.0118	98	80.5 - 112
Toluene	2.03	mg/Kg	1	2.00	<0.00600	102	82.4 - 113
Ethylbenzene	2.09	mg/Kg	1	2.00	<0.00850	104	83.9 - 114
Xylene	6.26	mg/Kg	1	6.00	<0.00613	104	84 - 114

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	2.06	mg/Kg	1	2.00	<0.0118	103	80.5 - 112	4	20
Toluene	2.12	mg/Kg	1	2.00	<0.00600	106	82.4 - 113	4	20
Ethylbenzene	2.18	mg/Kg	1	2.00	<0.00850	109	83.9 - 114	4	20
Xylene	6.58	mg/Kg	1	6.00	<0.00613	110	84 - 114	5	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]	2.42	2.22	mg/Kg	1	2	121	111	41.3 - 117
4-Bromofluorobenzene (4-BFB)	2.56	2.36	mg/Kg	1	2	128	118	35.5 - 129

Matrix Spike (MS-1) Spiked Sample: 263400

QC Batch: 80345 | Date Analyzed: 2011-04-14 | Analyzed By: ME
Prep Batch: 68184 | QC Preparation: 2011-04-14 | Prepared By: ME

[1] High surrogate recovery due to peak interference.

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	25.2	mg/Kg	1	20.0	4.0103	106	61.8 - 114

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	24.5	mg/Kg	1	20.0	4.0103	102	61.8 - 114	3	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)	2.27	2.40	mg/Kg	1	2	114	120	50 - 162
4-Bromofluorobenzene (4-BFB)	2.39	2.59	mg/Kg	1	2	120	130	50 - 162

Matrix Spike (MS-1) Spiked Sample: 263091

QC Batch: 80392 | Date Analyzed: 2011-04-15 | Analyzed By: kg
Prep Batch: 68234 | QC Preparation: 2011-04-15 | Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	239	mg/Kg	1	250	<15.7	96	11.7 - 152.3

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
DRO	244	mg/Kg	1	250	<15.7	98	11.7 - 152.3	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	100	101	mg/Kg	1	100	100	101	70 - 130

Standard (ICV-1)

QC Batch: 80273 | Date Analyzed: 2011-04-12 | 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	2011-04-12

Standard (CCV-1)

QC Batch: 80273 | Date Analyzed: 2011-04-12 | Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.6	100	85 - 115	2011-04-12

Standard (ICV-1)

QC Batch: 80274 | Date Analyzed: 2011-04-12 | Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.3	99	85 - 115	2011-04-12

Standard (CCV-1)

QC Batch: 80274 | Date Analyzed: 2011-04-12 | 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	2011-04-12

Standard (ICV-1)

QC Batch: 80275 | Date Analyzed: 2011-04-12 | Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.3	99	85 - 115	2011-04-12

Standard (CCV-1)

QC Batch: 80275 | Date Analyzed: 2011-04-12 | 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	2011-04-12

Standard (CCV-1)

QC Batch: 80344 Date Analyzed: 2011-04-14 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.105	105	80 - 120	2011-04-14
Toluene		mg/Kg	0.100	0.105	105	80 - 120	2011-04-14
Ethylbenzene		mg/Kg	0.100	0.104	104	80 - 120	2011-04-14
Xylene		mg/Kg	0.300	0.312	104	80 - 120	2011-04-14

Standard (CCV-2)

QC Batch: 80344 Date Analyzed: 2011-04-14 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.107	107	80 - 120	2011-04-14
Toluene		mg/Kg	0.100	0.109	109	80 - 120	2011-04-14
Ethylbenzene		mg/Kg	0.100	0.109	109	80 - 120	2011-04-14
Xylene		mg/Kg	0.300	0.331	110	80 - 120	2011-04-14

Standard (CCV-1)

QC Batch: 80345 Date Analyzed: 2011-04-14 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.09	109	80 - 120	2011-04-14

Standard (CCV-2)

QC Batch: 80345 Date Analyzed: 2011-04-14 Analyzed By: ME

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.14	114	80 - 120	2011-04-14

Standard (CCV-2)

QC Batch: 80392 Date Analyzed: 2011-04-15 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	248	99	80 - 120	2011-04-15

Standard (CCV-3)

QC Batch: 80392 Date Analyzed: 2011-04-15 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	248	99	80 - 120	2011-04-15

*Work Order #: 1104082 1

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 3

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 Tavarez
PROJECT NO.: 114-6400518
PROJECT NAME: Harper State #5
Eddy Co., NM

LAB I.D. NUMBER	DATE 2011	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd 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. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
216357	4/7		S		X	SB-1 10'	1				X													X				
074						15'	1				X													X				
075						20'	1				X													X				
076						25'	1				X													X				
077						30'	1				X													X				
078						40'	1				X													X				
079						50'	1				X													X				
						60'	1				X													X				
080						SB-2 10'	1				X													X				
081						15'	1				X													X				

RELINQUISHED BY: (Signature) Date: 4/8/11 Time: 1400 RECEIVED BY: (Signature) Date: 4/8/11 Time: 1400
SAMPLED BY: (Print & Initial) Kin Date: 4/7/11 Time:

RELINQUISHED BY: (Signature) Date: Time: RECEIVED BY: (Signature) Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS AIRBILL #: OTHER:

RELINQUISHED BY: (Signature) Date: Time: RECEIVED BY: (Signature) Date: Time:
TETRA TECH CONTACT PERSON: Ike Tavarez Results by:

RECEIVING LABORATORY: TRACE RECEIVED BY: (Signature)
ADDRESS:
CITY: MIDLAND STATE: TX ZIP:
CONTACT: PHONE: DATE: TIME:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 26.4°C intact
REMARKS: * All tests Midland

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

XWO #: 1104082l

Analysis Request of Chain of Custody Record

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6400518

PROJECT NAME: Harper State #5

Eddy Co., NM

LAB I.D. NUMBER	DATE 2011	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE
263382	4/7		S		X	SB-2 20'	1				X	
083						SB-3 10'	1				X	
084						" 15'	1				X	
085						20'	1				X	
086						25'	1				X	
087						30'	1				X	
088						40'	1				X	
089						50'	1				X	
090						60'	1				X	
091						SB-4 10'	1				X	

ANALYSIS REQUEST (Circle or Specify Method No.)

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. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
	X											X				
												X				
												X				
												X				
												X				
												X				
												X				
												X				
												X				
												X				

RELINQUISHED BY: (Signature) Date: 4/8/11 Time: 1400

RECEIVED BY: (Signature) Date: 4/8/11 Time: 1400

SAMPLED BY: (Print & Initial) Kim Date: 4/7/11 Time:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

SAMPLE SHIPPED BY: (Circle) ~~FEDEX~~ BUS HAND DELIVERED UPS

AIRBILL #:

OTHER:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RECEIVING LABORATORY: TRACE

ADDRESS:

CITY: MIDLAND STATE: TX ZIP:

CONTACT: PHONE:

RECEIVED BY: (Signature)

DATE: TIME:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 26.4°C intact

REMARKS: If TPH > mg/kg - Run deeper samples

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

Work Order #: 11046821

Analysis Request of Chain of Custody Record

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

PAGE: 3 OF: 3

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6400518

PROJECT NAME: Harper State #5

Eddy Co., NM

LAB I.D. NUMBER	DATE 2011	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd 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. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
26382	4/7		S		X	SB-4 15'	1				X													X				
083						20'	1				X													X				
084						25'	1				X													X				
085						30'	1				X													X				
086						40'	1				X													X				
087						50'	1				X													X				

RELINQUISHED BY: (Signature) Date: 4/8/11 Time: 1460

RECEIVED BY: (Signature) Date: 4/8/11 Time: 1400

SAMPLED BY: (Print & Initial) Kim Date: 4/7/11 Time:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS

AIRBILL #:

OTHER:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

RECEIVING LABORATORY: TRACE

ADDRESS:

CITY: MIDLAND STATE: TX ZIP:

CONTACT: PHONE:

RECEIVED BY: (Signature)

DATE: TIME:

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 2, 4°C intact

REMARKS:

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

Summary Report

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

Report Date: May 27, 2010

Work Order: 10051909

Project Location: Eddy County, NM
Project Name: COG/Harper State #5
Project Number: 114-6400518

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
232203	AH-1 0-1'	soil	2010-05-17	00:00	2010-05-18
232204	AH-1 1-1.5'	soil	2010-05-17	00:00	2010-05-18
232205	AH-1 2-2.5'	soil	2010-05-17	00:00	2010-05-18
232206	AH-1 3-3.5'	soil	2010-05-17	00:00	2010-05-18
232207	AH-1 4-4.5'	soil	2010-05-17	00:00	2010-05-18
232208	AH-1 5-5.5'	soil	2010-05-17	00:00	2010-05-18
232209	AH-2 0-1'	soil	2010-05-17	00:00	2010-05-18
232210	AH-2 1-1.5'	soil	2010-05-17	00:00	2010-05-18
232211	AH-2 2-2.5'	soil	2010-05-17	00:00	2010-05-18
232212	AH-2 3-3.5'	soil	2010-05-17	00:00	2010-05-18
232213	AH-2 4-4.5'	soil	2010-05-17	00:00	2010-05-18
232214	AH-2 5-5.5'	soil	2010-05-17	00:00	2010-05-18
232215	AH-3 0-1'	soil	2010-05-17	00:00	2010-05-18
232216	AH-3 1-1.5'	soil	2010-05-17	00:00	2010-05-18
232217	AH-3 2-2.5'	soil	2010-05-17	00:00	2010-05-18
232218	AH-3 3-3.5'	soil	2010-05-17	00:00	2010-05-18
232219	AH-3 4-4.5'	soil	2010-05-17	00:00	2010-05-18
232220	AH-3 5-5.5'	soil	2010-05-17	00:00	2010-05-18
232221	AH-4 0-1'	soil	2010-05-17	00:00	2010-05-18
232222	AH-4 1-1.5'	soil	2010-05-17	00:00	2010-05-18
232223	AH-4 2-2.5'	soil	2010-05-17	00:00	2010-05-18
232224	AH-4 3-3.5'	soil	2010-05-17	00:00	2010-05-18
232225	AH-4 4-4.5'	soil	2010-05-17	00:00	2010-05-18
232226	AH-4 5-5.5'	soil	2010-05-17	00:00	2010-05-18
232227	AH-5 0-1'	soil	2010-05-17	00:00	2010-05-18
232228	AH-5 1-1.5'	soil	2010-05-17	00:00	2010-05-18
232229	AH-5 2-2.5'	soil	2010-05-17	00:00	2010-05-18
232230	AH-5 3-3.5'	soil	2010-05-17	00:00	2010-05-18
232231	AH-5 4-4.5'	soil	2010-05-17	00:00	2010-05-18
232232	AH-5 5-5.5'	soil	2010-05-17	00:00	2010-05-18

