

SITE INFORMATION

Report Type: Closure Report

General Site Information:

Site:	Pronghorn SWD Facility		
Company:	COG Operating LLC		
Section, Township and Range	Unit B	Sec 24	T19S R32E
Lease Number:	API 30-025-32735		
County:	Lea County		
GPS:	32.65218° N	103.71698° W	
Surface Owner:	Federal		
Mineral Owner:			
Directions:	From the intersection of 529 and CR-126, travel south on 126 for 9.9 miles, turn left and travel 4.5 miles, turn right (at tin horn) and travel 0.6 miles to location		

Release Data:	Spill #1	Spill #2	Spill #3
Date Released:	10/15/2009	11/20/2009	7/20/2011
Type Release:	Produced Water	Produced Water	Produced Water
Source of Contamination:	Pressure Gauge	1x4 Swedge	Check Valve
Fluid Released:	60bbbls	1500bbbls	100bbbls
Fluids Recovered:	45bbbls	1300bbbls	95bbbls

Official Communication:

Name:	Robert McNeill	Ike Tavarez
Company:	COG Operating, LLC	Tetra Tech
Address:	One Concho Center 600 W. Illinois Ave.	4000 N. Big Spring Suite 401
City:	Midland Texas, 79701	Midland, Texas
Phone number:	(432) 686-3023	(432) 682-4559
Fax:	(432) 684-7137	
Email:	rmcneill@conchoresources.com	ike.tavarez@tetrattech.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



September 12, 2014

Mr. Geoffrey Leking
Environmental Engineer Specialist
Oil Conservation Division, District 1
1625 North French Drive
Hobbs, New Mexico 88240

Re: Closure Report for the COG Operating LLC, Pronghorn SWD Facility Spills, Unit B, Section 24, Township 19 South, Range 32 East, Lea County, New Mexico.

Dear Mr. Leking:

Tetra Tech was contacted by COG Operating LLC (COG) to assess spills from the Pronghorn SWD Facility located in Unit B, Section 24 Township 19 South, Range 32 East, Lea County, New Mexico (Site). The spill site coordinates are N 32.65218°, W 103.71698°. 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 October 15, 2009, and released approximately 60 barrels of produced water when a pressure gauge failed and broke off. Vacuum trucks were used to pick up standing fluids and recovered 45 barrels. The spill released on the pad and migrated off the pad to the west and south of the facility. The initial C-141 is enclosed in Appendix A. The spill area is shown on Figure 3.

Spill #2

According to the State of New Mexico C-141 Initial Report, the leak was discovered on November 20, 2009 and released approximately 1,500 barrels of produced water. A 1" x 4" swedge broke off the discharge of the pump going to the Pronghorn well. Vacuum trucks were used to pick up standing fluids and recovered 1,300 barrels. The spill area also released to the west and south of the facility into the pasture.

Tetra Tech

1910 North Big Spring, Midland, TX 79705

Tel 432.682.4559

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Spill #3

According to the State of New Mexico C-141 Initial Report, the leak was discovered on July 20, 2011 and released approximately 100 barrels of produced water. The check valve on the transfer pump failed, the standing fluid has been removed and 95 bbls were recovered. The spill area released to the south of the facility and covered an area over the second spill. The spill area is shown in Figure 4. The initial C-141 is enclosed in Appendix A.

Groundwater

The United States Geological Survey (USGS) database did not show any well in Section 24. The closest wells are located in Section 17 and 18, Township 19 South, Range 33 East, with reported depth to water of 116' and 340', respectively. The New Mexico State Engineer Well Reports showed two wells in Section 19 with reported depths of 102' and 345'. On July 14, 2009, Tetra Tech supervised the installation of a temporary well located in Section 24, Township 19 South, Range 32 East to establish depth to water from a previous spill. The well was drilled to a total depth of 141' below surface and found no groundwater in the well (dry). The well log, USGS water well reports and State Engineer Reports are 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 Results

As discussed, the second spill (11/20/09) encompasses the first release to the west and south for the SWD facility. The second spill area measured approximately 100' x 115' to the west of the facility. The south spill area measured approximately 95' x 180'. Prior to assessing the impacted soils, COG removed approximately 1.0' to 2.0' of impacted soil and transported to CRI for proper disposal.

Once completed, Tetra Tech supervised the installation of boreholes using an air rotary rig on January 11, 2010. A total of thirteen (13) soil borings were installed at the Site. Nine (9) soil borings were installed south of the facility to assess the soils. A total of four (4) soil borings were installed west of the facility. Additional soil boring



could not be installed in the west area due to overhead power lines. The soil boring locations are shown on Figure 3. The boring logs are shown in Appendix C. 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 D. The results of the sampling are summarized in Table 1.

On August 23, 2011, Tetra Tech personnel supervised the installation of soil borings using an air rotary drilling rig. A total of three (3) soil borings were installed in the area of the third spill which is west of the facility pad in the pasture. The soil boring locations are shown on Figure 4. Selected samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix D. The results of the sampling are summarized in Table 2.

TPH and BTEX

Referring to Table 1 and 2, all of the samples selected for TPH and BTEX analysis were below the RRAL's

Chloride

Referring to Table 1, analytical results indicate the maximum extent of chloride impact greater than 1,000 mg/kg extending to 1.0' to 30.0' below the excavated bottom. All the soil borings had chloride concentrations that decreased with depth. On the south spill area, majority of the soil borings (SB-3, SB-7 and SB-8) showed a shallow impact to the soils to approximately 2.0 to 4.0'. The area of SB-6 exhibited a slight chloride impact to the soils. The deeper chloride impact was encountered at SB-1, SB-2, SB-4, SB-5 and SB-9 at depths ranging from 6.0' to 25.0'. On the west spill area, deeper chloride impact was encountered at SB-1, SB-11 and SB-12 at depths ranging from 25.0' to 30.0' below excavation bottom. SB-13 only showed a shallow impact (0-1') to the soils.

Referring to Table 2, the analytical results indicate the maximum extent of chloride impact greater than 1,000 mg/kg extending from 1.0' to 25.0' below the excavated bottom. All three of the soil borings showed chloride concentrations the decreased with depth and reflect vertical delineation. The area of SB-1 showed a significant chloride impact from 1.0' to 20.0', SB-2 showed shallower impact from 1.0' to 10.0' below excavated bottom. SB-3 shows a chloride impact of 1.0' to 25.0' below excavated bottom.

Former SWD Facility

After the work plan was submitted and approved, COG had rebuilt and moved the SWD facility and allowing access for proper assessment of the former SWD location. Tetra Tech had notified and proposed to assess and remediate of the former

SWD to the NMOCD. As verbally approved, the three (3) backhoe trenches were installed (T-1, T-2 and T-3) to define extents in the area of the SWD. The SWD assessment results are shown on Table 3. The trench locations are shown on Figure 7.

Referring to Table 3, the area of trench (T-1) showed TPH and BTEX concentrations below the RRAL. In the areas of trenches (T-2 and T-3) elevated concentrations for TPH and BTEX were detected in the subsurface soils. The TPH concentrations ranged from <10.0 mg/kg to 14,230 mg/kg. The BTEX concentrations ranged from <0.300 mg/kg to 337 mg/kg. The area of trench (T-2) showed TPH and BTEX spike at 4.0' but declined below the RRAL at 6.0' below surface. The area of trench (T-3) was not vertically defined for TPH or BTEX at 10.0' below surface. In addition, all of the trenched areas showed elevated chloride concentrations ranging from 752 mg/kg to 9,060 mg/kg and were not vertically delineated.

Boreholes

On April 23, 2014, Tetra Tech personnel supervised the installation of boreholes using an air rotary drilling rig in order to vertically define the impact. A total of three (3) boreholes (BH-1, BH-2, and BH-3) were installed in the area of the former facility. The borehole locations are shown on Figure 7. Selected samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix D. The results of the sampling are summarized in Table 3.

Referring to Table 3, all of the boreholes (BH-1, BH-2, and BH-3) showed a chloride impact which declined with depth. The areas showed chloride highs of 14,400 mg/kg at 11'-12', 9,250 mg/kg at 49'-50', and 7,900 mg/kg at 14'-15', respectively. The areas declined to chloride lows of 412 mg/kg at 64'-65', <20.0 mg/kg at 94'-95', and 48.0 mg/kg at 39'-40' below surface, respectively. The area of borehole (BH-3) showed TPH or BTEX concentrations below the RRAL at 14'-15' below surface and was vertically defined.

Remedial Activities

The site is located in a pasture and no receptors were within a one mile radius. The temporary well was drilled to a total depth of 141' below surface and found no groundwater in the well (dry). Based on published data, the depth to groundwater in this area is projected to be greater than 100' below surface.

Pasture Excavation and Remediation

As discussed in the approved work plan, the entire spill area was excavated to a depth of approximately 4.0' below surface and capped with a 40 mil plastic liner to prevent further vertical migration of the impact. The excavation depths and liner locations are shown on Figure 6 and highlighted (green) in Table 1 and Table 2.

Former SWD Facility Excavation

Based on the trench and borehole results, the area of the former SWD was excavated to a depth of approximately 4.0' to 10.0' and capped with a 40 mil liner at 4.0' below surface to prevent vertical migration of the remaining impact. The excavation depths and liner locations are shown on Figure 7 and highlighted (green) in Table 3. Sidewall confirmation samples were taken in the areas of SB-1, SB-3, SB-4, SB-6, SB-10, SB-11, SB-12 and SB-13 as shown in Table 4.

Referring to Table 4, the SB-1 (south and west sidewalls) showed chloride concentrations of 697 mg/kg and 448 mg/kg, respectively. The SB-3 west sidewall, SB-4 south sidewall, SB-6 east sidewall, SB-12 west sidewall, and SB-13 south sidewall showed chloride concentrations ranging from 100 mg/kg to 448 mg/kg. The SB-10 east sidewall, SB-10 north sidewall, and SB-11 west sidewall showed chloride concentrations of 2,190 mg/kg, 2,090 mg/kg, and 1,240 mg/kg, respectively.

Conclusion

Based on the remedial activities performed at the site, COG requests closure of this site. The Final C-141's are enclosed in Appendix A. If you have any questions or comments concerning the assessment or the proposed remediation activities for this site, please call me at (432) 682-4559.

Respectfully submitted,
TETRA TECH



Ike Tavarez, PG
Senior Project Manager

cc: Robert McNeil – COG

Figures

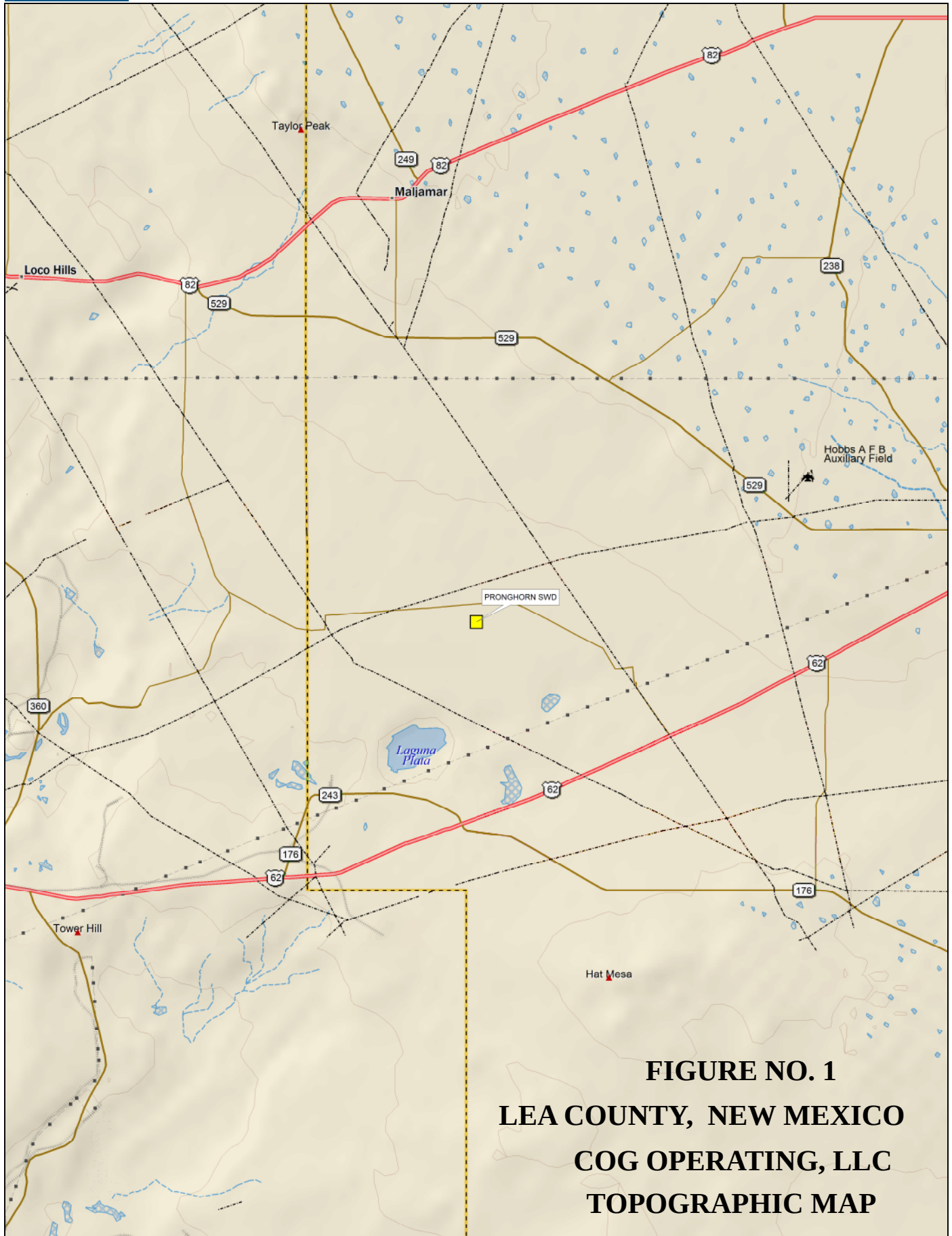


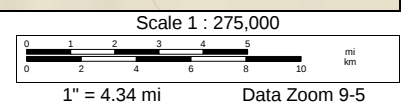
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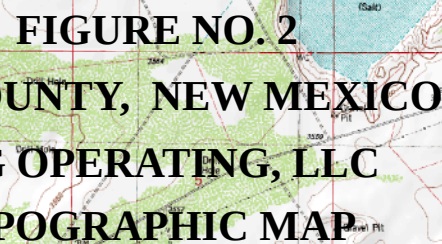
**LEA COUNTY, NEW MEXICO
COG OPERATING, LLC
TOPOGRAPHIC MAP**

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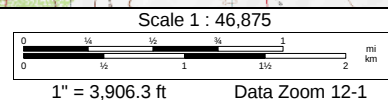
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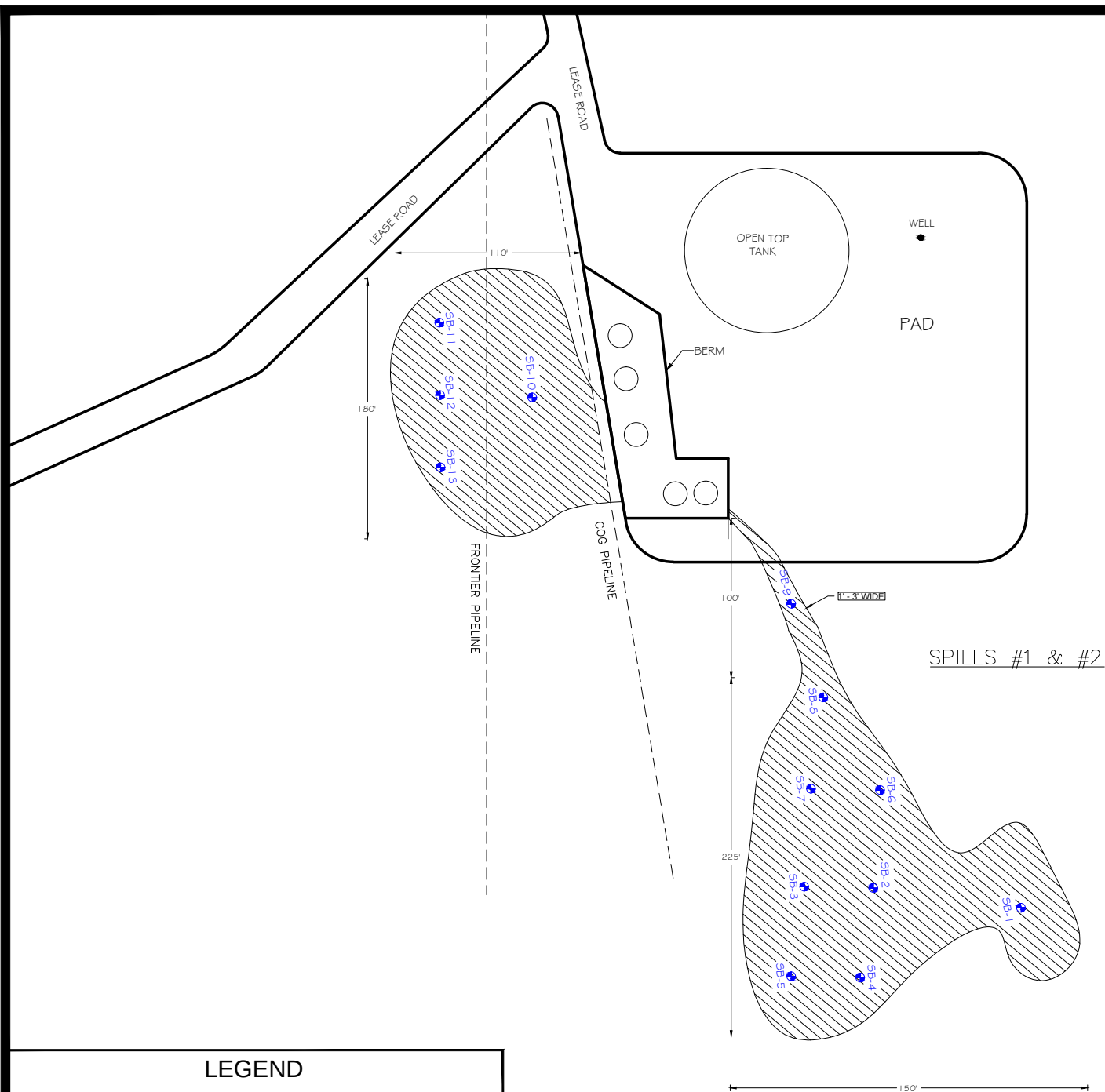
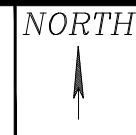
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LEGEND

-  SOIL BORE LOCATIONS - INSTALLED 01/11/2010
-  SPILL AREA



Figure 3

Pronghorn SWD

Spill #1 & #2 Assessment Map

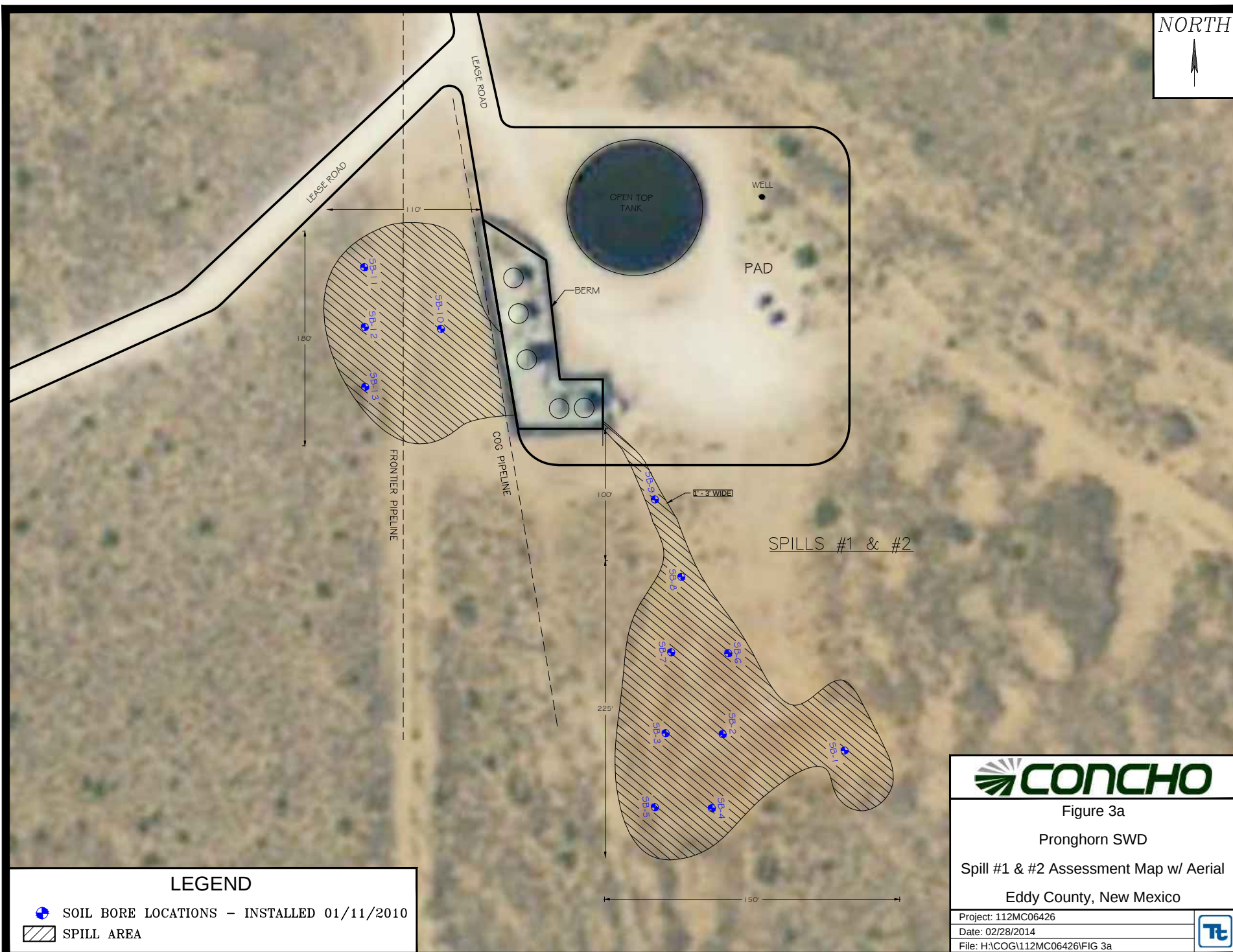
Eddy County, New Mexico

Project: 112MC06426

Date: 02/28/2014

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LEGEND

- SOIL BORE LOCATIONS - INSTALLED 01/11/2010
- SPILL AREA



Figure 3a

Pronghorn SWD

Spill #1 & #2 Assessment Map w/ Aerial

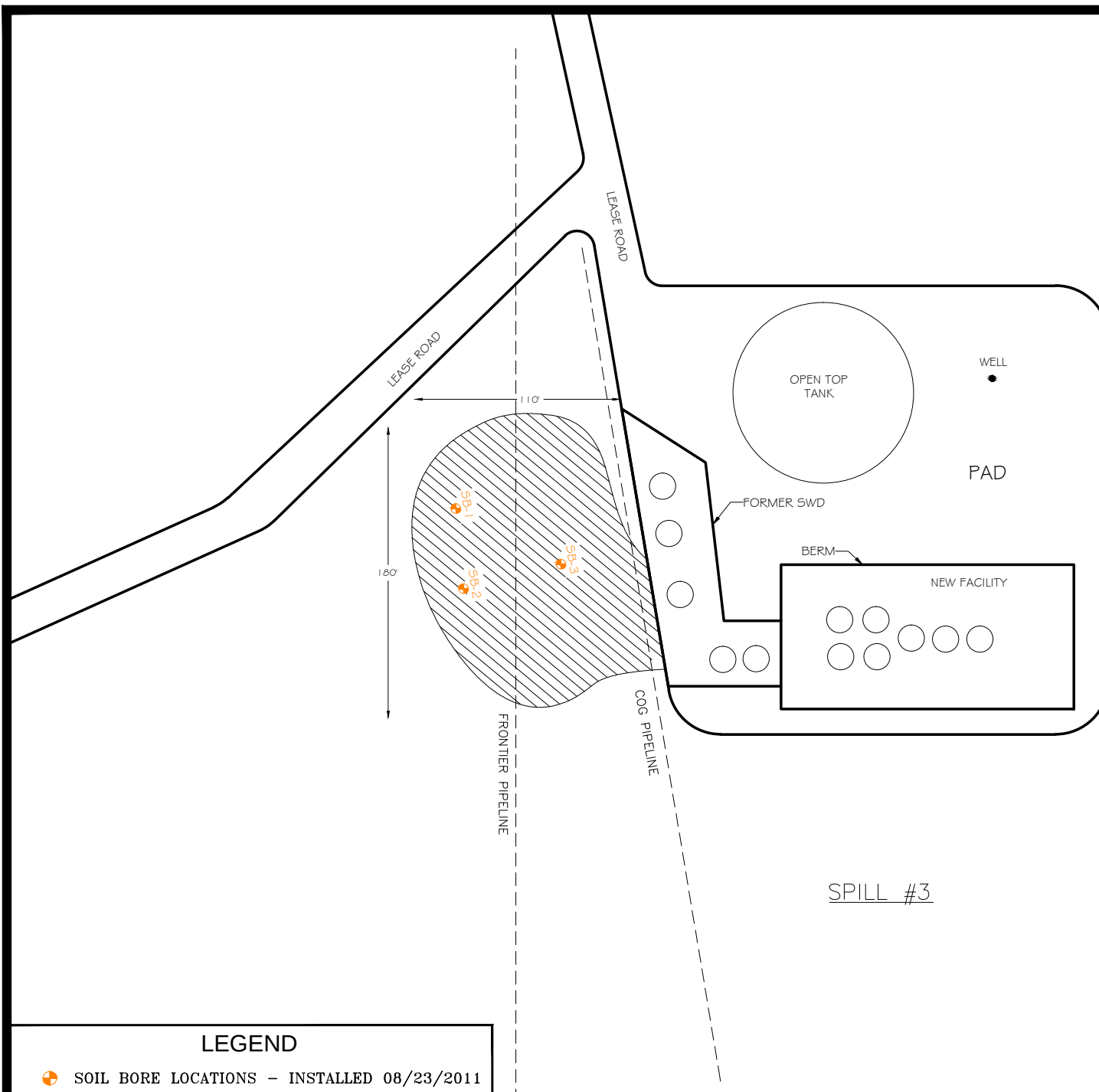
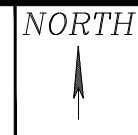
Eddy County, New Mexico

Project: 112MC06426

Date: 02/28/2014

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LEGEND

-  SOIL BORE LOCATIONS - INSTALLED 08/23/2011
-  SPILL AREA



Figure 4

Pronghorn SWD

Spill #3 Assessment Map

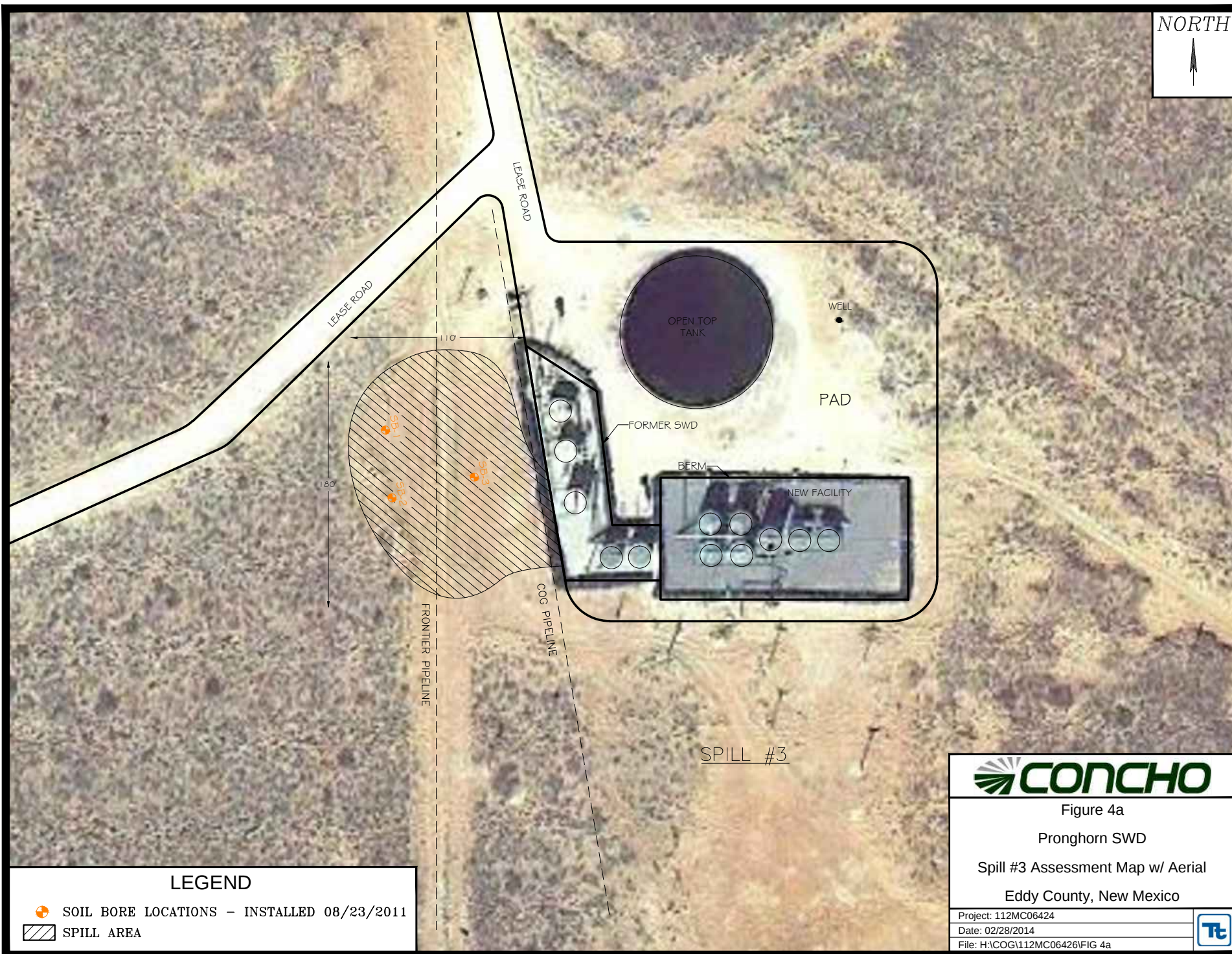
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Project: 112MC06424

Date: 02/28/2014

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LEGEND

-  SOIL BORE LOCATIONS - INSTALLED 08/23/2011
-  SPILL AREA



Figure 4a

Pronghorn SWD

Spill #3 Assessment Map w/ Aerial

Eddy County, New Mexico

Project: 112MC06424

Date: 02/28/2014

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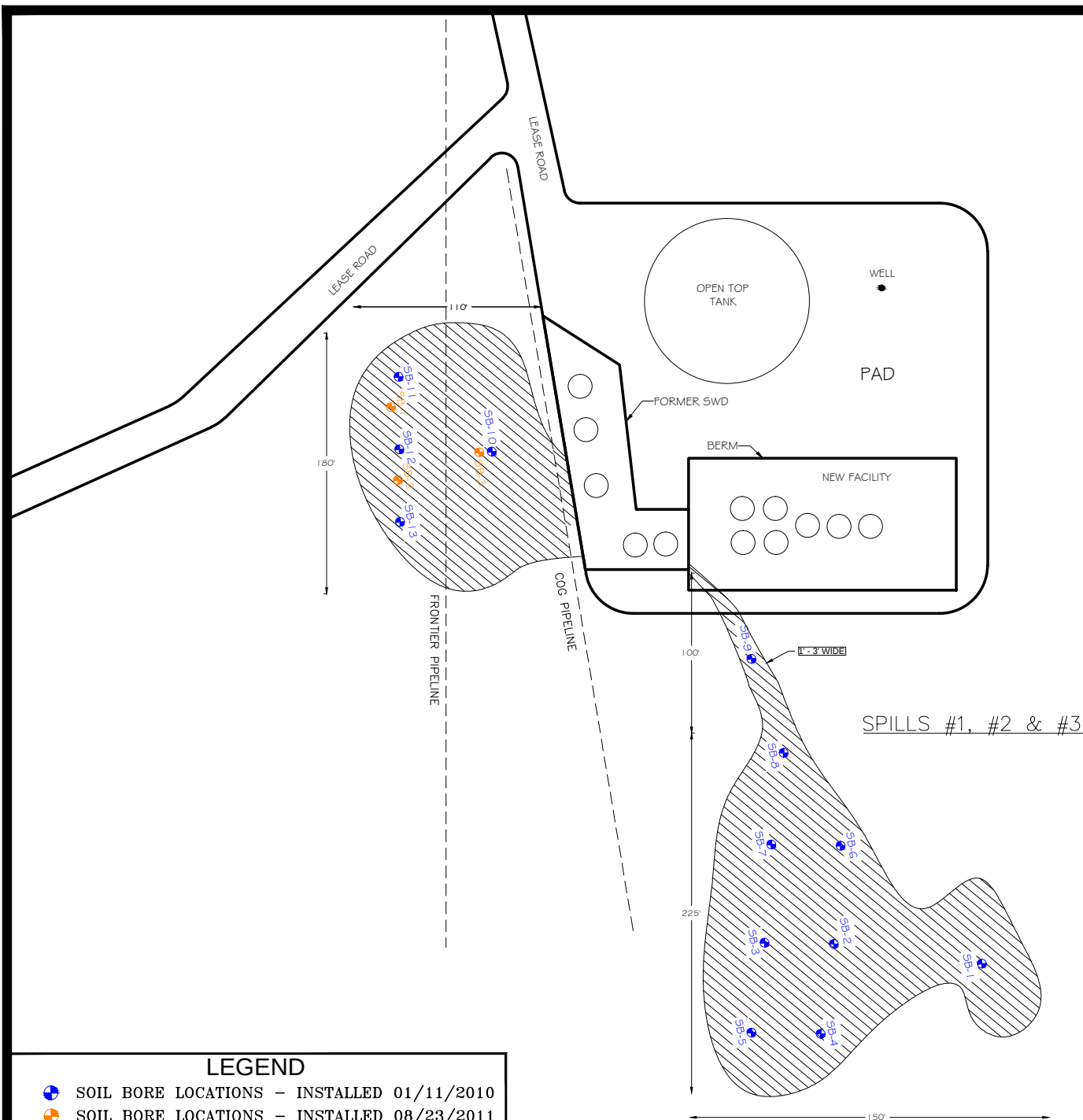
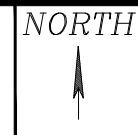


Figure 5

Pronghorn SWD

Spill #1, #2 & #3 Assessment Map

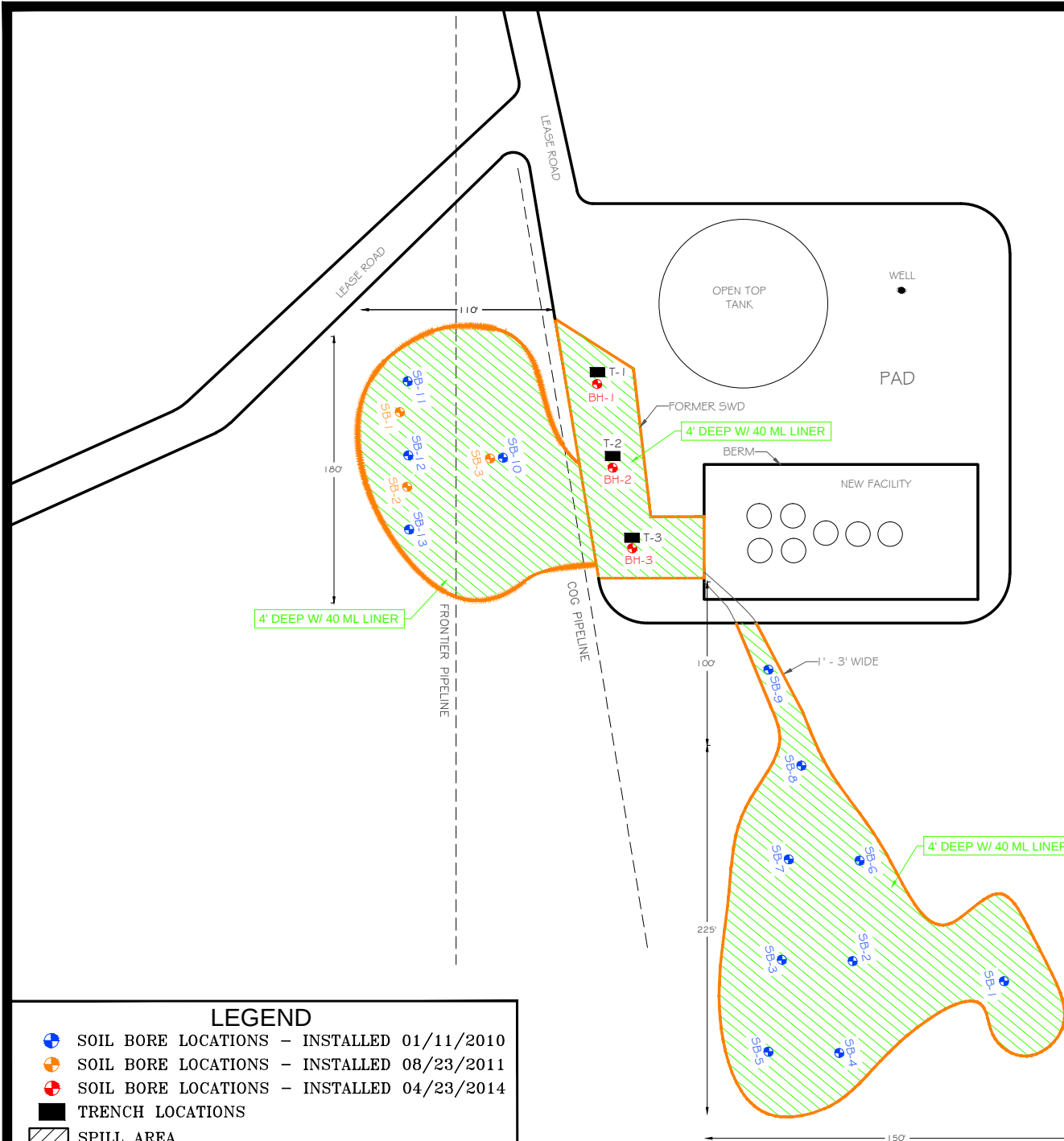
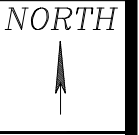
Eddy County, New Mexico

Project: 112MC06426

Date: 02/28/2014

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LEGEND

-  SOIL BORE LOCATIONS - INSTALLED 01/11/2010
-  SOIL BORE LOCATIONS - INSTALLED 08/23/2011
-  SOIL BORE LOCATIONS - INSTALLED 04/23/2014
-  TRENCH LOCATIONS
-  SPILL AREA
-  LINER/CLAY



Figure 6

Pronghorn SWD

Excavation Areas & Depths Map

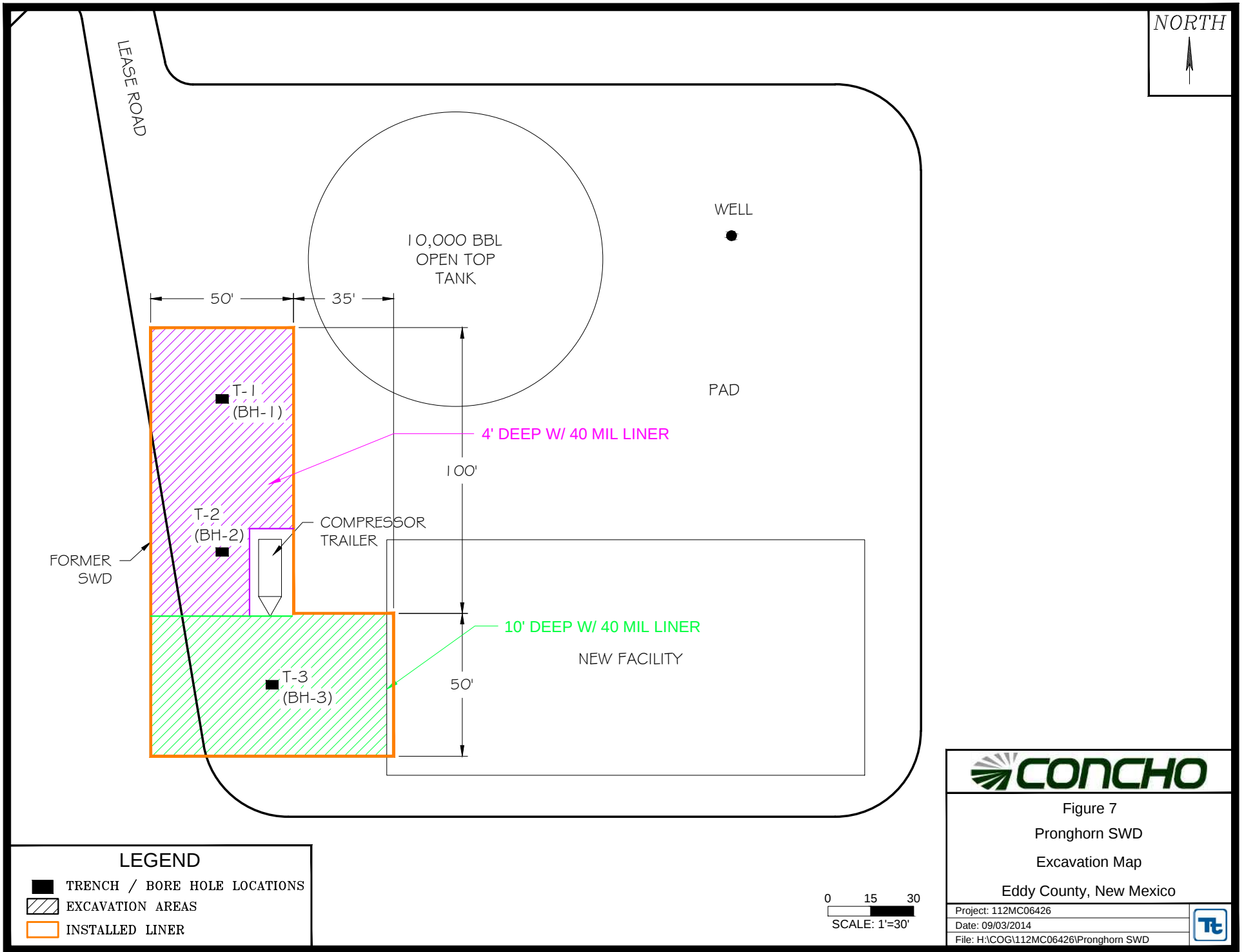
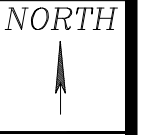
Eddy County, New Mexico

