# SITE INFORMATION

## Report Type: Closure

| General Site Information: | | | | | | |
|---|---|---|---|---|---|---|
| **Site:** | SRO 102 SWD | | | | | |
| **Company:** | COG Operating LLC | | | | | |
| **Section, Township and Range** | Unit G | Sec 16 | T26S | R28E | | |
| **Lease Number:** | API-30-015-21398 | | | | | |
| **County:** | Eddy County | | | | | |
| **GPS:** | 32.04381° N | | | 104.09047° W | | |
| **Surface Owner:** | State | | | | | |
| **Mineral Owner:** | | | | | | |
| **Directions:** | South of Malaga at the intersection of Hwy 285 and CR 274 (White City Rd.) travel west on CR 274 for 2.0 miles, turn left and travel 1.6 miles, turn right and travel 0.1 miles to site. | | | | | |

| Release Data: | |
|---|---|
| *Date Released:* | 7/21/2012 |
| *Type Release:* | Produced Water |
| *Source of Contamination:* | Fiberglass Header Connection |
| *Fluid Released:* | 160 bbls |
| *Fluids Recovered:* | 100 bbls |

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NMOCD ARTESIA

| Official Communication: | | | |
|---|---|---|---|
| *Name:* | Pat Ellis | | Ike Tavarez |
| *Company:* | COG Operating, LLC | | Tetra Tech |
| *Address:* | One Concho Center | | 1910 N. Big Spring |
| | 600 W. Illinois Ave. | | |
| *City:* | Midland Texas, 79701 | | Midland, Texas |
| *Phone number:* | (432) 686-3023 | | (432) 682-4559 |
| *Fax:* | (432) 684-7137 | | |
| *Email:* | pellis@conchoresources.com | | ike.tavarez@tetratech.com |

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

| Acceptable Soil RRAL (mg/kg) | | |
|---|---|---|
| ***Benzene*** | ***Total BTEX*** | ***TPH*** |
| 10 | 50 | 1,000 |

TETRA TECH

March 11, 2013

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Mr. Mike Bratcher
Environmental Engineer Specialist
Oil Conservation Division, District 2
811 S. First Street
Artesia, New Mexico 88210

**Re: Closure Report for the COG Operating LLC., SRO State Unit Com 102 SWD, Unit G, Section 16, Township 26 South, Range 28 East, Eddy County, New Mexico.**

Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC. (COG) to assess a spill from the SRO State Unit Com 102 SWD, Unit G, Section 16, Township 26 South, Range 28 East, Eddy County, New Mexico. (Site). The spill site coordinates are N 32.04424°, W 104.09037 °. The site location is shown on Figures 1 and 2.

## Background

According to the State of New Mexico Oil Conservation Division (NMOCD) Form C-141 Initial Report, the leak was discovered on July 21, 2012, and released approximately 160 barrels of produced water due to a faulty fiberglass header connection. Approximately 100 barrels of produced water was recovered from the spill area. The release occurred outside the lined facility at the header located south of the SWD. The spill area impacted the areas east, west and south on the SWD pad. The produced water migrated approximately 1,700' into the pasture, with a width of approximately 2.0' to 5.0'. A second leg migrated on the lease road measuring approximately 1,000', with a width of approximately 1'.0 to 2'.0 wide. The initial Form C-141 is enclosed in Appendix A.

## Hydrogeology and Groundwater

According to the Geology and Groundwater Resources of Eddy County, New Mexico (Report 3), the Rustler and Castile formation (Ochoa Series) is present west and east of the Pecos River. The Salado formation overlies the Castile formation east of the Pecos River and was removed by solution west of the river. The Rustler and Castile formations consist of anhydrite, gypsum, interbedded sandy clay and beds of dolomite. Groundwater from the Castile and Rustler formations west of the

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

Pecos River is historically high in chloride and sulfate concentrations which increase towards the river.