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
232233	AH-5 6-6.5'	soil	2010-05-17	00:00	2010-05-18
232234	AH-5 7-7.5'	soil	2010-05-17	00:00	2010-05-18
232235	AH-5 8-8.5'	soil	2010-05-17	00:00	2010-05-18
232236	AH-5 9-9.5'	soil	2010-05-17	00:00	2010-05-18
232237	AH-6 0-1'	soil	2010-05-17	00:00	2010-05-18
232238	AH-6 1-1.5'	soil	2010-05-17	00:00	2010-05-18
232239	AH-6 2-2.5'	soil	2010-05-17	00:00	2010-05-18
232240	AH-6 3-3.5'	soil	2010-05-17	00:00	2010-05-18
232241	AH-6 4-4.5'	soil	2010-05-17	00:00	2010-05-18
232242	AH-6 5-5.5'	soil	2010-05-17	00:00	2010-05-18
232243	AH-7 0-1'	soil	2010-05-17	00:00	2010-05-18
232244	AH-7 1-1.5'	soil	2010-05-17	00:00	2010-05-18
232245	AH-7 2-2.5'	soil	2010-05-17	00:00	2010-05-18
232246	AH-7 3-3.5'	soil	2010-05-17	00:00	2010-05-18
232247	AH-7 4-4.5'	soil	2010-05-17	00:00	2010-05-18
232248	AH-7 5-5.5'	soil	2010-05-17	00:00	2010-05-18
232249	AH-7 6-6.5'	soil	2010-05-17	00:00	2010-05-18
232250	AH-7 7-7.5'	soil	2010-05-17	00:00	2010-05-18
232251	AH-8 0-1'	soil	2010-05-17	00:00	2010-05-18
232252	AH-8 1-1.5'	soil	2010-05-17	00:00	2010-05-18
232253	AH-8 2-2.5'	soil	2010-05-17	00:00	2010-05-18
232254	AH-8 3-3.5'	soil	2010-05-17	00:00	2010-05-18
232255	AH-8 4-4.5'	soil	2010-05-17	00:00	2010-05-18
232256	AH-8 5-5.5'	soil	2010-05-17	00:00	2010-05-18
232257	AH-8 6-6.5'	soil	2010-05-17	00:00	2010-05-18
232258	AH-9 0-1'	soil	2010-05-17	00:00	2010-05-18
232259	AH-9 1-1.5'	soil	2010-05-17	00:00	2010-05-18
232260	AH-9 2-2.5'	soil	2010-05-17	00:00	2010-05-18
232261	AH-9 3-3.5'	soil	2010-05-17	00:00	2010-05-18
232262	AH-9 4-4.5'	soil	2010-05-17	00:00	2010-05-18
232263	AH-9 5-5.5'	soil	2010-05-17	00:00	2010-05-18
232264	AH-9 6-6.5'	soil	2010-05-17	00:00	2010-05-18
232265	AH-10 0-1'	soil	2010-05-17	00:00	2010-05-18
232266	AH-10 1-1.5'	soil	2010-05-17	00:00	2010-05-18
232267	AH-10 2-2.5'	soil	2010-05-17	00:00	2010-05-18
232268	AH-10 3-3.5'	soil	2010-05-17	00:00	2010-05-18
232269	AH-10 4-4.5'	soil	2010-05-17	00:00	2010-05-18
232270	AH-7 7.5-8'	soil	2010-05-17	00:00	2010-05-18

Sample - Field Code	BTEX Benzene (mg/Kg)	BTEX Toluene (mg/Kg)	BTEX Ethylbenzene (mg/Kg)	BTEX Xylene (mg/Kg)	TPH DRO - NEW DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
232203 - AH-1 0-1'	<0.500	**9.34**	**14.9**	**24.3**	**4290**	**1190**
232204 - AH-1 1-1.5'					<50.0	<1.00
232209 - AH-2 0-1'					**678**	**14.6**
232215 - AH-3 0-1'	<0.100	<0.100	<0.100	**0.438**	**1400**	**296**
232221 - AH-4 0-1'	<0.200	<0.200	<0.200	**1.00**	**1780**	**691**
232227 - AH-5 0-1'	<0.100	<0.100	<0.100	**0.638**	**877**	**409**

continued ...

... continued

Sample - Field Code	BTEX Benzene (mg/Kg)	BTEX Toluene (mg/Kg)	BTEX Ethylbenzene (mg/Kg)	BTEX Xylene (mg/Kg)	TPH DRO - NEW DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
232237 - AH-6 0-1'					<50.0	<1.00
232243 - AH-7 0-1'					<50.0	<1.00
232251 - AH-8 0-1'					**599**	**259**
232258 - AH-9 0-1'	**1.46**	**16.8**	**31.8**	**52.1**	**8460**	**3660**
232259 - AH-9 1-1.5'	**18.3**	**79.2**	**38.3**	**67.3**	**3080**	**2420**
232260 - AH-9 2-2.5'	**13.1**	**105**	**54.8**	**97.2**		**3620**
232261 - AH-9 3-3.5'	**11.6**	**120**	**66.9**	**117**		**4280**
232265 - AH-10 0-1'	**0.478**	**4.46**	**5.08**	**9.48**	**334**	**697**

Sample: 232203 - AH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		**1320**	mg/Kg	4.00

Sample: 232204 - AH-1 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**578**	mg/Kg	4.00

Sample: 232205 - AH-1 2-2.5'

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

Sample: 232206 - AH-1 3-3.5'

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

Sample: 232207 - AH-1 4-4.5'

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

Sample: 232208 - AH-1 5-5.5'

continued ...

sample 232208 continued ...

Param	Flag	Result	Units	RL

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

Sample: 232209 - AH-2 0-1'

Param	Flag	Result	Units	RL
Chloride		**4890**	mg/Kg	4.00

Sample: 232210 - AH-2 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**1750**	mg/Kg	4.00

Sample: 232211 - AH-2 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**793**	mg/Kg	4.00

Sample: 232212 - AH-2 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**682**	mg/Kg	4.00

Sample: 232213 - AH-2 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**490**	mg/Kg	4.00

Sample: 232214 - AH-2 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**466**	mg/Kg	4.00

Sample: 232215 - AH-3 0-1'

Param	Flag	Result	Units	RL
Chloride		**1830**	mg/Kg	4.00

Sample: 232216 - AH-3 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**661**	mg/Kg	4.00

Sample: 232217 - AH-3 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**1010**	mg/Kg	4.00

Sample: 232218 - AH-3 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**1340**	mg/Kg	4.00

Sample: 232219 - AH-3 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**802**	mg/Kg	4.00

Sample: 232220 - AH-3 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**641**	mg/Kg	4.00

Sample: 232221 - AH-4 0-1'

Param	Flag	Result	Units	RL
Chloride		**7940**	mg/Kg	4.00

Sample: 232222 - AH-4 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**1250**	mg/Kg	4.00

Sample: 232223 - AH-4 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**592**	mg/Kg	4.00

Sample: 232224 - AH-4 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**519**	mg/Kg	4.00

Sample: 232225 - AH-4 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**398**	mg/Kg	4.00

Sample: 232226 - AH-4 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**447**	mg/Kg	4.00

Sample: 232227 - AH-5 0-1'

Param	Flag	Result	Units	RL
Chloride		**6930**	mg/Kg	4.00

Sample: 232228 - AH-5 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**4950**	mg/Kg	4.00

Sample: 232229 - AH-5 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**2900**	mg/Kg	4.00

Sample: 232230 - AH-5 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**985**	mg/Kg	4.00

Sample: 232231 - AH-5 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**11500**	mg/Kg	4.00

Sample: 232232 - AH-5 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**10100**	mg/Kg	4.00

Sample: 232233 - AH-5 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**3770**	mg/Kg	4.00

Sample: 232234 - AH-5 7-7.5'

Param	Flag	Result	Units	RL
Chloride		**1920**	mg/Kg	4.00

Sample: 232235 - AH-5 8-8.5'

Param	Flag	Result	Units	RL
Chloride		**2120**	mg/Kg	4.00

Sample: 232236 - AH-5 9-9.5'

Param	Flag	Result	Units	RL
Chloride		**268**	mg/Kg	4.00

Sample: 232237 - AH-6 0-1'

Param	Flag	Result	Units	RL
Chloride		**6860**	mg/Kg	4.00

Sample: 232238 - AH-6 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**1430**	mg/Kg	4.00

Sample: 232239 - AH-6 2-2.5'

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

Sample: 232240 - AH-6 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**239**	mg/Kg	4.00

Sample: 232241 - AH-6 4-4.5'

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

Sample: 232242 - AH-6 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**225**	mg/Kg	4.00

Sample: 232243 - AH-7 0-1'

Param	Flag	Result	Units	RL
Chloride		**10100**	mg/Kg	4.00

Sample: 232244 - AH-7 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**8640**	mg/Kg	4.00

Sample: 232245 - AH-7 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**10100**	mg/Kg	4.00

Sample: 232246 - AH-7 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**10900**	mg/Kg	4.00

Sample: 232247 - AH-7 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**10800**	mg/Kg	4.00

Sample: 232248 - AH-7 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**16200**	mg/Kg	4.00

Sample: 232249 - AH-7 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**5840**	mg/Kg	4.00

Sample: 232250 - AH-7 7-7.5'

Param	Flag	Result	Units	RL
Chloride		**1580**	mg/Kg	4.00

Sample: 232251 - AH-8 0-1'

Param	Flag	Result	Units	RL
Chloride		**2920**	mg/Kg	4.00

Sample: 232252 - AH-8 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**306**	mg/Kg	4.00

Sample: 232253 - AH-8 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**850**	mg/Kg	4.00

Sample: 232254 - AH-8 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**1520**	mg/Kg	4.00

Sample: 232255 - AH-8 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**626**	mg/Kg	4.00

Sample: 232256 - AH-8 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**220**	mg/Kg	4.00

Sample: 232257 - AH-8 6-6.5'

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

Sample: 232258 - AH-9 0-1'

Param	Flag	Result	Units	RL
Chloride		**2210**	mg/Kg	4.00

Sample: 232259 - AH-9 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**4480**	mg/Kg	4.00

Sample: 232260 - AH-9 2-2.5'

Param	Flag	Result	Units	RL
Chloride		**4140**	mg/Kg	4.00

Sample: 232261 - AH-9 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**4460**	mg/Kg	4.00

Sample: 232262 - AH-9 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**6080**	mg/Kg	4.00

Sample: 232263 - AH-9 5-5.5'

Param	Flag	Result	Units	RL
Chloride		**2360**	mg/Kg	4.00

Sample: 232264 - AH-9 6-6.5'

Param	Flag	Result	Units	RL
Chloride		**864**	mg/Kg	4.00

Sample: 232265 - AH-10 0-1'

Param	Flag	Result	Units	RL
Chloride		**1340**	mg/Kg	4.00

Sample: 232266 - AH-10 1-1.5'

Param	Flag	Result	Units	RL
Chloride		**599**	mg/Kg	4.00

Sample: 232267 - AH-10 2-2.5'

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

Sample: 232268 - AH-10 3-3.5'

Param	Flag	Result	Units	RL
Chloride		**934**	mg/Kg	4.00

Sample: 232269 - AH-10 4-4.5'

Param	Flag	Result	Units	RL
Chloride		**671**	mg/Kg	4.00

Sample: 232270 - AH-7 7.5-8'

Param	Flag	Result	Units	RL
Chloride		**1080**	mg/Kg	4.00

TRACEANALYSIS, INC.