Project: 112MC06426

Date: 09/03/2014

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Tables

Table 1
COG Operating LLC.
Pronghorn SWD #1
SPILL #1 and #2
LEA COUNTY, NEW MEXICO

Sample ID	Date Sampled	Sample Depth (ft)	Excavation Depth	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total					
West Spill Area													
SB-10	1/12/2010	0-1'	2'		X	<1.00	<50.0	<50.0	<0.0100	<0.0100	<0.0100	<0.0100	10,600
		2-3'			X	-	-	-	-	-	-	-	6,150
		4-5'		X		-	-	-	-	-	-	-	4,550
		6-7'		X		-	-	-	-	-	-	-	1,960
		10-11'		X		-	-	-	-	-	-	-	1,010
		15-16'		X		-	-	-	-	-	-	-	671
		20-21'		X		-	-	-	-	-	-	-	574
		25-26'		X		-	-	-	-	-	-	-	1,110
		30-31'		X		-	-	-	-	-	-	-	625
SB-11	1/12/2010	0-1'	2'		X	744	520	1,264	0.484	5.18	1.26	7.37	2,120
		2-3'			X	-	-	-	-	-	-	-	981
		4-5'		X		-	-	-	-	-	-	-	803
		6-7'		X		-	-	-	-	-	-	-	701
		10-11'		X		-	-	-	-	-	-	-	867
		15-16'		X		-	-	-	-	-	-	-	3,380
		20-21'		X		-	-	-	-	-	-	-	3,740
		25-26'		X		-	-	-	-	-	-	-	4,800
		30-31'		X		-	-	-	-	-	-	-	1,450
SB-12	1/12/2010	0-1'	2'		X	43.9	<50.0	43.9	<0.0100	<0.0100	<0.0100	<0.0100	2,720
		2-3'			X	-	-	-	-	-	-	-	576
		4-5'		X		-	-	-	-	-	-	-	586
		6-7'		X		-	-	-	-	-	-	-	1,210
		10-11'		X		-	-	-	-	-	-	-	2,210
		15-16'		X		-	-	-	-	-	-	-	4,420
		20-21'		X		-	-	-	-	-	-	-	1,850
		25-26'		X		-	-	-	-	-	-	-	454
		30-31'		X		-	-	-	-	-	-	-	275

Table 1
COG Operating LLC.
Pronghorn SWD #1
SPILL #1 and #2
LEA COUNTY, NEW MEXICO

Sample ID	Date Sampled	Sample Depth (ft)	Excavation Depth	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total					
SB-13	1/12/2010	0-1'	2'		X	7.24	59.1	66.34	<0.0100	<0.0100	<0.0100	<0.0100	1,880
		2-3'			X	-	-	-	-	-	-	-	<200
		4-5'		X		-	-	-	-	-	-	-	205
		6-7'		X		-	-	-	-	-	-	-	<200
		10-11'		X		-	-	-	-	-	-	-	<200
		15-16'		X		-	-	-	-	-	-	-	<200
		20-21'		X		-	-	-	-	-	-	-	<200
		25-26'		X		-	-	-	-	-	-	-	<200
		30-31'		X		-	-	-	-	-	-	-	<200

BEB Below Excavation Bottom

 Excavation Depths

 Liner Installation

Table 2
COG Operating LLC
Pronghorn SWD #1
SPILL #3
Lea 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)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total						
SB-1	8/23/2011	0-1'	2'	X		<2.00	358	358	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	4,980
	"	3'		X		-	-	-	-	-	-	-	-	4,570
	"	5'		X		-	-	-	-	-	-	-	-	1,230
	"	7'		X		-	-	-	-	-	-	-	-	1,310
	"	10'		X		-	-	-	-	-	-	-	-	2,260
	"	15'		X		-	-	-	-	-	-	-	-	5,580
	"	20'		X		-	-	-	-	-	-	-	-	7,190
	"	25'		X		-	-	-	-	-	-	-	-	1,350
	"	30'		X		-	-	-	-	-	-	-	-	857
	"	40'		X		-	-	-	-	-	-	-	-	<200
	"	50'		X		-	-	-	-	-	-	-	-	<200
SB-2	8/23/2011	0-1'	2'	X		<2.00	216	216	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	16,100
	"	3'		X		-	-	-	-	-	-	-	-	1,770
	"	5'		X		-	-	-	-	-	-	-	-	2,660
	"	7'		X		-	-	-	-	-	-	-	-	4,190
	"	10'		X		-	-	-	-	-	-	-	-	3,010
	"	15'		X		-	-	-	-	-	-	-	-	620
	"	20'		X		-	-	-	-	-	-	-	-	308
	"	25'		X		-	-	-	-	-	-	-	-	<200
	"	30'		X		-	-	-	-	-	-	-	-	<200
	"	40'		X		-	-	-	-	-	-	-	-	<200
	"	50'		X		-	-	-	-	-	-	-	-	<200

Table 2
COG Operating LLC
Pronghorn SWD #1
SPILL #3
Lea 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)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total						
SB-3	8/23/2011	0-1'	2'	X		<2.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	12,800
	"	3'		X		-	-	-	-	-	-	-	-	5,570
	"	5'		X		-	-	-	-	-	-	-	-	3,000
	"	7'		X		-	-	-	-	-	-	-	-	3,440
	"	10'		X		-	-	-	-	-	-	-	-	4,230
	"	15'		X		-	-	-	-	-	-	-	-	5,500
	"	20'		X		-	-	-	-	-	-	-	-	7,200
	"	25'		X		-	-	-	-	-	-	-	-	1,380
	"	30'		X		-	-	-	-	-	-	-	-	<200
	"	40'		X		-	-	-	-	-	-	-	-	<200
	"	50'		X		-	-	-	-	-	-	-	-	<200

(--) Not Analyzed

Proposed Excavation Depths

Proposed Liner Installed

Lea County, New Mexico

[illegible]

Table 3
COG Operating LLC.
Pronghorn Central Salt Water Disposal
Former SWD Facility
Lea County, New Mexico

Sample ID	Sample Date	BEB Sample Depth (ft)	Excavation Bottom Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total						
T-3	4/10/2014	Surface	0		X	924	5,044	5,968	<0.500	12.1	16.3	51.3	79.7	1,090
	"	2	0		X	656	4,451	5,107	<0.500	10.7	5.51	33.7	49.9	752
	"	4	0		X	2,010	8,760	10,770	<2.00	46.3	44.8	114	205	2,000
	"	6	0		X	715	3,251	3,966	0.770	23.5	28.5	52.1	105	3,600
	"	8	0		X	1,870	5,531	7,401	3.92	103	92.8	137	337	2,560
	"	10	0		X	2,730	7,993	10,723	3.16	87.2	84.1	125	300	7,600
BH-3	4/23/2014	14-15	0	X		<4.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	7,900
	"	19-20	0	X		<4.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	4,570
	"	24-25	0	X		<4.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	3,160
	"	29-30	0	X		<4.00	161	161	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	975
	"	39-40	0	X		<4.00	180	180	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	48.0
	"	49-50	0	X		<4.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	827

(-) Not Analyzed

Excavation Depths

Liner Installation

(BEB) Below Excavation Bottom

Table 4
COG Operating LLC.
Pronghorn Central Salt Water Disposal
Lea County, New Mexico

Sample ID	Sample Date	BEB Sample Depth (ft)	Excavation Bottom Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total						
SB-1 South Sidewall	4/11/2014	-	-	X		-	-	-	-	-	-	-	-	697
SB-1 West Sidewall	4/11/2014	-	-	X		-	-	-	-	-	-	-	-	448
SB-3 West Sidewall	4/14/2014	-	-	X		-	-	-	-	-	-	-	-	100
SB-4 South Sidewall	4/11/2014	-	-	X		-	-	-	-	-	-	-	-	448
SB-6 East Sidewall	4/11/2014	-	-	X		-	-	-	-	-	-	-	-	249
SB-10 East Sidewall	4/14/2014	-	-	X		-	-	-	-	-	-	-	-	2,190
SB-10 North Sidewall	4/14/2014	-	-	X		-	-	-	-	-	-	-	-	2,090
SB-11 West Sidewall	4/11/2014	-	-	X		-	-	-	-	-	-	-	-	1,240
SB-12 West Sidewall	4/14/2014	-	-	X		-	-	-	-	-	-	-	-	249
SB-13 South Sidewall	4/14/2014	-	-	X		-	-	-	-	-	-	-	-	398

(-) Not Analyzed

(BEB) Below Excavation Bottom

Photos



Typical Trench



View South – Area of BH-1 and BH-2

COG Operating LLC
Pronghorn SWD #1
Lea County, New Mexico



TETRA TECH



View South – Area of BH-3



View West – Excavated area of the West Spill



View South – Excavated area of the South Spill



View South – Excavated area of the South Spill

COG Operating LLC
Pronghorn SWD #1
Lea County, New Mexico



View South – Excavated area of the former facility



View West – Lined area of the West Spill

COG Operating LLC
Pronghorn SWD #1
Lea County, New Mexico



View North – Lined area of the South Spill



View South – Lined area of the former facility

COG Operating LLC
Pronghorn SWD #1
Lea County, New Mexico



View West- Backfilled area of the West Spill



View South – Backfilled area of the former facility

Appendix A

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	COG OPERATING LLC	Contact	Kanicia Carrillo
Address	550 W. Texas, Suite 100 Midland, TX 79701	Telephone No.	432-685-4332
Facility Name	Pronghorn SWD #1	Facility Type	Central booster station

Surface Owner	Federal	Mineral Owner		Lease No.	30-025-32735
---------------	---------	---------------	--	-----------	--------------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	24	19S	32E	330	North	1650	East	Lea

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release- Produced water	Volume of Release-60 bbls	Volume Recovered- 45 bbls
Source of Release- Pressure Gauge	Date and Hour of Occurrence- 10/15/09	Date and Hour of Discovery 10/15/09
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Trishia Bad Bear, Larry Johnson	
By Whom? Rick Wright	Date and Hour 10/15/09	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
A pressure gauge broke off of pump. Replaced gauge.

Describe Area Affected and Cleanup Action Taken.*
Spill is located off location to the west of the pad.
Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD/BLM for your approval prior to any significant remediation work.

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

OIL CONSERVATION DIVISION

Signature: 

Printed Name: Kanicia Carrillo

Title: Regulatory Analyst

E-mail Address: kcarrillo@conchoresources.com

Date: 10/28/09

Phone: 432-685-4332

Approved by District Supervisor:

Approval Date:

Expiration Date:

Conditions of Approval:

Attached ☐

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
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Energy Minerals and Natural Resources
Oil Conservation Division
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Santa Fe, NM 87505

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Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	COG OPERATING LLC	Contact	Kanicia Carrillo
Address	550 W. Texas, Suite 100 Midland, TX 79701	Telephone No.	432-685-4332
Facility Name -	Pronghorn SWD #1	Facility Type-	Central booster station

Surface Owner	Federal	Mineral Owner		Lease No.	30-025-32735
---------------	---------	---------------	--	-----------	--------------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	24	19S	32E	330	North	1650	East	Lea

Latitude 32.65220 Longitude 103.71675

NATURE OF RELEASE

Type of Release-	Produced water	Volume of Release-	1500 bbls	Volume Recovered-	1300 bbls
Source of Release-	1x4 swedge	Date and Hour of Occurrence-	11/20/09 AM	Date and Hour of Discovery	11/20/09 AM
Was Immediate Notice Given?	☒ Yes ☐ No ☐ Not Required	If YES, To Whom?	Paul Evans/ BLM, Maxey Brown/ OCD		
By Whom?	Pat Ellis, Kanicia Castillo	Date and Hour	11/20/09 3:38pm, 4:37pm		
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 1x4 swedge broke off the discharge of the pump going to the Pronghorn well. Replaced with a heavy duty metal swedge.

Describe Area Affected and Cleanup Action Taken.*

About 25% of the battery pad was covered with produced water. The majority of the produced water went off location south of the battery into the pasture. Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD/BLM for your approval prior to any significant remediation work.

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

OIL CONSERVATION DIVISION

Signature:

Printed Name: Kanicia Carrillo

Title: Regulatory Analyst

E-mail Address: kcarrillo@conchoresources.com

Date: 11/25/09

Phone: 432-685-4332

Approved by District Supervisor:

Approval Date:

Expiration Date:

Conditions of Approval:

Attached ☐

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
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1301 W. Grand Avenue, Artesia, NM 88210
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State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
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Santa Fe, NM 87505

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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	Pronghorn SWD #1	Facility Type	Salt Water Disposal
Surface Owner	Federal	Mineral Owner	
		Lease No. (API#) 30-025-32735	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	24	19S	32E					Lea

Latitude 32 39.120 Longitude 103 43.010

NATURE OF RELEASE

Type of Release	Produced water	Volume of Release	100bbls	Volume Recovered	95bbls
Source of Release	Transfer pump	Date and Hour of Occurrence	07/20/2011	Date and Hour of Discovery	07/20/2011 6:00 a.m.
Was Immediate Notice Given?	☒ Yes ☐ No ☐ Not Required	If YES, To Whom?	Geoffrey Leking-OCD Paul Evans-BLM		
By Whom?	Josh Russo	Date and Hour	07/20/2011 5:14 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.*

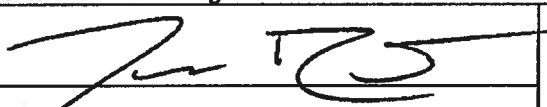
The check valve on the water transfer pump failed. The faulty check valve has been replaced.

Describe Area Affected and Cleanup Action Taken.*

Initially 100bbls were released from the transfer pump due to the faulty check valve. We were able to recover 95bbls with a vacuum truck. The spill encompassed the area immediately around the transfer pump inside the battery, and to the west of the pad location in the pasture. All standing fluid has been removed and all contaminated soil on location has been hauled to appropriate disposal. Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a remediation work plan 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.

OIL CONSERVATION DIVISION

Signature:			
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:	07/25/2011	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
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1000 Rio Brazos Road, Aztec, NM 87410
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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
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Santa Fe, NM 87505

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company COG Operating LLC	Contact Robert McNeil	
Address 600 West Illinois Avenue, Midland, Texas 79701	Telephone No. (432) 230-0077	
Facility Name Pronghorn SWD #1	Facility Type Central Booster Station	
Surface Owner: Federal	Mineral Owner	Lease No. (API#) 30-025-32735

LOCATION OF RELEASE

Unit Letter B	Section 24	Township 19S	Range 32E	Feet from the 330	North/South Line North	Feet from the 1650	East/West Line East	County Lea
-------------------------	----------------------	------------------------	---------------------	-----------------------------	----------------------------------	------------------------------	-------------------------------	----------------------

Latitude N 32.65220 ° Longitude W 103.71675 °

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release 60 bbls	Volume Recovered 45 bbls
Source of Release Pressure Gauge	Date and Hour of Occurrence 10/15/09	Date and Hour of Discovery 10/15/09
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Trishia Bad Bear, Larry Johnson	
By Whom? Rick Wright	Date and Hour 10/15/09	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* A pressure gauge broke off of a pump. Replaced the gauge.		
Describe Area Affected and Cleanup Action Taken.* Spill is located off location to the west of the pad. Tetra Tech inspected site and collected samples to define spills extent. Soil that exceeded RRAL was removed and hauled away for proper disposal. Site was then brought up to surface grade with clean backfill material. Tetra Tech prepared closure report and submitted to NMOCD for review.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Signature: 	<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Ike Tavarez	Approved by District Supervisor:	
Title: Senior Project Manager, P.G.	Approval Date:	Expiration Date:
E-mail Address: ike.tavarez@tetrattech.com	Conditions of Approval:	
Date: 09/12/2014 Phone: (432) 682-4559	Attached ☐	

* Attach Additional Sheets If Necessary

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State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company COG Operating LLC	Contact Robert McNeil	
Address 600 West Illinois Avenue, Midland, Texas 79701	Telephone No. (432) 230-0077	
Facility Name Pronghorn SWD #1	Facility Type Central Booster Station	
Surface Owner: Federal	Mineral Owner	Lease No. (API#) 30-025-32735

LOCATION OF RELEASE

Unit Letter B	Section 24	Township 19S	Range 32E	Feet from the 330	North/South Line North	Feet from the 1650	East/West Line East	County Lea
-------------------------	----------------------	------------------------	---------------------	-----------------------------	----------------------------------	------------------------------	-------------------------------	----------------------

Latitude N 32.65220 ° Longitude W 103.71675°

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release 1500 bbls	Volume Recovered 1300 bbls
Source of Release 1x4 swedge	Date and Hour of Occurrence 11/20/09	Date and Hour of Discovery 11/20/09
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Paul Evans – BLM, Maxey Brown - OCD	
By Whom?	Date and Hour 11/20/09 3:38 pm, 4:37 pm	
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 1x4 swedge broke off the discharge of the pump going to the Pronghorn well. Replaced with a heavy duty metal swedge.		
Describe Area Affected and Cleanup Action Taken.* About 25% of the battery pad was covered with produced water. The majority of the produced water went off the location south of the battery into the pasture. Tetra Tech inspected site and collected samples to define spills extent. Soil that exceeded RRAL was removed and hauled away for proper disposal. Site was then brought up to surface grade with clean backfill material. Tetra Tech prepared closure report and submitted to NMOCD for review.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		

OIL CONSERVATION DIVISION

Signature: 	Approved by District Supervisor:	
Printed Name: Ike Tavarez		
Title: Senior Project Manager, P.G.	Approval Date:	Expiration Date:
E-mail Address: ike.tavarez@tetratech.com	Conditions of Approval:	Attached ☐
Date: 09/12/2014 Phone: (432) 682-4559		

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
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State of New Mexico
Energy Minerals and Natural Resources

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

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Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company COG Operating LLC	Contact Robert McNeil	
Address 600 West Illinois Avenue, Midland, Texas 79701	Telephone No. (432) 230-0077	
Facility Name Pronghorn SWD #1	Facility Type Salt Water Disposal	
Surface Owner: Federal	Mineral Owner	Lease No. (API#) 30-025-32735

LOCATION OF RELEASE

Unit Letter B	Section 24	Township 19S	Range 32E	Feet from the 330	North/South Line North	Feet from the 1650	East/West Line East	County Lea
-------------------------	----------------------	------------------------	---------------------	-----------------------------	----------------------------------	------------------------------	-------------------------------	----------------------

Latitude N 32.65220 ° Longitude W 103.71675 °

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release 100 bbls	Volume Recovered 95 bbls
Source of Release Transfer Pump	Date and Hour of Occurrence 07/20/2011	Date and Hour of Discovery 07/20/2011 6:00am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Geoffrey Leking – OCD, Paul Evans – BLM	
By Whom? Josh Russo	Date and Hour 07/20/2011 5:14 pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

The check valve on the water transfer pump failed. The faulty check valve has been replaced.

Describe Area Affected and Cleanup Action Taken.*

Initially 100 bbls were released from the transfer pump due to the faulty check valve. We were able to recover 95 bbls with a vacuum truck. The spill encompassed the area immediately around the transfer pump inside the battery, and to the west of the pad location in the pasture. All standing fluid has been removed and all contaminated soil on location has been hauled to appropriate disposal. Tetra Tech inspected site and collected samples to define spills extent. Soil that exceeded RRAL was removed and hauled away for proper disposal. Site was then brought up to surface grade with clean backfill material. Tetra Tech prepared closure report and submitted to NMOCD for review.

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Signature: 		OIL CONSERVATION DIVISION	
Printed Name: Ike Tavarez		Approved by District Supervisor:	
Title: Senior Project Manager, P.G.		Approval Date:	Expiration Date:
E-mail Address: ike.tavarez@tetrattech.com		Conditions of Approval:	
Date: 09/12/2014 Phone: (432) 682-4559		Attached ☐	

* Attach Additional Sheets If Necessary

Appendix B

Water Well Data
Average Depth to Groundwater (ft)
COG - Pronghorn SWD Facility (Pad)
Lea County, New Mexico

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

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

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

18 South 32 East					
6	5	4	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

19 South 32 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

20 South 32 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 33 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

19 South 33 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

20 South 33 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

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

Appendix C

Soil Boring Log

Boring/Well: SB-1

Project Number: 114-6400374

Client: COG

Site Location: Pronghorn SWD Facility
T19S R32E Sec. 24

Location: Lea County, New Mexico

Total Depth 31

Date Installed: 01/11/10

DEPTH (Ft)	BEB (Ft)	OVM	SAMPLE DESCRIPTION
0-1'	1'	--	Red Clay
2-3'	1'	--	Red Clay with some sand
4-5'	1'	--	Damp Caliche (dirty)
6-7'	1'	--	Dry Caliche (clean)
10-11'	1'	--	Dry Caliche
15-16'	1'	--	Dry Caliche with some sand mix
20-21'	1'	--	Red sandy clay mix
25-26'	1'	--	Red clay (dry)
30-31'	1'	--	Red clay (dry)

Total Depth is 31 feet

Groundwater was not encountered

BEB Below Excavation Bottom

(--) Not Analyzed

Soil Boring Log

Boring/Well: SB-2

Project Number: 114-6400374

Client: COG

Site Location: Pronghorn SWD Facility
T19S R32E Sec. 24

Location: Lea County, New Mexico

Total Depth 31

Date Installed: 01/11/10

DEPTH (Ft)	BEB (Ft)	OVM	SAMPLE DESCRIPTION
0-1'	1'	--	Red Clay
2-3'	1'	--	Tan fine grain sand
4-5'	1'	--	Damp Caliche (dirty)
6-7'	1'	--	Sandy Caliche (90/10))
10-11'	1'	--	Sandy Calcihe (50/50)
15-16'	1'	--	Red sandy clay mix
20-21'	1'	--	Red sandy clay mix
25-26'	1'	--	Red clay (dry)
30-31'	1'	--	Red clay (dry)

Total Depth is 31 feet

Groundwater was not encountered

BEB Below Excavation Bottom

(--) Not Analyzed

Soil Boring Log

Boring/Well: SB-3

Project Number: 114-6400374

Client: COG

Site Location: Pronghorn SWD Facility
T19S R32E Sec. 24

Location: Lea County, New Mexico

Total Depth 31

Date Installed: 01/11/10

DEPTH (Ft)	BEB (Ft)	OVM	SAMPLE DESCRIPTION
0-1'	1'	--	Red sandy clay mix
2-3'	1'	--	Tan fine grain sand
4-5'	1'	--	Sandy Caliche (80/20)
6-7'	1'	--	Sandy Caliche (50/50)
10-11'	1'	--	Sandy Caliche (20/80)
15-16'	1'	--	Red sandy clay mix
20-21'	1'	--	Red sandy clay mix
25-26'	1'	--	Red clay (dry)
30-31'	1'	--	Red clay (dry)

Total Depth is 31 feet

Groundwater was not encountered

BEB Below Excavation Bottom

(--) Not Analyzed

Soil Boring Log

Boring/Well: SB-4

Project Number: 114-6400374

Client: COG

Site Location: Pronghorn SWD Facility
T19S R32E Sec. 24

Location: Lea County, New Mexico

Total Depth 31

Date Installed: 01/11/10

DEPTH (Ft)	BEB (Ft)	OVM	SAMPLE DESCRIPTION
0-1'	1'	--	Red Clay
2-3'	1'	--	Red Clay
4-5'	1'	--	Sandy Caliche (60/40)
6-7'	1'	--	Sandy Caliche (50/50)
10-11'	1'	--	Red sandy clay mix
15-16'	1'	--	Red sandy clay mix
20-21'	1'	--	Red sandy clay mix
25-26'	1'	--	Red clay (dry)
30-31'	1'	--	Red clay (dry)

Total Depth is 31 feet

Groundwater was not encountered

BEB Below Excavation Bottom

(--) Not Analyzed

Soil Boring Log

Boring/Well: SB-5

Project Number: 114-6400374

Client: COG

Site Location: Pronghorn SWD Facility
T19S R32E Sec. 24

Location: Lea County, New Mexico

Total Depth 31

Date Installed: 01/11/10

DEPTH (Ft)	BEB (Ft)	OVM	SAMPLE DESCRIPTION
0-1'	1'	--	Red sandy clay
2-3'	1'	--	Red sandy clay
4-5'	1'	--	Tan clay and sand
6-7'	1'	--	Tan sandy clay with some caliche
10-11'	1'	--	Tan sandy clay with caliche
15-16'	1'	--	Tan sandy clay with caliche
20-21'	1'	--	Red sandy clay mix
25-26'	1'	--	Red clay (dry)
30-31'	1'	--	Red clay (dry)

Total Depth is 31 feet

Groundwater was not encountered

BEB Below Excavation Bottom

(--) Not Analyzed

Soil Boring Log

Boring/Well: SB-6

Project Number: 114-6400374

Client: COG

Site Location: Pronghorn SWD Facility
T19S R32E Sec. 24

Location: Lea County, New Mexico

Total Depth 31

Date Installed: 01/11/10

DEPTH (Ft)	BEB (Ft)	OVM	SAMPLE DESCRIPTION
0-1'	1'	--	Red sandy clay
2-3'	1'	--	Red sandy clay
4-5'	1'	--	Caliche
6-7'	1'	--	Caliche (dry)
10-11'	1'	--	Caliche (dry)
15-16'	1'	--	Red sandy clay with some caliche
20-21'	1'	--	Red sandy clay
25-26'	1'	--	Red clay (dry)
30-31'	1'	--	Red clay (dry)

Total Depth is 31 feet

Groundwater was not encountered

BEB Below Excavation Bottom

(--) Not Analyzed

Soil Boring Log

Boring/Well: SB-7

Project Number: 114-6400374

Client: COG

Site Location: Pronghorn SWD Facility
T19S R32E Sec. 24

Location: Lea County, New Mexico

Total Depth 31

Date Installed: 01/12/10

DEPTH (Ft)	BEB (Ft)	OVM	SAMPLE DESCRIPTION
0-1'	1'	--	Red/Brown sandy clay
2-3'	1'	--	Red/Brown sandy clay
4-5'	1'	--	Tan sandy clay
6-7'	1'	--	Tan sandy clay
10-11'	1'	--	Tan sandy clay with some caliche
15-16'	1'	--	Red sandy clay
20-21'	1'	--	Red sandy clay
25-26'	1'	--	Red clay (dry)
30-31'	1'	--	Red clay (dry)

Total Depth is 31 feet

Groundwater was not encountered

BEB Below Excavation Bottom

(--) Not Analyzed

Soil Boring Log

Boring/Well: SB-8

Project Number: 114-6400374

Client: COG

Site Location: Pronghorn SWD Facility
T19S R32E Sec. 24

Location: Lea County, New Mexico

Total Depth 31

Date Installed: 01/12/10

DEPTH (Ft)	BEB (Ft)	OVM	SAMPLE DESCRIPTION
0-1'	1'	--	Red clay
2-3'	1'	--	Tan sandy clay
4-5'	1'	--	Tan sandy clay
6-7'	1'	--	Tan sandy clay
10-11'	1'	--	Red sandy clay
15-16'	1'	--	Red sandy clay
20-21'	1'	--	Red sandy clay
25-26'	1'	--	Red clay (dry)
30-31'	1'	--	Red clay (dry)

Total Depth is 31 feet

Groundwater was not encountered

BEB Below Excavation Bottom

(--) Not Analyzed

Soil Boring Log

Boring/Well: SB-9

Project Number: 114-6400374

Client: COG

Site Location: Pronghorn SWD Facility
T19S R32E Sec. 24

Location: Lea County, New Mexico

Total Depth 41

Date Installed: 01/12/10

DEPTH (Ft)	BEB (Ft)	OVM	SAMPLE DESCRIPTION
0-1'	1'	--	Brown sand
2-3'	1'	--	Brown sand
4-5'	1'	--	Brown wet sand with caliche (80/20)
6-7'	1'	--	Caliche
10-11'	1'	--	Caliche with fine grain tan sand
15-16'	1'	--	Red sandy clay
20-21'	1'	--	Red sandy clay
25-26'	1'	--	Red clay
30-31'	1'	--	Red clay (dry)
40-41'	1'	--	Red clay (dry)

Total Depth is 41 feet

Groundwater was not encountered

BEB Below Excavation Bottom

(--) Not Analyzed

Soil Boring Log

Boring/Well: SB-10

Project Number: 114-6400374

Client: COG

Site Location: Pronghorn SWD Facility
T19S R32E Sec. 24

Location: Lea County, New Mexico

Total Depth 31

Date Installed: 01/12/10

DEPTH (Ft)	BEB (Ft)	OVM	SAMPLE DESCRIPTION
0-1'	2'	--	Brown sand
2-3'	2'	--	Red/Brown sandy clay
4-5'	2'	--	Red sandy clay
6-7'	2'	--	Sandy clay with caliche (50/50)
10-11'	2'	--	Sandy clay with caliche (50/50)
15-16'	2'	--	Red sandy clay
20-21'	2'	--	Red clay
25-26'	2'	--	Red clay
30-31'	2'	--	Red clay with pieces of chert (dry)

Total Depth is 31 feet

Groundwater was not encountered

BEB Below Excavation Bottom

(--) Not Analyzed

Soil Boring Log

Boring/Well: SB-11

Project Number: 114-6400374

Client: COG

Site Location: Pronghorn SWD Facility
T19S R32E Sec. 24

Location: Lea County, New Mexico

Total Depth 31

Date Installed: 01/12/10

DEPTH (Ft)	BEB (Ft)	OVM	SAMPLE DESCRIPTION
0-1'	2'	--	Brown sand
2-3'	2'	--	Brown sandy clay
4-5'	2'	--	Caliche
6-7'	2'	--	Tan sand with caliche
10-11'	2'	--	Red clay with caliche
15-16'	2'	--	Red clay with caliche
20-21'	2'	--	Red clay with caliche
25-26'	2'	--	Red clay
30-31'	2'	--	Red sandy clay (dry)

Total Depth is 31 feet

Groundwater was not encountered

BEB Below Excavation Bottom

(--) Not Analyzed

Soil Boring Log

Boring/Well: SB-12

Project Number: 114-6400374

Client: COG

Site Location: Pronghorn SWD Facility
T19S R32E Sec. 24

Location: Lea County, New Mexico

Total Depth 31

Date Installed: 01/12/10

DEPTH (Ft)	BEB (Ft)	OVM	SAMPLE DESCRIPTION
0-1'	2'	--	Brown sand
2-3'	2'	--	Brown sandy clay
4-5'	2'	--	Caliche
6-7'	2'	--	Caliche
10-11'	2'	--	Red sandy clay with caliche
15-16'	2'	--	Red sandy clay
20-21'	2'	--	Red clay
25-26'	2'	--	Red clay
30-31'	2'	--	Red sandy clay (dry)

Total Depth is 31 feet

Groundwater was not encountered

BEB Below Excavation Bottom

(--) Not Analyzed

Soil Boring Log

Boring/Well: SB-13

Project Number: 114-6400374

Client: COG

Site Location: Pronghorn SWD Facility
T19S R32E Sec. 24

Location: Lea County, New Mexico

Total Depth 31

Date Installed: 01/12/10

DEPTH (Ft)	BEB (Ft)	OVM	SAMPLE DESCRIPTION
0-1'	2'	--	Brown sand
2-3'	2'	--	Brown sandy clay
4-5'	2'	--	Caliche
6-7'	2'	--	Tan sand with caliche
10-11'	2'	--	Tan sand with caliche
15-16'	2'	--	Red sandy clay
20-21'	2'	--	Red sandy clay
25-26'	2'	--	Red clay (dry)
30-31'	2'	--	Red clay (dry) with chert pieces

Total Depth is 31 feet

Groundwater was not encountered

BEB Below Excavation Bottom

(--) Not Analyzed

Borehole Log

Boring/ Well Name **BH-1**
Project Number **114-6401001**
Client **COG**
Site Name **Pronghorn SWD Facility**
Site Location **Eddy CO., NM**
Total Depth (ft) **50**
Date Installed **August 23, 2011**

Depth (Ft)	Field Chlorides	Sample Description
0-1'	1.89 ppt	Loose blow sand
3'	--	Soft silty caliche clay
5'	1.26 ppt	Sift silty sandy mix
7'	--	Soft loose reddish silty coarse sand
10'	1.87 ppt	Soft loose reddish silty coarse sand w/ limestone pieces 30-40mm
15'	--	SAA - Limestone pieces rounded - increase clay content
20'	3.91 ppt	Red sandy clay 20/80
25'	1.01 ppt	Stiff red sandy clay
30'	745 ppm	Medium dense sandy clay 80/20
40'	291 ppm	Very stiff red clay
50'	216 ppm	Very stiff red clay

Total Depth: 50' - Groundwater was not encountered
(--) Not Analyzed

Borehole Log

Boring/ Well Name **BH-2**
Project Number **114-6401001**
Client **COG**
Site Name **Pronghorn SWD Facility**
Site Location **Eddy CO., NM**
Total Depth (ft) **50**
Date Installed **August 23, 2011**

Depth (Ft)	Field Chlorides	Sample Description
0-1'	2.11 ppt	Loose blow sand
3'	--	Medium stiff sandy clay 10/90
5'	1.84 ppt	Tan sandy silty caliche mix
7'	--	Tan sandy silty caliche mix
10'	3.02 ppt	Tan loose sand
15'	1.01 ppt	Stiff red sandy clay w/ limestone pieces 10-20mm
20'	625 ppm	Tan sandy caliche mix
25'	584 ppm	Red soft sandy clay 20/80
30'	712 ppm	Red soft sandy clay (lot more sand) 40/60
40'	215 ppm	Red medium stiff sandy clay 60/40
50'	176 ppm	Red stiff sandy clay

Total Depth: 50' - Groundwater was not encountered
(--) Not Analyzed

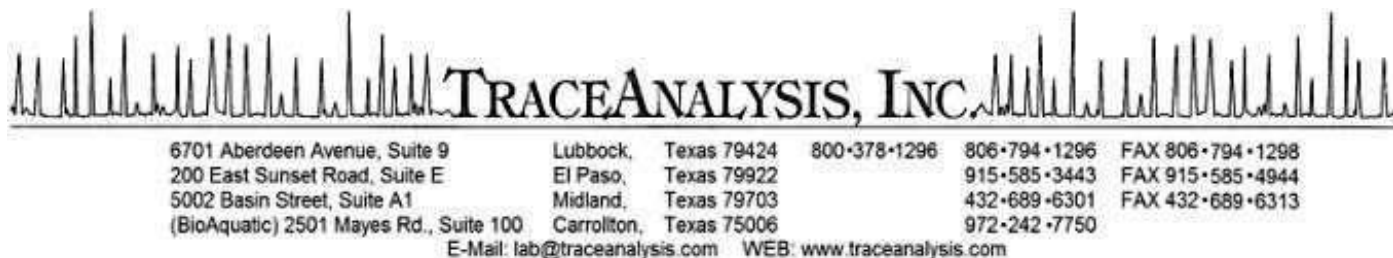
Borehole Log

Boring/ Well Name **BH-3**
Project Number **114-6401001**
Client **COG**
Site Name **Pronghorn SWD Facility**
Site Location **Eddy CO., NM**
Total Depth (ft) **56'**
Date Installed **August 23, 2011**

Depth (Ft)	Field Chlorides	Sample Description
0-1'	3.86 ppt	Loose blow sand
3'	--	Medium stiff sandy clay 10/90
5'	1.06 ppt	Tan sandy silty caliche mix
7'	--	Tan sandy silty caliche mix
10'	--	Tan sandy silty caliche mix
15'	1.31 ppt	Red medium stiff sandy clay
20'	--	Red sandy clay 20/80
25'	986 ppm	Red sandy clay
30'	378 ppm	Red sandy clay - more sand 50/50
40'	513 ppm	Red sandy clay - Limestone pieces 20-40mm
50'	260 ppm	Coarse sandy gravel dirty sand mix
60'	--	Not Collected - above gravel prevented collecting sample

Total Depth: 56' - Groundwater was not encountered
(--) Not Analyzed

Appendix D



Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Ike Tavaréz
 Tetra Tech
 1901 N. Big Spring St.
 Midland, TX, 79705

Report Date: May 7, 2014

Work Order: 14050221



Project Location: Lea Co, NM
 Project Name: COG/Pronghorn Central SWD
 Project Number: 112MC06426

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
362020	SB1 (South Side Wall)	soil	2014-04-11	00:00	2014-05-02
362021	SB1 (West Side Wall)	soil	2014-04-11	00:00	2014-05-02
362022	SB3 (West Side Wall)	soil	2014-04-14	00:00	2014-05-02
362023	SB4 (South Side Wall)	soil	2014-04-11	00:00	2014-05-02
362024	SB6 (East Side Wall)	soil	2014-04-11	00:00	2014-05-02
362025	SB10(East Side Wall)	soil	2014-04-14	00:00	2014-05-02
362026	SB10 (North Side Wall)	soil	2014-04-14	00:00	2014-05-02
362027	SB11 (West Side Wall)	soil	2014-04-11	00:00	2014-05-02
362028	SB12 (West Side Wall)	soil	2014-04-14	00:00	2014-05-02
362029	SB13 (South Side Wall)	soil	2014-04-14	00:00	2014-05-02

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

This report consists of a total of 13 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Michael Abel

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

Report Contents

Case Narrative	4
Analytical Report	5
Sample 362020 (SB1 (South Side Wall))	5
Sample 362021 (SB1 (West Side Wall))	5
Sample 362022 (SB3 (West Side Wall))	5
Sample 362023 (SB4 (South Side Wall))	5
Sample 362024 (SB6 (East Side Wall))	6
Sample 362025 (SB10(East Side Wall))	6
Sample 362026 (SB10 (North Side Wall))	6
Sample 362027 (SB11 (West Side Wall))	7
Sample 362028 (SB12 (West Side Wall))	7
Sample 362029 (SB13 (South Side Wall))	7
Method Blanks	8
QC Batch 111737 - Method Blank (1)	8
Laboratory Control Spikes	9
QC Batch 111737 - LCS (1)	9
Matrix Spikes	10
QC Batch 111737 - MS (1)	10
Calibration Standards	11
QC Batch 111737 - ICV (1)	11
QC Batch 111737 - CCV (1)	11
Appendix	12
Report Definitions	12
Laboratory Certifications	12
Standard Flags	12
Attachments	12

Case Narrative

Samples for project COG/Pronghorn Central SWD were received by TraceAnalysis, Inc. on 2014-05-02 and assigned to work order 14050221. Samples for work order 14050221 were received intact at a temperature of 4.4 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
Chloride (Titration)	SM 4500-Cl B	94480	2014-05-05 at 09:40	111737	2014-05-06 at 15:00

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 14050221 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Report Date: May 7, 2014
112MC06426

Work Order: 14050221
COG/Pronghorn Central SWD

Page Number: 5 of 13
Lea Co, NM

Analytical Report

Sample: 362020 - SB1 (South Side Wall)

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2014-05-06	Analyzed By:	AK
QC Batch:	111737	Sample Preparation:	2014-05-05	Prepared By:	AK
Prep Batch:	94480				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			697	mg/Kg	5	4.00

Sample: 362021 - SB1 (West Side Wall)

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2014-05-06	Analyzed By:	AK
QC Batch:	111737	Sample Preparation:	2014-05-05	Prepared By:	AK
Prep Batch:	94480				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			448	mg/Kg	5	4.00