According to the USGS, no water wells are listed in Section 16. One water well is reported in Section 18, with a depth to groundwater of 25' bgs. According to the NMOCD groundwater map the reported depth to groundwater in this area is approximately 80.0' below surface. The groundwater data is shown in Appendix B.

**Regulatory**

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

**Soil Assessment**

On August 28, 2012, Tetra Tech personnel inspected and sampled the spill area. A total of twenty-five (25) auger holes (AH-1 through AH-25) were installed using a stainless steel hand auger to assess the impacted soils. Due to the material (sand and gravel), samples were not collected on the facility pad. Selected samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. The sampling results are summarized in Table 1. The auger hole locations are shown on Figure 3. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C.

Referring to Table 1, all of the auger holes were below the RRAL for TPH and BTEX. Elevated chloride concentrations were detected in the majority of the auger holes showing a shallow impact to the subsurface soils. The elevated chlorides in the soils ranged from 2,000 mg/kg to 13,000 mg/kg, which significantly declined with depth at approximately 1.0' to 2.0' below surface. In the areas of AH-2, AH-4, AH-8, AH-13, AH-15 and AH-18, the bottom auger hole samples showed chloride concentrations of 2,720 mg/kg (6.5'), 1,120 mg/kg (6.0'), 1,110 mg/kg (4.0'), 1,470 mg/kg (5.0'), 1,900 mg/kg (2.5') and 1,080 mg/kg (5.0'), respectively.

On a previous assessment performed at the facility, a background borehole (BG-1) was installed to collect background chloride samples and detected a chloride high of 1,030 mg/kg at 14-15' below surface. Based on the results, some of the bottom hole samples appear to be at or near background concentrations. The background sample results are shown in Table 1.

**Remediation Activities**

On October 16, 2012, Tetra Tech personnel supervised the excavation of the spill area. The spill footprint and final excavation depths of the soil remediation were met as stated in the approved work plan. The excavated areas and depths are highlighted in Table 1 and shown on Figure 4. The excavation depths ranged from 1.0' to 6.0' below surface.

As proposed in the work plan, a total of seven (7) trenches (T-1 through T-7) were installed in the spill area. Trenches (T-1, T-2 and T-3) were installed in the areas of AH-2, AH-13 and AH-15, respectively. The remaining trenches were installed in the facility pad. The trench sampling results are summarized in Table 1. Trenches (T-1, T-2 and T-3) did show a declining chloride with depth. Due to the active flow line, the area of AH-2 was excavated to depth of 4.0' below surface. Once excavated, a 40 mil liner was installed in the excavation bottom to cap the remaining impact.

On the east side of the SWD, trenches (T-4 and T-5) were not vertically defined showing bottom chloride concentrations of 2,660 mg/kg at 10.0' and 3,700 mg/kg at 7.0', respectively. However, the west side area of T-6 and T-7 did decline with depth to approximately 1,500 mg/kg at 10.0' below surface. Based on the results, the east areas (T-4 and T-5) were excavated to depths of 6.0' and 5.0' at the west area (T-6 and T-7) and south of the facility. Deeper excavation was not performed due to safety concerns around the facility equipment. Once excavated, the areas were capped with 40 mil liner at 4.0' below surface and backfilled with clean soil.

Approximately 880 cubic yards were removed and disposed of at R360 facility. Once the excavation depths were achieved, the excavated areas were then backfilled with clean material to grade. The areas in the pasture were ripped, windrows were installed and the area was seeded.

On January 18, 2013, Tetra Tech personnel supervised the installation of three (3) soil borings in the areas of T-4, T-5 and T-7 to define the vertical extents. Referring to Table 1, SB-1 (T-4), SB-2 (T-5) and SB-3 (T-7) showed a significant declined at 25.0 to 30.0' below surface.