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

Certifications

WBENC: 237019 **HUB:** 1752439743100-86536 **DBE:** VN 20657
NCTRCA WFWB38444Y0909

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: May 27, 2010

Work Order: 10051909

Project Location: Eddy County, NM
Project Name: COG/Harper State #5
Project Number: 114-6400518

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
232203	AH-1 0-1'	soil	2010-05-17	00:00	2010-05-18
232204	AH-1 1-1.5'	soil	2010-05-17	00:00	2010-05-18
232205	AH-1 2-2.5'	soil	2010-05-17	00:00	2010-05-18
232206	AH-1 3-3.5'	soil	2010-05-17	00:00	2010-05-18
232207	AH-1 4-4.5'	soil	2010-05-17	00:00	2010-05-18
232208	AH-1 5-5.5'	soil	2010-05-17	00:00	2010-05-18
232209	AH-2 0-1'	soil	2010-05-17	00:00	2010-05-18
232210	AH-2 1-1.5'	soil	2010-05-17	00:00	2010-05-18
232211	AH-2 2-2.5'	soil	2010-05-17	00:00	2010-05-18
232212	AH-2 3-3.5'	soil	2010-05-17	00:00	2010-05-18

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
232213	AH-2 4-4.5'	soil	2010-05-17	00:00	2010-05-18
232214	AH-2 5-5.5'	soil	2010-05-17	00:00	2010-05-18
232215	AH-3 0-1'	soil	2010-05-17	00:00	2010-05-18
232216	AH-3 1-1.5'	soil	2010-05-17	00:00	2010-05-18
232217	AH-3 2-2.5'	soil	2010-05-17	00:00	2010-05-18
232218	AH-3 3-3.5'	soil	2010-05-17	00:00	2010-05-18
232219	AH-3 4-4.5'	soil	2010-05-17	00:00	2010-05-18
232220	AH-3 5-5.5'	soil	2010-05-17	00:00	2010-05-18
232221	AH-4 0-1'	soil	2010-05-17	00:00	2010-05-18
232222	AH-4 1-1.5'	soil	2010-05-17	00:00	2010-05-18
232223	AH-4 2-2.5'	soil	2010-05-17	00:00	2010-05-18
232224	AH-4 3-3.5'	soil	2010-05-17	00:00	2010-05-18
232225	AH-4 4-4.5'	soil	2010-05-17	00:00	2010-05-18
232226	AH-4 5-5.5'	soil	2010-05-17	00:00	2010-05-18
232227	AH-5 0-1'	soil	2010-05-17	00:00	2010-05-18
232228	AH-5 1-1.5'	soil	2010-05-17	00:00	2010-05-18
232229	AH-5 2-2.5'	soil	2010-05-17	00:00	2010-05-18
232230	AH-5 3-3.5'	soil	2010-05-17	00:00	2010-05-18
232231	AH-5 4-4.5'	soil	2010-05-17	00:00	2010-05-18
232232	AH-5 5-5.5'	soil	2010-05-17	00:00	2010-05-18
232233	AH-5 6-6.5'	soil	2010-05-17	00:00	2010-05-18
232234	AH-5 7-7.5'	soil	2010-05-17	00:00	2010-05-18
232235	AH-5 8-8.5'	soil	2010-05-17	00:00	2010-05-18
232236	AH-5 9-9.5'	soil	2010-05-17	00:00	2010-05-18
232237	AH-6 0-1'	soil	2010-05-17	00:00	2010-05-18
232238	AH-6 1-1.5'	soil	2010-05-17	00:00	2010-05-18
232239	AH-6 2-2.5'	soil	2010-05-17	00:00	2010-05-18
232240	AH-6 3-3.5'	soil	2010-05-17	00:00	2010-05-18
232241	AH-6 4-4.5'	soil	2010-05-17	00:00	2010-05-18
232242	AH-6 5-5.5'	soil	2010-05-17	00:00	2010-05-18
232243	AH-7 0-1'	soil	2010-05-17	00:00	2010-05-18
232244	AH-7 1-1.5'	soil	2010-05-17	00:00	2010-05-18
232245	AH-7 2-2.5'	soil	2010-05-17	00:00	2010-05-18
232246	AH-7 3-3.5'	soil	2010-05-17	00:00	2010-05-18
232247	AH-7 4-4.5'	soil	2010-05-17	00:00	2010-05-18
232248	AH-7 5-5.5'	soil	2010-05-17	00:00	2010-05-18
232249	AH-7 6-6.5'	soil	2010-05-17	00:00	2010-05-18
232250	AH-7 7-7.5'	soil	2010-05-17	00:00	2010-05-18
232251	AH-8 0-1'	soil	2010-05-17	00:00	2010-05-18
232252	AH-8 1-1.5'	soil	2010-05-17	00:00	2010-05-18
232253	AH-8 2-2.5'	soil	2010-05-17	00:00	2010-05-18
232254	AH-8 3-3.5'	soil	2010-05-17	00:00	2010-05-18
232255	AH-8 4-4.5'	soil	2010-05-17	00:00	2010-05-18
232256	AH-8 5-5.5'	soil	2010-05-17	00:00	2010-05-18
232257	AH-8 6-6.5'	soil	2010-05-17	00:00	2010-05-18
232258	AH-9 0-1'	soil	2010-05-17	00:00	2010-05-18

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
232259	AH-9 1-1.5'	soil	2010-05-17	00:00	2010-05-18
232260	AH-9 2-2.5'	soil	2010-05-17	00:00	2010-05-18
232261	AH-9 3-3.5'	soil	2010-05-17	00:00	2010-05-18
232262	AH-9 4-4.5'	soil	2010-05-17	00:00	2010-05-18
232263	AH-9 5-5.5'	soil	2010-05-17	00:00	2010-05-18
232264	AH-9 6-6.5'	soil	2010-05-17	00:00	2010-05-18
232265	AH-10 0-1'	soil	2010-05-17	00:00	2010-05-18
232266	AH-10 1-1.5'	soil	2010-05-17	00:00	2010-05-18
232267	AH-10 2-2.5'	soil	2010-05-17	00:00	2010-05-18
232268	AH-10 3-3.5'	soil	2010-05-17	00:00	2010-05-18
232269	AH-10 4-4.5'	soil	2010-05-17	00:00	2010-05-18
232270	AH-7 7.5-8'	soil	2010-05-17	00:00	2010-05-18

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

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/Harper State #5 were received by TraceAnalysis, Inc. on 2010-05-18 and assigned to work order 10051909. Samples for work order 10051909 were received intact at a temperature of 3.8 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	60148	2010-05-20 at 13:30	70245	2010-05-20 at 14:14
BTEX	S 8021B	60276	2010-05-25 at 15:30	70391	2010-05-25 at 16:50
BTEX	S 8021B	60276	2010-05-25 at 15:30	70429	2010-05-26 at 14:28
Chloride (Titration)	SM 4500-Cl B	60123	2010-05-20 at 08:55	70263	2010-05-21 at 11:14
Chloride (Titration)	SM 4500-Cl B	60124	2010-05-20 at 08:56	70264	2010-05-21 at 11:15
Chloride (Titration)	SM 4500-Cl B	60125	2010-05-20 at 13:56	70326	2010-05-24 at 12:49
Chloride (Titration)	SM 4500-Cl B	60126	2010-05-20 at 13:57	70327	2010-05-24 at 12:50
Chloride (Titration)	SM 4500-Cl B	60195	2010-05-24 at 09:09	70328	2010-05-24 at 15:51
Chloride (Titration)	SM 4500-Cl B	60196	2010-05-24 at 09:10	70330	2010-05-24 at 15:52
Chloride (Titration)	SM 4500-Cl B	60197	2010-05-24 at 09:11	70331	2010-05-24 at 15:53
Chloride (Titration)	SM 4500-Cl B	60198	2010-05-24 at 08:12	70332	2010-05-24 at 15:54
TPH DRO - NEW	S 8015 D	60097	2010-05-19 at 10:30	70193	2010-05-19 at 10:30
TPH DRO - NEW	S 8015 D	60202	2010-05-24 at 14:17	70309	2010-05-24 at 14:17
TPH GRO	S 8015 D	60148	2010-05-20 at 13:30	70246	2010-05-20 at 14:57
TPH GRO	S 8015 D	60276	2010-05-25 at 15:30	70393	2010-05-25 at 17:19
TPH GRO	S 8015 D	60276	2010-05-25 at 15:30	70428	2010-05-26 at 14:56

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 10051909 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Analytical Report

Sample: 232203 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	70245	Date Analyzed:	2010-05-20	Analyzed By:	AG
Prep Batch:	60148	Sample Preparation:	2010-05-20	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.500	mg/Kg	50	0.0100
Toluene		**9.34**	mg/Kg	50	0.0100
Ethylbenzene		**14.9**	mg/Kg	50	0.0100
Xylene		**24.3**	mg/Kg	50	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		47.3	mg/Kg	50	50.0	95	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		54.5	mg/Kg	50	50.0	109	43.1 - 158.4

Sample: 232203 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70263	Date Analyzed:	2010-05-21	Analyzed By:	AR
Prep Batch:	60123	Sample Preparation:	2010-05-20	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1320**	mg/Kg	50	4.00

Sample: 232203 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	70193	Date Analyzed:	2010-05-19	Analyzed By:	kg
Prep Batch:	60097	Sample Preparation:	2010-05-19	Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**4290**	mg/Kg	10	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	[1]	506	mg/Kg	10	100	506	70 - 130

Sample: 232203 - AH-1 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	70246	Date Analyzed:	2010-05-20	Analyzed By:	AG
Prep Batch:	60148	Sample Preparation:	2010-05-20	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**1190**	mg/Kg	50	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		50.7	mg/Kg	50	50.0	101	50.3 - 155
4-Bromofluorobenzene (4-BFB)	[2]	66.7	mg/Kg	50	50.0	133	51.7 - 131.1

Sample: 232204 - AH-1 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70263	Date Analyzed:	2010-05-21	Analyzed By:	AR
Prep Batch:	60123	Sample Preparation:	2010-05-20	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**578**	mg/Kg	50	4.00

Sample: 232204 - AH-1 1-1.5'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	70309	Date Analyzed:	2010-05-24	Analyzed By:	kg
Prep Batch:	60202	Sample Preparation:	2010-05-24	Prepared By:	kg

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

[1] High surrogate recovery due to peak interference.
[2] High surrogate recovery due to peak interference.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		99.2	mg/Kg	1	100	99	70 - 130

Sample: 232204 - AH-1 1-1.5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	70393	Date Analyzed:	2010-05-25	Analyzed By:	AG
Prep Batch:	60276	Sample Preparation:	2010-05-25	Prepared By:	AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.80	mg/Kg	1	2.00	90	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.70	mg/Kg	1	2.00	85	51.7 - 131.1

Sample: 232205 - AH-1 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70264	Date Analyzed:	2010-05-21	Analyzed By:	AR
Prep Batch:	60124	Sample Preparation:	2010-05-20	Prepared By:	AR

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

Sample: 232206 - AH-1 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70264	Date Analyzed:	2010-05-21	Analyzed By:	AR
Prep Batch:	60124	Sample Preparation:	2010-05-20	Prepared By:	AR

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

Sample: 232207 - AH-1 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70264	Date Analyzed:	2010-05-21	Analyzed By:	AR
Prep Batch:	60124	Sample Preparation:	2010-05-20	Prepared By:	AR

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

Sample: 232208 - AH-1 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70264	Date Analyzed:	2010-05-21	Analyzed By:	AR
Prep Batch:	60124	Sample Preparation:	2010-05-20	Prepared By:	AR

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

Sample: 232209 - AH-2 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70264	Date Analyzed:	2010-05-21	Analyzed By:	AR
Prep Batch:	60124	Sample Preparation:	2010-05-20	Prepared By:	AR

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

Sample: 232209 - AH-2 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	70193	Date Analyzed:	2010-05-19	Analyzed By:	kg
Prep Batch:	60097	Sample Preparation:	2010-05-19	Prepared By:	kg

Parameter	Flag	Result	RL Units	Dilution	RL
DRO		**678**	mg/Kg	10	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	[3]	232	mg/Kg	10	100	232	70 - 130

Sample: 232209 - AH-2 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	70246	Date Analyzed:	2010-05-20	Analyzed By:	AG
Prep Batch:	60148	Sample Preparation:	2010-05-20	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**14.6**	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.84	mg/Kg	1	2.00	92	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.93	mg/Kg	1	2.00	96	51.7 - 131.1

Sample: 232210 - AH-2 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70264	Date Analyzed:	2010-05-21	Analyzed By:	AR
Prep Batch:	60124	Sample Preparation:	2010-05-20	Prepared By:	AR

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

Sample: 232211 - AH-2 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70264	Date Analyzed:	2010-05-21	Analyzed By:	AR
Prep Batch:	60124	Sample Preparation:	2010-05-20	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**793**	mg/Kg	50	4.00

[3]High surrogate recovery due to peak interference.