Sample: 362022 - SB3 (West Side Wall)

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2014-05-06	Analyzed By:	AK
QC Batch:	111737	Sample Preparation:	2014-05-05	Prepared By:	AK
Prep Batch:	94480				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			100	mg/Kg	5	4.00

Report Date: May 7, 2014
112MC06426

Work Order: 14050221
COG/Pronghorn Central SWD

Page Number: 6 of 13
Lea Co, NM

Sample: 362023 - SB4 (South Side Wall)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	111737	Date Analyzed:	2014-05-06
Prep Batch:	94480	Sample Preparation:	2014-05-05
		Prep Method:	N/A
		Analyzed By:	AK
		Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			448	mg/Kg	5	4.00

Sample: 362024 - SB6 (East Side Wall)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	111737	Date Analyzed:	2014-05-06
Prep Batch:	94480	Sample Preparation:	2014-05-05
		Prep Method:	N/A
		Analyzed By:	AK
		Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			249	mg/Kg	5	4.00

Sample: 362025 - SB10(East Side Wall)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	111737	Date Analyzed:	2014-05-06
Prep Batch:	94480	Sample Preparation:	2014-05-05
		Prep Method:	N/A
		Analyzed By:	AK
		Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			2190	mg/Kg	5	4.00

Sample: 362026 - SB10 (North Side Wall)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	111737	Date Analyzed:	2014-05-06
Prep Batch:	94480	Sample Preparation:	2014-05-05
		Prep Method:	N/A
		Analyzed By:	AK
		Prepared By:	AK

Report Date: May 7, 2014
112MC06426

Work Order: 14050221
COG/Pronghorn Central SWD

Page Number: 7 of 13
Lea Co, NM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			2090	mg/Kg	5	4.00

Sample: 362027 - SB11 (West Side Wall)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	111737	Date Analyzed:	2014-05-06	Analyzed By:	AK
Prep Batch:	94480	Sample Preparation:	2014-05-05	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			1240	mg/Kg	5	4.00

Sample: 362028 - SB12 (West Side Wall)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	111737	Date Analyzed:	2014-05-06	Analyzed By:	AK
Prep Batch:	94480	Sample Preparation:	2014-05-05	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			249	mg/Kg	5	4.00

Sample: 362029 - SB13 (South Side Wall)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	111737	Date Analyzed:	2014-05-06	Analyzed By:	AK
Prep Batch:	94480	Sample Preparation:	2014-05-05	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			398	mg/Kg	5	4.00

Method Blanks

Method Blank (1) QC Batch: 111737

QC Batch:	111737	Date Analyzed:	2014-05-06	Analyzed By:	AK
Prep Batch:	94480	QC Preparation:	2014-05-05	Prepared By:	AK

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

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 111737
Prep Batch: 94480

Date Analyzed: 2014-05-06
QC Preparation: 2014-05-05

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2640	mg/Kg	5	2500	<19.2	106	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2540	mg/Kg	5	2500	<19.2	102	85 - 115	4	20

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

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 362029

QC Batch: 111737
Prep Batch: 94480

Date Analyzed: 2014-05-06
QC Preparation: 2014-05-05

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			3040	mg/Kg	5	2500	398	106	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			3130	mg/Kg	5	2500	398	109	78.9 - 121	3	20

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

Calibration Standards

Standard (ICV-1)

QC Batch: 111737				Date Analyzed: 2014-05-06			Analyzed By: AK	
Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2014-05-06

Standard (CCV-1)

QC Batch: 111737				Date Analyzed: 2014-05-06			Analyzed By: AK	
Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.0	99	85 - 115	2014-05-06

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

Report Date: May 7, 2014
112MC06426

Work Order: 14050221
COG/Pronghorn Central SWD

Page Number: 13 of 13
Lea Co, NM

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

14050821

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: 069		SITE MANAGER: Ike Tavariz		PRESERVATIVE METHOD	
PROJECT NO.: 117 M(04261)		PROJECT NAME: 06- Perryborn Central SUD		HCL	
LAB I.D. NUMBER		TIME		HNO3	
DATE		MATRIX		ICE	
2014		COMB		NONE	
2020		GRAB		FILTERED (Y/N)	
021		SAMPLE IDENTIFICATION		NUMBER OF CONTAINERS	
022		SB1 (South Side wall)		1	
023		West Side wall		1	
024		SB3 (West Side wall)		1	
025		SB4 (South Side wall)		1	
026		SB6 (East Side wall)		1	
027		SB10 (East Side wall)		1	
028		North Side wall		1	
029		SB11 (West Side wall)		1	
		SB12 (West side wall)		1	
		SB13 (South Side wall)		1	

RELINQUISHED BY: (Signature)	Date: 5/2/14	SAMPLED BY: (Print & Initial)	Date: 5/2/14
RELINQUISHED BY: (Signature)	Time: 12:15	Time: 12:15	
RECEIVED BY: (Signature)	Date: 5/2/14	SAMPLE SHIPPED BY: (Circle)	AIRBILL #:
RECEIVED BY: (Signature)	Time: 12:15	FEDEX	OTHER:
RECEIVED BY: (Signature)	Date: 5/2/14	AND DELIVERED	Results by:
RECEIVED BY: (Signature)	Time: 12:15	TETRA TECH CONTACT PERSON:	RUSH Charges Authorized:
RECEIVING LABORATORY: Trace	STATE: TX	ZIP: 79705	Yes No
CITY: Midland	PHONE: 432-682-4559	REMARKS: Midland all	
SAMPLE CONDITION WHEN RECEIVED: 4.40			

Summary Report

Ike Tavaréz
Tetra Tech
1901 N. Big Spring St.
Midland, TX 79705

Report Date: May 7, 2014

Work Order: 14050221



Project Location: Lea Co, NM
Project Name: COG/Pronghorn Central SWD
Project Number: 112MC06426

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
362020	SB1 (South Side Wall)	soil	2014-04-11	00:00	2014-05-02
362021	SB1 (West Side Wall)	soil	2014-04-11	00:00	2014-05-02
362022	SB3 (West Side Wall)	soil	2014-04-14	00:00	2014-05-02
362023	SB4 (South Side Wall)	soil	2014-04-11	00:00	2014-05-02
362024	SB6 (East Side Wall)	soil	2014-04-11	00:00	2014-05-02
362025	SB10(East Side Wall)	soil	2014-04-14	00:00	2014-05-02
362026	SB10 (North Side Wall)	soil	2014-04-14	00:00	2014-05-02
362027	SB11 (West Side Wall)	soil	2014-04-11	00:00	2014-05-02
362028	SB12 (West Side Wall)	soil	2014-04-14	00:00	2014-05-02
362029	SB13 (South Side Wall)	soil	2014-04-14	00:00	2014-05-02

Sample: 362020 - SB1 (South Side Wall)

Param	Flag	Result	Units	RL
Chloride		697	mg/Kg	4

Sample: 362021 - SB1 (West Side Wall)

Param	Flag	Result	Units	RL
Chloride		448	mg/Kg	4

Sample: 362022 - SB3 (West Side Wall)

Param	Flag	Result	Units	RL
Chloride		100	mg/Kg	4

Sample: 362023 - SB4 (South Side Wall)

Param	Flag	Result	Units	RL
Chloride		448	mg/Kg	4

Sample: 362024 - SB6 (East Side Wall)

Param	Flag	Result	Units	RL
Chloride		249	mg/Kg	4

Sample: 362025 - SB10(East Side Wall)

Param	Flag	Result	Units	RL
Chloride		2190	mg/Kg	4

Sample: 362026 - SB10 (North Side Wall)

Param	Flag	Result	Units	RL
Chloride		2090	mg/Kg	4

Sample: 362027 - SB11 (West Side Wall)

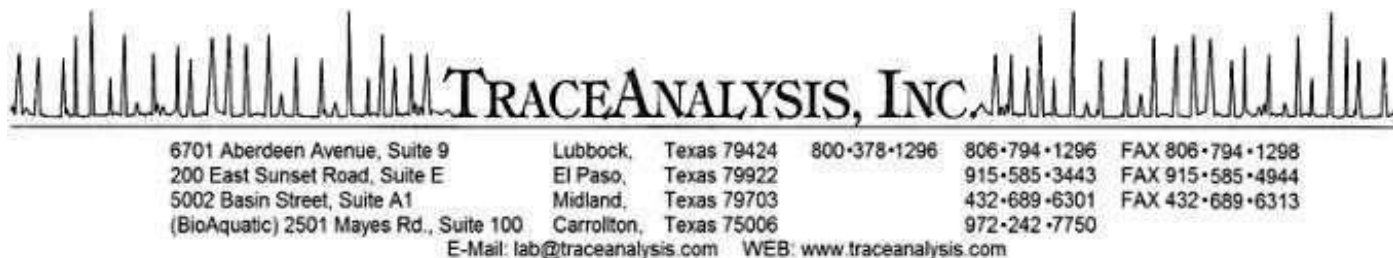
Param	Flag	Result	Units	RL
Chloride		1240	mg/Kg	4

Sample: 362028 - SB12 (West Side Wall)

Param	Flag	Result	Units	RL
Chloride		249	mg/Kg	4

Sample: 362029 - SB13 (South Side Wall)

Param	Flag	Result	Units	RL
Chloride		398	mg/Kg	4



Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Ike Tavaréz
 Tetra Tech
 1901 N. Big Spring St.
 Midland, TX, 79705

Report Date: April 25, 2014

Work Order: 14042401



Project Location: Lea Co, NM
 Project Name: COG/Pronghorn Central SWD
 Project Number: 112MC06426

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
361030	BH-1 11-12'	soil	2014-04-23	00:00	2014-04-24
361031	BH-1 14-15'	soil	2014-04-23	00:00	2014-04-24
361032	BH-1 19-20'	soil	2014-04-23	00:00	2014-04-24
361033	BH-1 24-25'	soil	2014-04-23	00:00	2014-04-24
361034	BH-1 29-30'	soil	2014-04-23	00:00	2014-04-24
361035	BH-1 39-40'	soil	2014-04-23	00:00	2014-04-24
361036	BH-1 49-50'	soil	2014-04-23	00:00	2014-04-24
361037	BH-1 59-60'	soil	2014-04-23	00:00	2014-04-24
361038	BH-1 64-65'	soil	2014-04-23	00:00	2014-04-24
361045	BH-2 14-15'	soil	2014-04-23	00:00	2014-04-24
361046	BH-2 19-20'	soil	2014-04-23	00:00	2014-04-24
361047	BH-2 24-25'	soil	2014-04-23	00:00	2014-04-24
361048	BH-2 29-30'	soil	2014-04-23	00:00	2014-04-24
361049	BH-2 39-40'	soil	2014-04-23	00:00	2014-04-24
361050	BH-2 49-50'	soil	2014-04-23	00:00	2014-04-24
361051	BH-2 59-60'	soil	2014-04-23	00:00	2014-04-24
361052	BH-2 69-70'	soil	2014-04-23	00:00	2014-04-24
361053	BH-2 79-80'	soil	2014-04-23	00:00	2014-04-24

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
361054	BH-2 89-90'	soil	2014-04-23	00:00	2014-04-24
361055	BH-2 94-95'	soil	2014-04-23	00:00	2014-04-24
361061	BH-3 14-15'	soil	2014-04-23	00:00	2014-04-24
361062	BH-3 19-20'	soil	2014-04-23	00:00	2014-04-24
361063	BH-3 24-25'	soil	2014-04-23	00:00	2014-04-24
361064	BH-3 29-30'	soil	2014-04-23	00:00	2014-04-24
361065	BH-3 39-40'	soil	2014-04-23	00:00	2014-04-24
361066	BH-3 49-50'	soil	2014-04-23	00:00	2014-04-24

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

This report consists of a total of 36 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



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

Report Contents

Case Narrative	5
Analytical Report	6
Sample 361030 (BH-1 11-12')	6
Sample 361031 (BH-1 14-15')	6
Sample 361032 (BH-1 19-20')	6
Sample 361033 (BH-1 24-25')	6
Sample 361034 (BH-1 29-30')	7
Sample 361035 (BH-1 39-40')	7
Sample 361036 (BH-1 49-50')	7
Sample 361037 (BH-1 59-60')	8
Sample 361038 (BH-1 64-65')	8
Sample 361045 (BH-2 14-15')	8
Sample 361046 (BH-2 19-20')	8
Sample 361047 (BH-2 24-25')	9
Sample 361048 (BH-2 29-30')	9
Sample 361049 (BH-2 39-40')	9
Sample 361050 (BH-2 49-50')	10
Sample 361051 (BH-2 59-60')	10
Sample 361052 (BH-2 69-70')	10
Sample 361053 (BH-2 79-80')	10
Sample 361054 (BH-2 89-90')	11
Sample 361055 (BH-2 94-95')	11
Sample 361061 (BH-3 14-15')	11
Sample 361062 (BH-3 19-20')	13
Sample 361063 (BH-3 24-25')	14
Sample 361064 (BH-3 29-30')	16
Sample 361065 (BH-3 39-40')	17
Sample 361066 (BH-3 49-50')	18
Method Blanks	21
QC Batch 111436 - Method Blank (1)	21
QC Batch 111446 - Method Blank (1)	21
QC Batch 111447 - Method Blank (1)	21
QC Batch 111448 - Method Blank (1)	21
QC Batch 111450 - Method Blank (1)	22
QC Batch 111460 - Method Blank (1)	22
QC Batch 111461 - Method Blank (1)	22
Laboratory Control Spikes	24
QC Batch 111436 - LCS (1)	24
QC Batch 111446 - LCS (1)	24
QC Batch 111447 - LCS (1)	24
QC Batch 111448 - LCS (1)	25
QC Batch 111450 - LCS (1)	25
QC Batch 111460 - LCS (1)	26

QC Batch 111461 - LCS (1)	26
QC Batch 111436 - MS (1)	27
QC Batch 111446 - MS (1)	27
QC Batch 111447 - MS (1)	28
QC Batch 111448 - MS (1)	28
QC Batch 111450 - MS (1)	28
QC Batch 111460 - MS (1)	29
QC Batch 111461 - MS (1)	29
Calibration Standards	31
QC Batch 111436 - CCV (1)	31
QC Batch 111436 - CCV (2)	31
QC Batch 111446 - ICV (1)	31
QC Batch 111446 - CCV (1)	31
QC Batch 111447 - ICV (1)	31
QC Batch 111447 - CCV (1)	32
QC Batch 111448 - ICV (1)	32
QC Batch 111448 - CCV (1)	32
QC Batch 111450 - ICV (1)	32
QC Batch 111450 - CCV (1)	33
QC Batch 111460 - CCV (1)	33
QC Batch 111460 - CCV (2)	33
QC Batch 111460 - CCV (3)	33
QC Batch 111461 - CCV (1)	34
QC Batch 111461 - CCV (2)	34
Appendix	35
Report Definitions	35
Laboratory Certifications	35
Standard Flags	35
Attachments	35

Case Narrative

Samples for project COG/Pronghorn Central SWD were received by TraceAnalysis, Inc. on 2014-04-24 and assigned to work order 14042401. Samples for work order 14042401 were received intact at a temperature of 3.4 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	94203	2014-04-24 at 10:47	111460	2014-04-25 at 08:05
Chloride (Titration)	SM 4500-Cl B	94202	2014-04-24 at 10:46	111446	2014-04-24 at 12:00
Chloride (Titration)	SM 4500-Cl B	94202	2014-04-24 at 10:46	111447	2014-04-24 at 15:35
Chloride (Titration)	SM 4500-Cl B	94202	2014-04-24 at 10:46	111448	2014-04-24 at 15:43
Chloride (Titration)	SM 4500-Cl B	94202	2014-04-24 at 10:46	111450	2014-04-24 at 16:01
TPH DRO - NEW	S 8015 D	94213	2014-04-24 at 11:30	111436	2014-04-24 at 12:45
TPH GRO	S 8015 D	94203	2014-04-24 at 10:47	111461	2014-04-25 at 08:15

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 14042401 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 6 of 36
Lea Co, NM

Analytical Report

Sample: 361030 - BH-1 11-12'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2014-04-24	Analyzed By:	AK
QC Batch:	111446	Sample Preparation:	2014-04-24	Prepared By:	AK
Prep Batch:	94202				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			14400	mg/Kg	5	4.00

Sample: 361031 - BH-1 14-15'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2014-04-24	Analyzed By:	AK
QC Batch:	111446	Sample Preparation:	2014-04-24	Prepared By:	AK
Prep Batch:	94202				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			9380	mg/Kg	5	4.00

Sample: 361032 - BH-1 19-20'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2014-04-24	Analyzed By:	AK
QC Batch:	111446	Sample Preparation:	2014-04-24	Prepared By:	AK
Prep Batch:	94202				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			10300	mg/Kg	5	4.00

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 7 of 36
Lea Co, NM

Sample: 361033 - BH-1 24-25'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	111446	Date Analyzed:	2014-04-24
Prep Batch:	94202	Sample Preparation:	2014-04-24
		Prep Method:	N/A
		Analyzed By:	AK
		Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			11200	mg/Kg	5	4.00

Sample: 361034 - BH-1 29-30'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	111446	Date Analyzed:	2014-04-24
Prep Batch:	94202	Sample Preparation:	2014-04-24
		Prep Method:	N/A
		Analyzed By:	AK
		Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			4970	mg/Kg	5	4.00

Sample: 361035 - BH-1 39-40'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	111446	Date Analyzed:	2014-04-24
Prep Batch:	94202	Sample Preparation:	2014-04-24
		Prep Method:	N/A
		Analyzed By:	AK
		Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			1150	mg/Kg	5	4.00

Sample: 361036 - BH-1 49-50'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	111446	Date Analyzed:	2014-04-24
Prep Batch:	94202	Sample Preparation:	2014-04-24
		Prep Method:	N/A
		Analyzed By:	AK
		Prepared By:	AK

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 8 of 36
Lea Co, NM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			7080	mg/Kg	5	4.00

Sample: 361037 - BH-1 59-60'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	111446	Date Analyzed:	2014-04-24	Analyzed By:	AK
Prep Batch:	94202	Sample Preparation:	2014-04-24	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			3550	mg/Kg	5	4.00

Sample: 361038 - BH-1 64-65'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	111446	Date Analyzed:	2014-04-24	Analyzed By:	AK
Prep Batch:	94202	Sample Preparation:	2014-04-24	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			412	mg/Kg	5	4.00

Sample: 361045 - BH-2 14-15'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	111447	Date Analyzed:	2014-04-24	Analyzed By:	AK
Prep Batch:	94202	Sample Preparation:	2014-04-24	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			8410	mg/Kg	5	4.00

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 9 of 36
Lea Co, NM

Sample: 361046 - BH-2 19-20'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	111447	Date Analyzed:	2014-04-24
Prep Batch:	94202	Sample Preparation:	2014-04-24
		Prep Method:	N/A
		Analyzed By:	AK
		Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			4200	mg/Kg	5	4.00

Sample: 361047 - BH-2 24-25'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	111447	Date Analyzed:	2014-04-24
Prep Batch:	94202	Sample Preparation:	2014-04-24
		Prep Method:	N/A
		Analyzed By:	AK
		Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			5270	mg/Kg	5	4.00

Sample: 361048 - BH-2 29-30'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	111447	Date Analyzed:	2014-04-24
Prep Batch:	94202	Sample Preparation:	2014-04-24
		Prep Method:	N/A
		Analyzed By:	AK
		Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			6990	mg/Kg	5	4.00

Sample: 361049 - BH-2 39-40'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	111447	Date Analyzed:	2014-04-24
Prep Batch:	94202	Sample Preparation:	2014-04-24
		Prep Method:	N/A
		Analyzed By:	AK
		Prepared By:	AK

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 10 of 36
Lea Co, NM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			7130	mg/Kg	5	4.00

Sample: 361050 - BH-2 49-50'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	111448	Date Analyzed:	2014-04-24	Analyzed By:	AK
Prep Batch:	94202	Sample Preparation:	2014-04-24	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			9250	mg/Kg	5	4.00

Sample: 361051 - BH-2 59-60'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	111448	Date Analyzed:	2014-04-24	Analyzed By:	AK
Prep Batch:	94202	Sample Preparation:	2014-04-24	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			5570	mg/Kg	5	4.00

Sample: 361052 - BH-2 69-70'

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	111448	Date Analyzed:	2014-04-24	Analyzed By:	AK
Prep Batch:	94202	Sample Preparation:	2014-04-24	Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			5170	mg/Kg	5	4.00

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 11 of 36
Lea Co, NM

Sample: 361053 - BH-2 79-80'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	111448	Date Analyzed:	2014-04-24
Prep Batch:	94202	Sample Preparation:	2014-04-24
		Prep Method:	N/A
		Analyzed By:	AK
		Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			2200	mg/Kg	5	4.00

Sample: 361054 - BH-2 89-90'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	111448	Date Analyzed:	2014-04-24
Prep Batch:	94202	Sample Preparation:	2014-04-24
		Prep Method:	N/A
		Analyzed By:	AK
		Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			1460	mg/Kg	5	4.00

Sample: 361055 - BH-2 94-95'

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	111448	Date Analyzed:	2014-04-24
Prep Batch:	94202	Sample Preparation:	2014-04-24
		Prep Method:	N/A
		Analyzed By:	AK
		Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<20.0	mg/Kg	5	4.00

Sample: 361061 - BH-3 14-15'

Laboratory:	Midland		
Analysis:	BTEX	Analytical Method:	S 8021B
QC Batch:	111460	Date Analyzed:	2014-04-25
Prep Batch:	94203	Sample Preparation:	2014-04-24
		Prep Method:	S 5035
		Analyzed By:	AK
		Prepared By:	AK

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 12 of 36
Lea Co, NM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.66	mg/Kg	1	2.00	83	70 - 130
4-Bromofluorobenzene (4-BFB)			1.49	mg/Kg	1	2.00	74	70 - 130

Sample: 361061 - BH-3 14-15'

Laboratory:	Midland			
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method: N/A
QC Batch:	111448	Date Analyzed:	2014-04-24	Analyzed By: AK
Prep Batch:	94202	Sample Preparation:	2014-04-24	Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			7900	mg/Kg	5	4.00

Sample: 361061 - BH-3 14-15'

Laboratory:	Midland			
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method: N/A
QC Batch:	111436	Date Analyzed:	2014-04-24	Analyzed By: RG
Prep Batch:	94213	Sample Preparation:	2014-04-24	Prepared By: RG

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

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

Sample: 361061 - BH-3 14-15'

Laboratory:	Midland			
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method: S 5035
QC Batch:	111461	Date Analyzed:	2014-04-25	Analyzed By: AK
Prep Batch:	94203	Sample Preparation:	2014-04-24	Prepared By: AK

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 13 of 36
Lea Co, NM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	U	1	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.59	mg/Kg	1	2.00	80	70 - 130
4-Bromofluorobenzene (4-BFB)			1.42	mg/Kg	1	2.00	71	70 - 130

Sample: 361062 - BH-3 19-20'

Laboratory: Midland
Analysis: BTEX
QC Batch: 111460
Prep Batch: 94203

Analytical Method: S 8021B
Date Analyzed: 2014-04-25
Sample Preparation: 2014-04-24

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

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.93	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.68	mg/Kg	1	2.00	84	70 - 130

Sample: 361062 - BH-3 19-20'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 111448
Prep Batch: 94202

Analytical Method: SM 4500-Cl B
Date Analyzed: 2014-04-24
Sample Preparation: 2014-04-24

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			4570	mg/Kg	5	4.00

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 14 of 36
Lea Co, NM

Sample: 361062 - BH-3 19-20'

Laboratory:	Midland		
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D
QC Batch:	111436	Date Analyzed:	2014-04-24
Prep Batch:	94213	Sample Preparation:	2014-04-24
		Prep Method:	N/A
		Analyzed By:	RG
		Prepared By:	RG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			115	mg/Kg	1	100	115	70 - 130

Sample: 361062 - BH-3 19-20'

Laboratory:	Midland		
Analysis:	TPH GRO	Analytical Method:	S 8015 D
QC Batch:	111461	Date Analyzed:	2014-04-25
Prep Batch:	94203	Sample Preparation:	2014-04-24
		Prep Method:	S 5035
		Analyzed By:	AK
		Prepared By:	AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	U	1	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.91	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.60	mg/Kg	1	2.00	80	70 - 130

Sample: 361063 - BH-3 24-25'

Laboratory:	Midland		
Analysis:	BTEX	Analytical Method:	S 8021B
QC Batch:	111460	Date Analyzed:	2014-04-25
Prep Batch:	94203	Sample Preparation:	2014-04-24
		Prep Method:	S 5035
		Analyzed By:	AK
		Prepared By:	AK

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

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 15 of 36
Lea Co, NM

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.96	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			1.67	mg/Kg	1	2.00	84	70 - 130

Sample: 361063 - BH-3 24-25'

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 111448 Date Analyzed: 2014-04-24 Analyzed By: AK
Prep Batch: 94202 Sample Preparation: 2014-04-24 Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			3160	mg/Kg	5	4.00

Sample: 361063 - BH-3 24-25'

Laboratory: Midland
Analysis: TPH DRO - NEW Analytical Method: S 8015 D Prep Method: N/A
QC Batch: 111436 Date Analyzed: 2014-04-24 Analyzed By: RG
Prep Batch: 94213 Sample Preparation: 2014-04-24 Prepared By: RG

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			107	mg/Kg	1	100	107	70 - 130

Sample: 361063 - BH-3 24-25'

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015 D Prep Method: S 5035
QC Batch: 111461 Date Analyzed: 2014-04-25 Analyzed By: AK
Prep Batch: 94203 Sample Preparation: 2014-04-24 Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	U	1	<4.00	mg/Kg	1	4.00

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 16 of 36
Lea Co, NM

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.87	mg/Kg	1	2.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)			1.61	mg/Kg	1	2.00	80	70 - 130

Sample: 361064 - BH-3 29-30'

Laboratory: Midland
Analysis: BTEX
QC Batch: 111460
Prep Batch: 94203

Analytical Method: S 8021B
Date Analyzed: 2014-04-25
Sample Preparation: 2014-04-24

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

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.96	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			1.72	mg/Kg	1	2.00	86	70 - 130

Sample: 361064 - BH-3 29-30'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 111448
Prep Batch: 94202

Analytical Method: SM 4500-Cl B
Date Analyzed: 2014-04-24
Sample Preparation: 2014-04-24

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			975	mg/Kg	5	4.00

Sample: 361064 - BH-3 29-30'

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 111436
Prep Batch: 94213

Analytical Method: S 8015 D
Date Analyzed: 2014-04-24
Sample Preparation: 2014-04-24

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

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 17 of 36
Lea Co, NM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	161	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Q _{sr}	Q _{sr}	133	mg/Kg	1	100	133	70 - 130

Sample: 361064 - BH-3 29-30'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 111461
Prep Batch: 94203

Analytical Method: S 8015 D
Date Analyzed: 2014-04-25
Sample Preparation: 2014-04-24

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	U	1	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.91	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.71	mg/Kg	1	2.00	86	70 - 130

Sample: 361065 - BH-3 39-40'

Laboratory: Midland
Analysis: BTEX
QC Batch: 111460
Prep Batch: 94203

Analytical Method: S 8021B
Date Analyzed: 2014-04-25
Sample Preparation: 2014-04-24

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

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.80	mg/Kg	1	2.00	90	70 - 130
4-Bromofluorobenzene (4-BFB)			1.56	mg/Kg	1	2.00	78	70 - 130

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 18 of 36
Lea Co, NM

Sample: 361065 - BH-3 39-40'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2014-04-24	Analyzed By:	AK
QC Batch:	111450	Sample Preparation:	2014-04-24	Prepared By:	AK
Prep Batch:	94202				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			48.0	mg/Kg	5	4.00

Sample: 361065 - BH-3 39-40'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2014-04-24	Analyzed By:	RG
QC Batch:	111436	Sample Preparation:	2014-04-24	Prepared By:	RG
Prep Batch:	94213				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	180	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			122	mg/Kg	1	100	122	70 - 130

Sample: 361065 - BH-3 39-40'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2014-04-25	Analyzed By:	AK
QC Batch:	111461	Sample Preparation:	2014-04-24	Prepared By:	AK
Prep Batch:	94203				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO		1	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.72	mg/Kg	1	2.00	86	70 - 130
4-Bromofluorobenzene (4-BFB)			1.65	mg/Kg	1	2.00	82	70 - 130

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 19 of 36
Lea Co, NM

Sample: 361066 - BH-3 49-50'

Laboratory: Midland

Analysis: BTEX

QC Batch: 111460

Prep Batch: 94203

Analytical Method: S 8021B

Date Analyzed: 2014-04-25

Sample Preparation: 2014-04-24

Prep Method: S 5035

Analyzed By: AK

Prepared By: AK

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.91	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.61	mg/Kg	1	2.00	80	70 - 130

Sample: 361066 - BH-3 49-50'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 111450

Prep Batch: 94202

Analytical Method: SM 4500-Cl B

Date Analyzed: 2014-04-24

Sample Preparation: 2014-04-24

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			827	mg/Kg	5	4.00

Sample: 361066 - BH-3 49-50'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 111436

Prep Batch: 94213

Analytical Method: S 8015 D

Date Analyzed: 2014-04-24

Sample Preparation: 2014-04-24

Prep Method: N/A

Analyzed By: RG

Prepared By: RG

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

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

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 20 of 36
Lea Co, NM

Sample: 361066 - BH-3 49-50'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 111461
Prep Batch: 94203

Analytical Method: S 8015 D
Date Analyzed: 2014-04-25
Sample Preparation: 2014-04-24

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	U	1	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.82	mg/Kg	1	2.00	91	70 - 130
4-Bromofluorobenzene (4-BFB)			1.54	mg/Kg	1	2.00	77	70 - 130

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 21 of 36
Lea Co, NM

Method Blanks

Method Blank (1) QC Batch: 111436

QC Batch: 111436 Date Analyzed: 2014-04-24 Analyzed By: RG
Prep Batch: 94213 QC Preparation: 2014-04-24 Prepared By: RG

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	<7.41	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			121	mg/Kg	1	100	121	70 - 130

Method Blank (1) QC Batch: 111446

QC Batch: 111446 Date Analyzed: 2014-04-24 Analyzed By: AK
Prep Batch: 94202 QC Preparation: 2014-04-24 Prepared By: AK

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

Method Blank (1) QC Batch: 111447

QC Batch: 111447 Date Analyzed: 2014-04-24 Analyzed By: AK
Prep Batch: 94202 QC Preparation: 2014-04-24 Prepared By: AK

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

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 22 of 36
Lea Co, NM

Method Blank (1) QC Batch: 111448

QC Batch: 111448 Date Analyzed: 2014-04-24 Analyzed By: AK
Prep Batch: 94202 QC Preparation: 2014-04-24 Prepared By: AK

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

Method Blank (1) QC Batch: 111450

QC Batch: 111450 Date Analyzed: 2014-04-24 Analyzed By: AK
Prep Batch: 94202 QC Preparation: 2014-04-24 Prepared By: AK

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

Method Blank (1) QC Batch: 111460

QC Batch: 111460 Date Analyzed: 2014-04-25 Analyzed By: AK
Prep Batch: 94203 QC Preparation: 2014-04-24 Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.00533	mg/Kg	0.02
Toluene		1	<0.00645	mg/Kg	0.02
Ethylbenzene		1	<0.0116	mg/Kg	0.02
Xylene		1	<0.00874	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.11	mg/Kg	1	2.00	106	70 - 130
4-Bromofluorobenzene (4-BFB)			1.74	mg/Kg	1	2.00	87	70 - 130

Method Blank (1) QC Batch: 111461

QC Batch: 111461 Date Analyzed: 2014-04-25 Analyzed By: AK
Prep Batch: 94203 QC Preparation: 2014-04-24 Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	<2.32	mg/Kg	4

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.98	mg/Kg	1	2.00	99	70 - 130
4-Bromofluorobenzene (4-BFB)			1.65	mg/Kg	1	2.00	82	70 - 130

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 24 of 36
Lea Co, NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 111436
Prep Batch: 94213

Date Analyzed: 2014-04-24
QC Preparation: 2014-04-24

Analyzed By: RG
Prepared By: RG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	212	mg/Kg	1	250	<7.41	85	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	226	mg/Kg	1	250	<7.41	90	70 - 130	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
n-Tricosane	112	113	mg/Kg	1	100	112	113	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 111446
Prep Batch: 94202

Date Analyzed: 2014-04-24
QC Preparation: 2014-04-24

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2580	mg/Kg	5	2500	<19.2	103	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2540	mg/Kg	5	2500	<19.2	102	85 - 115	2	20

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

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 25 of 36
Lea Co, NM

Laboratory Control Spike (LCS-1)

QC Batch: 111447
Prep Batch: 94202

Date Analyzed: 2014-04-24
QC Preparation: 2014-04-24

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2480	mg/Kg	5	2500	<19.2	99	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2540	mg/Kg	5	2500	<19.2	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: 111448
Prep Batch: 94202

Date Analyzed: 2014-04-24
QC Preparation: 2014-04-24

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2480	mg/Kg	5	2500	<19.2	99	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2530	mg/Kg	5	2500	<19.2	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: 111450
Prep Batch: 94202

Date Analyzed: 2014-04-24
QC Preparation: 2014-04-24

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2560	mg/Kg	5	2500	<19.2	102	85 - 115

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

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 26 of 36
Lea Co, NM

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2490	mg/Kg	5	2500	<19.2	100	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: 111460
Prep Batch: 94203

Date Analyzed: 2014-04-25
QC Preparation: 2014-04-24

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.54	mg/Kg	1	2.00	<0.00533	77	70 - 130
Toluene		1	1.60	mg/Kg	1	2.00	<0.00645	80	70 - 130
Ethylbenzene		1	1.69	mg/Kg	1	2.00	<0.0116	84	70 - 130
Xylene		1	5.07	mg/Kg	1	6.00	<0.00874	84	70 - 130

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.65	mg/Kg	1	2.00	<0.00533	82	70 - 130	7	20
Toluene		1	1.69	mg/Kg	1	2.00	<0.00645	84	70 - 130	6	20
Ethylbenzene		1	1.79	mg/Kg	1	2.00	<0.0116	90	70 - 130	6	20
Xylene		1	5.38	mg/Kg	1	6.00	<0.00874	90	70 - 130	6	20

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

Surrogate	LCSD Result	LCSD Result	Units	Dil.	Spike Amount	LCSD Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.89	1.99	mg/Kg	1	2.00	94	100	70 - 130
4-Bromofluorobenzene (4-BFB)	1.61	1.63	mg/Kg	1	2.00	80	82	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 111461
Prep Batch: 94203

Date Analyzed: 2014-04-25
QC Preparation: 2014-04-24

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	16.4	mg/Kg	1	20.0	<2.32	82	70 - 130

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

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 27 of 36
Lea Co, NM

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	16.3	mg/Kg	1	20.0	<2.32	82	70 - 130	1	20

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

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.88	1.82	mg/Kg	1	2.00	94	91	70 - 130
4-Bromofluorobenzene (4-BFB)	1.70	1.71	mg/Kg	1	2.00	85	86	70 - 130

Matrix Spike (MS-1) Spiked Sample: 361061

QC Batch: 111436
Prep Batch: 94213

Date Analyzed: 2014-04-24
QC Preparation: 2014-04-24

Analyzed By: RG
Prepared By: RG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	230	mg/Kg	1	250	<7.41	92	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	234	mg/Kg	1	250	<7.41	94	70 - 130	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	117	116	mg/Kg	1	100	117	116	70 - 130

Matrix Spike (MS-1) Spiked Sample: 361038

QC Batch: 111446
Prep Batch: 94202

Date Analyzed: 2014-04-24
QC Preparation: 2014-04-24

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			3070	mg/Kg	5	2500	412	106	78.9 - 121

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

continued ...

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 28 of 36
Lea Co, NM

matrix spikes continued ...

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			3280	mg/Kg	5	2500	412	115	78.9 - 121	7	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: 361049

QC Batch: 111447
Prep Batch: 94202

Date Analyzed: 2014-04-24
QC Preparation: 2014-04-24

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			9480	mg/Kg	5	2500	7130	94	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			9640	mg/Kg	5	2500	7130	100	78.9 - 121	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: 361064

QC Batch: 111448
Prep Batch: 94202

Date Analyzed: 2014-04-24
QC Preparation: 2014-04-24

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			3730	mg/Kg	5	2500	975	110	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			3510	mg/Kg	5	2500	975	101	78.9 - 121	6	20

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

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 29 of 36
Lea Co, NM

Matrix Spike (MS-1) Spiked Sample: 360768

QC Batch: 111450
Prep Batch: 94202

Date Analyzed: 2014-04-24
QC Preparation: 2014-04-24

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2950	mg/Kg	5	2500	163	111	78.9 - 121

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2820	mg/Kg	5	2500	163	106	78.9 - 121	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: 361066

QC Batch: 111460
Prep Batch: 94203

Date Analyzed: 2014-04-25
QC Preparation: 2014-04-24

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.62	mg/Kg	1	2.00	<0.00533	81	70 - 130
Toluene		1	1.66	mg/Kg	1	2.00	<0.00645	83	70 - 130
Ethylbenzene		1	1.76	mg/Kg	1	2.00	<0.0116	88	70 - 130
Xylene		1	5.31	mg/Kg	1	6.00	<0.00874	88	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.61	mg/Kg	1	2.00	<0.00533	80	70 - 130	1	20
Toluene		1	1.64	mg/Kg	1	2.00	<0.00645	82	70 - 130	1	20
Ethylbenzene		1	1.77	mg/Kg	1	2.00	<0.0116	88	70 - 130	1	20
Xylene		1	5.33	mg/Kg	1	6.00	<0.00874	89	70 - 130	0	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)	1.99	1.94	mg/Kg	1	2	100	97	70 - 130
4-Bromofluorobenzene (4-BFB)	1.69	1.72	mg/Kg	1	2	84	86	70 - 130

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 30 of 36
Lea Co, NM

Matrix Spike (MS-1) Spiked Sample: 361066

QC Batch: 111461
Prep Batch: 94203

Date Analyzed: 2014-04-25
QC Preparation: 2014-04-24

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	16.5	mg/Kg	1	20.0	<2.32	82	70 - 130

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	16.0	mg/Kg	1	20.0	<2.32	80	70 - 130	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)	1.89	1.80	mg/Kg	1	2	94	90	70 - 130
4-Bromofluorobenzene (4-BFB)	1.84	1.68	mg/Kg	1	2	92	84	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 111436

Date Analyzed: 2014-04-24

Analyzed By: RG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	210	84	80 - 120	2014-04-24

Standard (CCV-2)

QC Batch: 111436

Date Analyzed: 2014-04-24

Analyzed By: RG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	208	83	80 - 120	2014-04-24

Standard (ICV-1)

QC Batch: 111446

Date Analyzed: 2014-04-24

Analyzed By: AK

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	102	102	85 - 115	2014-04-24

Standard (CCV-1)

QC Batch: 111446

Date Analyzed: 2014-04-24

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	98.0	98	85 - 115	2014-04-24

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 32 of 36
Lea Co, NM

Standard (ICV-1)

QC Batch: 111447

Date Analyzed: 2014-04-24

Analyzed By: AK

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2014-04-24

Standard (CCV-1)

QC Batch: 111447

Date Analyzed: 2014-04-24

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2014-04-24

Standard (ICV-1)

QC Batch: 111448

Date Analyzed: 2014-04-24

Analyzed By: AK

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2014-04-24

Standard (CCV-1)

QC Batch: 111448

Date Analyzed: 2014-04-24

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2014-04-24

Standard (ICV-1)

QC Batch: 111450

Date Analyzed: 2014-04-24

Analyzed By: AK

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 33 of 36
Lea Co, NM

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	102	102	85 - 115	2014-04-24

Standard (CCV-1)

QC Batch: 111450

Date Analyzed: 2014-04-24

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	98.0	98	85 - 115	2014-04-24

Standard (CCV-1)

QC Batch: 111460

Date Analyzed: 2014-04-25

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0877	88	80 - 120	2014-04-25
Toluene		1	mg/kg	0.100	0.0880	88	80 - 120	2014-04-25
Ethylbenzene		1	mg/kg	0.100	0.0886	89	80 - 120	2014-04-25
Xylene		1	mg/kg	0.300	0.269	90	80 - 120	2014-04-25

Standard (CCV-2)

QC Batch: 111460

Date Analyzed: 2014-04-25

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0900	90	80 - 120	2014-04-25
Toluene		1	mg/kg	0.100	0.0893	89	80 - 120	2014-04-25
Ethylbenzene		1	mg/kg	0.100	0.0889	89	80 - 120	2014-04-25
Xylene		1	mg/kg	0.300	0.265	88	80 - 120	2014-04-25

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 34 of 36
Lea Co, NM

Standard (CCV-3)

QC Batch: 111460

Date Analyzed: 2014-04-25

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/kg	0.100	0.0893	89	80 - 120	2014-04-25
Toluene		1	mg/kg	0.100	0.0887	89	80 - 120	2014-04-25
Ethylbenzene		1	mg/kg	0.100	0.0867	87	80 - 120	2014-04-25
Xylene		1	mg/kg	0.300	0.260	87	80 - 120	2014-04-25

Standard (CCV-1)

QC Batch: 111461

Date Analyzed: 2014-04-25

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.965	96	80 - 120	2014-04-25

Standard (CCV-2)

QC Batch: 111461

Date Analyzed: 2014-04-25

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.882	88	80 - 120	2014-04-25

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-13-7	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

Report Date: April 25, 2014
112MC06426

Work Order: 14042401
COG/Pronghorn Central SWD

Page Number: 36 of 36
Lea Co, NM

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

Analysis Request of Chain of Custody Record

Analysis Request of Chain of Custody Record

ANALYSIS REQUEST
(Circle or Specify Method)

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

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 V# 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

CLIENT NAME:		PROJECT NAME:		SITE MANAGER:		PRESERVATIVE METHOD	
PROJECT NO.:		DATE		TIME		NUMBER OF CONTAINERS	
LAB I.D. NUMBER		DATE		TIME		PRESERVATIVE METHOD	
035	4/23	5	39-46	1	49-50	1	59-60
036		1		1		1	
037		1		1		1	
038		1		1		1	
039		1		1		1	
040		1		1		1	
041		1		1		1	
042		1		1		1	
043		1		1		1	
044		1		1		1	
RELINQUISHED BY: (Signature)		DATE		TIME		PRESERVATIVE METHOD	
RELINQUISHED BY: (Signature)		DATE		TIME		PRESERVATIVE METHOD	
RECEIVING LABORATORY:		DATE		TIME		PRESERVATIVE METHOD	
ADDRESS:		DATE		TIME		PRESERVATIVE METHOD	
CITY:		DATE		TIME		PRESERVATIVE METHOD	
CONTACT:		DATE		TIME		PRESERVATIVE METHOD	

24 Hr 2021/03/24

Analysis Request of Chain of Custody Record

OF: 5

(Circle or Specify Method No.)