Sample: 232212 - AH-2 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70264	Date Analyzed:	2010-05-21	Analyzed By:	AR
Prep Batch:	60124	Sample Preparation:	2010-05-20	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**682**	mg/Kg	50	4.00

Sample: 232213 - AH-2 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70264	Date Analyzed:	2010-05-21	Analyzed By:	AR
Prep Batch:	60124	Sample Preparation:	2010-05-20	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**490**	mg/Kg	50	4.00

Sample: 232214 - AH-2 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70264	Date Analyzed:	2010-05-21	Analyzed By:	AR
Prep Batch:	60124	Sample Preparation:	2010-05-20	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**466**	mg/Kg	50	4.00

Sample: 232215 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	70245	Date Analyzed:	2010-05-20	Analyzed By:	AG
Prep Batch:	60148	Sample Preparation:	2010-05-20	Prepared By:	AG

Parameter	Flag	Result	RL Units	Dilution	RL
Benzene		<0.100	mg/Kg	10	0.0100
Toluene		<0.100	mg/Kg	10	0.0100

continued ...

sample 232215 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Ethylbenzene		<0.100	mg/Kg	10	0.0100
Xylene		**0.438**	mg/Kg	10	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		10.1	mg/Kg	10	10.0	101	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		8.61	mg/Kg	10	10.0	86	43.1 - 158.4

Sample: 232215 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70326	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60125	Sample Preparation:	2010-05-20	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1830**	mg/Kg	100	4.00

Sample: 232215 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	70193	Date Analyzed:	2010-05-19	Analyzed By:	kg
Prep Batch:	60097	Sample Preparation:	2010-05-19	Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**1400**	mg/Kg	10	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	[4]	332	mg/Kg	10	100	332	70 - 130

Sample: 232215 - AH-3 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	70246	Date Analyzed:	2010-05-20	Analyzed By:	AG
Prep Batch:	60148	Sample Preparation:	2010-05-20	Prepared By:	AG

[4]High surrogate recovery due to peak interference.

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**296**	mg/Kg	10	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		10.9	mg/Kg	10	10.0	109	50.3 - 155
4-Bromofluorobenzene (4-BFB)	[5]	13.8	mg/Kg	10	10.0	138	51.7 - 131.1

Sample: 232216 - AH-3 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70326	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60125	Sample Preparation:	2010-05-20	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**661**	mg/Kg	50	4.00

Sample: 232217 - AH-3 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70326	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60125	Sample Preparation:	2010-05-20	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1010**	mg/Kg	100	4.00

Sample: 232218 - AH-3 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70326	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60125	Sample Preparation:	2010-05-20	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1340**	mg/Kg	100	4.00

[5]High surrogate recovery due to peak interference.

Sample: 232219 - AH-3 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70326	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60125	Sample Preparation:	2010-05-20	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**802**	mg/Kg	50	4.00

Sample: 232220 - AH-3 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70326	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60125	Sample Preparation:	2010-05-20	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**641**	mg/Kg	50	4.00

Sample: 232221 - AH-4 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	70245	Date Analyzed:	2010-05-20	Analyzed By:	AG
Prep Batch:	60148	Sample Preparation:	2010-05-20	Prepared By:	AG

Parameter	Flag	Result	RL Units	Dilution	RL
Benzene		<0.200	mg/Kg	20	0.0100
Toluene		<0.200	mg/Kg	20	0.0100
Ethylbenzene		<0.200	mg/Kg	20	0.0100
Xylene		**1.00**	mg/Kg	20	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		19.3	mg/Kg	20	20.0	96	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		19.8	mg/Kg	20	20.0	99	43.1 - 158.4

Sample: 232221 - AH-4 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70326	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60125	Sample Preparation:	2010-05-20	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**7940**	mg/Kg	100	4.00

Sample: 232221 - AH-4 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	70193	Date Analyzed:	2010-05-19	Analyzed By:	kg
Prep Batch:	60097	Sample Preparation:	2010-05-19	Prepared By:	kg

Parameter	Flag	Result	RL Units	Dilution	RL
DRO		**1780**	mg/Kg	10	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	[6]	380	mg/Kg	10	100	380	70 - 130

Sample: 232221 - AH-4 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	70246	Date Analyzed:	2010-05-20	Analyzed By:	AG
Prep Batch:	60148	Sample Preparation:	2010-05-20	Prepared By:	AG

Parameter	Flag	Result	RL Units	Dilution	RL
GRO		**691**	mg/Kg	20	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		20.6	mg/Kg	20	20.0	103	50.3 - 155
4-Bromofluorobenzene (4-BFB)		20.5	mg/Kg	20	20.0	102	51.7 - 131.1

[6]High surrogate recovery due to peak interference.

Sample: 232222 - AH-4 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70326	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60125	Sample Preparation:	2010-05-20	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**1250**	mg/Kg	50	4.00

Sample: 232223 - AH-4 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70326	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60125	Sample Preparation:	2010-05-20	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**592**	mg/Kg	50	4.00

Sample: 232224 - AH-4 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70326	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60125	Sample Preparation:	2010-05-20	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**519**	mg/Kg	50	4.00

Sample: 232225 - AH-4 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70327	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60126	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**398**	mg/Kg	50	4.00

Sample: 232226 - AH-4 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70327	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60126	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**447**	mg/Kg	50	4.00

Sample: 232227 - AH-5 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	70245	Date Analyzed:	2010-05-20	Analyzed By:	AG
Prep Batch:	60148	Sample Preparation:	2010-05-20	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.100	mg/Kg	10	0.0100
Toluene		<0.100	mg/Kg	10	0.0100
Ethylbenzene		<0.100	mg/Kg	10	0.0100
Xylene		**0.638**	mg/Kg	10	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		10.3	mg/Kg	10	10.0	103	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		10.5	mg/Kg	10	10.0	105	43.1 - 158.4

Sample: 232227 - AH-5 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70327	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60126	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**6930**	mg/Kg	100	4.00

Sample: 232227 - AH-5 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	70193	Date Analyzed:	2010-05-19	Analyzed By:	kg
Prep Batch:	60097	Sample Preparation:	2010-05-19	Prepared By:	kg

Parameter	Flag	Result	RL Result	Units	Dilution	RL
DRO			**877**	mg/Kg	5	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	[7]	200	mg/Kg	5	100	200	70 - 130

Sample: 232227 - AH-5 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	70246	Date Analyzed:	2010-05-20	Analyzed By:	AG
Prep Batch:	60148	Sample Preparation:	2010-05-20	Prepared By:	AG

Parameter	Flag	Result	RL Result	Units	Dilution	RL
GRO			**409**	mg/Kg	10	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		10.9	mg/Kg	10	10.0	109	50.3 - 155
4-Bromofluorobenzene (4-BFB)		11.1	mg/Kg	10	10.0	111	51.7 - 131.1

Sample: 232228 - AH-5 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70327	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60126	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	Result	RL Result	Units	Dilution	RL
Chloride			**4950**	mg/Kg	100	4.00

[7] High surrogate recovery due to peak interference.

Sample: 232229 - AH-5 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70327	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60126	Sample Preparation:	2010-05-24	Prepared By:	AR

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

Sample: 232230 - AH-5 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70327	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60126	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**985**	mg/Kg	50	4.00

Sample: 232231 - AH-5 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70327	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60126	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**11500**	mg/Kg	100	4.00

Sample: 232232 - AH-5 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70327	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60126	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**10100**	mg/Kg	100	4.00

Sample: 232233 - AH-5 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70327	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60126	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**3770**	mg/Kg	100	4.00

Sample: 232234 - AH-5 7-7.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70327	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60126	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1920**	mg/Kg	100	4.00

Sample: 232235 - AH-5 8-8.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70328	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60195	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**2120**	mg/Kg	100	4.00

Sample: 232236 - AH-5 9-9.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70328	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60195	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**268**	mg/Kg	50	4.00

Sample: 232237 - AH-6 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70328	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60195	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**6860**	mg/Kg	100	4.00

Sample: 232237 - AH-6 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	70193	Date Analyzed:	2010-05-19	Analyzed By:	kg
Prep Batch:	60097	Sample Preparation:	2010-05-19	Prepared By:	kg

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		97.0	mg/Kg	1	100	97	70 - 130

Sample: 232237 - AH-6 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	70246	Date Analyzed:	2010-05-20	Analyzed By:	AG
Prep Batch:	60148	Sample Preparation:	2010-05-20	Prepared By:	AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.81	mg/Kg	1	2.00	90	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.81	mg/Kg	1	2.00	90	51.7 - 131.1

Sample: 232238 - AH-6 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70328	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60195	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**1430**	mg/Kg	50	4.00

Sample: 232239 - AH-6 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70328	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60195	Sample Preparation:	2010-05-24	Prepared By:	AR

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

Sample: 232240 - AH-6 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70328	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60195	Sample Preparation:	2010-05-24	Prepared By:	AR

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

Sample: 232241 - AH-6 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70328	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60195	Sample Preparation:	2010-05-24	Prepared By:	AR

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

Sample: 232242 - AH-6 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70328	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60195	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**225**	mg/Kg	50	4.00

Sample: 232243 - AH-7 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70328	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60195	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**10100**	mg/Kg	100	4.00

Sample: 232243 - AH-7 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	70193	Date Analyzed:	2010-05-19	Analyzed By:	kg
Prep Batch:	60097	Sample Preparation:	2010-05-19	Prepared By:	kg

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		98.6	mg/Kg	1	100	99	70 - 130

Sample: 232243 - AH-7 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	70246	Date Analyzed:	2010-05-20	Analyzed By:	AG
Prep Batch:	60148	Sample Preparation:	2010-05-20	Prepared By:	AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.02	mg/Kg	1	2.00	51	50.3 - 155
4-Bromofluorobenzene (4-BFB)		1.19	mg/Kg	1	2.00	60	51.7 - 131.1

Sample: 232244 - AH-7 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70328	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60195	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**8640**	mg/Kg	100	4.00

Sample: 232245 - AH-7 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70330	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60196	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**10100**	mg/Kg	100	4.00

Sample: 232246 - AH-7 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70330	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60196	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**10900**	mg/Kg	100	4.00

Sample: 232247 - AH-7 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70330	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60196	Sample Preparation:	2010-05-24	Prepared By:	AR

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

Sample: 232248 - AH-7 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70330	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60196	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**16200**	mg/Kg	100	4.00

Sample: 232249 - AH-7 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70330	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60196	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**5840**	mg/Kg	100	4.00

Sample: 232250 - AH-7 7-7.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70330	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60196	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**1580**	mg/Kg	100	4.00

Sample: 232251 - AH-8 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70330	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60196	Sample Preparation:	2010-05-24	Prepared By:	AR

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

Sample: 232251 - AH-8 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	70193	Date Analyzed:	2010-05-19	Analyzed By:	kg
Prep Batch:	60097	Sample Preparation:	2010-05-19	Prepared By:	kg

Parameter	Flag	Result	RL Units	Dilution	RL
DRO		**599**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	[8]	189	mg/Kg	1	100	189	70 - 130

Sample: 232251 - AH-8 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	70246	Date Analyzed:	2010-05-20	Analyzed By:	AG
Prep Batch:	60148	Sample Preparation:	2010-05-20	Prepared By:	AG

Parameter	Flag	Result	RL Units	Dilution	RL
GRO		**259**	mg/Kg	10	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		10.5	mg/Kg	10	10.0	105	50.3 - 155
4-Bromofluorobenzene (4-BFB)		10.9	mg/Kg	10	10.0	109	51.7 - 131.1

[8]High surrogate recovery due to peak interference.