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

CLIENT NAME: COG		SITE MANAGER: 114 TAVARIZ		PROJECT NAME: Pongnam Central SUB		PRESERVATIVE METHOD		NUMBER OF CONTAINERS		FILTERED (Y/N)		HCL		HNO3		ICE		NONE		BTX 8021B		TPH 8015 MOD. TX100		PAH 8270		RCRA Metals Ag As Ba C		TCLP Metals Ag As Ba C		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,															
PROJECT NO.: 112MCOV0424		DATE 2014		TIME		MATRIX		COMP		GRAB		SAMPLE IDENTIFICATION 14-15		19-20		24-25		29-30		39-40		49-50		59-100		109-20		79-80		89-90		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		SAMPLED BY: (Print & Initial)		Date: 4/23/14		Time: 8:18		AIRBILL #:		OTHER:		RESULTS BY:		RUSH Charges Authorized:		Yes		No			
LAB I.D. NUMBER		DATE		TIME		MATRIX		COMP		GRAB		SAMPLE IDENTIFICATION		14-15		19-20		24-25		29-30		39-40		49-50		59-100		109-20		79-80		89-90		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		SAMPLED BY: (Print & Initial)		Date: 4/23/14		Time: 8:18		AIRBILL #:		OTHER:		RESULTS BY:		RUSH Charges Authorized:		Yes		No	
RECEIVING LABORATORY:		ADDRESS:		STATE:		ZIP:		PHONE:		DATE:		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		SAMPLED BY: (Print & Initial)		Date: 4/23/14		Time: 8:18		AIRBILL #:		OTHER:		RESULTS BY:		RUSH Charges Authorized:		Yes		No							
RECEIVING LABORATORY:		ADDRESS:		STATE:		ZIP:		PHONE:		DATE:		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		SAMPLED BY: (Print & Initial)		Date: 4/23/14		Time: 8:18		AIRBILL #:		OTHER:		RESULTS BY:		RUSH Charges Authorized:		Yes		No							
RECEIVING LABORATORY:		ADDRESS:		STATE:		ZIP:		PHONE:		DATE:		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		SAMPLED BY: (Print & Initial)		Date: 4/23/14		Time: 8:18		AIRBILL #:		OTHER:		RESULTS BY:		RUSH Charges Authorized:		Yes		No							
RECEIVING LABORATORY:		ADDRESS:		STATE:		ZIP:		PHONE:		DATE:		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		SAMPLED BY: (Print & Initial)		Date: 4/23/14		Time: 8:18		AIRBILL #:		OTHER:		RESULTS BY:		RUSH Charges Authorized:		Yes		No							
RECEIVING LABORATORY:		ADDRESS:		STATE:		ZIP:		PHONE:		DATE:		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		SAMPLED BY: (Print & Initial)		Date: 4/23/14		Time: 8:18		AIRBILL #:		OTHER:		RESULTS BY:		RUSH Charges Authorized:		Yes		No							
RECEIVING LABORATORY:		ADDRESS:		STATE:		ZIP:		PHONE:		DATE:		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		SAMPLED BY: (Print & Initial)		Date: 4/23/14		Time: 8:18		AIRBILL #:		OTHER:		RESULTS BY:		RUSH Charges Authorized:		Yes		No							
RECEIVING LABORATORY:		ADDRESS:		STATE:		ZIP:		PHONE:		DATE:		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		RECEIVED BY: (Signature)		4/23/14		Date: 4/23/14		Time: 8:18		RECEIVED BY: (Signature)		4/23/14		Date: 4/23																																			

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24 2US4

1404240

Analysis Request of Chain of Custody Record

ANALYSIS REQUEST
(Circle or Specify Method No.)



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

CLIENT NAME: COG		SITE MANAGER: 1ko Javarez		PRESERVATIVE METHOD							
PROJECT NO.: 112MCO6426		PROJECT NAME: Panorama Central SWO		NUMBER OF CONTAINERS							
LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP	GRAB	SAMPLE IDENTIFICATION	HCL	HNO3	ICE	NONE	
0554/23	2014		5	X	BH-2	94-95					
056						BH-3	0-1 (Hold)				
057							2-3 (Hold)				
058							4-5 (Hold)				
059							6-7 (Hold)				
060							9-10 (Hold)				
061							14-15				
062							19-20				
063							24-25				
RELINQUISHED BY: (Signature)		Date: 11/24/14		Time: 11:14		RECEIVED BY: (Signature)		Date: 11/24/14		Time: 11:14	
RELINQUISHED BY: (Signature)		Date: 11/24/14		Time: 11:14		RECEIVED BY: (Signature)		Date: 11/24/14		Time: 11:14	
RELINQUISHED BY: (Signature)		Date: 11/24/14		Time: 11:14		RECEIVED BY: (Signature)		Date: 11/24/14		Time: 11:14	
RECEIVING LABORATORY:		Address:		City:		State:		Phone:		Zip:	
SAMPLE CONDITION WHEN RECEIVED:		Remarks:		Date:		Time:		RUSH Charges Authorized:		Yes No	

PAH 8270
RCRA Metals Ag As Ba Cd Cr Pb Hg Se
TCLP Metals Ag As Ba Cd Yr Pd Hg Se
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

DATE: **11/24/14**
TIME: **11:14**

SAMPLE SHIPPED BY: (Circle)
FEDEX
HAND DELIVERED
BUS
UPS
TETRA TECH CONTACT PERSON:

Results by:

RUSH Charges Authorized:

Yes No

nd RUSH

140424017

Analysis Request of Chain of Custody Record

PAGE: 5 OF: 5

ANALYSIS REQUEST

(Circle or Specify Method No.)

TETRA TECH

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



CLIENT NAME: <u>COG</u>		SITE MANAGER: <u>ke Tavaraz</u>	
PROJECT NO.: <u>112MCOU470</u>		PROJECT NAME: <u>Pronghorn Central SWD</u>	
LAB I.D. NUMBER	DATE	TIME	MATRIX
064	4/13		S
065			
066			
PRESERVATIVE METHOD			
HCL			
HNO3			
ICE			
NONE			
FILTERED (Y/N)			
NUMBER OF CONTAINERS			
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			

RELINQUISHED BY: (Signature)	Date: <u>4/24/14</u>	RECEIVED BY: (Signature)	Date: <u>4/24/14</u>
RELINQUISHED BY: (Signature)	Date: <u>4/24/14</u>	RECEIVED BY: (Signature)	Date: <u>4/24/14</u>
RELINQUISHED BY: (Signature)	Date: <u>4/24/14</u>	RECEIVED BY: (Signature)	Date: <u>4/24/14</u>
RECEIVING LABORATORY:		RECEIVED BY: (Signature)	Date: <u>4/24/14</u>
ADDRESS:		RECEIVED BY: (Signature)	Date: <u>4/24/14</u>
CITY:		RECEIVED BY: (Signature)	Date: <u>4/24/14</u>
CONTACT:		RECEIVED BY: (Signature)	Date: <u>4/24/14</u>
STATE:		RECEIVED BY: (Signature)	Date: <u>4/24/14</u>
ZIP:		RECEIVED BY: (Signature)	Date: <u>4/24/14</u>
PHONE:		RECEIVED BY: (Signature)	Date: <u>4/24/14</u>
REMARKS: <u>340</u>			

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

Summary Report

Ike Tavaréz
Tetra Tech
1901 N. Big Spring St.
Midland, TX 79705

Report Date: April 25, 2014

Work Order: 14042401



Project Location: Lea Co, NM
Project Name: COG/Pronghorn Central SWD
Project Number: 112MC06426

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
361030	BH-1 11-12'	soil	2014-04-23	00:00	2014-04-24
361031	BH-1 14-15'	soil	2014-04-23	00:00	2014-04-24
361032	BH-1 19-20'	soil	2014-04-23	00:00	2014-04-24
361033	BH-1 24-25'	soil	2014-04-23	00:00	2014-04-24
361034	BH-1 29-30'	soil	2014-04-23	00:00	2014-04-24
361035	BH-1 39-40'	soil	2014-04-23	00:00	2014-04-24
361036	BH-1 49-50'	soil	2014-04-23	00:00	2014-04-24
361037	BH-1 59-60'	soil	2014-04-23	00:00	2014-04-24
361038	BH-1 64-65'	soil	2014-04-23	00:00	2014-04-24
361045	BH-2 14-15'	soil	2014-04-23	00:00	2014-04-24
361046	BH-2 19-20'	soil	2014-04-23	00:00	2014-04-24
361047	BH-2 24-25'	soil	2014-04-23	00:00	2014-04-24
361048	BH-2 29-30'	soil	2014-04-23	00:00	2014-04-24
361049	BH-2 39-40'	soil	2014-04-23	00:00	2014-04-24
361050	BH-2 49-50'	soil	2014-04-23	00:00	2014-04-24
361051	BH-2 59-60'	soil	2014-04-23	00:00	2014-04-24
361052	BH-2 69-70'	soil	2014-04-23	00:00	2014-04-24
361053	BH-2 79-80'	soil	2014-04-23	00:00	2014-04-24
361054	BH-2 89-90'	soil	2014-04-23	00:00	2014-04-24
361055	BH-2 94-95'	soil	2014-04-23	00:00	2014-04-24
361061	BH-3 14-15'	soil	2014-04-23	00:00	2014-04-24
361062	BH-3 19-20'	soil	2014-04-23	00:00	2014-04-24
361063	BH-3 24-25'	soil	2014-04-23	00:00	2014-04-24
361064	BH-3 29-30'	soil	2014-04-23	00:00	2014-04-24
361065	BH-3 39-40'	soil	2014-04-23	00:00	2014-04-24
361066	BH-3 49-50'	soil	2014-04-23	00:00	2014-04-24

Sample - Field Code	BTEX				TPH DRO - NEW	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
361061 - BH-3 14-15'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00
361062 - BH-3 19-20'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00
361063 - BH-3 24-25'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00
361064 - BH-3 29-30'	<0.0200	<0.0200	<0.0200	<0.0200	161	<4.00
361065 - BH-3 39-40'	<0.0200	<0.0200	<0.0200	<0.0200	180	<4.00
361066 - BH-3 49-50'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00

Sample: 361030 - BH-1 11-12'

Param	Flag	Result	Units	RL
Chloride		14400	mg/Kg	4

Sample: 361031 - BH-1 14-15'

Param	Flag	Result	Units	RL
Chloride		9380	mg/Kg	4

Sample: 361032 - BH-1 19-20'

Param	Flag	Result	Units	RL
Chloride		10300	mg/Kg	4

Sample: 361033 - BH-1 24-25'

Param	Flag	Result	Units	RL
Chloride		11200	mg/Kg	4

Sample: 361034 - BH-1 29-30'

Param	Flag	Result	Units	RL
Chloride		4970	mg/Kg	4

Sample: 361035 - BH-1 39-40'

Param	Flag	Result	Units	RL
Chloride		1150	mg/Kg	4

Sample: 361036 - BH-1 49-50'

Param	Flag	Result	Units	RL
Chloride		7080	mg/Kg	4

Sample: 361037 - BH-1 59-60'

Param	Flag	Result	Units	RL
Chloride		3550	mg/Kg	4

Sample: 361038 - BH-1 64-65'

Param	Flag	Result	Units	RL
Chloride		412	mg/Kg	4

Sample: 361045 - BH-2 14-15'

Param	Flag	Result	Units	RL
Chloride		8410	mg/Kg	4

Sample: 361046 - BH-2 19-20'

Param	Flag	Result	Units	RL
Chloride		4200	mg/Kg	4

Sample: 361047 - BH-2 24-25'

Param	Flag	Result	Units	RL
Chloride		5270	mg/Kg	4

Sample: 361048 - BH-2 29-30'

Param	Flag	Result	Units	RL
Chloride		6990	mg/Kg	4

Sample: 361049 - BH-2 39-40'

Param	Flag	Result	Units	RL
Chloride		7130	mg/Kg	4

Sample: 361050 - BH-2 49-50'

Param	Flag	Result	Units	RL
Chloride		9250	mg/Kg	4

Sample: 361051 - BH-2 59-60'

Param	Flag	Result	Units	RL
Chloride		5570	mg/Kg	4

Sample: 361052 - BH-2 69-70'

Param	Flag	Result	Units	RL
Chloride		5170	mg/Kg	4

Sample: 361053 - BH-2 79-80'

Param	Flag	Result	Units	RL
Chloride		2200	mg/Kg	4

Sample: 361054 - BH-2 89-90'

Param	Flag	Result	Units	RL
Chloride		1460	mg/Kg	4

Sample: 361055 - BH-2 94-95'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 361061 - BH-3 14-15'

Param	Flag	Result	Units	RL
Chloride		7900	mg/Kg	4

Sample: 361062 - BH-3 19-20'

Param	Flag	Result	Units	RL
Chloride		4570	mg/Kg	4

Sample: 361063 - BH-3 24-25'

Param	Flag	Result	Units	RL
Chloride		3160	mg/Kg	4

Sample: 361064 - BH-3 29-30'

Param	Flag	Result	Units	RL
Chloride		975	mg/Kg	4

Sample: 361065 - BH-3 39-40'

Param	Flag	Result	Units	RL
Chloride		48.0	mg/Kg	4

Sample: 361066 - BH-3 49-50'

Param	Flag	Result	Units	RL
Chloride		827	mg/Kg	4

Summary Report

Jeanne Fitch
Tetra Tech
1901 N. Big Spring St.
Midland, TX 79705

Report Date: April 25, 2014

Work Order: 14042401



Project Location: Lea Co, NM
Project Name: COG/Pronghorn Central SWD
Project Number: 112MC06426

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
361030	BH-1 11-12'	soil	2014-04-23	00:00	2014-04-24
361031	BH-1 14-15'	soil	2014-04-23	00:00	2014-04-24
361032	BH-1 19-20'	soil	2014-04-23	00:00	2014-04-24
361033	BH-1 24-25'	soil	2014-04-23	00:00	2014-04-24
361034	BH-1 29-30'	soil	2014-04-23	00:00	2014-04-24
361035	BH-1 39-40'	soil	2014-04-23	00:00	2014-04-24
361036	BH-1 49-50'	soil	2014-04-23	00:00	2014-04-24
361037	BH-1 59-60'	soil	2014-04-23	00:00	2014-04-24
361038	BH-1 64-65'	soil	2014-04-23	00:00	2014-04-24
361045	BH-2 14-15'	soil	2014-04-23	00:00	2014-04-24
361046	BH-2 19-20'	soil	2014-04-23	00:00	2014-04-24
361047	BH-2 24-25'	soil	2014-04-23	00:00	2014-04-24
361048	BH-2 29-30'	soil	2014-04-23	00:00	2014-04-24
361049	BH-2 39-40'	soil	2014-04-23	00:00	2014-04-24
361050	BH-2 49-50'	soil	2014-04-23	00:00	2014-04-24
361051	BH-2 59-60'	soil	2014-04-23	00:00	2014-04-24
361052	BH-2 69-70'	soil	2014-04-23	00:00	2014-04-24
361053	BH-2 79-80'	soil	2014-04-23	00:00	2014-04-24
361054	BH-2 89-90'	soil	2014-04-23	00:00	2014-04-24
361055	BH-2 94-95'	soil	2014-04-23	00:00	2014-04-24
361061	BH-3 14-15'	soil	2014-04-23	00:00	2014-04-24
361062	BH-3 19-20'	soil	2014-04-23	00:00	2014-04-24
361063	BH-3 24-25'	soil	2014-04-23	00:00	2014-04-24
361064	BH-3 29-30'	soil	2014-04-23	00:00	2014-04-24
361065	BH-3 39-40'	soil	2014-04-23	00:00	2014-04-24
361066	BH-3 49-50'	soil	2014-04-23	00:00	2014-04-24

Sample - Field Code	BTEX				TPH DRO - NEW	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
361061 - BH-3 14-15'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00
361062 - BH-3 19-20'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00
361063 - BH-3 24-25'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00
361064 - BH-3 29-30'	<0.0200	<0.0200	<0.0200	<0.0200	161	<4.00
361065 - BH-3 39-40'	<0.0200	<0.0200	<0.0200	<0.0200	180	<4.00
361066 - BH-3 49-50'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00

Sample: 361030 - BH-1 11-12'

Param	Flag	Result	Units	RL
Chloride		14400	mg/Kg	4

Sample: 361031 - BH-1 14-15'

Param	Flag	Result	Units	RL
Chloride		9380	mg/Kg	4

Sample: 361032 - BH-1 19-20'

Param	Flag	Result	Units	RL
Chloride		10300	mg/Kg	4

Sample: 361033 - BH-1 24-25'

Param	Flag	Result	Units	RL
Chloride		11200	mg/Kg	4

Sample: 361034 - BH-1 29-30'

Param	Flag	Result	Units	RL
Chloride		4970	mg/Kg	4

Sample: 361035 - BH-1 39-40'

Param	Flag	Result	Units	RL
Chloride		1150	mg/Kg	4

Sample: 361036 - BH-1 49-50'

Param	Flag	Result	Units	RL
Chloride		7080	mg/Kg	4

Sample: 361037 - BH-1 59-60'

Param	Flag	Result	Units	RL
Chloride		3550	mg/Kg	4

Sample: 361038 - BH-1 64-65'

Param	Flag	Result	Units	RL
Chloride		412	mg/Kg	4

Sample: 361045 - BH-2 14-15'

Param	Flag	Result	Units	RL
Chloride		8410	mg/Kg	4

Sample: 361046 - BH-2 19-20'

Param	Flag	Result	Units	RL
Chloride		4200	mg/Kg	4

Sample: 361047 - BH-2 24-25'

Param	Flag	Result	Units	RL
Chloride		5270	mg/Kg	4

Sample: 361048 - BH-2 29-30'

Param	Flag	Result	Units	RL
Chloride		6990	mg/Kg	4

Sample: 361049 - BH-2 39-40'

Param	Flag	Result	Units	RL
Chloride		7130	mg/Kg	4

Sample: 361050 - BH-2 49-50'

Param	Flag	Result	Units	RL
Chloride		9250	mg/Kg	4

Sample: 361051 - BH-2 59-60'

Param	Flag	Result	Units	RL
Chloride		5570	mg/Kg	4

Sample: 361052 - BH-2 69-70'

Param	Flag	Result	Units	RL
Chloride		5170	mg/Kg	4

Sample: 361053 - BH-2 79-80'

Param	Flag	Result	Units	RL
Chloride		2200	mg/Kg	4

Sample: 361054 - BH-2 89-90'

Param	Flag	Result	Units	RL
Chloride		1460	mg/Kg	4

Sample: 361055 - BH-2 94-95'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 361061 - BH-3 14-15'

Param	Flag	Result	Units	RL
Chloride		7900	mg/Kg	4

Sample: 361062 - BH-3 19-20'

Param	Flag	Result	Units	RL
Chloride		4570	mg/Kg	4

Sample: 361063 - BH-3 24-25'

Param	Flag	Result	Units	RL
Chloride		3160	mg/Kg	4

Sample: 361064 - BH-3 29-30'

Param	Flag	Result	Units	RL
Chloride		975	mg/Kg	4

Sample: 361065 - BH-3 39-40'

Param	Flag	Result	Units	RL
Chloride		48.0	mg/Kg	4

Sample: 361066 - BH-3 49-50'

Param	Flag	Result	Units	RL
Chloride		827	mg/Kg	4



PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

April 17, 2014

IKE TAVAREZ

TETRA TECH

1910 N. BIG SPRING STREET

MIDLAND, TX 79705

RE: COG / PRONGHORN CENTRAL SWD

Enclosed are the results of analyses for samples received by the laboratory on 04/11/14 12:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

TETRA TECH
IKE TAVAREZ
1910 N. BIG SPRING STREET
MIDLAND TX, 79705
Fax To: (432) 682-3946

Received:	04/11/2014	Sampling Date:	04/10/2014
Reported:	04/17/2014	Sampling Type:	Soil
Project Name:	COG / PRONGHORN CENTRAL SWD	Sampling Condition:	Cool & Intact
Project Number:	112MCO6426	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

Sample ID: T1 (SURFACE) (H401108-01)

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/14/2014	ND	2.47	123	2.00	5.14	
Toluene*	<0.050	0.050	04/14/2014	ND	2.30	115	2.00	3.80	
Ethylbenzene*	<0.050	0.050	04/14/2014	ND	2.27	114	2.00	2.81	
Total Xylenes*	<0.150	0.150	04/14/2014	ND	6.51	108	6.00	2.24	
Total BTX	<0.300	0.300	04/14/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 116 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1790	16.0	04/14/2014	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: ms						S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	04/14/2014	ND	184	92.1	200	5.84		
DRO >C10-C28	809	10.0	04/14/2014	ND	192	96.0	200	9.09		
EXT DRO >C28-C35	316	10.0	04/14/2014	ND						

Surrogate: 1-Chlorooctane 116 % 65.2-140

Surrogate: 1-Chlorooctadecane 165 % 63.6-154

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TETRA TECH
IKE TAVAREZ
1910 N. BIG SPRING STREET
MIDLAND TX, 79705
Fax To: (432) 682-3946

Received:	04/11/2014	Sampling Date:	04/10/2014
Reported:	04/17/2014	Sampling Type:	Soil
Project Name:	COG / PRONGHORN CENTRAL SWD	Sampling Condition:	Cool & Intact
Project Number:	112MCO6426	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

Sample ID: T1 (2') (H401108-02)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.100	0.100	04/14/2014	ND	2.47	123	2.00	5.14	
Toluene*	<0.100	0.100	04/14/2014	ND	2.30	115	2.00	3.80	
Ethylbenzene*	1.17	0.100	04/14/2014	ND	2.27	114	2.00	2.81	
Total Xylenes*	0.950	0.300	04/14/2014	ND	6.51	108	6.00	2.24	
Total BTEX	2.12	0.600	04/14/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1070	16.0	04/14/2014	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: ms				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	129	10.0	04/14/2014	ND	184	92.1	200	5.84	
DRO >C10-C28	3260	10.0	04/14/2014	ND	192	96.0	200	9.09	
EXT DRO >C28-C35	753	10.0	04/14/2014	ND					

Surrogate: 1-Chlorooctane 126 % 65.2-140

Surrogate: 1-Chlorooctadecane 165 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TETRA TECH
IKE TAVAREZ
1910 N. BIG SPRING STREET
MIDLAND TX, 79705
Fax To: (432) 682-3946

Received:	04/11/2014	Sampling Date:	04/10/2014
Reported:	04/17/2014	Sampling Type:	Soil
Project Name:	COG / PRONGHORN CENTRAL SWD	Sampling Condition:	Cool & Intact
Project Number:	112MCO6426	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

Sample ID: T1 (4') (H401108-03)

BTEx 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	04/14/2014	ND	2.47	123	2.00	5.14	
Toluene*	<0.200	0.200	04/14/2014	ND	2.30	115	2.00	3.80	
Ethylbenzene*	0.964	0.200	04/14/2014	ND	2.27	114	2.00	2.81	
Total Xylenes*	3.42	0.600	04/14/2014	ND	6.51	108	6.00	2.24	
Total BTEX	4.38	1.20	04/14/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 143 % 89.4-126

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	9060	16.0	04/14/2014	ND	416	104	400	3.92	

TPH 8015M		mg/kg	Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	201	10.0	04/14/2014	ND	184	92.1	200	5.84	
DRO >C10-C28	1570	10.0	04/14/2014	ND	192	96.0	200	9.09	
EXT DRO >C28-C35	271	10.0	04/14/2014	ND					

Surrogate: 1-Chlorooctane 130 % 65.2-140

Surrogate: 1-Chlorooctadecane 120 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TETRA TECH
IKE TAVAREZ
1910 N. BIG SPRING STREET
MIDLAND TX, 79705
Fax To: (432) 682-3946

Received:	04/11/2014	Sampling Date:	04/10/2014
Reported:	04/17/2014	Sampling Type:	Soil
Project Name:	COG / PRONGHORN CENTRAL SWD	Sampling Condition:	Cool & Intact
Project Number:	112MCO6426	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

Sample ID: T1 (6') (H401108-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6640	16.0	04/14/2014	ND	416	104	400	3.92		

Sample ID: T1 (8') (H401108-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2040	16.0	04/14/2014	ND	416	104	400	3.92	

Sample ID: T1 (9') (H401108-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5840	16.0	04/14/2014	ND	416	104	400	3.92	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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IKE TAVAREZ
1910 N. BIG SPRING STREET
MIDLAND TX, 79705
Fax To: (432) 682-3946

Received:	04/11/2014	Sampling Date:	04/10/2014
Reported:	04/17/2014	Sampling Type:	Soil
Project Name:	COG / PRONGHORN CENTRAL SWD	Sampling Condition:	Cool & Intact
Project Number:	112MCO6426	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

Sample ID: T2 (SURFACE) (H401108-07)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/14/2014	ND	2.47	123	2.00	5.14	
Toluene*	<0.050	0.050	04/14/2014	ND	2.30	115	2.00	3.80	
Ethylbenzene*	<0.050	0.050	04/14/2014	ND	2.27	114	2.00	2.81	
Total Xylenes*	<0.150	0.150	04/14/2014	ND	6.51	108	6.00	2.24	
Total BTEx	<0.300	0.300	04/14/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3000	16.0	04/14/2014	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/14/2014	ND	184	92.1	200	5.84	
DRO >C10-C28	195	10.0	04/14/2014	ND	192	96.0	200	9.09	
EXT DRO >C28-C35	83.7	10.0	04/14/2014	ND					

Surrogate: 1-Chlorooctane 102 % 65.2-140

Surrogate: 1-Chlorooctadecane 109 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TETRA TECH
 IKE TAVAREZ
 1910 N. BIG SPRING STREET
 MIDLAND TX, 79705
 Fax To: (432) 682-3946

Received:	04/11/2014	Sampling Date:	04/10/2014
Reported:	04/17/2014	Sampling Type:	Soil
Project Name:	COG / PRONGHORN CENTRAL SWD	Sampling Condition:	Cool & Intact
Project Number:	112MCO6426	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

Sample ID: T2 (2') (H401108-08)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	04/14/2014	ND	2.47	123	2.00	5.14	
Toluene*	0.727	0.200	04/14/2014	ND	2.30	115	2.00	3.80	
Ethylbenzene*	0.258	0.200	04/14/2014	ND	2.27	114	2.00	2.81	
Total Xylenes*	6.41	0.600	04/14/2014	ND	6.51	108	6.00	2.24	
Total BTEX	7.40	1.20	04/14/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 106 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	5040	16.0	04/14/2014	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: ms				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	275	10.0	04/14/2014	ND	184	92.1	200	5.84	
DRO >C10-C28	2990	10.0	04/14/2014	ND	192	96.0	200	9.09	
EXT DRO >C28-C35	610	10.0	04/14/2014	ND					

Surrogate: 1-Chlorooctane 139 % 65.2-140

Surrogate: 1-Chlorooctadecane 166 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TETRA TECH
IKE TAVAREZ
1910 N. BIG SPRING STREET
MIDLAND TX, 79705
Fax To: (432) 682-3946

Received:	04/11/2014	Sampling Date:	04/10/2014
Reported:	04/17/2014	Sampling Type:	Soil
Project Name:	COG / PRONGHORN CENTRAL SWD	Sampling Condition:	Cool & Intact
Project Number:	112MCO6426	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

Sample ID: T2 (4') (H401108-09)

BTEx 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<2.00	2.00	04/14/2014	ND	2.47	123	2.00	5.14	
Toluene*	55.4	2.00	04/14/2014	ND	2.30	115	2.00	3.80	
Ethylbenzene*	79.3	2.00	04/14/2014	ND	2.27	114	2.00	2.81	
Total Xylenes*	169	6.00	04/14/2014	ND	6.51	108	6.00	2.24	
Total BTEX	304	12.0	04/14/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 158 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1880	16.0	04/14/2014	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: ms				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	3170	10.0	04/14/2014	ND	184	92.1	200	5.84	
DRO >C10-C28	9650	10.0	04/14/2014	ND	192	96.0	200	9.09	
EXT DRO >C28-C35	1410	10.0	04/14/2014	ND					

Surrogate: 1-Chlorooctane 184 % 65.2-140

Surrogate: 1-Chlorooctadecane 231 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TETRA TECH
IKE TAVAREZ
1910 N. BIG SPRING STREET
MIDLAND TX, 79705
Fax To: (432) 682-3946

Received:	04/11/2014	Sampling Date:	04/10/2014
Reported:	04/17/2014	Sampling Type:	Soil
Project Name:	COG / PRONGHORN CENTRAL SWD	Sampling Condition:	Cool & Intact
Project Number:	112MCO6426	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

Sample ID: T2 (6') (H401108-10)

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/16/2014	ND	2.54	127	2.00	0.0570	
Toluene*	<0.050	0.050	04/16/2014	ND	2.42	121	2.00	0.392	
Ethylbenzene*	<0.050	0.050	04/16/2014	ND	2.39	120	2.00	0.684	
Total Xylenes*	<0.150	0.150	04/16/2014	ND	6.93	115	6.00	1.27	
Total BTEX	<0.300	0.300	04/16/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 117 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4160	16.0	04/14/2014	ND	416	104	400	3.92		

TPH 8015M		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	04/15/2014	ND	213	106	200	0.378	
DRO >C10-C28	<10.0	10.0	04/15/2014	ND	235	117	200	2.09	
EXT DRO >C28-C35	<10.0	10.0	04/15/2014	ND					

Surrogate: 1-Chlorooctane 107 % 65.2-140

Surrogate: 1-Chlorooctadecane 100 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TETRA TECH
IKE TAVAREZ
1910 N. BIG SPRING STREET
MIDLAND TX, 79705
Fax To: (432) 682-3946

Received:	04/11/2014	Sampling Date:	04/10/2014
Reported:	04/17/2014	Sampling Type:	Soil
Project Name:	COG / PRONGHORN CENTRAL SWD	Sampling Condition:	Cool & Intact
Project Number:	112MCO6426	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

Sample ID: T2 (8') (H401108-11)

BTX 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	04/16/2014	ND	2.54	127	2.00	0.0570	
Toluene*	0.107	0.050	04/16/2014	ND	2.42	121	2.00	0.392	
Ethylbenzene*	0.455	0.050	04/16/2014	ND	2.39	120	2.00	0.684	
Total Xylenes*	2.39	0.150	04/16/2014	ND	6.93	115	6.00	1.27	
Total BTX	2.95	0.300	04/16/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 201 % 89.4-126

Chloride, SM4500CI-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6720	16.0	04/14/2014	ND	416	104	400	3.92	

TPH 8015M		mg/kg	Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	42.4	10.0	04/15/2014	ND	213	106	200	0.378	
DRO >C10-C28	672	10.0	04/15/2014	ND	235	117	200	2.09	
EXT DRO >C28-C35	122	10.0	04/15/2014	ND					

Surrogate: 1-Chlorooctane 120 % 65.2-140

Surrogate: 1-Chlorooctadecane 116 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TETRA TECH
IKE TAVAREZ
1910 N. BIG SPRING STREET
MIDLAND TX, 79705
Fax To: (432) 682-3946

Received:	04/11/2014	Sampling Date:	04/10/2014
Reported:	04/17/2014	Sampling Type:	Soil
Project Name:	COG / PRONGHORN CENTRAL SWD	Sampling Condition:	Cool & Intact
Project Number:	112MCO6426	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

Sample ID: T2 (10') (H401108-12)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	4000	16.0	04/14/2014	ND	416	104	400	3.92		

Sample ID: T2 (12') (H401108-13)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5840	16.0	04/14/2014	ND	416	104	400	3.92	

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TETRA TECH
IKE TAVAREZ
1910 N. BIG SPRING STREET
MIDLAND TX, 79705
Fax To: (432) 682-3946

Received:	04/11/2014	Sampling Date:	04/10/2014
Reported:	04/17/2014	Sampling Type:	Soil
Project Name:	COG / PRONGHORN CENTRAL SWD	Sampling Condition:	Cool & Intact
Project Number:	112MCO6426	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

Sample ID: T3 (SURFACE) (H401108-14)

BTEx 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	04/14/2014	ND	2.47	123	2.00	5.14	
Toluene*	12.1	0.500	04/14/2014	ND	2.30	115	2.00	3.80	
Ethylbenzene*	16.3	0.500	04/14/2014	ND	2.27	114	2.00	2.81	
Total Xylenes*	51.3	1.50	04/14/2014	ND	6.51	108	6.00	2.24	
Total BTEX	79.7	3.00	04/14/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 179 % 89.4-126

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1090	16.0	04/14/2014	ND	416	104	400	3.92	

TPH 8015M		mg/kg	Analyzed By: ms					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	924	10.0	04/14/2014	ND	184	92.1	200	5.84	
DRO >C10-C28	4420	10.0	04/14/2014	ND	192	96.0	200	9.09	
EXT DRO >C28-C35	624	10.0	04/14/2014	ND					

Surrogate: 1-Chlorooctane 151 % 65.2-140

Surrogate: 1-Chlorooctadecane 168 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TETRA TECH
IKE TAVAREZ
1910 N. BIG SPRING STREET
MIDLAND TX, 79705
Fax To: (432) 682-3946

Received:	04/11/2014	Sampling Date:	04/10/2014
Reported:	04/17/2014	Sampling Type:	Soil
Project Name:	COG / PRONGHORN CENTRAL SWD	Sampling Condition:	Cool & Intact
Project Number:	112MCO6426	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

Sample ID: T3 (2') (H401108-15)

BTEx 8021B		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	04/14/2014	ND	2.47	123	2.00	5.14	
Toluene*	10.7	0.500	04/14/2014	ND	2.30	115	2.00	3.80	
Ethylbenzene*	5.51	0.500	04/14/2014	ND	2.27	114	2.00	2.81	
Total Xylenes*	33.7	1.50	04/14/2014	ND	6.51	108	6.00	2.24	
Total BTEX	49.9	3.00	04/14/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 168 % 89.4-126

Chloride, SM4500Cl-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	752	16.0	04/14/2014	ND	416	104	400	3.92	

TPH 8015M		mg/kg	Analyzed By: ms					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	656	10.0	04/14/2014	ND	184	92.1	200	5.84	
DRO >C10-C28	3840	10.0	04/14/2014	ND	192	96.0	200	9.09	
EXT DRO >C28-C35	611	10.0	04/14/2014	ND					

Surrogate: 1-Chlorooctane 176 % 65.2-140

Surrogate: 1-Chlorooctadecane 159 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TETRA TECH
IKE TAVAREZ
1910 N. BIG SPRING STREET
MIDLAND TX, 79705
Fax To: (432) 682-3946

Received:	04/11/2014	Sampling Date:	04/10/2014
Reported:	04/17/2014	Sampling Type:	Soil
Project Name:	COG / PRONGHORN CENTRAL SWD	Sampling Condition:	Cool & Intact
Project Number:	112MCO6426	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

Sample ID: T3 (4') (H401108-16)

BTEx 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<2.00	2.00	04/14/2014	ND	2.47	123	2.00	5.14	
Toluene*	46.3	2.00	04/14/2014	ND	2.30	115	2.00	3.80	
Ethylbenzene*	44.8	2.00	04/14/2014	ND	2.27	114	2.00	2.81	
Total Xylenes*	114	6.00	04/14/2014	ND	6.51	108	6.00	2.24	
Total BTEX	205	12.0	04/14/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 142 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2000	16.0	04/14/2014	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: ms				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	2010	10.0	04/14/2014	ND	184	92.1	200	5.84	
DRO >C10-C28	7580	10.0	04/14/2014	ND	192	96.0	200	9.09	
EXT DRO >C28-C35	1180	10.0	04/14/2014	ND					

Surrogate: 1-Chlorooctane 168 % 65.2-140

Surrogate: 1-Chlorooctadecane 219 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TETRA TECH
IKE TAVAREZ
1910 N. BIG SPRING STREET
MIDLAND TX, 79705
Fax To: (432) 682-3946

Received:	04/11/2014	Sampling Date:	04/10/2014
Reported:	04/17/2014	Sampling Type:	Soil
Project Name:	COG / PRONGHORN CENTRAL SWD	Sampling Condition:	Cool & Intact
Project Number:	112MCO6426	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

Sample ID: T3 (6') (H401108-17)

BTX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.770	0.500	04/16/2014	ND	2.54	127	2.00	0.0570	
Toluene*	23.5	0.500	04/16/2014	ND	2.42	121	2.00	0.392	
Ethylbenzene*	28.5	0.500	04/16/2014	ND	2.39	120	2.00	0.684	
Total Xylenes*	52.1	1.50	04/16/2014	ND	6.93	115	6.00	1.27	
Total BTX	105	3.00	04/16/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 161 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3600	16.0	04/14/2014	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: ms				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	715	100	04/15/2014	ND	213	106	200	0.378	
DRO >C10-C28	2810	100	04/15/2014	ND	235	117	200	2.09	
EXT DRO >C28-C35	441	100	04/15/2014	ND					

Surrogate: 1-Chlorooctane 170 % 65.2-140

Surrogate: 1-Chlorooctadecane 160 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TETRA TECH
 IKE TAVAREZ
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 MIDLAND TX, 79705
 Fax To: (432) 682-3946

Received:	04/11/2014	Sampling Date:	04/10/2014
Reported:	04/17/2014	Sampling Type:	Soil
Project Name:	COG / PRONGHORN CENTRAL SWD	Sampling Condition:	Cool & Intact
Project Number:	112MCO6426	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

Sample ID: T3 (8') (H401108-18)

BTEx 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	3.92	1.00	04/16/2014	ND	2.54	127	2.00	0.0570	
Toluene*	103	1.00	04/16/2014	ND	2.42	121	2.00	0.392	
Ethylbenzene*	92.8	1.00	04/16/2014	ND	2.39	120	2.00	0.684	
Total Xylenes*	137	3.00	04/16/2014	ND	6.93	115	6.00	1.27	
Total BTEx	337	6.00	04/16/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 151 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2560	16.0	04/14/2014	ND	416	104	400	3.92	

TPH 8015M		mg/kg		Analyzed By: ms				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1870	100	04/15/2014	ND	213	106	200	0.378	
DRO >C10-C28	4890	100	04/15/2014	ND	235	117	200	2.09	
EXT DRO >C28-C35	641	100	04/15/2014	ND					

Surrogate: 1-Chlorooctane 157 % 65.2-140

Surrogate: 1-Chlorooctadecane 163 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

TETRA TECH
IKE TAVAREZ
1910 N. BIG SPRING STREET
MIDLAND TX, 79705
Fax To: (432) 682-3946

Received:	04/11/2014	Sampling Date:	04/10/2014
Reported:	04/17/2014	Sampling Type:	Soil
Project Name:	COG / PRONGHORN CENTRAL SWD	Sampling Condition:	Cool & Intact
Project Number:	112MCO6426	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

Sample ID: T3 (10') (H401108-19)

BTEx 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	3.16	2.00	04/17/2014	ND	2.54	127	2.00	0.0570	
Toluene*	87.2	2.00	04/17/2014	ND	2.42	121	2.00	0.392	
Ethylbenzene*	84.1	2.00	04/17/2014	ND	2.39	120	2.00	0.684	
Total Xylenes*	125	6.00	04/17/2014	ND	6.93	115	6.00	1.27	
Total BTEX	300	12.0	04/17/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 133 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7600	16.0	04/14/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: ms				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	2730	100	04/17/2014	ND	206	103	200	0.409	
DRO >C10-C28	7010	100	04/17/2014	ND	218	109	200	0.425	
EXT DRO >C28-C35	983	100	04/17/2014	ND					

Surrogate: 1-Chlorooctane 206 % 65.2-140

Surrogate: 1-Chlorooctadecane 215 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: September 2, 2011

Work Order: 11082504



Project Location: Eddy Co., NM
Project Name: COG/Pronghorn SWD Facility
Project Number: 114-6401001

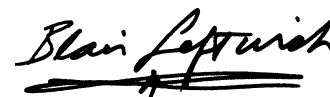
Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
275369	BH-1 0-1' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275370	BH-1 3' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275371	BH-1 5' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275372	BH-1 7' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275373	BH-1 10' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275374	BH-1 15' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275375	BH-1 20' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275376	BH-1 25' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275377	BH-1 30' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275378	BH-1 40' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275379	BH-1 50' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275380	BH-2 0-1' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275381	BH-2 3' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275382	BH-2 5' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275383	BH-2 7' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275384	BH-2 10' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275385	BH-2 15' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275386	BH-2 20' (2' BEB)	soil	2011-08-23	00:00	2011-08-25

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
275387	BH-2 25' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275388	BH-2 30' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275389	BH-2 40' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275390	BH-2 50' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275391	BH-3 0-1' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275392	BH-3 3' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275393	BH-3 5' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275394	BH-3 7' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275395	BH-3 10' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275396	BH-3 15' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275397	BH-3 20' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275398	BH-3 25' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275399	BH-3 30' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275400	BH-3 40' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275401	BH-3 50' (2' BEB)	soil	2011-08-23	00:00	2011-08-25

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

This report consists of a total of 34 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



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

Report Contents

Case Narrative	5
Analytical Report	6
Sample 275369 (BH-1 0-1' (2' BEB))	6
Sample 275370 (BH-1 3' (2' BEB))	7
Sample 275371 (BH-1 5' (2' BEB))	7
Sample 275372 (BH-1 7' (2' BEB))	8
Sample 275373 (BH-1 10' (2' BEB))	8
Sample 275374 (BH-1 15' (2' BEB))	8
Sample 275375 (BH-1 20' (2' BEB))	9
Sample 275376 (BH-1 25' (2' BEB))	9
Sample 275377 (BH-1 30' (2' BEB))	9
Sample 275378 (BH-1 40' (2' BEB))	9
Sample 275379 (BH-1 50' (2' BEB))	10
Sample 275380 (BH-2 0-1' (2' BEB))	10
Sample 275381 (BH-2 3' (2' BEB))	11
Sample 275382 (BH-2 5' (2' BEB))	12
Sample 275383 (BH-2 7' (2' BEB))	12
Sample 275384 (BH-2 10' (2' BEB))	12
Sample 275385 (BH-2 15' (2' BEB))	13
Sample 275386 (BH-2 20' (2' BEB))	13
Sample 275387 (BH-2 25' (2' BEB))	13
Sample 275388 (BH-2 30' (2' BEB))	13
Sample 275389 (BH-2 40' (2' BEB))	14
Sample 275390 (BH-2 50' (2' BEB))	14
Sample 275391 (BH-3 0-1' (2' BEB))	14
Sample 275392 (BH-3 3' (2' BEB))	16
Sample 275393 (BH-3 5' (2' BEB))	16
Sample 275394 (BH-3 7' (2' BEB))	16
Sample 275395 (BH-3 10' (2' BEB))	17
Sample 275396 (BH-3 15' (2' BEB))	17
Sample 275397 (BH-3 20' (2' BEB))	17
Sample 275398 (BH-3 25' (2' BEB))	17
Sample 275399 (BH-3 30' (2' BEB))	18
Sample 275400 (BH-3 40' (2' BEB))	18
Sample 275401 (BH-3 50' (2' BEB))	18
Method Blanks	20
QC Batch 84264 - Method Blank (1)	20
QC Batch 84286 - Method Blank (1)	20
QC Batch 84287 - Method Blank (1)	20
QC Batch 84423 - Method Blank (1)	21
QC Batch 84424 - Method Blank (1)	21
QC Batch 84425 - Method Blank (1)	21
QC Batch 84439 - Method Blank (1)	21

Laboratory Control Spikes	23
QC Batch 84264 - LCS (1)	23
QC Batch 84286 - LCS (1)	23
QC Batch 84287 - LCS (1)	24
QC Batch 84423 - LCS (1)	24
QC Batch 84424 - LCS (1)	24
QC Batch 84425 - LCS (1)	25
QC Batch 84439 - LCS (1)	25
QC Batch 84264 - MS (1)	26
QC Batch 84286 - MS (1)	26
QC Batch 84287 - MS (1)	27
QC Batch 84423 - MS (1)	27
QC Batch 84424 - MS (1)	28
QC Batch 84425 - MS (1)	28
QC Batch 84439 - MS (1)	28
Calibration Standards	30
QC Batch 84264 - CCV (3)	30
QC Batch 84264 - CCV (4)	30
QC Batch 84286 - CCV (1)	30
QC Batch 84286 - CCV (2)	30
QC Batch 84287 - CCV (1)	31
QC Batch 84287 - CCV (2)	31
QC Batch 84423 - ICV (1)	31
QC Batch 84423 - CCV (1)	31
QC Batch 84424 - ICV (1)	32
QC Batch 84424 - CCV (1)	32
QC Batch 84425 - ICV (1)	32
QC Batch 84425 - CCV (1)	32
QC Batch 84439 - ICV (1)	33
QC Batch 84439 - CCV (1)	33
Appendix	34
Laboratory Certifications	34
Standard Flags	34
Attachments	34

Case Narrative

Samples for project COG/Pronghorn SWD Facility were received by TraceAnalysis, Inc. on 2011-08-25 and assigned to work order 11082504. Samples for work order 11082504 were received intact at a temperature of 3.6 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	71575	2011-08-26 at 11:51	84286	2011-08-26 at 11:51
Chloride (Titration)	SM 4500-Cl B	71623	2011-08-30 at 08:59	84423	2011-08-31 at 12:46
Chloride (Titration)	SM 4500-Cl B	71623	2011-08-30 at 08:59	84424	2011-08-31 at 12:47
Chloride (Titration)	SM 4500-Cl B	71623	2011-08-30 at 08:59	84425	2011-08-31 at 12:48
Chloride (Titration)	SM 4500-Cl B	71623	2011-08-30 at 08:59	84439	2011-09-01 at 15:34
TPH DRO - NEW	S 8015 D	71548	2011-08-24 at 14:42	84264	2011-08-24 at 14:42
TPH GRO	S 8015 D	71575	2011-08-26 at 11:51	84287	2011-08-26 at 11:51

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 11082504 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 6 of 34
Eddy Co., NM

Analytical Report

Sample: 275369 - BH-1 0-1' (2' BEB)

Laboratory: Midland
Analysis: BTEX
QC Batch: 84286
Prep Batch: 71575

Analytical Method: S 8021B
Date Analyzed: 2011-08-26
Sample Preparation: 2011-08-26

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

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.49	mg/Kg	1	2.00	124	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			2.43	mg/Kg	1	2.00	122	70.6 - 179

Sample: 275369 - BH-1 0-1' (2' BEB)

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 84423
Prep Batch: 71623

Analytical Method: SM 4500-Cl B
Date Analyzed: 2011-08-31
Sample Preparation: 2011-08-30

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			4980	mg/Kg	100	4.00

Sample: 275369 - BH-1 0-1' (2' BEB)

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 84264
Prep Batch: 71548

Analytical Method: S 8015 D
Date Analyzed: 2011-08-24
Sample Preparation: 2011-08-24

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	358	mg/Kg	1	50.0

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 7 of 34
Eddy Co., NM

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Q _{sr}		210	mg/Kg	1	100	210	67.5 - 147.1

Sample: 275369 - BH-1 0-1' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	84287	Date Analyzed:	2011-08-26	Analyzed By:	ME
Prep Batch:	71575	Sample Preparation:	2011-08-26	Prepared By:	ME

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.25	mg/Kg	1	2.00	112	30 - 134.6
4-Bromofluorobenzene (4-BFB)			2.06	mg/Kg	1	2.00	103	22.4 - 149

Sample: 275370 - BH-1 3' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84423	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			4570	mg/Kg	100	4.00

Sample: 275371 - BH-1 5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84423	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

continued ...

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 8 of 34
Eddy Co., NM

sample 275371 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			1230	mg/Kg	100	4.00

Sample: 275372 - BH-1 7' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84423	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			1310	mg/Kg	100	4.00

Sample: 275373 - BH-1 10' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84423	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

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

Sample: 275374 - BH-1 15' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84423	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 9 of 34
Eddy Co., NM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			5580	mg/Kg	100	4.00

Sample: 275375 - BH-1 20' (2' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 84423 Date Analyzed: 2011-08-31 Analyzed By: AR
Prep Batch: 71623 Sample Preparation: 2011-08-30 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			7190	mg/Kg	100	4.00

Sample: 275376 - BH-1 25' (2' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 84423 Date Analyzed: 2011-08-31 Analyzed By: AR
Prep Batch: 71623 Sample Preparation: 2011-08-30 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			1350	mg/Kg	100	4.00

Sample: 275377 - BH-1 30' (2' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 84423 Date Analyzed: 2011-08-31 Analyzed By: AR
Prep Batch: 71623 Sample Preparation: 2011-08-30 Prepared By: AR

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

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 10 of 34
Eddy Co., NM

Sample: 275378 - BH-1 40' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	84423	Date Analyzed:	2011-08-31
Prep Batch:	71623	Sample Preparation:	2011-08-30
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 275379 - BH-1 50' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	84424	Date Analyzed:	2011-08-31
Prep Batch:	71623	Sample Preparation:	2011-08-30
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 275380 - BH-2 0-1' (2' BEB)

Laboratory:	Midland		
Analysis:	BTEX	Analytical Method:	S 8021B
QC Batch:	84286	Date Analyzed:	2011-08-26
Prep Batch:	71575	Sample Preparation:	2011-08-26
		Prep Method:	S 5035
		Analyzed By:	ME
		Prepared By:	ME

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.34	mg/Kg	1	2.00	117	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			2.27	mg/Kg	1	2.00	114	70.6 - 179

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 11 of 34
Eddy Co., NM

Sample: 275380 - BH-2 0-1' (2' BEB)

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-08-31	Analyzed By:	AR
QC Batch:	84424	Sample Preparation:	2011-08-30	Prepared By:	AR
Prep Batch:	71623				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			16100	mg/Kg	100	4.00

Sample: 275380 - BH-2 0-1' (2' BEB)

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2011-08-24	Analyzed By:	kg
QC Batch:	84264	Sample Preparation:	2011-08-24	Prepared By:	kg
Prep Batch:	71548				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		₁	216	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			128	mg/Kg	1	100	128	67.5 - 147.1

Sample: 275380 - BH-2 0-1' (2' BEB)

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2011-08-26	Analyzed By:	ME
QC Batch:	84287	Sample Preparation:	2011-08-26	Prepared By:	ME
Prep Batch:	71575				

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.12	mg/Kg	1	2.00	106	30 - 134.6
4-Bromofluorobenzene (4-BFB)	_J		1.92	mg/Kg	1	2.00	96	22.4 - 149

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 12 of 34
Eddy Co., NM

Sample: 275381 - BH-2 3' (2' BEB)

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-08-31	Analyzed By:	AR
QC Batch:	84424	Sample Preparation:	2011-08-30	Prepared By:	AR
Prep Batch:	71623				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			1770	mg/Kg	100	4.00

Sample: 275382 - BH-2 5' (2' BEB)

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-08-31	Analyzed By:	AR
QC Batch:	84424	Sample Preparation:	2011-08-30	Prepared By:	AR
Prep Batch:	71623				

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

Sample: 275383 - BH-2 7' (2' BEB)

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-08-31	Analyzed By:	AR
QC Batch:	84424	Sample Preparation:	2011-08-30	Prepared By:	AR
Prep Batch:	71623				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			4190	mg/Kg	100	4.00

Sample: 275384 - BH-2 10' (2' BEB)

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-08-31	Analyzed By:	AR
QC Batch:	84424	Sample Preparation:	2011-08-30	Prepared By:	AR
Prep Batch:	71623				

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 13 of 34
Eddy Co., NM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			3010	mg/Kg	100	4.00

Sample: 275385 - BH-2 15' (2' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 84424 Date Analyzed: 2011-08-31 Analyzed By: AR
Prep Batch: 71623 Sample Preparation: 2011-08-30 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			620	mg/Kg	50	4.00

Sample: 275386 - BH-2 20' (2' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 84424 Date Analyzed: 2011-08-31 Analyzed By: AR
Prep Batch: 71623 Sample Preparation: 2011-08-30 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			308	mg/Kg	50	4.00

Sample: 275387 - BH-2 25' (2' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 84424 Date Analyzed: 2011-08-31 Analyzed By: AR
Prep Batch: 71623 Sample Preparation: 2011-08-30 Prepared By: AR

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

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 14 of 34
Eddy Co., NM

Sample: 275388 - BH-2 30' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	84424	Date Analyzed:	2011-08-31
Prep Batch:	71623	Sample Preparation:	2011-08-30
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 275389 - BH-2 40' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	84425	Date Analyzed:	2011-08-31
Prep Batch:	71623	Sample Preparation:	2011-08-30
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 275390 - BH-2 50' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	84425	Date Analyzed:	2011-08-31
Prep Batch:	71623	Sample Preparation:	2011-08-30
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 275391 - BH-3 0-1' (2' BEB)

Laboratory:	Midland		
Analysis:	BTEX	Analytical Method:	S 8021B
QC Batch:	84286	Date Analyzed:	2011-08-26
Prep Batch:	71575	Sample Preparation:	2011-08-26
		Prep Method:	S 5035
		Analyzed By:	ME
		Prepared By:	ME

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 15 of 34
Eddy Co., NM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.49	mg/Kg	1	2.00	124	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			2.37	mg/Kg	1	2.00	118	70.6 - 179

Sample: 275391 - BH-3 0-1' (2' BEB)

Laboratory:	Midland			
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method: N/A
QC Batch:	84425	Date Analyzed:	2011-08-31	Analyzed By: AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			12800	mg/Kg	100	4.00

Sample: 275391 - BH-3 0-1' (2' BEB)

Laboratory:	Midland			
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method: N/A
QC Batch:	84264	Date Analyzed:	2011-08-24	Analyzed By: kg
Prep Batch:	71548	Sample Preparation:	2011-08-24	Prepared By: kg

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			126	mg/Kg	1	100	126	67.5 - 147.1

Sample: 275391 - BH-3 0-1' (2' BEB)

Laboratory:	Midland			
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method: S 5035
QC Batch:	84287	Date Analyzed:	2011-08-26	Analyzed By: ME
Prep Batch:	71575	Sample Preparation:	2011-08-26	Prepared By: ME

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 16 of 34
Eddy Co., NM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.26	mg/Kg	1	2.00	113	30 - 134.6
4-Bromofluorobenzene (4-BFB)			2.00	mg/Kg	1	2.00	100	22.4 - 149

Sample: 275392 - BH-3 3' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84425	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			5570	mg/Kg	100	4.00

Sample: 275393 - BH-3 5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84425	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			3000	mg/Kg	100	4.00

Sample: 275394 - BH-3 7' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84425	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 17 of 34
Eddy Co., NM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			3440	mg/Kg	100	4.00

Sample: 275395 - BH-3 10' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84425	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			4230	mg/Kg	100	4.00

Sample: 275396 - BH-3 15' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84425	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			5500	mg/Kg	100	4.00

Sample: 275397 - BH-3 20' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84425	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			7200	mg/Kg	100	4.00

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 18 of 34
Eddy Co., NM

Sample: 275398 - BH-3 25' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	84425	Date Analyzed:	2011-08-31
Prep Batch:	71623	Sample Preparation:	2011-08-30
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			1380	mg/Kg	100	4.00

Sample: 275399 - BH-3 30' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	84439	Date Analyzed:	2011-09-01
Prep Batch:	71623	Sample Preparation:	2011-08-30
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 275400 - BH-3 40' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	84439	Date Analyzed:	2011-09-01
Prep Batch:	71623	Sample Preparation:	2011-08-30
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 275401 - BH-3 50' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	84439	Date Analyzed:	2011-09-01
Prep Batch:	71623	Sample Preparation:	2011-08-30
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 19 of 34
Eddy Co., NM

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

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 20 of 34
Eddy Co., NM

Method Blanks

Method Blank (1) QC Batch: 84264

QC Batch: 84264 Date Analyzed: 2011-08-24 Analyzed By: kg
Prep Batch: 71548 QC Preparation: 2011-08-24 Prepared By: kg

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	<14.5	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			128	mg/Kg	1	100	128	52.7 - 133.8

Method Blank (1) QC Batch: 84286

QC Batch: 84286 Date Analyzed: 2011-08-26 Analyzed By: ME
Prep Batch: 71575 QC Preparation: 2011-08-26 Prepared By: ME

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.0118	mg/Kg	0.02
Toluene		1	<0.00600	mg/Kg	0.02
Ethylbenzene		1	<0.00850	mg/Kg	0.02
Xylene		1	<0.00613	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.06	mg/Kg	1	2.00	103	65.9 - 111.8
4-Bromofluorobenzene (4-BFB)			1.92	mg/Kg	1	2.00	96	48.4 - 123.1

Method Blank (1) QC Batch: 84287

QC Batch: 84287 Date Analyzed: 2011-08-26 Analyzed By: ME
Prep Batch: 71575 QC Preparation: 2011-08-26 Prepared By: ME

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 21 of 34
Eddy Co., NM

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	<0.753	mg/Kg	2

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.88	mg/Kg	1	2.00	94	67.6 - 150
4-Bromofluorobenzene (4-BFB)			1.66	mg/Kg	1	2.00	83	52.4 - 130

Method Blank (1) QC Batch: 84423

QC Batch: 84423 Date Analyzed: 2011-08-31 Analyzed By: AR
Prep Batch: 71623 QC Preparation: 2011-08-30 Prepared By: AR

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

Method Blank (1) QC Batch: 84424

QC Batch: 84424 Date Analyzed: 2011-08-31 Analyzed By: AR
Prep Batch: 71623 QC Preparation: 2011-08-30 Prepared By: AR

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

Method Blank (1) QC Batch: 84425

QC Batch: 84425 Date Analyzed: 2011-08-31 Analyzed By: AR
Prep Batch: 71623 QC Preparation: 2011-08-30 Prepared By: AR

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

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 22 of 34
Eddy Co., NM

Method Blank (1) QC Batch: 84439

QC Batch: 84439	Date Analyzed: 2011-09-01	Analyzed By: AR
Prep Batch: 71623	QC Preparation: 2011-08-30	Prepared By: AR

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

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 23 of 34
Eddy Co., NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 84264
Prep Batch: 71548

Date Analyzed: 2011-08-24
QC Preparation: 2011-08-24

Analyzed By: kg
Prepared By: kg

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	260	mg/Kg	1	250	<14.5	104	64.5 - 146.9

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	294	mg/Kg	1	250	<14.5	118	64.5 - 146.9	12	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	117	132	mg/Kg	1	100	117	132	65.3 - 135.8

Laboratory Control Spike (LCS-1)

QC Batch: 84286
Prep Batch: 71575

Date Analyzed: 2011-08-26
QC Preparation: 2011-08-26

Analyzed By: ME
Prepared By: ME

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.90	mg/Kg	1	2.00	<0.0118	95	77.4 - 121.7
Toluene		1	2.04	mg/Kg	1	2.00	<0.00600	102	88.6 - 121.6
Ethylbenzene		1	2.05	mg/Kg	1	2.00	<0.00850	102	74.3 - 117.9
Xylene		1	6.17	mg/Kg	1	6.00	<0.00613	103	73.4 - 118.8

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.84	mg/Kg	1	2.00	<0.0118	92	77.4 - 121.7	3	20
Toluene		1	1.97	mg/Kg	1	2.00	<0.00600	98	88.6 - 121.6	4	20
Ethylbenzene		1	1.98	mg/Kg	1	2.00	<0.00850	99	74.3 - 117.9	4	20
Xylene		1	5.98	mg/Kg	1	6.00	<0.00613	100	73.4 - 118.8	3	20

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

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 24 of 34
Eddy Co., NM

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.17	1.96	mg/Kg	1	2.00	108	98	65.5 - 116.7
4-Bromofluorobenzene (4-BFB)	2.13	1.96	mg/Kg	1	2.00	106	98	56.2 - 132.1

Laboratory Control Spike (LCS-1)

QC Batch: 84287
Prep Batch: 71575

Date Analyzed: 2011-08-26
QC Preparation: 2011-08-26

Analyzed By: ME
Prepared By: ME

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	17.1	mg/Kg	1	20.0	<0.753	86	60.9 - 95.4

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	18.3	mg/Kg	1	20.0	<0.753	92	60.9 - 95.4	7	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)	2.04	1.87	mg/Kg	1	2.00	102	94	61.9 - 142
4-Bromofluorobenzene (4-BFB)	1.89	1.76	mg/Kg	1	2.00	94	88	68.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch: 84423
Prep Batch: 71623

Date Analyzed: 2011-08-31
QC Preparation: 2011-08-30

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			95.9	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	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			104	mg/Kg	1	100	<3.85	104	85 - 115	8	20

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

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 25 of 34
Eddy Co., NM

Laboratory Control Spike (LCS-1)

QC Batch: 84424
Prep Batch: 71623

Date Analyzed: 2011-08-31
QC Preparation: 2011-08-30

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			97.0	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	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			106	mg/Kg	1	100	<3.85	106	85 - 115	9	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: 84425
Prep Batch: 71623

Date Analyzed: 2011-08-31
QC Preparation: 2011-08-30

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			95.1	mg/Kg	1	100	<3.85	95	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			106	mg/Kg	1	100	<3.85	106	85 - 115	11	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: 84439
Prep Batch: 71623

Date Analyzed: 2011-09-01
QC Preparation: 2011-08-30

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			94.8	mg/Kg	1	100	<3.85	95	85 - 115

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

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 26 of 34
Eddy Co., NM

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			105	mg/Kg	1	100	<3.85	105	85 - 115	10	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: 275112

QC Batch: 84264
Prep Batch: 71548

Date Analyzed: 2011-08-24
QC Preparation: 2011-08-24

Analyzed By: kg
Prepared By: kg

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	291	mg/Kg	1	250	<14.5	116	38.8 - 153.3

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	269	mg/Kg	1	250	<14.5	108	38.8 - 153.3	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
n-Tricosane	131	123	mg/Kg	1	100	131	123	54.6 - 149.8

Matrix Spike (MS-1) Spiked Sample: 275391

QC Batch: 84286
Prep Batch: 71575

Date Analyzed: 2011-08-26
QC Preparation: 2011-08-26

Analyzed By: ME
Prepared By: ME

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.76	mg/Kg	1	2.00	<0.0118	88	69.4 - 123.6
Toluene		1	1.94	mg/Kg	1	2.00	<0.00600	97	75.4 - 134.3
Ethylbenzene		1	2.05	mg/Kg	1	2.00	<0.00850	102	58.8 - 133.7
Xylene		1	6.22	mg/Kg	1	6.00	<0.00613	104	57 - 134.2

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.63	mg/Kg	1	2.00	<0.0118	82	69.4 - 123.6	8	20
Toluene		1	1.78	mg/Kg	1	2.00	<0.00600	89	75.4 - 134.3	9	20

continued ...

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 27 of 34
Eddy Co., NM

matrix spikes continued ...

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Ethylbenzene		1	1.86	mg/Kg	1	2.00	<0.00850	93	58.8 - 133.7	10	20
Xylene		1	5.62	mg/Kg	1	6.00	<0.00613	94	57 - 134.2	10	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.40	2.56	mg/Kg	1	2	120	128	79.4 - 141.1
4-Bromofluorobenzene (4-BFB)	2.35	2.50	mg/Kg	1	2	118	125	71 - 167

Matrix Spike (MS-1) Spiked Sample: 275380

QC Batch: 84287
Prep Batch: 71575

Date Analyzed: 2011-08-26
QC Preparation: 2011-08-26

Analyzed By: ME
Prepared By: ME

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	17.6	mg/Kg	1	20.0	<0.753	88	61.8 - 114

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	18.1	mg/Kg	1	20.0	<0.753	90	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)	2.31	2.41	mg/Kg	1	2	116	120	29.4 - 161.7
4-Bromofluorobenzene (4-BFB)	2.25	2.36	mg/Kg	1	2	112	118	37.3 - 162

Matrix Spike (MS-1) Spiked Sample: 275378

QC Batch: 84423
Prep Batch: 71623

Date Analyzed: 2011-08-31
QC Preparation: 2011-08-30

Analyzed By: AR
Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			10200	mg/Kg	100	10000	<385	102	79.4 - 120.6

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

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 28 of 34
Eddy Co., NM

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			10700	mg/Kg	100	10000	<385	107	79.4 - 120.6	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: 275388

QC Batch: 84424
Prep Batch: 71623

Date Analyzed: 2011-08-31
QC Preparation: 2011-08-30

Analyzed By: AR
Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			10100	mg/Kg	100	10000	<385	101	79.4 - 120.6

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			10700	mg/Kg	100	10000	<385	107	79.4 - 120.6	6	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: 275398

QC Batch: 84425
Prep Batch: 71623

Date Analyzed: 2011-08-31
QC Preparation: 2011-08-30

Analyzed By: AR
Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			11400	mg/Kg	100	10000	1380	100	79.4 - 120.6

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			11900	mg/Kg	100	10000	1380	105	79.4 - 120.6	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: 275723

QC Batch: 84439
Prep Batch: 71623

Date Analyzed: 2011-09-01
QC Preparation: 2011-08-30

Analyzed By: AR
Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			9660	mg/Kg	100	10000	<385	97	79.4 - 120.6

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			10300	mg/Kg	100	10000	<385	103	79.4 - 120.6	6	20

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

Calibration Standards

Standard (CCV-3)

QC Batch: 84264 Date Analyzed: 2011-08-24 Analyzed By: kg

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	275	110	80 - 120	2011-08-24

Standard (CCV-4)

QC Batch: 84264 Date Analyzed: 2011-08-24 Analyzed By: kg

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	290	116	80 - 120	2011-08-24

Standard (CCV-1)

QC Batch: 84286 Date Analyzed: 2011-08-26 Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/Kg	0.100	0.101	101	80 - 120	2011-08-26
Toluene		1	mg/Kg	0.100	0.108	108	80 - 120	2011-08-26
Ethylbenzene		1	mg/Kg	0.100	0.106	106	80 - 120	2011-08-26
Xylene		1	mg/Kg	0.300	0.326	109	80 - 120	2011-08-26

Standard (CCV-2)

QC Batch: 84286 Date Analyzed: 2011-08-26 Analyzed By: ME

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 31 of 34
Eddy Co., NM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/Kg	0.100	0.0964	96	80 - 120	2011-08-26
Toluene		1	mg/Kg	0.100	0.103	103	80 - 120	2011-08-26
Ethylbenzene		1	mg/Kg	0.100	0.103	103	80 - 120	2011-08-26
Xylene		1	mg/Kg	0.300	0.311	104	80 - 120	2011-08-26

Standard (CCV-1)

QC Batch: 84287

Date Analyzed: 2011-08-26

Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.10	110	80 - 120	2011-08-26

Standard (CCV-2)

QC Batch: 84287

Date Analyzed: 2011-08-26

Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.985	98	80 - 120	2011-08-26

Standard (ICV-1)

QC Batch: 84423

Date Analyzed: 2011-08-31

Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	102	102	85 - 115	2011-08-31

Standard (CCV-1)

QC Batch: 84423

Date Analyzed: 2011-08-31

Analyzed By: AR

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 32 of 34
Eddy Co., NM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	98.3	98	85 - 115	2011-08-31

Standard (ICV-1)

QC Batch: 84424 Date Analyzed: 2011-08-31 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.8	100	85 - 115	2011-08-31

Standard (CCV-1)

QC Batch: 84424 Date Analyzed: 2011-08-31 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2011-08-31

Standard (ICV-1)

QC Batch: 84425 Date Analyzed: 2011-08-31 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.1	99	85 - 115	2011-08-31

Standard (CCV-1)

QC Batch: 84425 Date Analyzed: 2011-08-31 Analyzed By: AR

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 33 of 34
Eddy Co., NM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2011-08-31

Standard (ICV-1)

QC Batch: 84439

Date Analyzed: 2011-09-01

Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.5	100	85 - 115	2011-09-01

Standard (CCV-1)

QC Batch: 84439

Date Analyzed: 2011-09-01

Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2011-09-01

Appendix

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-10-TX	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

* wo #: 11082504

Analysis Request of Chain of Custody Record



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

PRESERVATIVE METHOD

NUMBER OF CONTAINERS

FILTERED (Y/N)

HCL

HNO3

ICE

NONE

CLIENT NAME: **COG**

SITE MANAGER: **Ike Tavaraz**

PROJECT NAME: **Pronghorn SWD**

LAB I.D. NUMBER: **114-640 1001**

DATE: **2011**
TIME: **8/23**
GRAB: **X**
COM: **BH-1**
MATRIX: **S**
SAMPLE IDENTIFICATION: **Eddy G. NM**

0-1' (2' BED)

3' (2' BED)

5' (2' BED)

7' (2' BED)

10' (2' BED)

15' (2' BED)

20' (2' BED)

25' (2' BED)

30' (2' BED)

40' (2' BED)

370

371

372

373

374

375

376

377

378

RELINQUISHED BY: (Signature)

RELINQUISHED BY: (Signature)

RELINQUISHED BY: (Signature)

RELINQUISHED BY: (Signature)

RELINQUISHED BY: (Signature)

RELINQUISHED BY: (Signature)

RECEIVED BY: (Signature)

RECEIVED BY: (Signature)

RECEIVED BY: (Signature)

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RECEIVED BY: (Signature)

RECEIVED BY: (Signature)

ANALYSIS REQUEST

(Circle or Specify Method No.)

Major Anions/Cations, pH, TDS

PLM (Asbestos)

Alpha Beta (Air)

Gamma Spec.

Chloride

Post. 808/608

PCB's 8080/608

GC/MS Semi. Vol. 8270/625

GC/MS Vol. 8240/8260/624

RCI

TCLP Semi Volatiles

TCLP Volatiles

TCLP Metals Ag As Ba Cd Cr Pb Hg Se

RCRA Metals Ag As Ba Cd Cr Pb Hg Se

PAH 8270

TPH 8015 MOD TX1005 (Ext. to C35)

BTEX 8021B

DATE: **8/24/11**

TIME: **Kim**

SAMPLED BY: (Print & Initial)

SAMPLE SHIPPED BY: (Circle)

FEDEX

BUS

UPS

OTHER:

RESULTS BY:

RUSH Charges Authorized:

Yes

No

TETRA TECH CONTACT PERSON:

Ike Tavaraz

RECEIVING LABORATORY:

ADDRESS:

CITY:

STATE:

ZIP:

PHONE:

DATE:

REMARKS:

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

total BTEX > 750 mg/kg run deeper sample

total Benzene > 10 mg/kg

total BTEX > 750 mg/kg run deeper sample

Analysis Request of Chain of Custody Record

PAGE: 2 OF: 4

ANALYSIS REQUEST
(Circle or Specify Method No.)



TETRA TECH

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

CLIENT NAME: <u>CoG</u>		SITE MANAGER: <u>Ike Tavaraz</u>		PROJECT NAME: <u>Pronghorn SWD Facility</u>		PRESERVATIVE METHOD		NUMBER OF CONTAINERS		FILTERED (Y/N)		HCL		HNO3		ICE		NONE	
LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP	GRAB	SAMPLE IDENTIFICATION													
27339	8/23		S		X	BH-1 50' (2' BEB)													
380						BH-2 0-1' (2' BEB)													
381						3' (2' BEB)													
382						5' (2' BEB)													
383						7' (2' BEB)													
384						10' (2' BEB)													
385						15' (2' BEB)													
386						20' (2' BEB)													
387						25' (2' BEB)													
388						30' (2' BEB)													

RELINQUISHED BY: (Signature)		Date: <u>8/23/11</u>		Time: <u>9:50 A.M.</u>		RECEIVED BY: (Signature)		Date: <u>8/23/11</u>		Time: <u>9:50</u>	
RELINQUISHED BY: (Signature)		Date: _____		Time: _____		RECEIVED BY: (Signature)		Date: _____		Time: _____	
RELINQUISHED BY: (Signature)		Date: _____		Time: _____		RECEIVED BY: (Signature)		Date: _____		Time: _____	
RECEIVING LABORATORY: <u>TRACE</u>		Date: _____		Time: _____		RECEIVED BY: (Signature)		Date: _____		Time: _____	
ADDRESS: <u>MIDLANDS</u>		STATE: <u>TX</u>		ZIP: _____		RECEIVED BY: (Signature)		Date: _____		Time: _____	
CONTACT: _____		PHONE: _____		DATE: _____		RECEIVED BY: (Signature)		Date: _____		Time: _____	
SAMPLE CONDITION WHEN RECEIVED: <u>3.6's intact</u>		REMARKS: <u>If TPH > 5000 mg/kg - Run deeper samples</u>		DATE: _____		RECEIVED BY: (Signature)		Date: _____		Time: _____	

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

If Benzene > 10 mg/kg or total BTEX > 50 mg/kg run deeper sample

PAGE: 3 OF: 4

ANALYSIS REQUEST
(Circle or Specify Method No.)

1910 N. Big Spring St.

1910 N. Big Spring St.

Midland, Texas 79705

(432) 682-4559 • Fax (432) 682-3946

[illegible]

Summary Report

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

Report Date: September 2, 2011

Work Order: 11082504



Project Location: Eddy Co., NM
Project Name: COG/Pronghorn SWD Facility
Project Number: 114-6401001

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
275369	BH-1 0-1' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275370	BH-1 3' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275371	BH-1 5' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275372	BH-1 7' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275373	BH-1 10' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275374	BH-1 15' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275375	BH-1 20' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275376	BH-1 25' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275377	BH-1 30' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275378	BH-1 40' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275379	BH-1 50' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275380	BH-2 0-1' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275381	BH-2 3' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275382	BH-2 5' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275383	BH-2 7' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275384	BH-2 10' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275385	BH-2 15' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275386	BH-2 20' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275387	BH-2 25' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275388	BH-2 30' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275389	BH-2 40' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275390	BH-2 50' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275391	BH-3 0-1' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275392	BH-3 3' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275393	BH-3 5' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275394	BH-3 7' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275395	BH-3 10' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275396	BH-3 15' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275397	BH-3 20' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275398	BH-3 25' (2' BEB)	soil	2011-08-23	00:00	2011-08-25

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
275399	BH-3 30' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275400	BH-3 40' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275401	BH-3 50' (2' BEB)	soil	2011-08-23	00:00	2011-08-25

Sample - Field Code	BTEX				TPH DRO - NEW	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
275369 - BH-1 0-1' (2' BEB)	<0.0200	<0.0200	<0.0200	<0.0200	358	<2.00
275380 - BH-2 0-1' (2' BEB)	<0.0200	<0.0200	<0.0200	<0.0200	216	<2.00
275391 - BH-3 0-1' (2' BEB)	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00

Sample: 275369 - BH-1 0-1' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		4980	mg/Kg	4

Sample: 275370 - BH-1 3' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		4570	mg/Kg	4

Sample: 275371 - BH-1 5' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		1230	mg/Kg	4

Sample: 275372 - BH-1 7' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		1310	mg/Kg	4

Sample: 275373 - BH-1 10' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		2260	mg/Kg	4

Sample: 275374 - BH-1 15' (2' BEB)*continued ...*

sample 275374 continued ...

Param	Flag	Result	Units	RL
Param	Flag	Result	Units	RL
Chloride		5580	mg/Kg	4

Sample: 275375 - BH-1 20' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		7190	mg/Kg	4

Sample: 275376 - BH-1 25' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		1350	mg/Kg	4

Sample: 275377 - BH-1 30' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		857	mg/Kg	4

Sample: 275378 - BH-1 40' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4

Sample: 275379 - BH-1 50' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4

Sample: 275380 - BH-2 0-1' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		16100	mg/Kg	4

Sample: 275381 - BH-2 3' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		1770	mg/Kg	4

Sample: 275382 - BH-2 5' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		2660	mg/Kg	4

Sample: 275383 - BH-2 7' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		4190	mg/Kg	4

Sample: 275384 - BH-2 10' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		3010	mg/Kg	4

Sample: 275385 - BH-2 15' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		620	mg/Kg	4

Sample: 275386 - BH-2 20' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		308	mg/Kg	4

Sample: 275387 - BH-2 25' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4

Sample: 275388 - BH-2 30' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4

Sample: 275389 - BH-2 40' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4

Sample: 275390 - BH-2 50' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4

Sample: 275391 - BH-3 0-1' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		12800	mg/Kg	4

Sample: 275392 - BH-3 3' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		5570	mg/Kg	4

Sample: 275393 - BH-3 5' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		3000	mg/Kg	4

Sample: 275394 - BH-3 7' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		3440	mg/Kg	4

Sample: 275395 - BH-3 10' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		4230	mg/Kg	4

Sample: 275396 - BH-3 15' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		5500	mg/Kg	4

Sample: 275397 - BH-3 20' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		7200	mg/Kg	4

Sample: 275398 - BH-3 25' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		1380	mg/Kg	4

Sample: 275399 - BH-3 30' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4

Sample: 275400 - BH-3 40' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4

Sample: 275401 - BH-3 50' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4

Summary Report

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

Report Date: January 20, 2010

Work Order: 10011527



Project Location: Lea County, NM
Project Name: COG/Pronghorn SWD Facility
Project Number: 114-6400353

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
219674	SB-1 0-1' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219675	SB-1 2-3' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219676	SB-1 4-5' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219677	SB-1 6-7' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219678	SB-1 10-11' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219679	SB-1 15-16' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219680	SB-1 20-21' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219681	SB-1 25-26' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219682	SB-1 30-31' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219683	SB-2 0-1' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219684	SB-2 2-3' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219685	SB-2 4-5' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219686	SB-2 6-7' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219687	SB-2 10-11' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219688	SB-2 15-16' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219689	SB-2 20-21' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219690	SB-2 25-26' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219691	SB-2 30-31' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219692	SB-3 0-1' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219693	SB-3 2-3' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219694	SB-3 4-5' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219695	SB-3 6-7' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219696	SB-3 10-11' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219697	SB-3 15-16' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219698	SB-3 20-21' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219699	SB-3 25-26' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219700	SB-3 30-31' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219701	SB-4 0-1' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219702	SB-4 2-3' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219703	SB-4 4-5' (1' BEB)	soil	2010-01-11	00:00	2010-01-14

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
219704	SB-4 6-7' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219705	SB-4 10-11' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219706	SB-4 15-16' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219707	SB-4 20-21' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219708	SB-4 25-26' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219709	SB-4 30-31' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219710	SB-5 0-1' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219711	SB-5 2-3' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219712	SB-5 4-5' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219713	SB-5 6-7' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219714	SB-5 10-11' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219715	SB-5 15-16' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219716	SB-5 20-21' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219717	SB-5 25-26' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219718	SB-5 30-31' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219719	SB-6 0-1' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219720	SB-6 2-3' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219721	SB-6 4-5' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219722	SB-6 6-7' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219723	SB-6 10-11' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219724	SB-6 15-16' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219725	SB-6 20-21' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219726	SB-6 25-26' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219727	SB-6 30-31' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219728	SB-7 0-1' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219729	SB-7 2-3' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219730	SB-7 4-5' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219731	SB-7 6-7' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219732	SB-7 10-11' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219733	SB-7 15-16' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219734	SB-7 20-21' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219735	SB-7 25-26' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219736	SB-7 30-31' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219737	SB-8 0-1' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219738	SB-8 2-3' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219739	SB-8 4-5' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219740	SB-8 6-7' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219741	SB-8 10-11' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219742	SB-8 15-16' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219743	SB-8 20-21' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219744	SB-8 25-26' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219745	SB-8 30-31' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219746	SB-9 0-1' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219747	SB-9 2-3' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219748	SB-9 4-5' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219749	SB-9 6-7' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219750	SB-9 10-11' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219751	SB-9 15-16' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219752	SB-9 20-21' (1' BEB)	soil	2010-01-12	00:00	2010-01-14

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
219753	SB-9 25-26' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219754	SB-9 30-31' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219755	SB-9 40-41' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219756	SB-10 0-1' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219757	SB-10 2-3' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219758	SB-10 4-5' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219759	SB-10 6-7' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219760	SB-10 10-11' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219761	SB-10 15-16' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219762	SB-10 20-21' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219763	SB-10 25-26' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219764	SB-10 30-31' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219765	SB-11 0-1' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219766	SB-11 2-3' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219767	SB-11 4-5' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219768	SB-11 6-7' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219769	SB-11 10-11' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219770	SB-11 15-16' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219771	SB-11 20-21' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219772	SB-11 25-26' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219773	SB-11 30-31' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219774	SB-12 0-1' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219775	SB-12 2-3' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219776	SB-12 4-5' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219777	SB-12 6-7' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219778	SB-12 10-11' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219779	SB-12 15-16' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219780	SB-12 20-21' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219781	SB-12 25-26' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219782	SB-12 30-31' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219783	SB-13 0-1' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219784	SB-13 2-3' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219785	SB-13 4-5' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219786	SB-13 6-7' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219787	SB-13 10-11' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219788	SB-13 15-16' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219789	SB-13 20-21' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219790	SB-13 25-26' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219791	SB-13 30-31' (2' BEB)	soil	2010-01-12	00:00	2010-01-14

Sample - Field Code	BTX				TPH DRO - NEW	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
219674 - SB-1 0-1' (1' BEB)	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
219683 - SB-2 0-1' (1' BEB)	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
219692 - SB-3 0-1' (1' BEB)	<0.0100	<0.0100	<0.0100	0.0523	<50.0	12.3
219701 - SB-4 0-1' (1' BEB)	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
219710 - SB-5 0-1' (1' BEB)	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00

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Sample - Field Code	BTEX				TPH DRO - NEW	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
219719 - SB-6 0-1' (1' BEB)	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
219728 - SB-7 0-1' (1' BEB)	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
219737 - SB-8 0-1' (1' BEB)	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
219746 - SB-9 0-1' (1' BEB)	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
219756 - SB-10 0-1' (2' BEB)	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
219765 - SB-11 0-1' (2' BEB)	0.484	5.18	1.26	7.37	520	744
219774 - SB-12 0-1' (2' BEB)	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	43.9
219783 - SB-13 0-1' (2' BEB)	<0.0100	<0.0100	<0.0100	<0.0100	59.1	7.24

Sample: 219674 - SB-1 0-1' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		14100	mg/Kg	4.00

Sample: 219675 - SB-1 2-3' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		14400	mg/Kg	4.00

Sample: 219676 - SB-1 4-5' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		7330	mg/Kg	4.00

Sample: 219677 - SB-1 6-7' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		3250	mg/Kg	4.00

Sample: 219678 - SB-1 10-11' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		440	mg/Kg	4.00

Sample: 219679 - SB-1 15-16' (1' BEB)

continued ...

sample 219679 continued . . .