Sample: 232252 - AH-8 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70330	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60196	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**306**	mg/Kg	50	4.00

Sample: 232253 - AH-8 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70330	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60196	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**850**	mg/Kg	50	4.00

Sample: 232254 - AH-8 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70330	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60196	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**1520**	mg/Kg	50	4.00

Sample: 232255 - AH-8 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70331	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60197	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**626**	mg/Kg	50	4.00

Sample: 232256 - AH-8 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70331	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60197	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**220**	mg/Kg	50	4.00

Sample: 232257 - AH-8 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70331	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60197	Sample Preparation:	2010-05-24	Prepared By:	AR

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

Sample: 232258 - AH-9 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	70245	Date Analyzed:	2010-05-20	Analyzed By:	AG
Prep Batch:	60148	Sample Preparation:	2010-05-20	Prepared By:	AG

Parameter	Flag	Result	RL Units	Dilution	RL
Benzene		**1.46**	mg/Kg	50	0.0100
Toluene		**16.8**	mg/Kg	50	0.0100
Ethylbenzene		**31.8**	mg/Kg	50	0.0100
Xylene		**52.1**	mg/Kg	50	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		50.4	mg/Kg	50	50.0	101	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		67.6	mg/Kg	50	50.0	135	43.1 - 158.4

Sample: 232258 - AH-9 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70331	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60197	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**2210**	mg/Kg	100	4.00

Sample: 232258 - AH-9 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	70193	Date Analyzed:	2010-05-19	Analyzed By:	kg
Prep Batch:	60097	Sample Preparation:	2010-05-19	Prepared By:	kg

Parameter	Flag	Result	RL Units	Dilution	RL
DRO		**8460**	mg/Kg	10	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	[9]	1050	mg/Kg	10	100	1050	70 - 130

Sample: 232258 - AH-9 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	70246	Date Analyzed:	2010-05-20	Analyzed By:	AG
Prep Batch:	60148	Sample Preparation:	2010-05-20	Prepared By:	AG

Parameter	Flag	Result	RL Units	Dilution	RL
GRO		**3660**	mg/Kg	50	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		53.7	mg/Kg	50	50.0	107	50.3 - 155
4-Bromofluorobenzene (4-BFB)	[10]	85.3	mg/Kg	50	50.0	171	51.7 - 131.1

[9]High surrogate recovery due to peak interference.
[10]High surrogate recovery due to peak interference.

Sample: 232259 - AH-9 1-1.5'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	70391	Date Analyzed:	2010-05-25	Analyzed By:	AG
Prep Batch:	60276	Sample Preparation:	2010-05-25	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		**18.3**	mg/Kg	50	0.0100
Toluene		**79.2**	mg/Kg	50	0.0100
Ethylbenzene		**38.3**	mg/Kg	50	0.0100
Xylene		**67.3**	mg/Kg	50	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		49.5	mg/Kg	50	50.0	99	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		62.1	mg/Kg	50	50.0	124	43.1 - 158.4

Sample: 232259 - AH-9 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70331	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60197	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**4480**	mg/Kg	100	4.00

Sample: 232259 - AH-9 1-1.5'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	70309	Date Analyzed:	2010-05-24	Analyzed By:	kg
Prep Batch:	60202	Sample Preparation:	2010-05-24	Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**3080**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	[11]	400	mg/Kg	1	100	400	70 - 130

[11] High surrogate recovery due to peak interference.

Sample: 232259 - AH-9 1-1.5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	70393	Date Analyzed:	2010-05-25	Analyzed By:	AG
Prep Batch:	60276	Sample Preparation:	2010-05-25	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**2420**	mg/Kg	50	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		51.1	mg/Kg	50	50.0	102	50.3 - 155
4-Bromofluorobenzene (4-BFB)		64.8	mg/Kg	50	50.0	130	51.7 - 131.1

Sample: 232260 - AH-9 2-2.5'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	70429	Date Analyzed:	2010-05-26	Analyzed By:	AG
Prep Batch:	60276	Sample Preparation:	2010-05-25	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		**13.1**	mg/Kg	50	0.0100
Toluene		**105**	mg/Kg	50	0.0100
Ethylbenzene		**54.8**	mg/Kg	50	0.0100
Xylene		**97.2**	mg/Kg	50	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		53.9	mg/Kg	50	50.0	108	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		71.9	mg/Kg	50	50.0	144	43.1 - 158.4

Sample: 232260 - AH-9 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70331	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60197	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**4140**	mg/Kg	100	4.00

Sample: 232260 - AH-9 2-2.5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	70428	Date Analyzed:	2010-05-26	Analyzed By:	AG
Prep Batch:	60276	Sample Preparation:	2010-05-25	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**3620**	mg/Kg	50	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		53.5	mg/Kg	50	50.0	107	50.3 - 155
4-Bromofluorobenzene (4-BFB)	[12]	70.9	mg/Kg	50	50.0	142	51.7 - 131.1

Sample: 232261 - AH-9 3-3.5'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	70429	Date Analyzed:	2010-05-26	Analyzed By:	AG
Prep Batch:	60276	Sample Preparation:	2010-05-25	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		**11.6**	mg/Kg	50	0.0100
Toluene		**120**	mg/Kg	50	0.0100
Ethylbenzene		**66.9**	mg/Kg	50	0.0100
Xylene		**117**	mg/Kg	50	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		53.8	mg/Kg	50	50.0	108	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		73.9	mg/Kg	50	50.0	148	43.1 - 158.4

Sample: 232261 - AH-9 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70331	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60197	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**4460**	mg/Kg	100	4.00

[12]High surrogate recovery due to peak interference.

Sample: 232261 - AH-9 3-3.5'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	70428	Date Analyzed:	2010-05-26	Analyzed By:	AG
Prep Batch:	60276	Sample Preparation:	2010-05-25	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**4280**	mg/Kg	50	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		53.1	mg/Kg	50	50.0	106	50.3 - 155
4-Bromofluorobenzene (4-BFB)	[13]	68.6	mg/Kg	50	50.0	137	51.7 - 131.1

Sample: 232262 - AH-9 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70331	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60197	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**6080**	mg/Kg	100	4.00

Sample: 232263 - AH-9 5-5.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70331	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60197	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**2360**	mg/Kg	100	4.00

Sample: 232264 - AH-9 6-6.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70331	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60197	Sample Preparation:	2010-05-24	Prepared By:	AR

[13]High surrogate recovery due to peak interference.

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**864**	mg/Kg	50	4.00

Sample: 232265 - AH-10 0-1'

Laboratory:	Midland				
Analysis:	BTEX	Analytical Method:	S 8021B	Prep Method:	S 5035
QC Batch:	70245	Date Analyzed:	2010-05-20	Analyzed By:	AG
Prep Batch:	60148	Sample Preparation:	2010-05-20	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		**0.478**	mg/Kg	10	0.0100
Toluene		**4.46**	mg/Kg	10	0.0100
Ethylbenzene		**5.08**	mg/Kg	10	0.0100
Xylene		**9.48**	mg/Kg	10	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		10.2	mg/Kg	10	10.0	102	60.4 - 141.2
4-Bromofluorobenzene (4-BFB)		13.3	mg/Kg	10	10.0	133	43.1 - 158.4

Sample: 232265 - AH-10 0-1'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70332	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60198	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**1340**	mg/Kg	100	4.00

Sample: 232265 - AH-10 0-1'

Laboratory:	Midland				
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method:	N/A
QC Batch:	70193	Date Analyzed:	2010-05-19	Analyzed By:	kg
Prep Batch:	60097	Sample Preparation:	2010-05-19	Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		**334**	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		124	mg/Kg	1	100	124	70 - 130

Sample: 232265 - AH-10 0-1'

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	70246	Date Analyzed:	2010-05-20	Analyzed By:	AG
Prep Batch:	60148	Sample Preparation:	2010-05-20	Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		**697**	mg/Kg	10	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		10.8	mg/Kg	10	10.0	108	50.3 - 155
4-Bromofluorobenzene (4-BFB)	[14]	16.3	mg/Kg	10	10.0	163	51.7 - 131.1

Sample: 232266 - AH-10 1-1.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70332	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60198	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		**599**	mg/Kg	50	4.00

Sample: 232267 - AH-10 2-2.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70332	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60198	Sample Preparation:	2010-05-24	Prepared By:	AR

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

[14] High surrogate recovery due to peak interference.

Sample: 232268 - AH-10 3-3.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70332	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60198	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**934**	mg/Kg	50	4.00

Sample: 232269 - AH-10 4-4.5'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70332	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60198	Sample Preparation:	2010-05-24	Prepared By:	AR

Parameter	Flag	Result	RL Units	Dilution	RL
Chloride		**671**	mg/Kg	50	4.00

Sample: 232270 - AH-7 7.5-8'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	70332	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60198	Sample Preparation:	2010-05-24	Prepared By:	AR

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

Method Blank (1) QC Batch: 70193

QC Batch:	70193	Date Analyzed:	2010-05-19	Analyzed By:	kg
Prep Batch:	60097	QC Preparation:	2010-05-19	Prepared By:	kg

Parameter	Flag	MDL Result	Units	RL
DRO		7.28	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		91.9	mg/Kg	1	100	92	70 - 130

Method Blank (1) QC Batch: 70245

QC Batch: 70245 | Date Analyzed: 2010-05-20 | Analyzed By: AG
Prep Batch: 60148 | QC Preparation: 2010-05-20 | 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)		1.82	mg/Kg	1	2.00	91	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.60	mg/Kg	1	2.00	80	43.9 - 141.9

Method Blank (1) QC Batch: 70246

QC Batch: 70246 | Date Analyzed: 2010-05-20 | Analyzed By: AG
Prep Batch: 60148 | QC Preparation: 2010-05-20 | 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)		1.96	mg/Kg	1	2.00	98	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.76	mg/Kg	1	2.00	88	62 - 120.5

Method Blank (1) QC Batch: 70263

QC Batch: 70263 | Date Analyzed: 2010-05-21 | Analyzed By: AR
Prep Batch: 60123 | QC Preparation: 2010-05-20 | Prepared By: AR

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

Method Blank (1) QC Batch: 70264

QC Batch:	70264	Date Analyzed:	2010-05-21	Analyzed By:	AR
Prep Batch:	60124	QC Preparation:	2010-05-20	Prepared By:	AR

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

Method Blank (1) QC Batch: 70309

QC Batch:	70309	Date Analyzed:	2010-05-24	Analyzed By:	kg
Prep Batch:	60202	QC Preparation:	2010-05-24	Prepared By:	kg

Parameter	Flag	MDL Result	Units	RL
DRO		9.11	mg/Kg	50

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		98.0	mg/Kg	1	100	98	70 - 130

Method Blank (1) QC Batch: 70326

QC Batch:	70326	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60125	QC Preparation:	2010-05-20	Prepared By:	AR

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

Method Blank (1) QC Batch: 70327

QC Batch:	70327	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60126	QC Preparation:	2010-05-20	Prepared By:	AR

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

Method Blank (1) QC Batch: 70328

QC Batch:	70328	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60195	QC Preparation:	2010-05-24	Prepared By:	AR

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

Method Blank (1) QC Batch: 70330

QC Batch:	70330	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60196	QC Preparation:	2010-05-24	Prepared By:	AR

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

Method Blank (1) QC Batch: 70331

QC Batch:	70331	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60197	QC Preparation:	2010-05-24	Prepared By:	AR

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

Method Blank (1) QC Batch: 70332

QC Batch:	70332	Date Analyzed:	2010-05-24	Analyzed By:	AR
Prep Batch:	60198	QC Preparation:	2010-05-24	Prepared By:	AR

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

Method Blank (1) QC Batch: 70391

QC Batch:	70391	Date Analyzed:	2010-05-25	Analyzed By:	AG
Prep Batch:	60276	QC Preparation:	2010-05-25	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)		1.30	mg/Kg	1	2.00	65	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.25	mg/Kg	1	2.00	62	43.9 - 141.9