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

Sample: 219680 - SB-1 20-21' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		312	mg/Kg	4.00

Sample: 219681 - SB-1 25-26' (1' BEB)

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

Sample: 219682 - SB-1 30-31' (1' BEB)

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

Sample: 219683 - SB-2 0-1' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		14900	mg/Kg	4.00

Sample: 219684 - SB-2 2-3' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		13600	mg/Kg	4.00

Sample: 219685 - SB-2 4-5' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		16000	mg/Kg	4.00

Sample: 219686 - SB-2 6-7' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		9760	mg/Kg	4.00

Sample: 219687 - SB-2 10-11' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		435	mg/Kg	4.00

Sample: 219688 - SB-2 15-16' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		1350	mg/Kg	4.00

Sample: 219689 - SB-2 20-21' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		656	mg/Kg	4.00

Sample: 219690 - SB-2 25-26' (1' BEB)

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

Sample: 219691 - SB-2 30-31' (1' BEB)

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

Sample: 219692 - SB-3 0-1' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		8660	mg/Kg	4.00

Sample: 219693 - SB-3 2-3' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		9220	mg/Kg	4.00

Sample: 219694 - SB-3 4-5' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		1010	mg/Kg	4.00

Sample: 219695 - SB-3 6-7' (1' BEB)

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

Sample: 219696 - SB-3 10-11' (1' BEB)

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

Sample: 219697 - SB-3 15-16' (1' BEB)

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

Sample: 219698 - SB-3 20-21' (1' BEB)

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

Sample: 219699 - SB-3 25-26' (1' BEB)

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

Sample: 219700 - SB-3 30-31' (1' BEB)

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

Sample: 219701 - SB-4 0-1' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		11800	mg/Kg	4.00

Sample: 219702 - SB-4 2-3' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		10500	mg/Kg	4.00

Sample: 219703 - SB-4 4-5' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		4920	mg/Kg	4.00

Sample: 219704 - SB-4 6-7' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		6790	mg/Kg	4.00

Sample: 219705 - SB-4 10-11' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		1050	mg/Kg	4.00

Sample: 219706 - SB-4 15-16' (1' BEB)

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

Sample: 219707 - SB-4 20-21' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		227	mg/Kg	4.00

Sample: 219708 - SB-4 25-26' (1' BEB)

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

Sample: 219709 - SB-4 30-31' (1' BEB)

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

Sample: 219710 - SB-5 0-1' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		9750	mg/Kg	4.00

Sample: 219711 - SB-5 2-3' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		10400	mg/Kg	4.00

Sample: 219712 - SB-5 4-5' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		7530	mg/Kg	4.00

Sample: 219713 - SB-5 6-7' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		557	mg/Kg	4.00

Sample: 219714 - SB-5 10-11' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		5570	mg/Kg	4.00

Sample: 219715 - SB-5 15-16' (1' BEB)

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

Sample: 219716 - SB-5 20-21' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		354	mg/Kg	4.00

Sample: 219717 - SB-5 25-26' (1' BEB)

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

Sample: 219718 - SB-5 30-31' (1' BEB)

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

Sample: 219719 - SB-6 0-1' (1' BEB)

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

Sample: 219720 - SB-6 2-3' (1' BEB)

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

Sample: 219721 - SB-6 4-5' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		510	mg/Kg	4.00

Sample: 219722 - SB-6 6-7' (1' BEB)

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

Sample: 219723 - SB-6 10-11' (1' BEB)

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

Sample: 219724 - SB-6 15-16' (1' BEB)

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

Sample: 219725 - SB-6 20-21' (1' BEB)

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

Sample: 219726 - SB-6 25-26' (1' BEB)

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

Sample: 219727 - SB-6 30-31' (1' BEB)

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

Sample: 219728 - SB-7 0-1' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		17400	mg/Kg	4.00

Sample: 219729 - SB-7 2-3' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		14100	mg/Kg	4.00

Sample: 219730 - SB-7 4-5' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		16100	mg/Kg	4.00

Sample: 219731 - SB-7 6-7' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		878	mg/Kg	4.00

Sample: 219732 - SB-7 10-11' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		465	mg/Kg	4.00

Sample: 219733 - SB-7 15-16' (1' BEB)

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

Sample: 219734 - SB-7 20-21' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		207	mg/Kg	4.00

Sample: 219735 - SB-7 25-26' (1' BEB)

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

Sample: 219736 - SB-7 30-31' (1' BEB)

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

Sample: 219737 - SB-8 0-1' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		14800	mg/Kg	4.00

Sample: 219738 - SB-8 2-3' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		9250	mg/Kg	4.00

Sample: 219739 - SB-8 4-5' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		7980	mg/Kg	4.00

Sample: 219740 - SB-8 6-7' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		595	mg/Kg	4.00

Sample: 219741 - SB-8 10-11' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		330	mg/Kg	4.00

Sample: 219742 - SB-8 15-16' (1' BEB)

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

Sample: 219743 - SB-8 20-21' (1' BEB)

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

Sample: 219744 - SB-8 25-26' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		208	mg/Kg	4.00

Sample: 219745 - SB-8 30-31' (1' BEB)

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

Sample: 219746 - SB-9 0-1' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		503	mg/Kg	4.00

Sample: 219747 - SB-9 2-3' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		4040	mg/Kg	4.00

Sample: 219748 - SB-9 4-5' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		534	mg/Kg	4.00

Sample: 219749 - SB-9 6-7' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		778	mg/Kg	4.00

Sample: 219750 - SB-9 10-11' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		2850	mg/Kg	4.00

Sample: 219751 - SB-9 15-16' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		5650	mg/Kg	4.00

Sample: 219752 - SB-9 20-21' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		3490	mg/Kg	4.00

Sample: 219753 - SB-9 25-26' (1' BEB)

Param	Flag	Result	Units	RL
Chloride		1240	mg/Kg	4.00

Sample: 219754 - SB-9 30-31' (1' BEB)

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

Sample: 219755 - SB-9 40-41' (1' BEB)

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

Sample: 219756 - SB-10 0-1' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		10600	mg/Kg	4.00

Sample: 219757 - SB-10 2-3' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		6150	mg/Kg	4.00

Sample: 219758 - SB-10 4-5' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		4550	mg/Kg	4.00

Sample: 219759 - SB-10 6-7' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		1960	mg/Kg	4.00

Sample: 219760 - SB-10 10-11' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		1010	mg/Kg	4.00

Sample: 219761 - SB-10 15-16' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		671	mg/Kg	4.00

Sample: 219762 - SB-10 20-21' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		574	mg/Kg	4.00

Sample: 219763 - SB-10 25-26' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		1110	mg/Kg	4.00

Sample: 219764 - SB-10 30-31' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		625	mg/Kg	4.00

Sample: 219765 - SB-11 0-1' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		2120	mg/Kg	4.00

Sample: 219766 - SB-11 2-3' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		981	mg/Kg	4.00

Sample: 219767 - SB-11 4-5' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		803	mg/Kg	4.00

Sample: 219768 - SB-11 6-7' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		701	mg/Kg	4.00

Sample: 219769 - SB-11 10-11' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		867	mg/Kg	4.00

Sample: 219770 - SB-11 15-16' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		3380	mg/Kg	4.00

Sample: 219771 - SB-11 20-21' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		3740	mg/Kg	4.00

Sample: 219772 - SB-11 25-26' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		4800	mg/Kg	4.00

Sample: 219773 - SB-11 30-31' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		1450	mg/Kg	4.00

Sample: 219774 - SB-12 0-1' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		2720	mg/Kg	4.00

Sample: 219775 - SB-12 2-3' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		576	mg/Kg	4.00

Sample: 219776 - SB-12 4-5' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		586	mg/Kg	4.00

Sample: 219777 - SB-12 6-7' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		1210	mg/Kg	4.00

Sample: 219778 - SB-12 10-11' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		2210	mg/Kg	4.00

Sample: 219779 - SB-12 15-16' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		4420	mg/Kg	4.00

Sample: 219780 - SB-12 20-21' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		1850	mg/Kg	4.00

Sample: 219781 - SB-12 25-26' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		454	mg/Kg	4.00

Sample: 219782 - SB-12 30-31' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		275	mg/Kg	4.00

Sample: 219783 - SB-13 0-1' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		1880	mg/Kg	4.00

Sample: 219784 - SB-13 2-3' (2' BEB)

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

Sample: 219785 - SB-13 4-5' (2' BEB)

Param	Flag	Result	Units	RL
Chloride		205	mg/Kg	4.00

Sample: 219786 - SB-13 6-7' (2' BEB)

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

Sample: 219787 - SB-13 10-11' (2' BEB)

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

Sample: 219788 - SB-13 15-16' (2' BEB)

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

Sample: 219789 - SB-13 20-21' (2' BEB)

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

Sample: 219790 - SB-13 25-26' (2' BEB)

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

Sample: 219791 - SB-13 30-31' (2' BEB)

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



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Certifications

WBENC: 237019

HUB: 1752439743100-86536
NCTRCA WFWB38444Y0909

DBE: VN 20657

NELAP Certifications

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

El Paso: T104704221-08-TX
LELAP-02002

Midland: T104704392-08-TX

Analytical and Quality Control Report

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

Report Date: January 20, 2010

Work Order: 10011527



Project Location: Lea County, NM
Project Name: COG/Pronghorn SWD Facility
Project Number: 114-6400353

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
219674	SB-1 0-1' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219675	SB-1 2-3' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219676	SB-1 4-5' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219677	SB-1 6-7' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219678	SB-1 10-11' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219679	SB-1 15-16' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219680	SB-1 20-21' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219681	SB-1 25-26' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219682	SB-1 30-31' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219683	SB-2 0-1' (1' BEB)	soil	2010-01-11	00:00	2010-01-14

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
219684	SB-2 2-3' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219685	SB-2 4-5' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219686	SB-2 6-7' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219687	SB-2 10-11' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219688	SB-2 15-16' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219689	SB-2 20-21' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219690	SB-2 25-26' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219691	SB-2 30-31' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219692	SB-3 0-1' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219693	SB-3 2-3' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219694	SB-3 4-5' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219695	SB-3 6-7' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219696	SB-3 10-11' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219697	SB-3 15-16' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219698	SB-3 20-21' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219699	SB-3 25-26' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219700	SB-3 30-31' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219701	SB-4 0-1' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219702	SB-4 2-3' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219703	SB-4 4-5' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219704	SB-4 6-7' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219705	SB-4 10-11' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219706	SB-4 15-16' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219707	SB-4 20-21' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219708	SB-4 25-26' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219709	SB-4 30-31' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219710	SB-5 0-1' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219711	SB-5 2-3' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219712	SB-5 4-5' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219713	SB-5 6-7' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219714	SB-5 10-11' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219715	SB-5 15-16' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219716	SB-5 20-21' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219717	SB-5 25-26' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219718	SB-5 30-31' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219719	SB-6 0-1' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219720	SB-6 2-3' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219721	SB-6 4-5' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219722	SB-6 6-7' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219723	SB-6 10-11' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219724	SB-6 15-16' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219725	SB-6 20-21' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219726	SB-6 25-26' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219727	SB-6 30-31' (1' BEB)	soil	2010-01-11	00:00	2010-01-14
219728	SB-7 0-1' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219729	SB-7 2-3' (1' BEB)	soil	2010-01-12	00:00	2010-01-14

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
219730	SB-7 4-5' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219731	SB-7 6-7' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219732	SB-7 10-11' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219733	SB-7 15-16' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219734	SB-7 20-21' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219735	SB-7 25-26' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219736	SB-7 30-31' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219737	SB-8 0-1' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219738	SB-8 2-3' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219739	SB-8 4-5' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219740	SB-8 6-7' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219741	SB-8 10-11' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219742	SB-8 15-16' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219743	SB-8 20-21' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219744	SB-8 25-26' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219745	SB-8 30-31' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219746	SB-9 0-1' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219747	SB-9 2-3' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219748	SB-9 4-5' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219749	SB-9 6-7' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219750	SB-9 10-11' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219751	SB-9 15-16' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219752	SB-9 20-21' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219753	SB-9 25-26' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219754	SB-9 30-31' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219755	SB-9 40-41' (1' BEB)	soil	2010-01-12	00:00	2010-01-14
219756	SB-10 0-1' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219757	SB-10 2-3' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219758	SB-10 4-5' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219759	SB-10 6-7' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219760	SB-10 10-11' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219761	SB-10 15-16' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219762	SB-10 20-21' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219763	SB-10 25-26' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219764	SB-10 30-31' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219765	SB-11 0-1' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219766	SB-11 2-3' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219767	SB-11 4-5' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219768	SB-11 6-7' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219769	SB-11 10-11' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219770	SB-11 15-16' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219771	SB-11 20-21' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219772	SB-11 25-26' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219773	SB-11 30-31' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219774	SB-12 0-1' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219775	SB-12 2-3' (2' BEB)	soil	2010-01-12	00:00	2010-01-14

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
219776	SB-12 4-5' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219777	SB-12 6-7' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219778	SB-12 10-11' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219779	SB-12 15-16' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219780	SB-12 20-21' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219781	SB-12 25-26' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219782	SB-12 30-31' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219783	SB-13 0-1' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219784	SB-13 2-3' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219785	SB-13 4-5' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219786	SB-13 6-7' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219787	SB-13 10-11' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219788	SB-13 15-16' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219789	SB-13 20-21' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219790	SB-13 25-26' (2' BEB)	soil	2010-01-12	00:00	2010-01-14
219791	SB-13 30-31' (2' BEB)	soil	2010-01-12	00:00	2010-01-14

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

This report consists of a total of 75 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



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

Standard Flags

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

Case Narrative

Samples for project COG/Pronghorn SWD Facility were received by TraceAnalysis, Inc. on 2010-01-14 and assigned to work order 10011527. Samples for work order 10011527 were received intact at a temperature of 17.0 C.

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

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	57175	2010-01-19 at 14:00	66862	2010-01-19 at 11:58
Chloride (Titration)	SM 4500-Cl B	57115	2010-01-18 at 09:39	66836	2010-01-19 at 14:40
Chloride (Titration)	SM 4500-Cl B	57116	2010-01-18 at 09:39	66837	2010-01-19 at 14:41
Chloride (Titration)	SM 4500-Cl B	57117	2010-01-18 at 09:40	66838	2010-01-19 at 14:41
Chloride (Titration)	SM 4500-Cl B	57118	2010-01-18 at 09:40	66839	2010-01-19 at 14:42
Chloride (Titration)	SM 4500-Cl B	57119	2010-01-18 at 09:41	66840	2010-01-19 at 14:43
Chloride (Titration)	SM 4500-Cl B	57120	2010-01-18 at 08:41	66841	2010-01-19 at 14:44
Chloride (Titration)	SM 4500-Cl B	57132	2010-01-18 at 12:36	66842	2010-01-19 at 14:44
Chloride (Titration)	SM 4500-Cl B	57133	2010-01-18 at 12:37	66865	2010-01-20 at 10:45
Chloride (Titration)	SM 4500-Cl B	57134	2010-01-18 at 12:38	66866	2010-01-20 at 10:46
Chloride (Titration)	SM 4500-Cl B	57135	2010-01-18 at 12:38	66867	2010-01-20 at 10:46
Chloride (Titration)	SM 4500-Cl B	57137	2010-01-18 at 12:39	66868	2010-01-20 at 10:47
Chloride (Titration)	SM 4500-Cl B	57138	2010-01-18 at 12:39	66869	2010-01-20 at 10:48
Chloride (Titration)	SM 4500-Cl B	57139	2010-01-18 at 12:40	66870	2010-01-20 at 10:49
TPH DRO - NEW	Mod. 8015B	57147	2010-01-18 at 10:36	66823	2010-01-18 at 10:36
TPH GRO	S 8015B	57175	2010-01-19 at 14:00	66863	2010-01-19 at 12:26

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 10011527 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 6 of 75
Lea County, NM

Analytical Report

Sample: 219674 - SB-1 0-1' (1' BEB)

Laboratory: Midland

Analysis: BTEX

QC Batch: 66862

Prep Batch: 57175

Analytical Method: S 8021B

Date Analyzed: 2010-01-19

Sample Preparation: 2010-01-19

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.03	mg/Kg	1	2.00	102	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.00	mg/Kg	1	2.00	100	43.1 - 158.4

Sample: 219674 - SB-1 0-1' (1' BEB)

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 66836

Prep Batch: 57115

Analytical Method: SM 4500-Cl B

Date Analyzed: 2010-01-19

Sample Preparation: 2010-01-18

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		14100	mg/Kg	100	4.00

Sample: 219674 - SB-1 0-1' (1' BEB)

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 66823

Prep Batch: 57147

Analytical Method: Mod. 8015B

Date Analyzed: 2010-01-18

Sample Preparation: 2010-01-18

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

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

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 7 of 75
Lea County, NM

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

Sample: 219674 - SB-1 0-1' (1' BEB)

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 66863 Date Analyzed: 2010-01-19 Analyzed By: AG
Prep Batch: 57175 Sample Preparation: 2010-01-19 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.17	mg/Kg	1	2.00	108	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.07	mg/Kg	1	2.00	104	61.7 - 131.1

Sample: 219675 - SB-1 2-3' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66836 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57115 Sample Preparation: 2010-01-18 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		14400	mg/Kg	100	4.00

Sample: 219676 - SB-1 4-5' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66836 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57115 Sample Preparation: 2010-01-18 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		7330	mg/Kg	100	4.00

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 8 of 75
Lea County, NM

Sample: 219677 - SB-1 6-7' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66836	Date Analyzed:	2010-01-19
Prep Batch:	57115	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3250	mg/Kg	100	4.00

Sample: 219678 - SB-1 10-11' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66837	Date Analyzed:	2010-01-19
Prep Batch:	57116	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		440	mg/Kg	50	4.00

Sample: 219679 - SB-1 15-16' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66837	Date Analyzed:	2010-01-19
Prep Batch:	57116	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 219680 - SB-1 20-21' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66837	Date Analyzed:	2010-01-19
Prep Batch:	57116	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		312	mg/Kg	50	4.00

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 9 of 75
Lea County, NM

Sample: 219681 - SB-1 25-26' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66837	Date Analyzed:	2010-01-19
Prep Batch:	57116	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 219682 - SB-1 30-31' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66837	Date Analyzed:	2010-01-19
Prep Batch:	57116	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 219683 - SB-2 0-1' (1' BEB)

Laboratory:	Midland		
Analysis:	BTEX	Analytical Method:	S 8021B
QC Batch:	66862	Date Analyzed:	2010-01-19
Prep Batch:	57175	Sample Preparation:	2010-01-19
		Prep Method:	S 5035
		Analyzed By:	AG
		Prepared By:	AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.20	mg/Kg	1	2.00	110	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.16	mg/Kg	1	2.00	108	43.1 - 158.4

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 10 of 75
Lea County, NM

Sample: 219683 - SB-2 0-1' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66837 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57116 Sample Preparation: 2010-01-18 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		14900	mg/Kg	100	4.00

Sample: 219683 - SB-2 0-1' (1' BEB)

Laboratory: Midland
Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 66823 Date Analyzed: 2010-01-18 Analyzed By: kg
Prep Batch: 57147 Sample Preparation: 2010-01-18 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		103	mg/Kg	1	100	103	70 - 130

Sample: 219683 - SB-2 0-1' (1' BEB)

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 66863 Date Analyzed: 2010-01-19 Analyzed By: AG
Prep Batch: 57175 Sample Preparation: 2010-01-19 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.34	mg/Kg	1	2.00	117	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.22	mg/Kg	1	2.00	111	61.7 - 131.1

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 11 of 75
Lea County, NM

Sample: 219684 - SB-2 2-3' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66837	Date Analyzed:	2010-01-19
Prep Batch:	57116	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		13600	mg/Kg	100	4.00

Sample: 219685 - SB-2 4-5' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66837	Date Analyzed:	2010-01-19
Prep Batch:	57116	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		16000	mg/Kg	100	4.00

Sample: 219686 - SB-2 6-7' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66837	Date Analyzed:	2010-01-19
Prep Batch:	57116	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		9760	mg/Kg	100	4.00

Sample: 219687 - SB-2 10-11' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66837	Date Analyzed:	2010-01-19
Prep Batch:	57116	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		435	mg/Kg	50	4.00

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 12 of 75
Lea County, NM

Sample: 219688 - SB-2 15-16' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66838	Date Analyzed:	2010-01-19
Prep Batch:	57117	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 219689 - SB-2 20-21' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66838	Date Analyzed:	2010-01-19
Prep Batch:	57117	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		656	mg/Kg	50	4.00

Sample: 219690 - SB-2 25-26' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66838	Date Analyzed:	2010-01-19
Prep Batch:	57117	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 219691 - SB-2 30-31' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66838	Date Analyzed:	2010-01-19
Prep Batch:	57117	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 13 of 75
Lea County, NM

Sample: 219692 - SB-3 0-1' (1' BEB)

Laboratory: Midland

Analysis: BTEX

QC Batch: 66862

Prep Batch: 57175

Analytical Method: S 8021B

Date Analyzed: 2010-01-19

Sample Preparation: 2010-01-19

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<0.0100	mg/Kg	1	0.0100
Toluene		<0.0100	mg/Kg	1	0.0100
Ethylbenzene		<0.0100	mg/Kg	1	0.0100
Xylene		0.0523	mg/Kg	1	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.56	mg/Kg	1	2.00	78	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.60	mg/Kg	1	2.00	80	43.1 - 158.4

Sample: 219692 - SB-3 0-1' (1' BEB)

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 66838

Prep Batch: 57117

Analytical Method: SM 4500-Cl B

Date Analyzed: 2010-01-19

Sample Preparation: 2010-01-18

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		8660	mg/Kg	100	4.00

Sample: 219692 - SB-3 0-1' (1' BEB)

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 66823

Prep Batch: 57147

Analytical Method: Mod. 8015B

Date Analyzed: 2010-01-18

Sample Preparation: 2010-01-18

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

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

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

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 14 of 75
Lea County, NM

Sample: 219692 - SB-3 0-1' (1' BEB)

Laboratory:	Midland		
Analysis:	TPH GRO	Analytical Method:	S 8015B
QC Batch:	66863	Date Analyzed:	2010-01-19
Prep Batch:	57175	Sample Preparation:	2010-01-19
		Prep Method:	S 5035
		Analyzed By:	AG
		Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		12.3	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.69	mg/Kg	1	2.00	84	65.3 - 145
4-Bromofluorobenzene (4-BFB)		1.78	mg/Kg	1	2.00	89	61.7 - 131.1

Sample: 219693 - SB-3 2-3' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66838	Date Analyzed:	2010-01-19
Prep Batch:	57117	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		9220	mg/Kg	100	4.00

Sample: 219694 - SB-3 4-5' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66838	Date Analyzed:	2010-01-19
Prep Batch:	57117	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1010	mg/Kg	50	4.00

Sample: 219695 - SB-3 6-7' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66838	Date Analyzed:	2010-01-19
Prep Batch:	57117	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 15 of 75
Lea County, NM

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

Sample: 219696 - SB-3 10-11' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66838 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57117 Sample Preparation: 2010-01-18 Prepared By: AR

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

Sample: 219697 - SB-3 15-16' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66838 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57117 Sample Preparation: 2010-01-18 Prepared By: AR

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

Sample: 219698 - SB-3 20-21' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66839 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57118 Sample Preparation: 2010-01-18 Prepared By: AR

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

Sample: 219699 - SB-3 25-26' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66839 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57118 Sample Preparation: 2010-01-18 Prepared By: AR

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 16 of 75
Lea County, NM

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

Sample: 219700 - SB-3 30-31' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66839 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57118 Sample Preparation: 2010-01-18 Prepared By: AR

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

Sample: 219701 - SB-4 0-1' (1' BEB)

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 66862 Date Analyzed: 2010-01-19 Analyzed By: AG
Prep Batch: 57175 Sample Preparation: 2010-01-19 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.27	mg/Kg	1	2.00	114	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.24	mg/Kg	1	2.00	112	43.1 - 158.4

Sample: 219701 - SB-4 0-1' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66839 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57118 Sample Preparation: 2010-01-18 Prepared By: AR

continued ...

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 17 of 75
Lea County, NM

sample 219701 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		11800	mg/Kg	100	4.00

Sample: 219701 - SB-4 0-1' (1' BEB)

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-01-18	Analyzed By:	kg
QC Batch:	66823	Sample Preparation:	2010-01-18	Prepared By:	kg
Prep Batch:	57147				

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		104	mg/Kg	1	100	104	70 - 130

Sample: 219701 - SB-4 0-1' (1' BEB)

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-01-19	Analyzed By:	AG
QC Batch:	66863	Sample Preparation:	2010-01-19	Prepared By:	AG
Prep Batch:	57175				

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.40	mg/Kg	1	2.00	120	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.31	mg/Kg	1	2.00	116	61.7 - 131.1

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 18 of 75
Lea County, NM

Sample: 219702 - SB-4 2-3' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66839	Date Analyzed:	2010-01-19
Prep Batch:	57118	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		10500	mg/Kg	100	4.00

Sample: 219703 - SB-4 4-5' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66839	Date Analyzed:	2010-01-19
Prep Batch:	57118	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		4920	mg/Kg	100	4.00

Sample: 219704 - SB-4 6-7' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66839	Date Analyzed:	2010-01-19
Prep Batch:	57118	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		6790	mg/Kg	100	4.00

Sample: 219705 - SB-4 10-11' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66839	Date Analyzed:	2010-01-19
Prep Batch:	57118	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1050	mg/Kg	50	4.00

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 19 of 75
Lea County, NM

Sample: 219706 - SB-4 15-16' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66839	Date Analyzed:	2010-01-19
Prep Batch:	57118	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 219707 - SB-4 20-21' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66839	Date Analyzed:	2010-01-19
Prep Batch:	57118	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		227	mg/Kg	50	4.00

Sample: 219708 - SB-4 25-26' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66840	Date Analyzed:	2010-01-19
Prep Batch:	57119	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 219709 - SB-4 30-31' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66840	Date Analyzed:	2010-01-19
Prep Batch:	57119	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 20 of 75
Lea County, NM

Sample: 219710 - SB-5 0-1' (1' BEB)

Laboratory: Midland

Analysis: BTEX

QC Batch: 66862

Prep Batch: 57175

Analytical Method: S 8021B

Date Analyzed: 2010-01-19

Sample Preparation: 2010-01-19

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.97	mg/Kg	1	2.00	98	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.94	mg/Kg	1	2.00	97	43.1 - 158.4

Sample: 219710 - SB-5 0-1' (1' BEB)

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 66840

Prep Batch: 57119

Analytical Method: SM 4500-Cl B

Date Analyzed: 2010-01-19

Sample Preparation: 2010-01-18

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		9750	mg/Kg	100	4.00

Sample: 219710 - SB-5 0-1' (1' BEB)

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 66823

Prep Batch: 57147

Analytical Method: Mod. 8015B

Date Analyzed: 2010-01-18

Sample Preparation: 2010-01-18

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		97.6	mg/Kg	1	100	98	70 - 130

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 21 of 75
Lea County, NM

Sample: 219710 - SB-5 0-1' (1' BEB)

Laboratory:	Midland		
Analysis:	TPH GRO	Analytical Method:	S 8015B
QC Batch:	66863	Date Analyzed:	2010-01-19
Prep Batch:	57175	Sample Preparation:	2010-01-19
		Prep Method:	S 5035
		Analyzed By:	AG
		Prepared By:	AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.10	mg/Kg	1	2.00	105	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.00	mg/Kg	1	2.00	100	61.7 - 131.1

Sample: 219711 - SB-5 2-3' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66840	Date Analyzed:	2010-01-19
Prep Batch:	57119	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		10400	mg/Kg	100	4.00

Sample: 219712 - SB-5 4-5' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66840	Date Analyzed:	2010-01-19
Prep Batch:	57119	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		7530	mg/Kg	100	4.00

Sample: 219713 - SB-5 6-7' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66840	Date Analyzed:	2010-01-19
Prep Batch:	57119	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 22 of 75
Lea County, NM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		557	mg/Kg	50	4.00

Sample: 219714 - SB-5 10-11' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66840 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57119 Sample Preparation: 2010-01-18 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5570	mg/Kg	100	4.00

Sample: 219715 - SB-5 15-16' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66840 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57119 Sample Preparation: 2010-01-18 Prepared By: AR

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

Sample: 219716 - SB-5 20-21' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66840 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57119 Sample Preparation: 2010-01-18 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		354	mg/Kg	50	4.00

Sample: 219717 - SB-5 25-26' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66840 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57119 Sample Preparation: 2010-01-18 Prepared By: AR

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 23 of 75
Lea County, NM

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

Sample: 219718 - SB-5 30-31' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66841 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57120 Sample Preparation: 2010-01-18 Prepared By: AR

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

Sample: 219719 - SB-6 0-1' (1' BEB)

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 66862 Date Analyzed: 2010-01-19 Analyzed By: AG
Prep Batch: 57175 Sample Preparation: 2010-01-19 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.10	mg/Kg	1	2.00	105	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.06	mg/Kg	1	2.00	103	43.1 - 158.4

Sample: 219719 - SB-6 0-1' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66841 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57120 Sample Preparation: 2010-01-18 Prepared By: AR

continued ...

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 24 of 75
Lea County, NM

sample 219719 continued ...

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

Sample: 219719 - SB-6 0-1' (1' BEB)

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-01-18	Analyzed By:	kg
QC Batch:	66823	Sample Preparation:	2010-01-18	Prepared By:	kg
Prep Batch:	57147				

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		102	mg/Kg	1	100	102	70 - 130

Sample: 219719 - SB-6 0-1' (1' BEB)

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-01-19	Analyzed By:	AG
QC Batch:	66863	Sample Preparation:	2010-01-19	Prepared By:	AG
Prep Batch:	57175				

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.24	mg/Kg	1	2.00	112	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.13	mg/Kg	1	2.00	106	61.7 - 131.1

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 25 of 75
Lea County, NM

Sample: 219720 - SB-6 2-3' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66841	Date Analyzed:	2010-01-19
Prep Batch:	57120	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 219721 - SB-6 4-5' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66841	Date Analyzed:	2010-01-19
Prep Batch:	57120	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		510	mg/Kg	50	4.00

Sample: 219722 - SB-6 6-7' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66841	Date Analyzed:	2010-01-19
Prep Batch:	57120	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 219723 - SB-6 10-11' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66841	Date Analyzed:	2010-01-19
Prep Batch:	57120	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 26 of 75
Lea County, NM

Sample: 219724 - SB-6 15-16' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66841	Date Analyzed:	2010-01-19
Prep Batch:	57120	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 219725 - SB-6 20-21' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66841	Date Analyzed:	2010-01-19
Prep Batch:	57120	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 219726 - SB-6 25-26' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66841	Date Analyzed:	2010-01-19
Prep Batch:	57120	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 219727 - SB-6 30-31' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66841	Date Analyzed:	2010-01-19
Prep Batch:	57120	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 27 of 75
Lea County, NM

Sample: 219728 - SB-7 0-1' (1' BEB)

Laboratory: Midland

Analysis: BTEX

QC Batch: 66862

Prep Batch: 57175

Analytical Method: S 8021B

Date Analyzed: 2010-01-19

Sample Preparation: 2010-01-19

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.83	mg/Kg	1	2.00	92	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.78	mg/Kg	1	2.00	89	43.1 - 158.4

Sample: 219728 - SB-7 0-1' (1' BEB)

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 66842

Prep Batch: 57132

Analytical Method: SM 4500-Cl B

Date Analyzed: 2010-01-19

Sample Preparation: 2010-01-18

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		17400	mg/Kg	100	4.00

Sample: 219728 - SB-7 0-1' (1' BEB)

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 66823

Prep Batch: 57147

Analytical Method: Mod. 8015B

Date Analyzed: 2010-01-18

Sample Preparation: 2010-01-18

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		104	mg/Kg	1	100	104	70 - 130

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 28 of 75
Lea County, NM

Sample: 219728 - SB-7 0-1' (1' BEB)

Laboratory:	Midland		
Analysis:	TPH GRO	Analytical Method:	S 8015B
QC Batch:	66863	Date Analyzed:	2010-01-19
Prep Batch:	57175	Sample Preparation:	2010-01-19
		Prep Method:	S 5035
		Analyzed By:	AG
		Prepared By:	AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.95	mg/Kg	1	2.00	98	65.3 - 145
4-Bromofluorobenzene (4-BFB)		1.84	mg/Kg	1	2.00	92	61.7 - 131.1

Sample: 219729 - SB-7 2-3' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66842	Date Analyzed:	2010-01-19
Prep Batch:	57132	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		14100	mg/Kg	100	4.00

Sample: 219730 - SB-7 4-5' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66842	Date Analyzed:	2010-01-19
Prep Batch:	57132	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		16100	mg/Kg	100	4.00

Sample: 219731 - SB-7 6-7' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66842	Date Analyzed:	2010-01-19
Prep Batch:	57132	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 29 of 75
Lea County, NM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		878	mg/Kg	50	4.00

Sample: 219732 - SB-7 10-11' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66842 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57132 Sample Preparation: 2010-01-18 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		465	mg/Kg	50	4.00

Sample: 219733 - SB-7 15-16' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66842 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57132 Sample Preparation: 2010-01-18 Prepared By: AR

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

Sample: 219734 - SB-7 20-21' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66842 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57132 Sample Preparation: 2010-01-18 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		207	mg/Kg	50	4.00

Sample: 219735 - SB-7 25-26' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66842 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57132 Sample Preparation: 2010-01-18 Prepared By: AR

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 30 of 75
Lea County, NM

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

Sample: 219736 - SB-7 30-31' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66842 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57132 Sample Preparation: 2010-01-18 Prepared By: AR

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

Sample: 219737 - SB-8 0-1' (1' BEB)

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 66862 Date Analyzed: 2010-01-19 Analyzed By: AG
Prep Batch: 57175 Sample Preparation: 2010-01-19 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.70	mg/Kg	1	2.00	85	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.65	mg/Kg	1	2.00	82	43.1 - 158.4

Sample: 219737 - SB-8 0-1' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66842 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57132 Sample Preparation: 2010-01-18 Prepared By: AR

continued ...

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 31 of 75
Lea County, NM

sample 219737 continued ...

Parameter	Flag	RL Result	Units	Dilution	RL
Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		14800	mg/Kg	100	4.00

Sample: 219737 - SB-8 0-1' (1' BEB)

Laboratory:	Midland	Analytical Method:	Mod. 8015B	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2010-01-18	Analyzed By:	kg
QC Batch:	66823	Sample Preparation:	2010-01-18	Prepared By:	kg
Prep Batch:	57147				

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		109	mg/Kg	1	100	109	70 - 130

Sample: 219737 - SB-8 0-1' (1' BEB)

Laboratory:	Midland	Analytical Method:	S 8015B	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2010-01-19	Analyzed By:	AG
QC Batch:	66863	Sample Preparation:	2010-01-19	Prepared By:	AG
Prep Batch:	57175				

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)		1.84	mg/Kg	1	2.00	92	65.3 - 145
4-Bromofluorobenzene (4-BFB)		1.72	mg/Kg	1	2.00	86	61.7 - 131.1

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 32 of 75
Lea County, NM

Sample: 219738 - SB-8 2-3' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66865	Date Analyzed:	2010-01-20
Prep Batch:	57133	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		9250	mg/Kg	100	4.00

Sample: 219739 - SB-8 4-5' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66865	Date Analyzed:	2010-01-20
Prep Batch:	57133	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		7980	mg/Kg	100	4.00

Sample: 219740 - SB-8 6-7' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66865	Date Analyzed:	2010-01-20
Prep Batch:	57133	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		595	mg/Kg	50	4.00

Sample: 219741 - SB-8 10-11' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66865	Date Analyzed:	2010-01-20
Prep Batch:	57133	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		330	mg/Kg	50	4.00

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 33 of 75
Lea County, NM

Sample: 219742 - SB-8 15-16' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66865	Date Analyzed:	2010-01-20
Prep Batch:	57133	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 219743 - SB-8 20-21' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66865	Date Analyzed:	2010-01-20
Prep Batch:	57133	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 219744 - SB-8 25-26' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66865	Date Analyzed:	2010-01-20
Prep Batch:	57133	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 219745 - SB-8 30-31' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66865	Date Analyzed:	2010-01-20
Prep Batch:	57133	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 34 of 75
Lea County, NM

Sample: 219746 - SB-9 0-1' (1' BEB)

Laboratory: Midland

Analysis: BTEX

QC Batch: 66862

Prep Batch: 57175

Analytical Method: S 8021B

Date Analyzed: 2010-01-19

Sample Preparation: 2010-01-19

Prep Method: S 5035

Analyzed By: AG

Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		1.97	mg/Kg	1	2.00	98	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.90	mg/Kg	1	2.00	95	43.1 - 158.4

Sample: 219746 - SB-9 0-1' (1' BEB)

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 66865

Prep Batch: 57133

Analytical Method: SM 4500-Cl B

Date Analyzed: 2010-01-20

Sample Preparation: 2010-01-18

Prep Method: N/A

Analyzed By: AR

Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		503	mg/Kg	50	4.00

Sample: 219746 - SB-9 0-1' (1' BEB)

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 66823

Prep Batch: 57147

Analytical Method: Mod. 8015B

Date Analyzed: 2010-01-18

Sample Preparation: 2010-01-18

Prep Method: N/A

Analyzed By: kg

Prepared By: kg

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		112	mg/Kg	1	100	112	70 - 130

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 35 of 75
Lea County, NM

Sample: 219746 - SB-9 0-1' (1' BEB)

Laboratory:	Midland		
Analysis:	TPH GRO	Analytical Method:	S 8015B
QC Batch:	66863	Date Analyzed:	2010-01-19
Prep Batch:	57175	Sample Preparation:	2010-01-19
		Prep Method:	S 5035
		Analyzed By:	AG
		Prepared By:	AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.11	mg/Kg	1	2.00	106	65.3 - 145
4-Bromofluorobenzene (4-BFB)		1.96	mg/Kg	1	2.00	98	61.7 - 131.1

Sample: 219747 - SB-9 2-3' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66865	Date Analyzed:	2010-01-20
Prep Batch:	57133	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		4040	mg/Kg	100	4.00

Sample: 219748 - SB-9 4-5' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66866	Date Analyzed:	2010-01-20
Prep Batch:	57134	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		534	mg/Kg	50	4.00

Sample: 219749 - SB-9 6-7' (1' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66866	Date Analyzed:	2010-01-20
Prep Batch:	57134	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		778	mg/Kg	50	4.00

Sample: 219750 - SB-9 10-11' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66866 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57134 Sample Preparation: 2010-01-18 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2850	mg/Kg	100	4.00

Sample: 219751 - SB-9 15-16' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66866 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57134 Sample Preparation: 2010-01-18 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		5650	mg/Kg	100	4.00

Sample: 219752 - SB-9 20-21' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66866 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57134 Sample Preparation: 2010-01-18 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3490	mg/Kg	100	4.00

Sample: 219753 - SB-9 25-26' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66866 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57134 Sample Preparation: 2010-01-18 Prepared By: AR

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 37 of 75
Lea County, NM

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1240	mg/Kg	50	4.00

Sample: 219754 - SB-9 30-31' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66866 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57134 Sample Preparation: 2010-01-18 Prepared By: AR

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

Sample: 219755 - SB-9 40-41' (1' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66866 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57134 Sample Preparation: 2010-01-18 Prepared By: AR

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

Sample: 219756 - SB-10 0-1' (2' BEB)

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 66862 Date Analyzed: 2010-01-19 Analyzed By: AG
Prep Batch: 57175 Sample Preparation: 2010-01-19 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.02	mg/Kg	1	2.00	101	64.4 - 141.2

continued ...

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 38 of 75
Lea County, NM

sample continued ...

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)		1.94	mg/Kg	1	2.00	97	43.1 - 158.4

Sample: 219756 - SB-10 0-1' (2' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66866 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57134 Sample Preparation: 2010-01-18 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		10600	mg/Kg	100	4.00

Sample: 219756 - SB-10 0-1' (2' BEB)

Laboratory: Midland
Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 66823 Date Analyzed: 2010-01-18 Analyzed By: kg
Prep Batch: 57147 Sample Preparation: 2010-01-18 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		107	mg/Kg	1	100	107	70 - 130

Sample: 219756 - SB-10 0-1' (2' BEB)

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 66863 Date Analyzed: 2010-01-19 Analyzed By: AG
Prep Batch: 57175 Sample Preparation: 2010-01-19 Prepared By: AG

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

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 39 of 75
Lea County, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.17	mg/Kg	1	2.00	108	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.01	mg/Kg	1	2.00	100	61.7 - 131.1

Sample: 219757 - SB-10 2-3' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	66866	Date Analyzed:	2010-01-20	Analyzed By:	AR
Prep Batch:	57134	Sample Preparation:	2010-01-18	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		6150	mg/Kg	100	4.00

Sample: 219758 - SB-10 4-5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	66867	Date Analyzed:	2010-01-20	Analyzed By:	AR
Prep Batch:	57135	Sample Preparation:	2010-01-18	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		4550	mg/Kg	100	4.00

Sample: 219759 - SB-10 6-7' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	66867	Date Analyzed:	2010-01-20	Analyzed By:	AR
Prep Batch:	57135	Sample Preparation:	2010-01-18	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1960	mg/Kg	50	4.00

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 40 of 75
Lea County, NM

Sample: 219760 - SB-10 10-11' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66867	Date Analyzed:	2010-01-20
Prep Batch:	57135	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1010	mg/Kg	50	4.00

Sample: 219761 - SB-10 15-16' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66867	Date Analyzed:	2010-01-20
Prep Batch:	57135	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		671	mg/Kg	50	4.00

Sample: 219762 - SB-10 20-21' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66867	Date Analyzed:	2010-01-20
Prep Batch:	57135	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		574	mg/Kg	50	4.00

Sample: 219763 - SB-10 25-26' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66867	Date Analyzed:	2010-01-20
Prep Batch:	57135	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1110	mg/Kg	50	4.00

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 41 of 75
Lea County, NM

Sample: 219764 - SB-10 30-31' (2' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66867 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57135 Sample Preparation: 2010-01-18 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		625	mg/Kg	50	4.00

Sample: 219765 - SB-11 0-1' (2' BEB)

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 66862 Date Analyzed: 2010-01-19 Analyzed By: AG
Prep Batch: 57175 Sample Preparation: 2010-01-19 Prepared By: AG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		0.484	mg/Kg	20	0.0100
Toluene		5.18	mg/Kg	20	0.0100
Ethylbenzene		1.26	mg/Kg	20	0.0100
Xylene		7.37	mg/Kg	20	0.0100

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		25.9	mg/Kg	20	20.0	130	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		26.3	mg/Kg	20	20.0	132	43.1 - 158.4

Sample: 219765 - SB-11 0-1' (2' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66867 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57135 Sample Preparation: 2010-01-18 Prepared By: AR

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

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 42 of 75
Lea County, NM

Sample: 219765 - SB-11 0-1' (2' BEB)

Laboratory:	Midland		
Analysis:	TPH DRO - NEW	Analytical Method:	Mod. 8015B
QC Batch:	66823	Date Analyzed:	2010-01-18
Prep Batch:	57147	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	kg
		Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		520	mg/Kg	1	50.0

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	1	131	mg/Kg	1	100	131	70 - 130

Sample: 219765 - SB-11 0-1' (2' BEB)

Laboratory:	Midland		
Analysis:	TPH GRO	Analytical Method:	S 8015B
QC Batch:	66863	Date Analyzed:	2010-01-19
Prep Batch:	57175	Sample Preparation:	2010-01-19
		Prep Method:	S 5035
		Analyzed By:	AG
		Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		744	mg/Kg	20	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		28.2	mg/Kg	20	20.0	141	65.3 - 145
4-Bromofluorobenzene (4-BFB)	2	28.1	mg/Kg	20	20.0	140	61.7 - 131.1

Sample: 219766 - SB-11 2-3' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66867	Date Analyzed:	2010-01-20
Prep Batch:	57135	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		981	mg/Kg	50	4.00

¹ High surrogate recovery due to peak interference.

² High surrogate recovery due to peak interference.

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 43 of 75
Lea County, NM

Sample: 219767 - SB-11 4-5' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66867	Date Analyzed:	2010-01-20
Prep Batch:	57135	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		803	mg/Kg	50	4.00

Sample: 219768 - SB-11 6-7' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66868	Date Analyzed:	2010-01-20
Prep Batch:	57137	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		701	mg/Kg	50	4.00

Sample: 219769 - SB-11 10-11' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66868	Date Analyzed:	2010-01-20
Prep Batch:	57137	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		867	mg/Kg	50	4.00

Sample: 219770 - SB-11 15-16' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66868	Date Analyzed:	2010-01-20
Prep Batch:	57137	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 44 of 75
Lea County, NM

Sample: 219771 - SB-11 20-21' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66868	Date Analyzed:	2010-01-20
Prep Batch:	57137	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		3740	mg/Kg	100	4.00

Sample: 219772 - SB-11 25-26' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66868	Date Analyzed:	2010-01-20
Prep Batch:	57137	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		4800	mg/Kg	100	4.00

Sample: 219773 - SB-11 30-31' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66868	Date Analyzed:	2010-01-20
Prep Batch:	57137	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1450	mg/Kg	50	4.00

Sample: 219774 - SB-12 0-1' (2' BEB)

Laboratory:	Midland		
Analysis:	BTEX	Analytical Method:	S 8021B
QC Batch:	66862	Date Analyzed:	2010-01-19
Prep Batch:	57175	Sample Preparation:	2010-01-19
		Prep Method:	S 5035
		Analyzed By:	AG
		Prepared By:	AG

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

continued ...

sample 219774 continued ...

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.00	mg/Kg	1	2.00	100	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		2.30	mg/Kg	1	2.00	115	43.1 - 158.4

Sample: 219774 - SB-12 0-1' (2' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66868 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57137 Sample Preparation: 2010-01-18 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		2720	mg/Kg	100	4.00

Sample: 219774 - SB-12 0-1' (2' BEB)

Laboratory: Midland
Analysis: TPH DRO - NEW Analytical Method: Mod. 8015B Prep Method: N/A
QC Batch: 66823 Date Analyzed: 2010-01-18 Analyzed By: kg
Prep Batch: 57147 Sample Preparation: 2010-01-18 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		85.8	mg/Kg	1	100	86	70 - 130

Sample: 219774 - SB-12 0-1' (2' BEB)

Laboratory: Midland
Analysis: TPH GRO Analytical Method: S 8015B Prep Method: S 5035
QC Batch: 66863 Date Analyzed: 2010-01-19 Analyzed By: AG
Prep Batch: 57175 Sample Preparation: 2010-01-19 Prepared By: AG

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 46 of 75
Lea County, NM

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		43.9	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.13	mg/Kg	1	2.00	106	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.07	mg/Kg	1	2.00	104	61.7 - 131.1

Sample: 219775 - SB-12 2-3' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	66868	Date Analyzed:	2010-01-20	Analyzed By:	AR
Prep Batch:	57137	Sample Preparation:	2010-01-18	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		576	mg/Kg	50	4.00

Sample: 219776 - SB-12 4-5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	66868	Date Analyzed:	2010-01-20	Analyzed By:	AR
Prep Batch:	57137	Sample Preparation:	2010-01-18	Prepared By:	AR

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

Sample: 219777 - SB-12 6-7' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	66868	Date Analyzed:	2010-01-20	Analyzed By:	AR
Prep Batch:	57137	Sample Preparation:	2010-01-18	Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1210	mg/Kg	50	4.00

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 47 of 75
Lea County, NM

Sample: 219778 - SB-12 10-11' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66869	Date Analyzed:	2010-01-20
Prep Batch:	57138	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 219779 - SB-12 15-16' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66869	Date Analyzed:	2010-01-20
Prep Batch:	57138	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 219780 - SB-12 20-21' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66869	Date Analyzed:	2010-01-20
Prep Batch:	57138	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		1850	mg/Kg	50	4.00

Sample: 219781 - SB-12 25-26' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66869	Date Analyzed:	2010-01-20
Prep Batch:	57138	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		454	mg/Kg	50	4.00

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 48 of 75
Lea County, NM

Sample: 219782 - SB-12 30-31' (2' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66869 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57138 Sample Preparation: 2010-01-18 Prepared By: AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		275	mg/Kg	50	4.00

Sample: 219783 - SB-13 0-1' (2' BEB)

Laboratory: Midland
Analysis: BTEX Analytical Method: S 8021B Prep Method: S 5035
QC Batch: 66862 Date Analyzed: 2010-01-19 Analyzed By: AG
Prep Batch: 57175 Sample Preparation: 2010-01-19 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.00	mg/Kg	1	2.00	100	64.4 - 141.2
4-Bromofluorobenzene (4-BFB)		1.93	mg/Kg	1	2.00	96	43.1 - 158.4

Sample: 219783 - SB-13 0-1' (2' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 66869 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57138 Sample Preparation: 2010-01-18 Prepared By: AR

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

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 49 of 75
Lea County, NM

Sample: 219783 - SB-13 0-1' (2' BEB)

Laboratory:	Midland		
Analysis:	TPH DRO - NEW	Analytical Method:	Mod. 8015B
QC Batch:	66823	Date Analyzed:	2010-01-18
Prep Batch:	57147	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	kg
		Prepared By:	kg

Parameter	Flag	RL Result	Units	Dilution	RL
DRO		59.1	mg/Kg	1	50.0

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

Sample: 219783 - SB-13 0-1' (2' BEB)

Laboratory:	Midland		
Analysis:	TPH GRO	Analytical Method:	S 8015B
QC Batch:	66863	Date Analyzed:	2010-01-19
Prep Batch:	57175	Sample Preparation:	2010-01-19
		Prep Method:	S 5035
		Analyzed By:	AG
		Prepared By:	AG

Parameter	Flag	RL Result	Units	Dilution	RL
GRO		7.24	mg/Kg	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.15	mg/Kg	1	2.00	108	65.3 - 145
4-Bromofluorobenzene (4-BFB)		2.06	mg/Kg	1	2.00	103	61.7 - 131.1

Sample: 219784 - SB-13 2-3' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66869	Date Analyzed:	2010-01-20
Prep Batch:	57138	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 50 of 75
Lea County, NM

Sample: 219785 - SB-13 4-5' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66869	Date Analyzed:	2010-01-20
Prep Batch:	57138	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	RL Result	Units	Dilution	RL
Chloride		205	mg/Kg	50	4.00

Sample: 219786 - SB-13 6-7' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66869	Date Analyzed:	2010-01-20
Prep Batch:	57138	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 219787 - SB-13 10-11' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66869	Date Analyzed:	2010-01-20
Prep Batch:	57138	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 219788 - SB-13 15-16' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66870	Date Analyzed:	2010-01-20
Prep Batch:	57139	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 51 of 75
Lea County, NM

Sample: 219789 - SB-13 20-21' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66870	Date Analyzed:	2010-01-20
Prep Batch:	57139	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 219790 - SB-13 25-26' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66870	Date Analyzed:	2010-01-20
Prep Batch:	57139	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 219791 - SB-13 30-31' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	66870	Date Analyzed:	2010-01-20
Prep Batch:	57139	Sample Preparation:	2010-01-18
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Method Blank (1) QC Batch: 66823

QC Batch:	66823	Date Analyzed:	2010-01-18	Analyzed By:	kg
Prep Batch:	57147	QC Preparation:	2010-01-18	Prepared By:	kg

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

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 52 of 75
Lea County, NM

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane		91.6	mg/Kg	1	100	92	70 - 130

Method Blank (1) QC Batch: 66836

QC Batch: 66836 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57115 QC Preparation: 2010-01-18 Prepared By: AR

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

Method Blank (1) QC Batch: 66837

QC Batch: 66837 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57116 QC Preparation: 2010-01-18 Prepared By: AR

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

Method Blank (1) QC Batch: 66838

QC Batch: 66838 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57117 QC Preparation: 2010-01-18 Prepared By: AR

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

Method Blank (1) QC Batch: 66839

QC Batch: 66839 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57118 QC Preparation: 2010-01-18 Prepared By: AR

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

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 53 of 75
Lea County, NM

Method Blank (1) QC Batch: 66840

QC Batch: 66840 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57119 QC Preparation: 2010-01-18 Prepared By: AR

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

Method Blank (1) QC Batch: 66841

QC Batch: 66841 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57120 QC Preparation: 2010-01-18 Prepared By: AR

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

Method Blank (1) QC Batch: 66842

QC Batch: 66842 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57132 QC Preparation: 2010-01-18 Prepared By: AR

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

Method Blank (1) QC Batch: 66862

QC Batch: 66862 Date Analyzed: 2010-01-19 Analyzed By: AG
Prep Batch: 57175 QC Preparation: 2010-01-19 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.03	mg/Kg	1	2.00	102	64.9 - 142.7
4-Bromofluorobenzene (4-BFB)		1.90	mg/Kg	1	2.00	95	43.9 - 141.9

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 54 of 75
Lea County, NM

Method Blank (1) QC Batch: 66863

QC Batch: 66863 Date Analyzed: 2010-01-19 Analyzed By: AG
Prep Batch: 57175 QC Preparation: 2010-01-19 Prepared By: AG

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		2.19	mg/Kg	1	2.00	110	66.2 - 145
4-Bromofluorobenzene (4-BFB)		1.98	mg/Kg	1	2.00	99	62 - 120.5

Method Blank (1) QC Batch: 66865

QC Batch: 66865 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57133 QC Preparation: 2010-01-18 Prepared By: AR

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

Method Blank (1) QC Batch: 66866

QC Batch: 66866 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57134 QC Preparation: 2010-01-18 Prepared By: AR

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

Method Blank (1) QC Batch: 66867

QC Batch: 66867 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57135 QC Preparation: 2010-01-18 Prepared By: AR

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

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 55 of 75
Lea County, NM

Method Blank (1) QC Batch: 66868

QC Batch: 66868 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57137 QC Preparation: 2010-01-18 Prepared By: AR

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

Method Blank (1) QC Batch: 66869

QC Batch: 66869 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57138 QC Preparation: 2010-01-18 Prepared By: AR

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

Method Blank (1) QC Batch: 66870

QC Batch: 66870 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57139 QC Preparation: 2010-01-18 Prepared By: AR

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

Laboratory Control Spike (LCS-1)

QC Batch: 66823 Date Analyzed: 2010-01-18 Analyzed By: kg
Prep Batch: 57147 QC Preparation: 2010-01-18 Prepared By: kg

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	284	mg/Kg	1	250	<5.86	114	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	295	mg/Kg	1	250	<5.86	118	57.4 - 133.4	4	20

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

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 56 of 75
Lea County, NM

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	102	105	mg/Kg	1	100	102	105	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 66836 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57115 QC Preparation: 2010-01-18 Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	95.5	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	97.3	mg/Kg	1	100	<2.18	97	85 - 115	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 66837 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57116 QC Preparation: 2010-01-18 Prepared By: AR

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	98.4	mg/Kg	1	100	<2.18	98	85 - 115

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

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

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

Laboratory Control Spike (LCS-1)

QC Batch: 66838 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57117 QC Preparation: 2010-01-18 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.

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 57 of 75
Lea County, NM

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: 66839 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57118 QC Preparation: 2010-01-18 Prepared By: AR

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

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

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

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

Laboratory Control Spike (LCS-1)

QC Batch: 66840 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57119 QC Preparation: 2010-01-18 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	99.8	mg/Kg	1	100	<2.18	100	85 - 115	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 66841 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57120 QC Preparation: 2010-01-18 Prepared By: AR

continued ...

control spikes continued ...

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

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	98.7	mg/Kg	1	100	<2.18	99	85 - 115	1	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 66842 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57132 QC Preparation: 2010-01-18 Prepared By: AR

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

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	98.9	mg/Kg	1	100	<2.18	99	85 - 115	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 66862 Date Analyzed: 2010-01-19 Analyzed By: AG
Prep Batch: 57175 QC Preparation: 2010-01-19 Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.02	mg/Kg	1	2.00	<0.00410	101	75.4 - 115.7
Toluene	1.85	mg/Kg	1	2.00	<0.00310	92	78.4 - 113.6
Ethylbenzene	1.76	mg/Kg	1	2.00	<0.00240	88	76 - 114.2
Xylene	5.34	mg/Kg	1	6.00	<0.00650	89	76.9 - 113.6

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

continued ...

control spikes continued ...

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	2.06	mg/Kg	1	2.00	<0.00410	103	75.4 - 115.7	2	20
Toluene	1.89	mg/Kg	1	2.00	<0.00310	94	78.4 - 113.6	2	20
Ethylbenzene	1.80	mg/Kg	1	2.00	<0.00240	90	76 - 114.2	2	20
Xylene	5.44	mg/Kg	1	6.00	<0.00650	91	76.9 - 113.6	2	20

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

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.94	1.92	mg/Kg	1	2.00	97	96	65 - 142.9
4-Bromofluorobenzene (4-BFB)	1.97	1.96	mg/Kg	1	2.00	98	98	43.8 - 144.9

Laboratory Control Spike (LCS-1)

QC Batch: 66863
Prep Batch: 57175

Date Analyzed: 2010-01-19
QC Preparation: 2010-01-19

Analyzed By: AG
Prepared By: AG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	16.9	mg/Kg	1	20.0	<0.396	84	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	17.6	mg/Kg	1	20.0	<0.396	88	52.5 - 114.3	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)	2.10	2.12	mg/Kg	1	2.00	105	106	66.2 - 148.7
4-Bromofluorobenzene (4-BFB)	2.03	2.06	mg/Kg	1	2.00	102	103	64.1 - 127.4

Laboratory Control Spike (LCS-1)

QC Batch: 66865
Prep Batch: 57133

Date Analyzed: 2010-01-20
QC Preparation: 2010-01-18

Analyzed By: AR
Prepared By: AR

continued ...

control spikes continued ...

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

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

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

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

Laboratory Control Spike (LCS-1)

QC Batch: 66866 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57134 QC Preparation: 2010-01-18 Prepared By: AR

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

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

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

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

Laboratory Control Spike (LCS-1)

QC Batch: 66867 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57135 QC Preparation: 2010-01-18 Prepared By: AR

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

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

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

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

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 61 of 75
Lea County, NM

Laboratory Control Spike (LCS-1)

QC Batch: 66868 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57137 QC Preparation: 2010-01-18 Prepared By: AR

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

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	98.8	mg/Kg	1	100	<2.18	99	85 - 115	2	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 66869 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57138 QC Preparation: 2010-01-18 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	99.2	mg/Kg	1	100	<2.18	99	85 - 115	1	20

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

Laboratory Control Spike (LCS-1)

QC Batch: 66870 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57139 QC Preparation: 2010-01-18 Prepared By: AR

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

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

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

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

Matrix Spike (MS-1) Spiked Sample: 219597

QC Batch: 66823 Date Analyzed: 2010-01-18 Analyzed By: kg
Prep Batch: 57147 QC Preparation: 2010-01-18 Prepared By: kg

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO	323	mg/Kg	1	250	<5.86	129	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	328	mg/Kg	1	250	<5.86	131	35.2 - 167.1	2	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	97.8	98.0	mg/Kg	1	100	98	98	70 - 130

Matrix Spike (MS-1) Spiked Sample: 219677

QC Batch: 66836 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57115 QC Preparation: 2010-01-18 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	11500	mg/Kg	100	10000	<218	115	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	11000	mg/Kg	100	10000	<218	110	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: 219687

QC Batch: 66837 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57116 QC Preparation: 2010-01-18 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10400	mg/Kg	100	10000	435	100	85 - 115

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

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 63 of 75
Lea County, NM

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	10600	mg/Kg	100	10000	435	102	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: 219697

QC Batch: 66838 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57117 QC Preparation: 2010-01-18 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	9440	mg/Kg	100	10000	<218	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	9600	mg/Kg	100	10000	<218	96	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: 219707

QC Batch: 66839 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57118 QC Preparation: 2010-01-18 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	11000	mg/Kg	100	10000	227	108	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	11100	mg/Kg	100	10000	227	109	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: 219717

QC Batch: 66840 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57119 QC Preparation: 2010-01-18 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	10200	mg/Kg	100	10000	<218	102	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	10400	mg/Kg	100	10000	<218	104	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: 219727

QC Batch: 66841 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57120 QC Preparation: 2010-01-18 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	9960	mg/Kg	100	10000	<218	98	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	10100	mg/Kg	100	10000	<218	99	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: 219737

QC Batch: 66842 Date Analyzed: 2010-01-19 Analyzed By: AR
Prep Batch: 57132 QC Preparation: 2010-01-18 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	24000	mg/Kg	100	10000	14800	92	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	24400	mg/Kg	100	10000	14800	96	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: 219728

QC Batch: 66862
Prep Batch: 57175

Date Analyzed: 2010-01-19
QC Preparation: 2010-01-19

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	2.42	mg/Kg	1	2.00	<0.00410	121	57.7 - 140.7
Toluene	2.26	mg/Kg	1	2.00	<0.00310	113	53.4 - 146.6
Ethylbenzene	2.22	mg/Kg	1	2.00	<0.00240	111	62.1 - 141.6
Xylene	6.71	mg/Kg	1	6.00	<0.00650	112	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	2.32	mg/Kg	1	2.00	<0.00410	116	57.7 - 140.7	4	20
Toluene	2.17	mg/Kg	1	2.00	<0.00310	108	53.4 - 146.6	4	20
Ethylbenzene	2.12	mg/Kg	1	2.00	<0.00240	106	62.1 - 141.6	5	20
Xylene	6.42	mg/Kg	1	6.00	<0.00650	107	61.2 - 142.7	4	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.93	2.11	mg/Kg	1	2	96	106	62.7 - 139.6
4-Bromofluorobenzene (4-BFB)	1.93	2.11	mg/Kg	1	2	96	106	49.6 - 146.7

Matrix Spike (MS-1) Spiked Sample: 219879

QC Batch: 66863
Prep Batch: 57175

Date Analyzed: 2010-01-19
QC Preparation: 2010-01-19

Analyzed By: AG
Prepared By: AG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	18.6	mg/Kg	1	20.0	<0.396	93	10 - 198.3

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	19.2	mg/Kg	1	20.0	<0.396	96	10 - 198.3	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)	2.29	2.13	mg/Kg	1	2	114	106	65.5 - 143
4-Bromofluorobenzene (4-BFB)	2.33	2.21	mg/Kg	1	2	116	110	58.6 - 140

Matrix Spike (MS-1) Spiked Sample: 219747

QC Batch: 66865 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57133 QC Preparation: 2010-01-18 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	13600	mg/Kg	100	10000	4040	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	13700	mg/Kg	100	10000	4040	97	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: 219757

QC Batch: 66866 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57134 QC Preparation: 2010-01-18 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	16300	mg/Kg	100	10000	6150	102	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	16100	mg/Kg	100	10000	6150	100	85 - 115	1	20

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

Matrix Spike (MS-1) Spiked Sample: 219767

QC Batch: 66867 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57135 QC Preparation: 2010-01-18 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10900	mg/Kg	100	10000	803	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	11000	mg/Kg	100	10000	803	102	85 - 115	1	20

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

Matrix Spike (MS-1) Spiked Sample: 219777

QC Batch: 66868 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57137 QC Preparation: 2010-01-18 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	11500	mg/Kg	100	10000	1210	103	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	11600	mg/Kg	100	10000	1210	104	85 - 115	1	20

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

Matrix Spike (MS-1) Spiked Sample: 219787

QC Batch: 66869 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57138 QC Preparation: 2010-01-18 Prepared By: AR

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

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	10100	mg/Kg	100	10000	<218	100	85 - 115	1	20

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

Matrix Spike (MS-1) Spiked Sample: 219791

QC Batch: 66870 Date Analyzed: 2010-01-20 Analyzed By: AR
Prep Batch: 57139 QC Preparation: 2010-01-18 Prepared By: AR

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride	10100	mg/Kg	100	10000	<218	101	85 - 115

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride	10200	mg/Kg	100	10000	<218	102	85 - 115	1	20

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

Standard (CCV-1)

QC Batch: 66823 Date Analyzed: 2010-01-18 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	297	119	80 - 120	2010-01-18

Standard (CCV-2)

QC Batch: 66823 Date Analyzed: 2010-01-18 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	290	116	80 - 120	2010-01-18

Standard (CCV-3)

QC Batch: 66823 Date Analyzed: 2010-01-18 Analyzed By: kg

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		mg/Kg	250	295	118	80 - 120	2010-01-18

Standard (ICV-1)

QC Batch: 66836 Date Analyzed: 2010-01-19 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2010-01-19

Standard (CCV-1)

QC Batch: 66836 Date Analyzed: 2010-01-19 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	97.8	98	85 - 115	2010-01-19

Standard (ICV-1)

QC Batch: 66837 Date Analyzed: 2010-01-19 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.2	99	85 - 115	2010-01-19

Standard (CCV-1)

QC Batch: 66837 Date Analyzed: 2010-01-19 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	2010-01-19

Standard (ICV-1)

QC Batch: 66838 Date Analyzed: 2010-01-19 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	105	105	85 - 115	2010-01-19

Standard (CCV-1)

QC Batch: 66838 Date Analyzed: 2010-01-19 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	95.5	96	85 - 115	2010-01-19

Standard (ICV-1)

QC Batch: 66839 Date Analyzed: 2010-01-19 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	2010-01-19

Standard (CCV-1)

QC Batch: 66839 Date Analyzed: 2010-01-19 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	2010-01-19

Standard (ICV-1)

QC Batch: 66840 Date Analyzed: 2010-01-19 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	2010-01-19

Standard (CCV-1)

QC Batch: 66840 Date Analyzed: 2010-01-19 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	2010-01-19

Standard (ICV-1)

QC Batch: 66841 Date Analyzed: 2010-01-19 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.5	100	85 - 115	2010-01-19

Standard (CCV-1)

QC Batch: 66841 Date Analyzed: 2010-01-19 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	2010-01-19

Standard (ICV-1)

QC Batch: 66842

Date Analyzed: 2010-01-19

Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	99.8	100	85 - 115	2010-01-19

Standard (CCV-1)

QC Batch: 66842

Date Analyzed: 2010-01-19

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	2010-01-19

Standard (CCV-1)

QC Batch: 66862

Date Analyzed: 2010-01-19

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.101	101	80 - 120	2010-01-19
Toluene		mg/Kg	0.100	0.0927	93	80 - 120	2010-01-19
Ethylbenzene		mg/Kg	0.100	0.0891	89	80 - 120	2010-01-19
Xylene		mg/Kg	0.300	0.270	90	80 - 120	2010-01-19

Standard (CCV-2)

QC Batch: 66862

Date Analyzed: 2010-01-19

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.101	101	80 - 120	2010-01-19
Toluene		mg/Kg	0.100	0.0926	93	80 - 120	2010-01-19
Ethylbenzene		mg/Kg	0.100	0.0879	88	80 - 120	2010-01-19
Xylene		mg/Kg	0.300	0.265	88	80 - 120	2010-01-19

Standard (CCV-3)

QC Batch: 66862

Date Analyzed: 2010-01-19

Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/Kg	0.100	0.101	101	80 - 120	2010-01-19
Toluene		mg/Kg	0.100	0.0915	92	80 - 120	2010-01-19
Ethylbenzene		mg/Kg	0.100	0.0859	86	80 - 120	2010-01-19
Xylene		mg/Kg	0.300	0.259	86	80 - 120	2010-01-19

Standard (CCV-1)

QC Batch: 66863 Date Analyzed: 2010-01-19 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.07	107	80 - 120	2010-01-19

Standard (CCV-2)

QC Batch: 66863 Date Analyzed: 2010-01-19 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	0.994	99	80 - 120	2010-01-19

Standard (CCV-3)

QC Batch: 66863 Date Analyzed: 2010-01-19 Analyzed By: AG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		mg/Kg	1.00	1.13	113	80 - 120	2010-01-19

Standard (ICV-1)

QC Batch: 66865 Date Analyzed: 2010-01-20 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.5	98	85 - 115	2010-01-20

Standard (CCV-1)

QC Batch: 66865 Date Analyzed: 2010-01-20 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	2010-01-20

Standard (ICV-1)

QC Batch: 66866 Date Analyzed: 2010-01-20 Analyzed By: AR

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	102	102	85 - 115	2010-01-20

Standard (CCV-1)

QC Batch: 66866 Date Analyzed: 2010-01-20 Analyzed By: AR

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride		mg/Kg	100	98.4	98	85 - 115	2010-01-20

Standard (ICV-1)

QC Batch: 66867 Date Analyzed: 2010-01-20 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	2010-01-20

Standard (CCV-1)

QC Batch: 66867 Date Analyzed: 2010-01-20 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	2010-01-20

Standard (ICV-1)

QC Batch: 66868 Date Analyzed: 2010-01-20 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	2010-01-20

Standard (CCV-1)

QC Batch: 66868 Date Analyzed: 2010-01-20 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	2010-01-20

Standard (ICV-1)

QC Batch: 66869 Date Analyzed: 2010-01-20 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	2010-01-20

Standard (CCV-1)

QC Batch: 66869 Date Analyzed: 2010-01-20 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	2010-01-20

Standard (ICV-1)

QC Batch: 66870 Date Analyzed: 2010-01-20 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	2010-01-20

Report Date: January 20, 2010
114-6400353

Work Order: 10011527
COG/Pronghorn SWD Facility

Page Number: 75 of 75
Lea County, NM

Standard (CCV-1)

QC Batch: 66870

Date Analyzed: 2010-01-20

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	2010-01-20

Order #: 10011527

Analysis Request of Chain of Custody Record

PAGE: 1 OF: 12

ANALYSIS REQUEST
(Circle or Specify Method No.)



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

CLIENT NAME:		SITE MANAGER:		PROJECT NAME:		PRESERVATIVE METHOD	
COG		Ike Tavaraz		COG / Pronghorn SWD Facility		HCL HNO3 ICE NONE	
PROJECT NO.: 114-6400353		Lea Co., NM		SAMPLE IDENTIFICATION		NUMBER OF CONTAINERS	
LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP	GRAB	NUMBER OF CONTAINERS	NUMBER OF CONTAINERS
219674	1/11				X	1	1
675	1/11				X	1	1
676	1/11				X	1	1
677	1/11				X	1	1
678	1/11				X	1	1
679	1/11				X	1	1
680	1/11				X	1	1
681	1/11				X	1	1
682	1/11				X	1	1
683	1/11				X	1	1

RELINQUISHED BY: (Signature)	DATE:	TIME:	RECEIVED BY: (Signature)	DATE:	TIME:
<i>[Signature]</i>	1/14/10	1645	<i>[Signature]</i>	1/14/10	1645
RELINQUISHED BY: (Signature)	DATE:	TIME:	RECEIVED BY: (Signature)	DATE:	TIME:
RELINQUISHED BY: (Signature)	DATE:	TIME:	RECEIVED BY: (Signature)	DATE:	TIME:
RELINQUISHED BY: (Signature)	DATE:	TIME:	RECEIVED BY: (Signature)	DATE:	TIME:

RECEIVING LABORATORY:	ADDRESS:	CITY:	STATE:	ZIP:	PHONE:	DATE:	TIME:
1700c intact							

REMARKS: IF TPH > 5,000 m/kg run deeper samples / If total BTEX > 50 run deeper samples

PAH 8270	PCRA 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. B240/B260/B24	GC/MS Semi. Vol. B270/B25	PCBs B080/B08	Pest. B08/B08	Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)	Major Anions/Cations, pH, TDS
XX														
BTEX 8021B														
TPH 8015 MOD, TX1005 (Ext. to C35)														

SAMPLED BY: (Print & Initial) *KM* DATE: 1/14/10 TIME: 1645

AIRBILL #:

OTHER:

RESULTS BY:

TETRA TECH CONTACT PERSON: *Ike Tavaraz*

RUSH Charges Authorized:

Yes No

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

Order #: 10011527

Analysis Request of Chain of Custody Record

PAGE: 4 OF: 12

ANALYSIS REQUEST
(Circle or Specify Method No.)

TETRA TECH

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

CLIENT NAME: COG		SITE MANAGER: Ike Tavares		PROJECT NAME: COG / Ponghorn SWD Facility		PRESERVATIVE METHOD	
PROJECT NO.: 114-6400353		PROJECT IDENTIFICATION Lea Co., NM		NUMBER OF CONTAINERS FILTERED (Y/N)		PRESERVATIVE METHOD	
LAB I.D. NUMBER	DATE	TIME	MATRIX	COMPR	GRAB	SAMPLE IDENTIFICATION	
219704	1/11					SB-4	6-7' (1' BED)
705	1/11					SB-4	10-11' (1' BED)
706	1/11					SB-4	15-16' (1' BED)
707	1/11					SB-4	20-21' (1' BED)
708	1/11					SB-4	25-26' (1' BED)
709	1/11					SB-4	30-31' (1' BED)
710	1/11					SB-5	0-1' (1' BED)
711	1/11					SB-5	2-3' (1' BED)
712	1/11					SB-5	4-5' (1' BED)
713	1/11					SB-5	6-7' (1' BED)

RELINQUISHED BY: (Signature)	Date:	Time:	RECEIVED BY: (Signature)	Date:	Time:
	1/11/10	16:45		1/14/10	16:45

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

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

RECEIVING LABORATORY:	ADDRESS:	CITY:	STATE:	ZIP:	PHONE:	DATE:	TIME:

REMARKS:	
If TPH 75000 mly run deep sample / If total DTEX 750 run deep sample	

SAMPLE CONDITION WHEN RECEIVED:	
17.0% intact	

RECEIVING LABORATORY:	
Ike Tavares	

RUSH CHARGES AUTHORIZED:	
Yes	No

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

Analysis Request of Chain of Custody Record

PAGE: 7 OF: 12

OF: 12

ANALYSIS REQUEST

(Circle or Specify Method No.)



TETRA TECH

1910 N. Big Spring St.

Midland, Texas 79705

(432) 682-4559 • Fax (432) 682-3946

CLIENT NAME: COG		SITE MANAGER: Dre Taworee		PROJECT NAME: COG / Pronghorn SWD Facility		PRESERVATIVE METHOD	
PROJECT NO.: 114-6400353		PROJECT NAME: COG / Pronghorn SWD Facility		PRESERVATIVE METHOD		PRESERVATIVE METHOD	
LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP	GRAB	SAMPLE IDENTIFICATION	SAMPLE IDENTIFICATION
219734	1/12					SB-7 20-21' (1' BED)	SB-7 20-21' (1' BED)
735	1/12					SB-7 25-26' (1' BED)	SB-7 25-26' (1' BED)
736	1/12					SD-7 30-31' (1' DEB)	SD-7 30-31' (1' DEB)
737	1/12					SB-8 0-1' (1' BED)	SB-8 0-1' (1' BED)
738	1/12					SB-8 2-3' (1' BED)	SB-8 2-3' (1' BED)
739	1/12					SB-8 4-5' (1' BED)	SB-8 4-5' (1' BED)
740	1/12					SB-8 6-7' (1' BED)	SB-8 6-7' (1' BED)
741	1/12					SB-8 10-11' (1' BED)	SB-8 10-11' (1' BED)
742	1/12					SB-8 15-16' (1' BED)	SB-8 15-16' (1' BED)
743	1/12					SB-8 20-21' (1' BED)	SB-8 20-21' (1' BED)
RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)	
DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12	
TIME: 1645		TIME: 1645		TIME: 1645		TIME: 1645	
RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)	
DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12	
TIME: 1645		TIME: 1645		TIME: 1645		TIME: 1645	
RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)	
DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12	
TIME: 1645		TIME: 1645		TIME: 1645		TIME: 1645	
RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)	
DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12	
TIME: 1645		TIME: 1645		TIME: 1645		TIME: 1645	
RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)	
DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12	
TIME: 1645		TIME: 1645		TIME: 1645		TIME: 1645	
RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)	
DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12	
TIME: 1645		TIME: 1645		TIME: 1645		TIME: 1645	
RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)	
DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12	
TIME: 1645		TIME: 1645		TIME: 1645		TIME: 1645	
RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)	
DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12	
TIME: 1645		TIME: 1645		TIME: 1645		TIME: 1645	
RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)	
DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12	
TIME: 1645		TIME: 1645		TIME: 1645		TIME: 1645	
RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)	
DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12	
TIME: 1645		TIME: 1645		TIME: 1645		TIME: 1645	
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DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12	
TIME: 1645		TIME: 1645		TIME: 1645		TIME: 1645	
RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)	
DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12	
TIME: 1645		TIME: 1645		TIME: 1645		TIME: 1645	
RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)		RELINQUISHED BY: (Signature)	
DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12		DATE: 1/14/12	
TIME: 1645		TIME: 1645		TIME: 1645		TIME: 1645	
RELINQUISHED BY: (Signature)							

SAMPLE CONDITION WHEN RECEIVED:	REMARKS:
7.0° c intact	If TPH > 5,000 milky run deeper samples / If total DTEX > 50 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 #: 10011527

Analysis Request of Chain of Custody Record

PAGE: 9 OF: 12

ANALYSIS REQUEST
(Circle or Specify Method No.)



TETRA TECH

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

CLIENT NAME: COG		SITE MANAGER: Ike Tavaré		PRESERVATIVE METHOD		ANALYSIS REQUEST (Circle or Specify Method No.)	
PROJECT NO.: 114-6400353		PROJECT NAME: COG/Pronghorn SWD Facility		NUMBER OF CONTAINERS		PAH 8270 RCRA Metals Ag As Ba Cd Cr Pb Hg Se TCLP Metals Ag As Ba Cd Vt Pd Hg Se TCLP Volatiles TCLP Semi Volatiles RCI GC/MS Vol. 8240/8260/624 GC/MS Semi. Vol. 8270/625 PCB's 8080/608 Pest 808/608 Gamma Spec. Alpha Beta (Air) PLM (Asbestos) Major Anions/Cations, pH, TDS	
LAB I.D. NUMBER	DATE	TIME	SAMPLE IDENTIFICATION	GRAB	COMB	MATRIX	
29754	1/12		SB-9 30-31' (1' BEB)	X			
755	1/12		SB-9 40-41' (1' BEB)	X			
756	1/12		SB-10 0-1' (2' BEB)	X			
757	1/12		SB-10 2-3' (2' BEB)	X			
758	1/12		SB-10 4-5' (2' BEB)	X			
759	1/12		SB-10 6-7' (2' BEB)	X			
760	1/12		SB-10 10-11' (2' BEB)	X			
761	1/12		SB-10 15-16' (2' BEB)	X			
762	1/12		SB-10 20-21' (2' BEB)	X			
763	1/12		SB-10 25-26' (2' BEB)	X			
RELINQUISHED BY: (Signature)		RECEIVED BY: (Signature)		DATE: 1/14/10		DATE: 1/14/10	
RELINQUISHED BY: (Signature)		RECEIVED BY: (Signature)		DATE: 1/14/10		DATE: 1/14/10	
RELINQUISHED BY: (Signature)		RECEIVED BY: (Signature)		DATE: 1/14/10		DATE: 1/14/10	
RECEIVING LABORATORY:		RECEIVED BY: (Signature)		DATE: 1/14/10		DATE: 1/14/10	
ADDRESS:		RECEIVED BY: (Signature)		DATE: 1/14/10		DATE: 1/14/10	
CITY:		RECEIVED BY: (Signature)		DATE: 1/14/10		DATE: 1/14/10	
CONTACT:		RECEIVED BY: (Signature)		DATE: 1/14/10		DATE: 1/14/10	
STATE:		RECEIVED BY: (Signature)		DATE: 1/14/10		DATE: 1/14/10	
ZIP:		RECEIVED BY: (Signature)		DATE: 1/14/10		DATE: 1/14/10	
PHONE:		RECEIVED BY: (Signature)		DATE: 1/14/10		DATE: 1/14/10	
REMARKS:		RECEIVED BY: (Signature)		DATE: 1/14/10		DATE: 1/14/10	
SAMPLE CONDITION WHEN RECEIVED:		RECEIVED BY: (Signature)		DATE: 1/14/10		DATE: 1/14/10	
17.0°C intact		RECEIVED BY: (Signature)		DATE: 1/14/10		DATE: 1/14/10	
IF TPH 75,000 mg/kg in deeper sample / If total BTEX 750 in deeper samples		RECEIVED BY: (Signature)		DATE: 1/14/10		DATE: 1/14/10	
Please fill out all copies - Laboratory retains Yellow copy - Return Original copy to Tetra Tech - Project Manager retains Pink copy - Accounting receives Gold copy.		RECEIVED BY: (Signature)		DATE: 1/14/10		DATE: 1/14/10	

Analysis Request of Chain of Custody Record

ANALYSIS REQUEST
(Circle or Specify Method No.)