Method Blank (1) QC Batch: 70393

QC Batch: 70393 | Date Analyzed: 2010-05-25 | Analyzed By: AG
Prep Batch: 60276 | QC Preparation: 2010-05-25 | 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)		1.34	mg/Kg	1	2.00	67	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.24	mg/Kg	1	2.00	62	62 - 120.5

Method Blank (1) QC Batch: 70428

QC Batch: 70428 | Date Analyzed: 2010-05-26 | Analyzed By: AG
Prep Batch: 60276 | QC Preparation: 2010-05-25 | 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)		2.03	mg/Kg	1	2.00	102	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.92	mg/Kg	1	2.00	96	62 - 120.5

Method Blank (1) QC Batch: 70429

QC Batch: 70429 | Date Analyzed: 2010-05-26 | Analyzed By: AG
Prep Batch: 60276 | QC Preparation: 2010-05-25 | Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.03	mg/Kg	1	2.00	102	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		2.05	mg/Kg	1	2.00	102	43.9 - 141.9

Laboratory Control Spike (LCS-1)

QC Batch: 70193 | Date Analyzed: 2010-05-19 | Analyzed By: kg
Prep Batch: 60097 | QC Preparation: 2010-05-19 | Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	274	mg/Kg	1	250	<5.86	110	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	264	mg/Kg	1	250	<5.86	106	57.4 - 133.4	4	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	96.6	91.2	mg/Kg	1	100	97	91	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 70245 | Date Analyzed: 2010-05-20 | Analyzed By: AG
Prep Batch: 60148 | QC Preparation: 2010-05-20 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.71	mg/Kg	1	2.00	<0.00410	86	75.4 - 115.7
Toluene	1.72	mg/Kg	1	2.00	<0.00310	86	78.4 - 113.6
Ethylbenzene	1.65	mg/Kg	1	2.00	<0.00240	82	76 - 114.2
Xylene	5.02	mg/Kg	1	6.00	<0.00650	84	76.9 - 113.6

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.69	mg/Kg	1	2.00	<0.00410	84	75.4 - 115.7	1	20
Toluene	1.69	mg/Kg	1	2.00	<0.00310	84	78.4 - 113.6	2	20
Ethylbenzene	1.63	mg/Kg	1	2.00	<0.00240	82	76 - 114.2	1	20
Xylene	4.96	mg/Kg	1	6.00	<0.00650	83	76.9 - 113.6	1	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.97	1.74	mg/Kg	1	2.00	98	87	65 - 142.9
4-Bromofluorobenzene (4-BFB)	1.92	1.71	mg/Kg	1	2.00	96	86	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 70246 | Date Analyzed: 2010-05-20 | Analyzed By: AG
Prep Batch: 60148 | QC Preparation: 2010-05-20 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	14.1	mg/Kg	1	20.0	<0.396	70	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	15.0	mg/Kg	1	20.0	<0.396	75	52.5 - 114.3	6	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)	1.99	1.99	mg/Kg	1	2.00	100	100	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	1.82	1.82	mg/Kg	1	2.00	91	91	64.1 - 127.4

Laboratory Control Spike (LCS-1)

QC Batch: 70263 | Date Analyzed: 2010-05-21 | Analyzed By: AR
Prep Batch: 60123 | QC Preparation: 2010-05-20 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.7	mg/Kg	1	100	<2.18	99	85 - 115

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

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

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

Laboratory Control Spike (LCS-1)

QC Batch: 70264 | Date Analyzed: 2010-05-21 | Analyzed By: AR
Prep Batch: 60124 | QC Preparation: 2010-05-20 | Prepared By: AR

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

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	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: 70309 | Date Analyzed: 2010-05-24 | Analyzed By: kg
Prep Batch: 60202 | QC Preparation: 2010-05-24 | Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	277	mg/Kg	1	250	<5.86	111	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	289	mg/Kg	1	250	<5.86	116	57.4 - 133.4	4	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	113	mg/Kg	1	100	103	113	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 70326 | Date Analyzed: 2010-05-24 | Analyzed By: AR
Prep Batch: 60125 | QC Preparation: 2010-05-20 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	99.4	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: 70327 | Date Analyzed: 2010-05-24 | Analyzed By: AR
Prep Batch: 60126 | QC Preparation: 2010-05-20 | Prepared By: AR

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

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	102	mg/Kg	1	100	<2.18	102	85 - 115	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: 70328 | Date Analyzed: 2010-05-24 | Analyzed By: AR
Prep Batch: 60195 | QC Preparation: 2010-05-24 | 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	100	mg/Kg	1	100	<2.18	100	85 - 115	1	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 70330 | Date Analyzed: 2010-05-24 | Analyzed By: AR
Prep Batch: 60196 | QC Preparation: 2010-05-24 | Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	97.9	mg/Kg	1	100	<2.18	98	85 - 115

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	101	mg/Kg	1	100	<2.18	101	85 - 115	3	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 70331 | Date Analyzed: 2010-05-24 | Analyzed By: AR
Prep Batch: 60197 | QC Preparation: 2010-05-24 | 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: 70332 | Date Analyzed: 2010-05-24 | Analyzed By: AR
Prep Batch: 60198 | QC Preparation: 2010-05-24 | Prepared By: AR

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

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	102	mg/Kg	1	100	<2.18	102	85 - 115	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: 70391 | Date Analyzed: 2010-05-25 | Analyzed By: AG
Prep Batch: 60276 | QC Preparation: 2010-05-25 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.97	mg/Kg	1	2.00	<0.00410	98	75.4 - 115.7
Toluene	1.97	mg/Kg	1	2.00	<0.00310	98	78.4 - 113.6
Ethylbenzene	1.98	mg/Kg	1	2.00	<0.00240	99	76 - 114.2
Xylene	5.96	mg/Kg	1	6.00	<0.00650	99	76.9 - 113.6

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	1.95	mg/Kg	1	2.00	<0.00410	98	75.4 - 115.7	1	20
Toluene	1.96	mg/Kg	1	2.00	<0.00310	98	78.4 - 113.6	0	20
Ethylbenzene	1.97	mg/Kg	1	2.00	<0.00240	98	76 - 114.2	0	20
Xylene	5.94	mg/Kg	1	6.00	<0.00650	99	76.9 - 113.6	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
Trifluorotoluene (TFT)	1.91	1.70	mg/Kg	1	2.00	96	85	65 - 142.9
4-Bromofluorobenzene (4-BFB)	1.94	1.73	mg/Kg	1	2.00	97	86	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 70393 | Date Analyzed: 2010-05-25 | Analyzed By: AG
Prep Batch: 60276 | QC Preparation: 2010-05-25 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.4	mg/Kg	1	20.0	<0.396	82	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	16.7	mg/Kg	1	20.0	<0.396	84	52.5 - 114.3	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.10	2.10	mg/Kg	1	2.00	105	105	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	2.03	2.02	mg/Kg	1	2.00	102	101	64.1 - 127.4

Laboratory Control Spike (LCS-1)

QC Batch: 70428 | Date Analyzed: 2010-05-26 | Analyzed By: AG
Prep Batch: 60276 | QC Preparation: 2010-05-25 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	14.7	mg/Kg	1	20.0	<0.396	74	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	15.4	mg/Kg	1	20.0	<0.396	77	52.5 - 114.3	5	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.94	2.07	mg/Kg	1	2.00	97	104	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	1.88	2.02	mg/Kg	1	2.00	94	101	64.1 - 127.4

Laboratory Control Spike (LCS-1)

QC Batch: 70429 | Date Analyzed: 2010-05-26 | Analyzed By: AG
Prep Batch: 60276 | QC Preparation: 2010-05-25 | Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.06	mg/Kg	1	2.00	<0.00410	103	75.4 - 115.7
Toluene	2.06	mg/Kg	1	2.00	<0.00310	103	78.4 - 113.6
Ethylbenzene	2.03	mg/Kg	1	2.00	<0.00240	102	76 - 114.2
Xylene	6.09	mg/Kg	1	6.00	<0.00650	102	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	2.13	mg/Kg	1	2.00	<0.00410	106	75.4 - 115.7	3	20
Toluene	2.13	mg/Kg	1	2.00	<0.00310	106	78.4 - 113.6	3	20
Ethylbenzene	2.10	mg/Kg	1	2.00	<0.00240	105	76 - 114.2	3	20
Xylene	6.31	mg/Kg	1	6.00	<0.00650	105	76.9 - 113.6	4	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)	2.00	2.10	mg/Kg	1	2.00	100	105	65 - 142.9
4-Bromofluorobenzene (4-BFB)	2.08	2.20	mg/Kg	1	2.00	104	110	43.8 - 144.9

Matrix Spike (MS-1) Spiked Sample: 232237

QC Batch: 70193 | Date Analyzed: 2010-05-19 | Analyzed By: kg
Prep Batch: 60097 | QC Preparation: 2010-05-19 | Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	246	mg/Kg	1	250	20.5	90	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	204	mg/Kg	1	250	20.5	73	35.2 - 167.1	19	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	101	83.4	mg/Kg	1	100	101	83	70 - 130

Matrix Spike (MS-1) Spiked Sample: 232297

QC Batch: 70245 | Date Analyzed: 2010-05-20 | Analyzed By: AG
Prep Batch: 60148 | QC Preparation: 2010-05-20 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.76	mg/Kg	1	2.00	<0.00410	88	57.7 - 140.7
Toluene	1.80	mg/Kg	1	2.00	<0.00310	90	53.4 - 146.6
Ethylbenzene	1.82	mg/Kg	1	2.00	<0.00240	91	62.1 - 141.6
Xylene	5.45	mg/Kg	1	6.00	<0.00650	91	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	1.92	mg/Kg	1	2.00	<0.00410	96	57.7 - 140.7	9	20
Toluene	1.94	mg/Kg	1	2.00	<0.00310	97	53.4 - 146.6	8	20
Ethylbenzene	1.96	mg/Kg	1	2.00	<0.00240	98	62.1 - 141.6	7	20
Xylene	5.89	mg/Kg	1	6.00	<0.00650	98	61.2 - 142.7	8	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.60	1.90	mg/Kg	1	2	80	95	61.7 - 139.6
4-Bromofluorobenzene (4-BFB)	1.60	1.88	mg/Kg	1	2	80	94	49.6 - 146.7

Matrix Spike (MS-1) Spiked Sample: 232298

QC Batch: 70246 | Date Analyzed: 2010-05-20 | Analyzed By: AG
Prep Batch: 60148 | QC Preparation: 2010-05-20 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	17.3	mg/Kg	1	20.0	<0.396	86	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	17.7	mg/Kg	1	20.0	<0.396	88	10 - 198.3	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
Trifluorotoluene (TFT)	1.46	1.88	mg/Kg	1	2	73	94	65.5 - 143
4-Bromofluorobenzene (4-BFB)	1.53	1.92	mg/Kg	1	2	76	96	58.6 - 140

Matrix Spike (MS-1) Spiked Sample: 232204

QC Batch: 70263 | Date Analyzed: 2010-05-21 | Analyzed By: AR
Prep Batch: 60123 | QC Preparation: 2010-05-20 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10600	mg/Kg	100	10000	578	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	10800	mg/Kg	100	10000	578	102	85 - 115	0	20

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

Matrix Spike (MS-1) Spiked Sample: 232214

QC Batch: 70264 | Date Analyzed: 2010-05-21 | Analyzed By: AR
Prep Batch: 60124 | QC Preparation: 2010-05-20 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10400	mg/Kg	100	10000	466	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	10600	mg/Kg	100	10000	466	101	85 - 115	2	20

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

Matrix Spike (MS-1) Spiked Sample: 232204

QC Batch: 70309 | Date Analyzed: 2010-05-24 | Analyzed By: kg
Prep Batch: 60202 | QC Preparation: 2010-05-24 | Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	219	mg/Kg	1	250	7.49	85	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	245	mg/Kg	1	250	7.49	95	35.2 - 167.1	11	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	93.5	98.6	mg/Kg	1	100	94	99	70 - 130

Matrix Spike (MS-1) Spiked Sample: 232224

QC Batch: 70326 | Date Analyzed: 2010-05-24 | Analyzed By: AR
Prep Batch: 60125 | QC Preparation: 2010-05-20 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10600	mg/Kg	100	10000	519	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	10800	mg/Kg	100	10000	519	103	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: 232234

QC Batch: 70327 | Date Analyzed: 2010-05-24 | Analyzed By: AR
Prep Batch: 60126 | QC Preparation: 2010-05-20 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	11900	mg/Kg	100	10000	1920	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	12000	mg/Kg	100	10000	1920	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: 232244

QC Batch: 70328 | Date Analyzed: 2010-05-24 | Analyzed By: AR
Prep Batch: 60195 | QC Preparation: 2010-05-24 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	18200	mg/Kg	100	10000	8640	96	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	18400	mg/Kg	100	10000	8640	98	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: 232254

QC Batch: 70330 | Date Analyzed: 2010-05-24 | Analyzed By: AR
Prep Batch: 60196 | QC Preparation: 2010-05-24 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	11400	mg/Kg	100	10000	1520	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	11600	mg/Kg	100	10000	1520	101	85 - 115	2	20

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

Matrix Spike (MS-1) Spiked Sample: 232264

QC Batch: 70331 | Date Analyzed: 2010-05-24 | Analyzed By: AR
Prep Batch: 60197 | QC Preparation: 2010-05-24 | Prepared By: AR

continued ...

matrix spikes continued ...

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10800	mg/Kg	100	10000	864	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	11400	mg/Kg	100	10000	864	105	85 - 115	5	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: 232292

QC Batch: 70332 | Date Analyzed: 2010-05-24 | Analyzed By: AR
Prep Batch: 60198 | QC Preparation: 2010-05-24 | Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10100	mg/Kg	100	10000	<218	101	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	10300	mg/Kg	100	10000	<218	103	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: 232653

QC Batch: 70391 | Date Analyzed: 2010-05-25 | Analyzed By: AG
Prep Batch: 60276 | QC Preparation: 2010-05-25 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	1.84	mg/Kg	1	2.00	<0.00410	92	57.7 - 140.7
Toluene	1.85	mg/Kg	1	2.00	<0.00310	92	53.4 - 146.6
Ethylbenzene	1.93	mg/Kg	1	2.00	<0.00240	96	62.1 - 141.6
Xylene	5.78	mg/Kg	1	6.00	0.0576	95	61.2 - 142.7

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

continued ...

matrix spikes continued ...

Param		MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	[15]	2.35	mg/Kg	1	2.00	<0.00410	118	57.7 - 140.7	24	20
Toluene	[16]	2.37	mg/Kg	1	2.00	<0.00310	118	53.4 - 146.6	25	20
Ethylbenzene	[17]	2.46	mg/Kg	1	2.00	<0.00240	123	62.1 - 141.6	24	20
Xylene	[18]	7.42	mg/Kg	1	6.00	0.0576	123	61.2 - 142.7	25	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)	1.47	1.63	mg/Kg	1	2	74	82	61.7 - 139.6
4-Bromofluorobenzene (4-BFB)	1.49	1.64	mg/Kg	1	2	74	82	49.6 - 146.7

Matrix Spike (MS-1) Spiked Sample: 232701

QC Batch: 70393 | Date Analyzed: 2010-05-25 | Analyzed By: AG
Prep Batch: 60276 | QC Preparation: 2010-05-25 | Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	22.3	mg/Kg	1	20.0	<0.396	112	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	20.8	mg/Kg	1	20.0	<0.396	104	10 - 198.3	7	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)	2.31	2.26	mg/Kg	1	2	116	113	65.5 - 143
4-Bromofluorobenzene (4-BFB)	2.33	2.30	mg/Kg	1	2	116	115	58.6 - 140

Matrix Spike (MS-1) Spiked Sample: 232715

QC Batch: 70428 | Date Analyzed: 2010-05-26 | Analyzed By: AG
Prep Batch: 60276 | QC Preparation: 2010-05-25 | Prepared By: AG

[15]MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.
[16]MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.
[17]MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.
[18]MS/MSD RPD out of RPD Limits. Use LCS/LCSD to demonstrate analysis is under control.

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	15.3	mg/Kg	1	20.0	<0.396	76	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	16.6	mg/Kg	1	20.0	<0.396	83	10 - 198.3	8	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.80	2.24	mg/Kg	1	2	90	112	65.5 - 143
4-Bromofluorobenzene (4-BFB)	1.78	2.22	mg/Kg	1	2	89	111	58.6 - 140

Standard (CCV-1)

QC Batch: 70193 Date Analyzed: 2010-05-19 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	283	113	80 - 120	2010-05-19

Standard (CCV-2)

QC Batch: 70193 Date Analyzed: 2010-05-19 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	298	119	80 - 120	2010-05-19

Standard (CCV-3)

QC Batch: 70193 Date Analyzed: 2010-05-19 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	280	112	80 - 120	2010-05-19

Standard (CCV-2)

QC Batch: 70245 Date Analyzed: 2010-05-20 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	0.0893	89	80 - 120	2010-05-20
Toluene		mg/Kg	0.100	0.0888	89	80 - 120	2010-05-20
Ethylbenzene		mg/Kg	0.100	0.0839	84	80 - 120	2010-05-20
Xylene		mg/Kg	0.300	0.253	84	80 - 120	2010-05-20

Standard (CCV-3)

QC Batch: 70245 Date Analyzed: 2010-05-20 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	0.0884	88	80 - 120	2010-05-20
Toluene		mg/Kg	0.100	0.0877	88	80 - 120	2010-05-20
Ethylbenzene		mg/Kg	0.100	0.0833	83	80 - 120	2010-05-20
Xylene		mg/Kg	0.300	0.252	84	80 - 120	2010-05-20

Standard (CCV-1)

QC Batch: 70246 Date Analyzed: 2010-05-20 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.941	94	80 - 120	2010-05-20

Standard (CCV-2)

QC Batch: 70246 Date Analyzed: 2010-05-20 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.910	91	80 - 120	2010-05-20

Standard (CCV-3)

QC Batch: 70246 Date Analyzed: 2010-05-20 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.06	106	80 - 120	2010-05-20

Standard (ICV-1)

QC Batch: 70263 Date Analyzed: 2010-05-21 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	2010-05-21

Standard (CCV-1)

QC Batch: 70263 Date Analyzed: 2010-05-21 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	2010-05-21

Standard (ICV-1)

QC Batch: 70264 Date Analyzed: 2010-05-21 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	2010-05-21

Standard (CCV-1)

QC Batch: 70264 Date Analyzed: 2010-05-21 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.4	99	85 - 115	2010-05-21

Standard (CCV-1)

QC Batch: 70309 Date Analyzed: 2010-05-24 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	277	111	80 - 120	2010-05-24

Standard (CCV-2)

QC Batch: 70309 Date Analyzed: 2010-05-24 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	274	110	80 - 120	2010-05-24

Standard (ICV-1)

QC Batch: 70326 Date Analyzed: 2010-05-24 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	2010-05-24

Standard (CCV-1)

QC Batch: 70326 Date Analyzed: 2010-05-24 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.0	99	85 - 115	2010-05-24

Standard (ICV-1)

QC Batch: 70327 Date Analyzed: 2010-05-24 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	2010-05-24

Standard (CCV-1)

QC Batch: 70327 Date Analyzed: 2010-05-24 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	2010-05-24

Standard (ICV-1)

QC Batch: 70328 Date Analyzed: 2010-05-24 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	2010-05-24

Standard (CCV-1)

QC Batch: 70328 Date Analyzed: 2010-05-24 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.7	100	85 - 115	2010-05-24

Standard (ICV-1)

QC Batch: 70330 Date Analyzed: 2010-05-24 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.4	99	85 - 115	2010-05-24

Standard (CCV-1)

QC Batch: 70330 Date Analyzed: 2010-05-24 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	2010-05-24

Standard (ICV-1)

QC Batch: 70331 Date Analyzed: 2010-05-24 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	2010-05-24

Standard (CCV-1)

QC Batch: 70331 Date Analyzed: 2010-05-24 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.4	99	85 - 115	2010-05-24

Standard (ICV-1)

QC Batch: 70332 Date Analyzed: 2010-05-24 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.7	100	85 - 115	2010-05-24

Standard (CCV-1)

QC Batch: 70332 Date Analyzed: 2010-05-24 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	2010-05-24

Standard (CCV-2)

QC Batch: 70391 Date Analyzed: 2010-05-25 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	0.0968	97	80 - 120	2010-05-25
Toluene		mg/Kg	0.100	0.0975	98	80 - 120	2010-05-25
Ethylbenzene		mg/Kg	0.100	0.0968	97	80 - 120	2010-05-25
Xylene		mg/Kg	0.300	0.291	97	80 - 120	2010-05-25

Standard (CCV-3)

QC Batch: 70391 | Date Analyzed: 2010-05-25 | 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	0.0975	98	80 - 120	2010-05-25
Toluene		mg/Kg	0.100	0.0973	97	80 - 120	2010-05-25
Ethylbenzene		mg/Kg	0.100	0.0955	96	80 - 120	2010-05-25
Xylene		mg/Kg	0.300	0.287	96	80 - 120	2010-05-25

Standard (CCV-1)

QC Batch: 70393 | Date Analyzed: 2010-05-25 | 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	1.00	100	80 - 120	2010-05-25

Standard (CCV-2)

QC Batch: 70393 | Date Analyzed: 2010-05-25 | Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.974	97	80 - 120	2010-05-25

Standard (CCV-3)

QC Batch: 70393 | Date Analyzed: 2010-05-25 | 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	2010-05-25

Standard (CCV-1)

QC Batch: 70428 | Date Analyzed: 2010-05-26 | Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	0.948	95	80 - 120	2010-05-26

Standard (CCV-2)

QC Batch: 70428 Date Analyzed: 2010-05-26 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.04	104	80 - 120	2010-05-26

Standard (CCV-1)

QC Batch: 70429 Date Analyzed: 2010-05-26 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	0.0973	97	80 - 120	2010-05-26
Toluene		mg/Kg	0.100	0.0978	98	80 - 120	2010-05-26
Ethylbenzene		mg/Kg	0.100	0.0962	96	80 - 120	2010-05-26
Xylene		mg/Kg	0.300	0.288	96	80 - 120	2010-05-26

Standard (CCV-2)

QC Batch: 70429 Date Analyzed: 2010-05-26 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	0.105	105	80 - 120	2010-05-26
Toluene		mg/Kg	0.100	0.107	107	80 - 120	2010-05-26
Ethylbenzene		mg/Kg	0.100	0.104	104	80 - 120	2010-05-26
Xylene		mg/Kg	0.300	0.313	104	80 - 120	2010-05-26

Order #: 10051909

Analysis Request of Chain of Custody Record

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 Tavarez
PROJECT NO.: 114-C4005-08
PROJECT NAME: COG / Harper State #5 Eddy Co, NM

LAB I.D. NUMBER	DATE 2010	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH TX1005 (Ext. to C35)	TPH 8015 MOD	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. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
232203	5/17		G		X	AH-1 0-1'	1				X			X												X				
204						AH-1 1'-1.5'																								
205						AH-1 2'-2.5'																								
206						AH-1 3'-3.5'																								
207						AH-1 4'-4.5'																								
208						AH-1 5'-5.5'																								
209						AH-2 0-1									X															
210						AH-2 1'-1.5'																								
211						AH-2 2'-2.5'																								
212	↓		↓		↓	AH2 3'-3.5'	↓				↓															↓				