TETRA TECH

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

SITE MANAGER: Flee Tavaroz

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2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467
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Order # 10011527

Analysis Request of Chain of Custody Record

PAGE: 11 OF: 12

ANALYSIS REQUEST
(Circle or Specify Method No.)

TETRA TECH

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

CLIENT NAME: COG		SITE MANAGER: Ike Tavares	
PROJECT NO.: 1146400353		PROJECT NAME: CD6 / Proghon SWD Facility	
LAB I.D. NUMBER	DATE	TIME	MATRIX
219774	1/12	2010	GRAB
775	1/12		COMP
776	1/12		
777	1/12		
778	1/12		
779	1/12		
780	1/12		
781	1/12		
782	1/12		
783	1/12		

NUMBER OF CONTAINERS	PRELIMINARY METHOD	DATE	TIME
1	HCL	1/14/10	16:45
1	HNO3		
1	ICE		
1	NONE		

PAH 8270	TPH 8015 MOD	BTX 8021B	TPH 8015 MOD	TX1005	Ext. to C35
RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8240/8260/624
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				

RELINQUISHED BY: (Signature) **[Signature]** Date: 1/14/10 Time: 16:45
 RELINQUISHED BY: (Signature) **[Signature]** Date: 1/14/10 Time: 16:45
 RELINQUISHED BY: (Signature) **[Signature]** Date: 1/14/10 Time: 16:45
 RECEIVING LABORATORY: **[Signature]** Date: 1/14/10 Time: 16:45
 ADDRESS: **[Signature]** Date: 1/14/10 Time: 16:45
 CITY: **[Signature]** Date: 1/14/10 Time: 16:45
 STATE: **[Signature]** Date: 1/14/10 Time: 16:45
 ZIP: **[Signature]** Date: 1/14/10 Time: 16:45

REMARKS:
If TPH > 5,000 mg/kg run deeper samples / If total BTEX > 50 run deeper samples
170°C intact
TPH 8015 MOD
BTX 8021B
TPH 8015 MOD
TX1005
Ext. to C35
RCRA Metals Ag As Ba Cd Cr Pb Hg Se
TCLP Metals Ag As Ba Cd Cr Pb Hg Se
TCLP Volatiles
TCLP Semi Volatiles
RCI
GC/MS Vol. 8240/8260/624
PCB's 8080/608
Pest. 808/608
Chloride
Gamma Spec.
Alpha Beta (Air)
PLM (Asbestos)
Major Anions/Cations, pH, TDS

LABORATORY: **Ike Tavares** Results by: **Ike Tavares**
 RUSH CHARGES AUTHORIZED: **Yes**
 Yes No

Order #: 10011527

Analysis Request of Chain of Custody Record

PAGE: 12 OF: 12

ANALYSIS REQUEST
(Circle or Specify Method No.)



TETRA TECH

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

CLIENT NAME: COG		SITE MANAGER: Ike Tamer	
PROJECT NO.: 1146400353		PROJECT NAME: COG/Parghony SWD Facility	
LAB I.D. NUMBER	DATE	TIME	MATRIX
219784	1/12		
785	1/12		
786	1/12		
787	1/12		
788	1/12		
789	1/12		
790	1/12		
791	1/12		

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP	GRAB	SAMPLE IDENTIFICATION	PRESERVATIVE METHOD				NUMBER OF CONTAINERS	FILTERED (Y/N)	HCL	HNO3	ICE	NONE	
219784	1/12				X	SB-13 2-3' (2' BED)											
785	1/12				X	SB-13 4-5' (2' BED)											
786	1/12				X	SB-13 6-7' (2' BED)											
787	1/12				X	SB-13 10-11' (2' BED)											
788	1/12				X	SB-13 15-16' (2' BED)											
789	1/12				X	SB-13 20-21' (2' BED)											
790	1/12				X	SB-13 25-26' (2' BED)											
791	1/12				X	SB-13 30-31' (2' BED)											

RELINQUISHED BY: (Signature)	Date: 1/19/10	Time: 16:45	RECEIVED BY: (Signature)	Date: 1/19/10	Time: 16:45
RELINQUISHED BY: (Signature)	Date:	Time:	RECEIVED BY: (Signature)	Date:	Time:
RELINQUISHED BY: (Signature)	Date:	Time:	RECEIVED BY: (Signature)	Date:	Time:
RECEIVING LABORATORY:					
CITY:	STATE:	ZIP:	PHONE:	DATE:	TIME:
SAMPLE CONDITION WHEN RECEIVED:					
17.0 contact					

REMARKS:

If TPH 75,000 mg/kg run deepens sample / If total BREX > 50 run deeper samples

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	
ETEX 8021B											X	X	X	X	X	

SAMPLED BY: (Print & Initial)		Kim	Date: 1/19/10	Time: 11:10
SAMPLE SHIPPED BY: (Circle)		BUS	AIRBILL #:	
FEDEX		UPS	OTHER:	
HAND DELIVERED				
TETRA TECH CONTACT PERSON:		Results by:		
Ike Tamer		RUSH Charges Authorized:		
		Yes No		

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



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

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915•585•3443

432•689•6301

817•201•5260

FAX 806•794•1298

FAX 915•585•4944

FAX 432•689•6313

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

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

Report Date: September 2, 2011

Work Order: 11082504



Project Location: Eddy Co., NM
Project Name: COG/Pronghorn SWD Facility
Project Number: 114-6401001

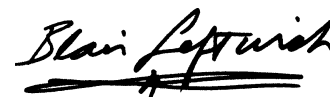
Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
275369	BH-1 0-1' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275370	BH-1 3' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275371	BH-1 5' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275372	BH-1 7' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275373	BH-1 10' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275374	BH-1 15' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275375	BH-1 20' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275376	BH-1 25' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275377	BH-1 30' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275378	BH-1 40' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275379	BH-1 50' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275380	BH-2 0-1' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275381	BH-2 3' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275382	BH-2 5' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275383	BH-2 7' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275384	BH-2 10' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275385	BH-2 15' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275386	BH-2 20' (2' BEB)	soil	2011-08-23	00:00	2011-08-25

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
275387	BH-2 25' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275388	BH-2 30' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275389	BH-2 40' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275390	BH-2 50' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275391	BH-3 0-1' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275392	BH-3 3' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275393	BH-3 5' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275394	BH-3 7' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275395	BH-3 10' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275396	BH-3 15' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275397	BH-3 20' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275398	BH-3 25' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275399	BH-3 30' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275400	BH-3 40' (2' BEB)	soil	2011-08-23	00:00	2011-08-25
275401	BH-3 50' (2' BEB)	soil	2011-08-23	00:00	2011-08-25

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

This report consists of a total of 34 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



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

Report Contents

Case Narrative	5
Analytical Report	6
Sample 275369 (BH-1 0-1' (2' BEB))	6
Sample 275370 (BH-1 3' (2' BEB))	7
Sample 275371 (BH-1 5' (2' BEB))	7
Sample 275372 (BH-1 7' (2' BEB))	8
Sample 275373 (BH-1 10' (2' BEB))	8
Sample 275374 (BH-1 15' (2' BEB))	8
Sample 275375 (BH-1 20' (2' BEB))	9
Sample 275376 (BH-1 25' (2' BEB))	9
Sample 275377 (BH-1 30' (2' BEB))	9
Sample 275378 (BH-1 40' (2' BEB))	9
Sample 275379 (BH-1 50' (2' BEB))	10
Sample 275380 (BH-2 0-1' (2' BEB))	10
Sample 275381 (BH-2 3' (2' BEB))	11
Sample 275382 (BH-2 5' (2' BEB))	12
Sample 275383 (BH-2 7' (2' BEB))	12
Sample 275384 (BH-2 10' (2' BEB))	12
Sample 275385 (BH-2 15' (2' BEB))	13
Sample 275386 (BH-2 20' (2' BEB))	13
Sample 275387 (BH-2 25' (2' BEB))	13
Sample 275388 (BH-2 30' (2' BEB))	13
Sample 275389 (BH-2 40' (2' BEB))	14
Sample 275390 (BH-2 50' (2' BEB))	14
Sample 275391 (BH-3 0-1' (2' BEB))	14
Sample 275392 (BH-3 3' (2' BEB))	16
Sample 275393 (BH-3 5' (2' BEB))	16
Sample 275394 (BH-3 7' (2' BEB))	16
Sample 275395 (BH-3 10' (2' BEB))	17
Sample 275396 (BH-3 15' (2' BEB))	17
Sample 275397 (BH-3 20' (2' BEB))	17
Sample 275398 (BH-3 25' (2' BEB))	17
Sample 275399 (BH-3 30' (2' BEB))	18
Sample 275400 (BH-3 40' (2' BEB))	18
Sample 275401 (BH-3 50' (2' BEB))	18
Method Blanks	20
QC Batch 84264 - Method Blank (1)	20
QC Batch 84286 - Method Blank (1)	20
QC Batch 84287 - Method Blank (1)	20
QC Batch 84423 - Method Blank (1)	21
QC Batch 84424 - Method Blank (1)	21
QC Batch 84425 - Method Blank (1)	21
QC Batch 84439 - Method Blank (1)	21

Laboratory Control Spikes	23
QC Batch 84264 - LCS (1)	23
QC Batch 84286 - LCS (1)	23
QC Batch 84287 - LCS (1)	24
QC Batch 84423 - LCS (1)	24
QC Batch 84424 - LCS (1)	24
QC Batch 84425 - LCS (1)	25
QC Batch 84439 - LCS (1)	25
QC Batch 84264 - MS (1)	26
QC Batch 84286 - MS (1)	26
QC Batch 84287 - MS (1)	27
QC Batch 84423 - MS (1)	27
QC Batch 84424 - MS (1)	28
QC Batch 84425 - MS (1)	28
QC Batch 84439 - MS (1)	28
Calibration Standards	30
QC Batch 84264 - CCV (3)	30
QC Batch 84264 - CCV (4)	30
QC Batch 84286 - CCV (1)	30
QC Batch 84286 - CCV (2)	30
QC Batch 84287 - CCV (1)	31
QC Batch 84287 - CCV (2)	31
QC Batch 84423 - ICV (1)	31
QC Batch 84423 - CCV (1)	31
QC Batch 84424 - ICV (1)	32
QC Batch 84424 - CCV (1)	32
QC Batch 84425 - ICV (1)	32
QC Batch 84425 - CCV (1)	32
QC Batch 84439 - ICV (1)	33
QC Batch 84439 - CCV (1)	33
Appendix	34
Laboratory Certifications	34
Standard Flags	34
Attachments	34

Case Narrative

Samples for project COG/Pronghorn SWD Facility were received by TraceAnalysis, Inc. on 2011-08-25 and assigned to work order 11082504. Samples for work order 11082504 were received intact at a temperature of 3.6 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	71575	2011-08-26 at 11:51	84286	2011-08-26 at 11:51
Chloride (Titration)	SM 4500-Cl B	71623	2011-08-30 at 08:59	84423	2011-08-31 at 12:46
Chloride (Titration)	SM 4500-Cl B	71623	2011-08-30 at 08:59	84424	2011-08-31 at 12:47
Chloride (Titration)	SM 4500-Cl B	71623	2011-08-30 at 08:59	84425	2011-08-31 at 12:48
Chloride (Titration)	SM 4500-Cl B	71623	2011-08-30 at 08:59	84439	2011-09-01 at 15:34
TPH DRO - NEW	S 8015 D	71548	2011-08-24 at 14:42	84264	2011-08-24 at 14:42
TPH GRO	S 8015 D	71575	2011-08-26 at 11:51	84287	2011-08-26 at 11:51

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 11082504 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

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

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 6 of 34
Eddy Co., NM

Analytical Report

Sample: 275369 - BH-1 0-1' (2' BEB)

Laboratory: Midland
Analysis: BTEX
QC Batch: 84286
Prep Batch: 71575

Analytical Method: S 8021B
Date Analyzed: 2011-08-26
Sample Preparation: 2011-08-26

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

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.49	mg/Kg	1	2.00	124	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			2.43	mg/Kg	1	2.00	122	70.6 - 179

Sample: 275369 - BH-1 0-1' (2' BEB)

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 84423
Prep Batch: 71623

Analytical Method: SM 4500-Cl B
Date Analyzed: 2011-08-31
Sample Preparation: 2011-08-30

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			4980	mg/Kg	100	4.00

Sample: 275369 - BH-1 0-1' (2' BEB)

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 84264
Prep Batch: 71548

Analytical Method: S 8015 D
Date Analyzed: 2011-08-24
Sample Preparation: 2011-08-24

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

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		1	358	mg/Kg	1	50.0

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 7 of 34
Eddy Co., NM

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane	Q _{sr}		210	mg/Kg	1	100	210	67.5 - 147.1

Sample: 275369 - BH-1 0-1' (2' BEB)

Laboratory:	Midland				
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method:	S 5035
QC Batch:	84287	Date Analyzed:	2011-08-26	Analyzed By:	ME
Prep Batch:	71575	Sample Preparation:	2011-08-26	Prepared By:	ME

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.25	mg/Kg	1	2.00	112	30 - 134.6
4-Bromofluorobenzene (4-BFB)			2.06	mg/Kg	1	2.00	103	22.4 - 149

Sample: 275370 - BH-1 3' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84423	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			4570	mg/Kg	100	4.00

Sample: 275371 - BH-1 5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84423	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

continued ...

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 8 of 34
Eddy Co., NM

sample 275371 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			1230	mg/Kg	100	4.00

Sample: 275372 - BH-1 7' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84423	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			1310	mg/Kg	100	4.00

Sample: 275373 - BH-1 10' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84423	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

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

Sample: 275374 - BH-1 15' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84423	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 9 of 34
Eddy Co., NM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			5580	mg/Kg	100	4.00

Sample: 275375 - BH-1 20' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84423	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			7190	mg/Kg	100	4.00

Sample: 275376 - BH-1 25' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84423	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			1350	mg/Kg	100	4.00

Sample: 275377 - BH-1 30' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84423	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

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

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 10 of 34
Eddy Co., NM

Sample: 275378 - BH-1 40' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	84423	Date Analyzed:	2011-08-31
Prep Batch:	71623	Sample Preparation:	2011-08-30
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 275379 - BH-1 50' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	84424	Date Analyzed:	2011-08-31
Prep Batch:	71623	Sample Preparation:	2011-08-30
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 275380 - BH-2 0-1' (2' BEB)

Laboratory:	Midland		
Analysis:	BTEX	Analytical Method:	S 8021B
QC Batch:	84286	Date Analyzed:	2011-08-26
Prep Batch:	71575	Sample Preparation:	2011-08-26
		Prep Method:	S 5035
		Analyzed By:	ME
		Prepared By:	ME

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.34	mg/Kg	1	2.00	117	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			2.27	mg/Kg	1	2.00	114	70.6 - 179

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 11 of 34
Eddy Co., NM

Sample: 275380 - BH-2 0-1' (2' BEB)

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-08-31	Analyzed By:	AR
QC Batch:	84424	Sample Preparation:	2011-08-30	Prepared By:	AR
Prep Batch:	71623				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			16100	mg/Kg	100	4.00

Sample: 275380 - BH-2 0-1' (2' BEB)

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2011-08-24	Analyzed By:	kg
QC Batch:	84264	Sample Preparation:	2011-08-24	Prepared By:	kg
Prep Batch:	71548				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO		₁	216	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			128	mg/Kg	1	100	128	67.5 - 147.1

Sample: 275380 - BH-2 0-1' (2' BEB)

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2011-08-26	Analyzed By:	ME
QC Batch:	84287	Sample Preparation:	2011-08-26	Prepared By:	ME
Prep Batch:	71575				

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.12	mg/Kg	1	2.00	106	30 - 134.6
4-Bromofluorobenzene (4-BFB)	_J		1.92	mg/Kg	1	2.00	96	22.4 - 149

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 12 of 34
Eddy Co., NM

Sample: 275381 - BH-2 3' (2' BEB)

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-08-31	Analyzed By:	AR
QC Batch:	84424	Sample Preparation:	2011-08-30	Prepared By:	AR
Prep Batch:	71623				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			1770	mg/Kg	100	4.00

Sample: 275382 - BH-2 5' (2' BEB)

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-08-31	Analyzed By:	AR
QC Batch:	84424	Sample Preparation:	2011-08-30	Prepared By:	AR
Prep Batch:	71623				

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

Sample: 275383 - BH-2 7' (2' BEB)

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-08-31	Analyzed By:	AR
QC Batch:	84424	Sample Preparation:	2011-08-30	Prepared By:	AR
Prep Batch:	71623				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			4190	mg/Kg	100	4.00

Sample: 275384 - BH-2 10' (2' BEB)

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2011-08-31	Analyzed By:	AR
QC Batch:	84424	Sample Preparation:	2011-08-30	Prepared By:	AR
Prep Batch:	71623				

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 13 of 34
Eddy Co., NM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			3010	mg/Kg	100	4.00

Sample: 275385 - BH-2 15' (2' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 84424 Date Analyzed: 2011-08-31 Analyzed By: AR
Prep Batch: 71623 Sample Preparation: 2011-08-30 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			620	mg/Kg	50	4.00

Sample: 275386 - BH-2 20' (2' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 84424 Date Analyzed: 2011-08-31 Analyzed By: AR
Prep Batch: 71623 Sample Preparation: 2011-08-30 Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			308	mg/Kg	50	4.00

Sample: 275387 - BH-2 25' (2' BEB)

Laboratory: Midland
Analysis: Chloride (Titration) Analytical Method: SM 4500-Cl B Prep Method: N/A
QC Batch: 84424 Date Analyzed: 2011-08-31 Analyzed By: AR
Prep Batch: 71623 Sample Preparation: 2011-08-30 Prepared By: AR

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

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 14 of 34
Eddy Co., NM

Sample: 275388 - BH-2 30' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	84424	Date Analyzed:	2011-08-31
Prep Batch:	71623	Sample Preparation:	2011-08-30
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 275389 - BH-2 40' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	84425	Date Analyzed:	2011-08-31
Prep Batch:	71623	Sample Preparation:	2011-08-30
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 275390 - BH-2 50' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	84425	Date Analyzed:	2011-08-31
Prep Batch:	71623	Sample Preparation:	2011-08-30
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 275391 - BH-3 0-1' (2' BEB)

Laboratory:	Midland		
Analysis:	BTEX	Analytical Method:	S 8021B
QC Batch:	84286	Date Analyzed:	2011-08-26
Prep Batch:	71575	Sample Preparation:	2011-08-26
		Prep Method:	S 5035
		Analyzed By:	ME
		Prepared By:	ME

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 15 of 34
Eddy Co., NM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.49	mg/Kg	1	2.00	124	82.8 - 143.1
4-Bromofluorobenzene (4-BFB)			2.37	mg/Kg	1	2.00	118	70.6 - 179

Sample: 275391 - BH-3 0-1' (2' BEB)

Laboratory:	Midland			
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method: N/A
QC Batch:	84425	Date Analyzed:	2011-08-31	Analyzed By: AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By: AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			12800	mg/Kg	100	4.00

Sample: 275391 - BH-3 0-1' (2' BEB)

Laboratory:	Midland			
Analysis:	TPH DRO - NEW	Analytical Method:	S 8015 D	Prep Method: N/A
QC Batch:	84264	Date Analyzed:	2011-08-24	Analyzed By: kg
Prep Batch:	71548	Sample Preparation:	2011-08-24	Prepared By: kg

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			126	mg/Kg	1	100	126	67.5 - 147.1

Sample: 275391 - BH-3 0-1' (2' BEB)

Laboratory:	Midland			
Analysis:	TPH GRO	Analytical Method:	S 8015 D	Prep Method: S 5035
QC Batch:	84287	Date Analyzed:	2011-08-26	Analyzed By: ME
Prep Batch:	71575	Sample Preparation:	2011-08-26	Prepared By: ME

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 16 of 34
Eddy Co., NM

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

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.26	mg/Kg	1	2.00	113	30 - 134.6
4-Bromofluorobenzene (4-BFB)			2.00	mg/Kg	1	2.00	100	22.4 - 149

Sample: 275392 - BH-3 3' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84425	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			5570	mg/Kg	100	4.00

Sample: 275393 - BH-3 5' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84425	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			3000	mg/Kg	100	4.00

Sample: 275394 - BH-3 7' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84425	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 17 of 34
Eddy Co., NM

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			3440	mg/Kg	100	4.00

Sample: 275395 - BH-3 10' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84425	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			4230	mg/Kg	100	4.00

Sample: 275396 - BH-3 15' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84425	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			5500	mg/Kg	100	4.00

Sample: 275397 - BH-3 20' (2' BEB)

Laboratory:	Midland				
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
QC Batch:	84425	Date Analyzed:	2011-08-31	Analyzed By:	AR
Prep Batch:	71623	Sample Preparation:	2011-08-30	Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			7200	mg/Kg	100	4.00

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 18 of 34
Eddy Co., NM

Sample: 275398 - BH-3 25' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	84425	Date Analyzed:	2011-08-31
Prep Batch:	71623	Sample Preparation:	2011-08-30
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			1380	mg/Kg	100	4.00

Sample: 275399 - BH-3 30' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	84439	Date Analyzed:	2011-09-01
Prep Batch:	71623	Sample Preparation:	2011-08-30
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 275400 - BH-3 40' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	84439	Date Analyzed:	2011-09-01
Prep Batch:	71623	Sample Preparation:	2011-08-30
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

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

Sample: 275401 - BH-3 50' (2' BEB)

Laboratory:	Midland		
Analysis:	Chloride (Titration)	Analytical Method:	SM 4500-Cl B
QC Batch:	84439	Date Analyzed:	2011-09-01
Prep Batch:	71623	Sample Preparation:	2011-08-30
		Prep Method:	N/A
		Analyzed By:	AR
		Prepared By:	AR

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 19 of 34
Eddy Co., NM

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

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 20 of 34
Eddy Co., NM

Method Blanks

Method Blank (1) QC Batch: 84264

QC Batch: 84264 Date Analyzed: 2011-08-24 Analyzed By: kg
Prep Batch: 71548 QC Preparation: 2011-08-24 Prepared By: kg

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		1	<14.5	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			128	mg/Kg	1	100	128	52.7 - 133.8

Method Blank (1) QC Batch: 84286

QC Batch: 84286 Date Analyzed: 2011-08-26 Analyzed By: ME
Prep Batch: 71575 QC Preparation: 2011-08-26 Prepared By: ME

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.0118	mg/Kg	0.02
Toluene		1	<0.00600	mg/Kg	0.02
Ethylbenzene		1	<0.00850	mg/Kg	0.02
Xylene		1	<0.00613	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.06	mg/Kg	1	2.00	103	65.9 - 111.8
4-Bromofluorobenzene (4-BFB)			1.92	mg/Kg	1	2.00	96	48.4 - 123.1

Method Blank (1) QC Batch: 84287

QC Batch: 84287 Date Analyzed: 2011-08-26 Analyzed By: ME
Prep Batch: 71575 QC Preparation: 2011-08-26 Prepared By: ME

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 21 of 34
Eddy Co., NM

Parameter	Flag	Cert	MDL Result	Units	RL
GRO		1	<0.753	mg/Kg	2

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.88	mg/Kg	1	2.00	94	67.6 - 150
4-Bromofluorobenzene (4-BFB)			1.66	mg/Kg	1	2.00	83	52.4 - 130

Method Blank (1) QC Batch: 84423

QC Batch: 84423 Date Analyzed: 2011-08-31 Analyzed By: AR
Prep Batch: 71623 QC Preparation: 2011-08-30 Prepared By: AR

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

Method Blank (1) QC Batch: 84424

QC Batch: 84424 Date Analyzed: 2011-08-31 Analyzed By: AR
Prep Batch: 71623 QC Preparation: 2011-08-30 Prepared By: AR

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

Method Blank (1) QC Batch: 84425

QC Batch: 84425 Date Analyzed: 2011-08-31 Analyzed By: AR
Prep Batch: 71623 QC Preparation: 2011-08-30 Prepared By: AR

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

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 22 of 34
Eddy Co., NM

Method Blank (1) QC Batch: 84439

QC Batch: 84439	Date Analyzed: 2011-09-01	Analyzed By: AR
Prep Batch: 71623	QC Preparation: 2011-08-30	Prepared By: AR

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

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 23 of 34
Eddy Co., NM

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 84264
Prep Batch: 71548

Date Analyzed: 2011-08-24
QC Preparation: 2011-08-24

Analyzed By: kg
Prepared By: kg

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	260	mg/Kg	1	250	<14.5	104	64.5 - 146.9

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	294	mg/Kg	1	250	<14.5	118	64.5 - 146.9	12	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	117	132	mg/Kg	1	100	117	132	65.3 - 135.8

Laboratory Control Spike (LCS-1)

QC Batch: 84286
Prep Batch: 71575

Date Analyzed: 2011-08-26
QC Preparation: 2011-08-26

Analyzed By: ME
Prepared By: ME

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.90	mg/Kg	1	2.00	<0.0118	95	77.4 - 121.7
Toluene		1	2.04	mg/Kg	1	2.00	<0.00600	102	88.6 - 121.6
Ethylbenzene		1	2.05	mg/Kg	1	2.00	<0.00850	102	74.3 - 117.9
Xylene		1	6.17	mg/Kg	1	6.00	<0.00613	103	73.4 - 118.8

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.84	mg/Kg	1	2.00	<0.0118	92	77.4 - 121.7	3	20
Toluene		1	1.97	mg/Kg	1	2.00	<0.00600	98	88.6 - 121.6	4	20
Ethylbenzene		1	1.98	mg/Kg	1	2.00	<0.00850	99	74.3 - 117.9	4	20
Xylene		1	5.98	mg/Kg	1	6.00	<0.00613	100	73.4 - 118.8	3	20

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

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 24 of 34
Eddy Co., NM

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.17	1.96	mg/Kg	1	2.00	108	98	65.5 - 116.7
4-Bromofluorobenzene (4-BFB)	2.13	1.96	mg/Kg	1	2.00	106	98	56.2 - 132.1

Laboratory Control Spike (LCS-1)

QC Batch: 84287
Prep Batch: 71575

Date Analyzed: 2011-08-26
QC Preparation: 2011-08-26

Analyzed By: ME
Prepared By: ME

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	17.1	mg/Kg	1	20.0	<0.753	86	60.9 - 95.4

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	18.3	mg/Kg	1	20.0	<0.753	92	60.9 - 95.4	7	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)	2.04	1.87	mg/Kg	1	2.00	102	94	61.9 - 142
4-Bromofluorobenzene (4-BFB)	1.89	1.76	mg/Kg	1	2.00	94	88	68.2 - 132

Laboratory Control Spike (LCS-1)

QC Batch: 84423
Prep Batch: 71623

Date Analyzed: 2011-08-31
QC Preparation: 2011-08-30

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			95.9	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	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			104	mg/Kg	1	100	<3.85	104	85 - 115	8	20

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

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 25 of 34
Eddy Co., NM

Laboratory Control Spike (LCS-1)

QC Batch: 84424
Prep Batch: 71623

Date Analyzed: 2011-08-31
QC Preparation: 2011-08-30

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			97.0	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	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			106	mg/Kg	1	100	<3.85	106	85 - 115	9	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: 84425
Prep Batch: 71623

Date Analyzed: 2011-08-31
QC Preparation: 2011-08-30

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			95.1	mg/Kg	1	100	<3.85	95	85 - 115

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

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			106	mg/Kg	1	100	<3.85	106	85 - 115	11	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: 84439
Prep Batch: 71623

Date Analyzed: 2011-09-01
QC Preparation: 2011-08-30

Analyzed By: AR
Prepared By: AR

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			94.8	mg/Kg	1	100	<3.85	95	85 - 115

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

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 26 of 34
Eddy Co., NM

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			105	mg/Kg	1	100	<3.85	105	85 - 115	10	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: 275112

QC Batch: 84264
Prep Batch: 71548

Date Analyzed: 2011-08-24
QC Preparation: 2011-08-24

Analyzed By: kg
Prepared By: kg

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		1	291	mg/Kg	1	250	<14.5	116	38.8 - 153.3

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		1	269	mg/Kg	1	250	<14.5	108	38.8 - 153.3	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
n-Tricosane	131	123	mg/Kg	1	100	131	123	54.6 - 149.8

Matrix Spike (MS-1) Spiked Sample: 275391

QC Batch: 84286
Prep Batch: 71575

Date Analyzed: 2011-08-26
QC Preparation: 2011-08-26

Analyzed By: ME
Prepared By: ME

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.76	mg/Kg	1	2.00	<0.0118	88	69.4 - 123.6
Toluene		1	1.94	mg/Kg	1	2.00	<0.00600	97	75.4 - 134.3
Ethylbenzene		1	2.05	mg/Kg	1	2.00	<0.00850	102	58.8 - 133.7
Xylene		1	6.22	mg/Kg	1	6.00	<0.00613	104	57 - 134.2

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.63	mg/Kg	1	2.00	<0.0118	82	69.4 - 123.6	8	20
Toluene		1	1.78	mg/Kg	1	2.00	<0.00600	89	75.4 - 134.3	9	20

continued ...

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 27 of 34
Eddy Co., NM

matrix spikes continued ...

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Ethylbenzene		1	1.86	mg/Kg	1	2.00	<0.00850	93	58.8 - 133.7	10	20
Xylene		1	5.62	mg/Kg	1	6.00	<0.00613	94	57 - 134.2	10	20

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

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.40	2.56	mg/Kg	1	2	120	128	79.4 - 141.1
4-Bromofluorobenzene (4-BFB)	2.35	2.50	mg/Kg	1	2	118	125	71 - 167

Matrix Spike (MS-1) Spiked Sample: 275380

QC Batch: 84287
Prep Batch: 71575

Date Analyzed: 2011-08-26
QC Preparation: 2011-08-26

Analyzed By: ME
Prepared By: ME

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		1	17.6	mg/Kg	1	20.0	<0.753	88	61.8 - 114

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		1	18.1	mg/Kg	1	20.0	<0.753	90	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)	2.31	2.41	mg/Kg	1	2	116	120	29.4 - 161.7
4-Bromofluorobenzene (4-BFB)	2.25	2.36	mg/Kg	1	2	112	118	37.3 - 162

Matrix Spike (MS-1) Spiked Sample: 275378

QC Batch: 84423
Prep Batch: 71623

Date Analyzed: 2011-08-31
QC Preparation: 2011-08-30

Analyzed By: AR
Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			10200	mg/Kg	100	10000	<385	102	79.4 - 120.6

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

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 28 of 34
Eddy Co., NM

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			10700	mg/Kg	100	10000	<385	107	79.4 - 120.6	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: 275388

QC Batch: 84424 Date Analyzed: 2011-08-31 Analyzed By: AR
Prep Batch: 71623 QC Preparation: 2011-08-30 Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			10100	mg/Kg	100	10000	<385	101	79.4 - 120.6

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			10700	mg/Kg	100	10000	<385	107	79.4 - 120.6	6	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: 275398

QC Batch: 84425 Date Analyzed: 2011-08-31 Analyzed By: AR
Prep Batch: 71623 QC Preparation: 2011-08-30 Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			11400	mg/Kg	100	10000	1380	100	79.4 - 120.6

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			11900	mg/Kg	100	10000	1380	105	79.4 - 120.6	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: 275723

QC Batch: 84439 Date Analyzed: 2011-09-01 Analyzed By: AR
Prep Batch: 71623 QC Preparation: 2011-08-30 Prepared By: AR

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			9660	mg/Kg	100	10000	<385	97	79.4 - 120.6

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

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			10300	mg/Kg	100	10000	<385	103	79.4 - 120.6	6	20

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

Calibration Standards

Standard (CCV-3)

QC Batch: 84264 Date Analyzed: 2011-08-24 Analyzed By: kg

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	275	110	80 - 120	2011-08-24

Standard (CCV-4)

QC Batch: 84264 Date Analyzed: 2011-08-24 Analyzed By: kg

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		1	mg/Kg	250	290	116	80 - 120	2011-08-24

Standard (CCV-1)

QC Batch: 84286 Date Analyzed: 2011-08-26 Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/Kg	0.100	0.101	101	80 - 120	2011-08-26
Toluene		1	mg/Kg	0.100	0.108	108	80 - 120	2011-08-26
Ethylbenzene		1	mg/Kg	0.100	0.106	106	80 - 120	2011-08-26
Xylene		1	mg/Kg	0.300	0.326	109	80 - 120	2011-08-26

Standard (CCV-2)

QC Batch: 84286 Date Analyzed: 2011-08-26 Analyzed By: ME

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 31 of 34
Eddy Co., NM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/Kg	0.100	0.0964	96	80 - 120	2011-08-26
Toluene		1	mg/Kg	0.100	0.103	103	80 - 120	2011-08-26
Ethylbenzene		1	mg/Kg	0.100	0.103	103	80 - 120	2011-08-26
Xylene		1	mg/Kg	0.300	0.311	104	80 - 120	2011-08-26

Standard (CCV-1)

QC Batch: 84287

Date Analyzed: 2011-08-26

Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	1.10	110	80 - 120	2011-08-26

Standard (CCV-2)

QC Batch: 84287

Date Analyzed: 2011-08-26

Analyzed By: ME

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		1	mg/Kg	1.00	0.985	98	80 - 120	2011-08-26

Standard (ICV-1)

QC Batch: 84423

Date Analyzed: 2011-08-31

Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	102	102	85 - 115	2011-08-31

Standard (CCV-1)

QC Batch: 84423

Date Analyzed: 2011-08-31

Analyzed By: AR

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 32 of 34
Eddy Co., NM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	98.3	98	85 - 115	2011-08-31

Standard (ICV-1)

QC Batch: 84424 Date Analyzed: 2011-08-31 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.8	100	85 - 115	2011-08-31

Standard (CCV-1)

QC Batch: 84424 Date Analyzed: 2011-08-31 Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	100	100	85 - 115	2011-08-31

Standard (ICV-1)

QC Batch: 84425 Date Analyzed: 2011-08-31 Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.1	99	85 - 115	2011-08-31

Standard (CCV-1)

QC Batch: 84425 Date Analyzed: 2011-08-31 Analyzed By: AR

Report Date: September 2, 2011
114-6401001

Work Order: 11082504
COG/Pronghorn SWD Facility

Page Number: 33 of 34
Eddy Co., NM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2011-08-31

Standard (ICV-1)

QC Batch: 84439

Date Analyzed: 2011-09-01

Analyzed By: AR

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.5	100	85 - 115	2011-09-01

Standard (CCV-1)

QC Batch: 84439

Date Analyzed: 2011-09-01

Analyzed By: AR

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2011-09-01

Appendix

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-10-TX	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

* wo #: 11082504

Analysis Request of Chain of Custody Record



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

PRESERVATIVE METHOD

NUMBER OF CONTAINERS

FILTERED (Y/N)

HCL

HNO3

ICE

NONE

CLIENT NAME: **COG**

SITE MANAGER: **Ike Tavaraz**

PROJECT NAME: **Pronghorn SWD**

LAB I.D. NUMBER

DATE

TIME

GRAB

COMP

MATRIX

SAMPLE IDENTIFICATION

PAH 8270

TPH 8015 MOD TX1005 (Ext. to C35)

RCRA Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Semi Volatiles

RCI

GC/MS Vol. 8240/8260/624

GC/MS Semi. Vol. 8270/625

PCB's 8080/608

Post. 808/608

Gamma Spec.

Alpha Beta (Air)

PLM (Asbestos)

Major Anions/Cations, pH, TDS

CHLORIDE

DATE: 8/25/11

TIME: 8:12 AM

SAMPLED BY: (Print & Initial)

RECEIVED BY: (Signature)

DATE: 8/25/11

RECEIVED BY: (Signature)

RECEIVED BY: (Signature)

DATE: 8/25/11

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DATE: 8/25/11

RECEIVED BY: (Signature)

RECEIVED BY: (Signature)

DATE: 8/25/11

RECEIVING LABORATORY: **TRACE**

ADDRESS: **MIDLAND**

STATE: **TX**

PHONE: **714**

ZIP: **79701**

DATE: **8/25/11**

TIME: **8:12 AM**

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

total BTX > 50 mg/kg or total BTEX > 50 mg/kg run deeper sample

Project Manager retains Pink copy - Accounting receives Gold copy.

Results by: **Ike Tavaraz**

RUSH Charges Authorized:

Yes

No

Other:

AIRBILL #:

DATE: 8/24/11

TIME: 8:12 AM

SAMPLE SHIPPED BY: (Circle)

FEDEX

UPS

BUS

OTHER:

DATE: 8/24/11

TIME: 8:12 AM

RECEIVED BY: (Signature)

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DATE: 8/25/11

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DATE: 8/25/11

Analysis Request of Chain of Custody Record

PAGE: 2 OF: 4

ANALYSIS REQUEST
(Circle or Specify Method No.)



TETRA TECH

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

CLIENT NAME: <u>CoG</u>		SITE MANAGER: <u>Ike Tavaraz</u>		PROJECT NAME: <u>Pronghorn SWD Facility</u>		PRESERVATIVE METHOD		NUMBER OF CONTAINERS		FILTERED (Y/N)		HCL		HNO3		ICE		NONE	
LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP	GRAB	SAMPLE IDENTIFICATION													
27339	8/23		S		X	BH-1 50' (2' BEB)													
380						BH-2 0-1' (2' BEB)													
381						3' (2' BEB)													
382						5' (2' BEB)													
383						7' (2' BEB)													
384						10' (2' BEB)													
385						15' (2' BEB)													
386						20' (2' BEB)													
387						25' (2' BEB)													
388						30' (2' BEB)													

RELINQUISHED BY: (Signature)		Date: <u>8/23/11</u>		Time: <u>9:50 A.M.</u>		RECEIVED BY: (Signature)		Date: <u>8/23/11</u>		Time: <u>9:50</u>	
RELINQUISHED BY: (Signature)		Date: _____		Time: _____		RECEIVED BY: (Signature)		Date: _____		Time: _____	
RELINQUISHED BY: (Signature)		Date: _____		Time: _____		RECEIVED BY: (Signature)		Date: _____		Time: _____	
RECEIVING LABORATORY: <u>TRACE</u>		Date: _____		Time: _____		RECEIVED BY: (Signature)		Date: _____		Time: _____	
ADDRESS: <u>MIDLANDS</u>		STATE: <u>TX</u>		ZIP: _____		RECEIVED BY: (Signature)		Date: _____		Time: _____	
CONTACT: _____		PHONE: _____		DATE: _____		RECEIVED BY: (Signature)		Date: _____		Time: _____	
SAMPLE CONDITION WHEN RECEIVED: <u>3.6's intact</u>		REMARKS: <u>If TPH > 5000 mg/kg - Run deeper samples</u>		DATE: _____		RECEIVED BY: (Signature)		Date: _____		Time: _____	

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

If Benzene > 10 mg/kg or total BTEX > 50 mg/kg run deeper sample

Analysis Request of Chain of Custody Record

PAGE: 3 OF: 4

ANALYSIS REQUEST
(Circle or Specify Method No.)

TETRA TECH

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



CLIENT NAME: COG		SITE MANAGER: Ike Tavares		PROJECT NAME: Ponghorn SWD Facility		PRESERVATIVE METHOD		
PROJECT NO.: 114-6401001		SAMPLE IDENTIFICATION Eddy Co., NM		NUMBER OF CONTAINERS		FILTERED (Y/N)		
LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP	GRAB	HCL	HNO3	
275389	8/23		S		X			
390								
391								
392								
393								
394								
395								
396								
397								
398								

RELINQUISHED BY: (Signature) Karl Silva		RECEIVED BY: (Signature) Ike Tavares	
DATE	TIME	DATE	TIME
8/25/11	9:50	8/25/11	9:50

RELINQUISHED BY: (Signature)		RECEIVED BY: (Signature)	
DATE	TIME	DATE	TIME

RELINQUISHED BY: (Signature)		RECEIVED BY: (Signature)	
DATE	TIME	DATE	TIME

RECEIVING LABORATORY: TRACE		RECEIVED BY: (Signature)	
ADDRESS:	CITY:	STATE:	ZIP:
MIDLAND	TX		

SAMPLE CONDITION WHEN RECEIVED:		REMARKS:	
CONTACT:	PHONE:	DATE:	TIME:
3.6 Contact			

TETRA TECH CONTACT PERSON:		RUSH CHARGES AUTHORIZED:	
NAME:	PHONE:	YES	NO
Ike Tavares			

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

If TPH > 5000 mg/kg - Run deeper samples
If Benzene > 10 mg/kg or total BTEX > 50 mg/kg run deeper sample