RELINQUISHED BY: (Signature) — Date: 5-18-10 Time: 1630
RECEIVED BY: (Signature) — Date: 5/18/10 Time: 16:30
SAMPLED BY: (Print & Initial) Robert Gubbs Jr — Date: 5-18-10 Time: 0840

RELINQUISHED BY: (Signature) — Date: Time:
RECEIVED BY: (Signature) — Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS — AIRBILL #: OTHER:

RELINQUISHED BY: (Signature) — Date: Time:
RECEIVED BY: (Signature) — Date: Time:
TETRA TECH CONTACT PERSON: Ike Tavarez — Results by:

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: Ronda PHONE:
RECEIVED BY: (Signature)
DATE: TIME:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.8 c INTACT

REMARKS: Run BTEX on 6 highest TPH
If TPH exceeds 5000 mg/kg Run charges Samples
ALL tests Midland

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

Order # : 10051909

Analysis Request of Chain of Custody Record

PAGE: 2 OF: 7

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 Tavarez

PROJECT NO.: 114-6402515B

PROJECT NAME: COG / Harper State #5
Eddy Co, NM

LAB I.D. NUMBER	DATE 2010	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH TX1005 (Ext. to C35)	TPH 8015 MOD	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. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
232213	5-17		S		X	AH-2 4'-4.5'	1				X															X				
214						AH-2 5'-5.5'																									
215						AH-3 0-1									X																
216						AH-3 1'-1.5'																									
217						AH-3 2'-2.5'																									
218						AH-3 3'-3.5'																									
219						AH-3 4'-4.5'																									
220						AH-3 5'-5.5'																									
221						AH-4 0-1'									X																
222	↓		↓		↓	AH-4 1'-1.5'	↓				↓															↓				

RELINQUISHED BY: (Signature) Robert Allen — Date: 5-18-10 Time: 16:30
RECEIVED BY: (Signature) — Date: 5/18/10 Time: 16:30
SAMPLED BY: (Print & Initial) Robert Gaddis Jr — Date: 5-14-10 Time: 0850

RELINQUISHED BY: (Signature) — Date: — Time:
RECEIVED BY: (Signature) — Date: — Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS — AIRBILL #: — OTHER:

RELINQUISHED BY: (Signature) — Date: — Time:
RECEIVED BY: (Signature) — Date: — Time:
TETRA TECH CONTACT PERSON: Ike Tavarez — Results by:

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: Monte PHONE: DATE: TIME:
RECEIVED BY: (Signature)
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.8°c intact

REMARKS: Run ~~deeper~~ BTEX on the Highest TPH
If TPH exceeds 5000 mg/kg run deeper Sample

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

Order #: 10051909

Analysis Request of Chain of Custody Record

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 Tavarez
PROJECT NO.: 114-6400518
PROJECT NAME: COG / Harper State #5 Eddy Co, NM

LAB I.D. NUMBER	DATE 2010	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION		NUMBER OF CONTAINERS	FILTERED (Y/N)	HCL	HNO3	ICE	NONE	BTEX 8021B	TPH TX1005 (Ext. to C35) / TPH 8015 MOD	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. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
232223	5-17		S		X	AH-4	2-2.5'	1				X														X				
224	↓		↓		↓	AH-4	3-3.5'	↓				↓														↓				
225	↓		↓		↓	AH-4	4-4.5'	↓				↓														↓				
226	↓		↓		↓	AH-4	5-5.5'	↓				↓														↓				
227	↓		↓		↓	AH-5	0-1'	↓				↓			X											↓				
228	↓		↓		↓	AH-5	1-1.5'	↓				↓														↓				
229	↓		↓		↓	AH-5	2'-2.5'	↓				↓														↓				
230	↓		↓		↓	AH-5	3'-3.5'	↓				↓														↓				
231	↓		↓		↓	AH-5	4'-4.5'	↓				↓														↓				
232	↓		↓		↓	AH-5	5'-5.5'	↓				↓														↓				

RELINQUISHED BY: (Signature) [signature] Date: 5-18-10 Time: 1630
RECEIVED BY: (Signature) [signature] Date: 5/18/10 Time: 16:30
SAMPLED BY: (Print & Initial) Robert Grubbs Jr. Date: 5-17-10 Time: 0900

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS ~~HAND DELIVERED~~ UPS AIRBILL #: OTHER:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
TETRA TECH CONTACT PERSON: Ike Tavarez
Results by:
RUSH Charges Authorized: Yes No

RECEIVING LABORATORY:
RECEIVED BY: (Signature)
ADDRESS:
CITY: STATE: ZIP:
CONTACT: PHONE: DATE: TIME:

SAMPLE CONDITION WHEN RECEIVED: 3.8°c intact

REMARKS: Run BTEX on to Highest TPH. If TPH exceeds 5000 mg/kg Run deeper Sample

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

Order #: 10057909

Analysis Request of Chain of Custody Record

PAGE: 4 OF: 7

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 Tavarez

PROJECT NO.: 114-6440250B

PROJECT NAME: COG / Harper State #5 Eddy Co, NM

LAB I.D. NUMBER	DATE 2010	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD / TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd 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. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
232233	5-17		S		X	AH-5 6'-6.5'	1				X													X				
234						AH-5 7'-7.5'																						
235						AH-5 8'-8.5'																						
236						AH-5 9'-9.5'																						
237						AH-6 0-1								X														
238						AH-6 1'-1.5'																						
239						AH-6 2'-2.5'																						
240						AH-6 3'-3.5'																						
241						AH-6 4'-4.5'																						
242	✓		S		X	AH-6 5'-5.5'	1				X													X				

RELINQUISHED BY: (Signature)	Date: 5-18-10 Time: 16:30	RECEIVED BY: (Signature)	Date: 5/18/10 Time: 16:30
SAMPLED BY: (Print & Initial)	Date: 5-18-10 Time: 0910		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS	AIRBILL #: OTHER:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
TETRA TECH CONTACT PERSON: Ike Tavarez	Results by:		
RECEIVING LABORATORY: Trace ADDRESS: CITY: Midland STATE: TX ZIP: CONTACT: Hurada PHONE:	RECEIVED BY: (Signature) DATE: TIME:		RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.8°C intact

REMARKS: Run BTEX on 6 Highest TPH
If TPH exceeds 5000 mg/kg Run deeper Samples

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

Order #: 1005909

Analysis Request of Chain of Custody Record

PAGE: 5 OF: 7

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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6400578

PROJECT NAME: COG/ Harper State #5 Eddy Co, NM

ANALYSIS REQUEST (Circle or Specify Method No.)

PRESERVATIVE METHOD

LAB I.D. NUMBER	DATE 2010	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
232243	5-17		S		X	AH-7 0-1'	1				X			X											X				
244	↓		↓		↓	AH-7 1-1.5'	↓				↓														↓				
245	↓		↓		↓	AH-7 2-2.5'	↓				↓														↓				
246	↓		↓		↓	AH-7 3-3.5'	↓				↓														↓				
247	↓		↓		↓	AH-7 4-4.5'	↓				↓														↓				
248	↓		↓		↓	AH-7 5-5.5'	↓				↓														↓				
249	↓		↓		↓	AH-7 6-6.5'	↓				↓														↓				
250	↓		↓		↓	AH-7 7-7.5'	↓				↓														↓				
251	↓		↓		↓	AH-8 0-1'	↓				↓		X												↓				
252	↓		↓		↓	AH-8 1-1.5'	↓				↓														↓				

RELINQUISHED BY: (Signature) [signature] Date: 5-18-10 Time: 1630
RECEIVED BY: (Signature) [signature] Date: 5/18/10 Time: 16:30
SAMPLED BY: (Print & Initial) Robert Grubbs Jr. Date: 5-18-10 Time: 0520

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS AIRBILL #: HAND DELIVERED (circled) UPS OTHER:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time:
TETRA TECH CONTACT PERSON: Ike Tavarez
Results by:
RUSH Charges Authorized: Yes No

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: Mondo PHONE:
RECEIVED BY: (Signature)
DATE: TIME:

SAMPLE CONDITION WHEN RECEIVED: 3.8°C intact

REMARKS: Run BTEX on 6 Highest TPH
~~Run deeper Samples~~ If TPH exceeds 5000 mg/kg Run deeper Sample

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

Order #: 1005909

Analysis Request of Chain of Custody Record

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:	SITE MANAGER:
COG	Ike Tavarez

PROJECT NO.:	PROJECT NAME:
114-6410005-B	COG / Harper State #5 Eddy Co, NM

LAB I.D. NUMBER	DATE 2010	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. TX1005 (Ext. to C35)	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Vr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/824	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
232253	5-17		S		X	AH-8 2'-2.5'	1				X													X				
254						AH-8 3'-3.5'																						
255						AH-8 4'-4.5'																						
256						AH-8 5'-5.5'																						
257						AH-8 6'-6.5'																						
258						AH-9 0-1'								X														
259						AH-9 1'-1.5'																						
260						AH-9 2'-2.5'																						
261						AH-9 3'-3.5'																						
262	↓		Y		Y	AH-9 4'-4.5'	Y				Y													Y				

RELINQUISHED BY: (Signature)	Date: 5-26-10 Time: 1630	RECEIVED BY: (Signature)	Date: 5/26/10 Time: 1630	SAMPLED BY: (Print & Initial) Robert Gubbs T.	Date: 5-27-10 Time: 0930
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:	SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS	AIRBILL #: OTHER:
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:	TETRA TECH CONTACT PERSON: Ike Tavarez	Results by: RUSH Charges Authorized: Yes No
RECEIVING LABORATORY: Xenco ADDRESS: CITY: Midland STATE: TX ZIP: CONTACT: Sonia PHONE:		RECEIVED BY: (Signature) DATE: TIME:			

SAMPLE CONDITION WHEN RECEIVED: 3.8°c intact

REMARKS: Run BTEX on 6 highest TPH
If TPH exceed 5000 mg/kg Run charges Sample

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

Order #: 1009909

Analysis Request of Chain of Custody Record

PAGE: 7 OF: 7

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 Tavarez

PROJECT NO.: 114-6400518

PROJECT NAME: COG / Harper State #5 Eddy Co NM

LAB I.D. NUMBER	DATE 2010	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8021B	TPH 8015 MOD. (Ext. to C35) TX1005	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. 808/608	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
232263	5-17		S		X	AH-9 5'-5.5'	1				X													X				
264						AH-9 6'-6.5'																							
265						AH-10 0-1'								X															
266						AH-10 1-1.5'																							
267						AH-10 2'-2.5'																							
268						AH-10 3'-3.5'																							
269	↓		Y		Y	AH-10 4'-4.5'	Y				↓													↓				
270	↓		↓		↓	AH-7 7.5'-8' per Robert Stubbs	↓				↓													↓				

RELINQUISHED BY: (Signature)	Date: 5-18-10 Time: 1630	RECEIVED BY: (Signature)	Date: 5/18/10 Time: 16:30
SAMPLED BY: (Print & Initial)	Date: 5-18-10 Time: 0940		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS	AIRBILL #: OTHER:		
RELINQUISHED BY: (Signature)	Date: Time:	RECEIVED BY: (Signature)	Date: Time:
TETRA TECH CONTACT PERSON: Ike Tavarez	Results by:		
RECEIVING LABORATORY: Trace	RECEIVED BY: (Signature)		
ADDRESS: CITY: Midland STATE: TX ZIP: CONTACT: Natalie PHONE:	DATE: TIME:		RUSH Charges Authorized: Yes No
SAMPLE CONDITION WHEN RECEIVED: 3.8°C intact	REMARKS: Run BTEX on Ca highest TPH. If TPH exceed 5000 ppm Run deep Sample		

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