TETRA TECH

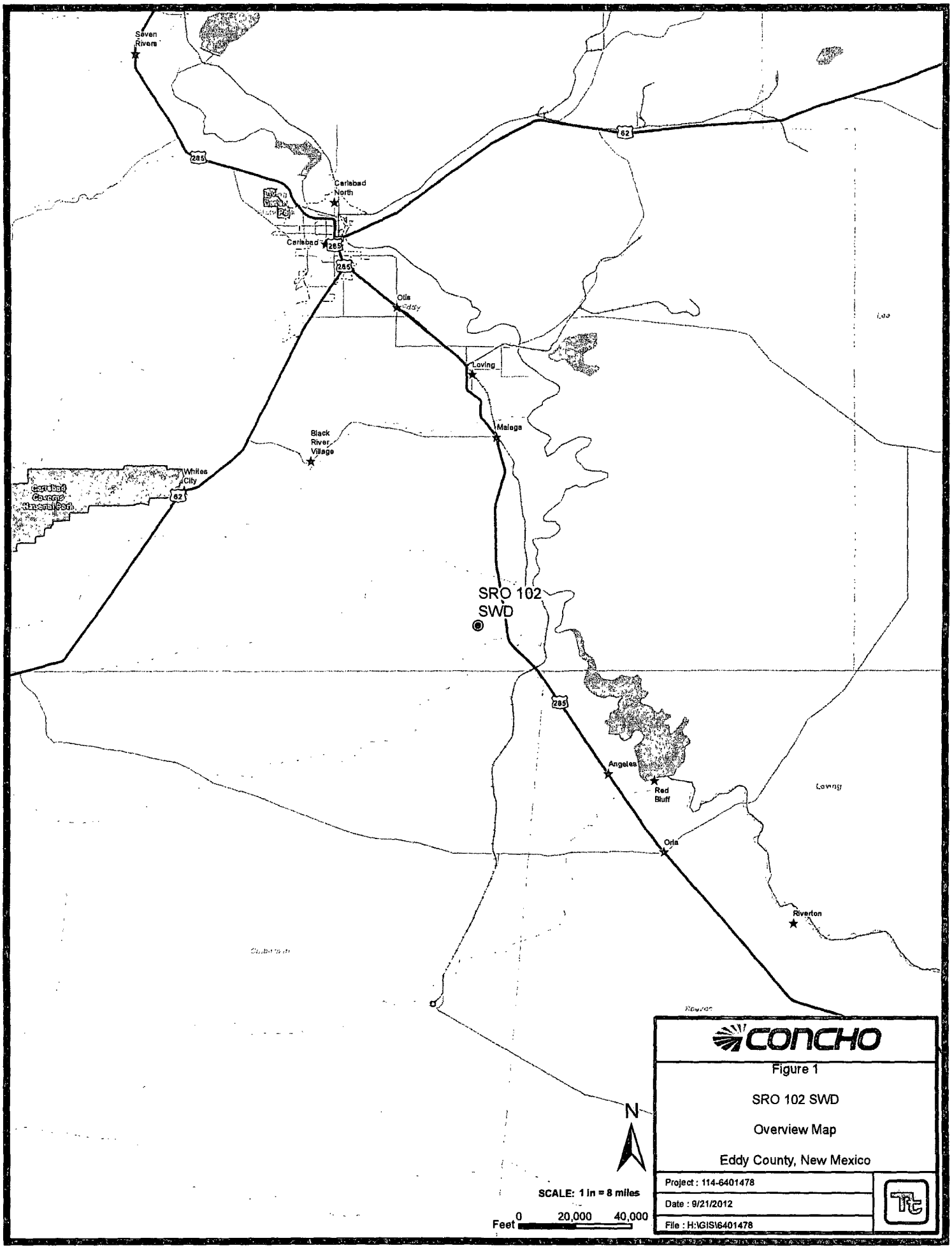
Based on the remediation activities performed at this location, COG requests closure for this site. The C-141 (Final) is included in Appendix A. If you have any questions or comments concerning the assessment or the remediation activities performed at the site, please call me at (432) 682-4559.

Respectfully submitted,
TETRA TECH

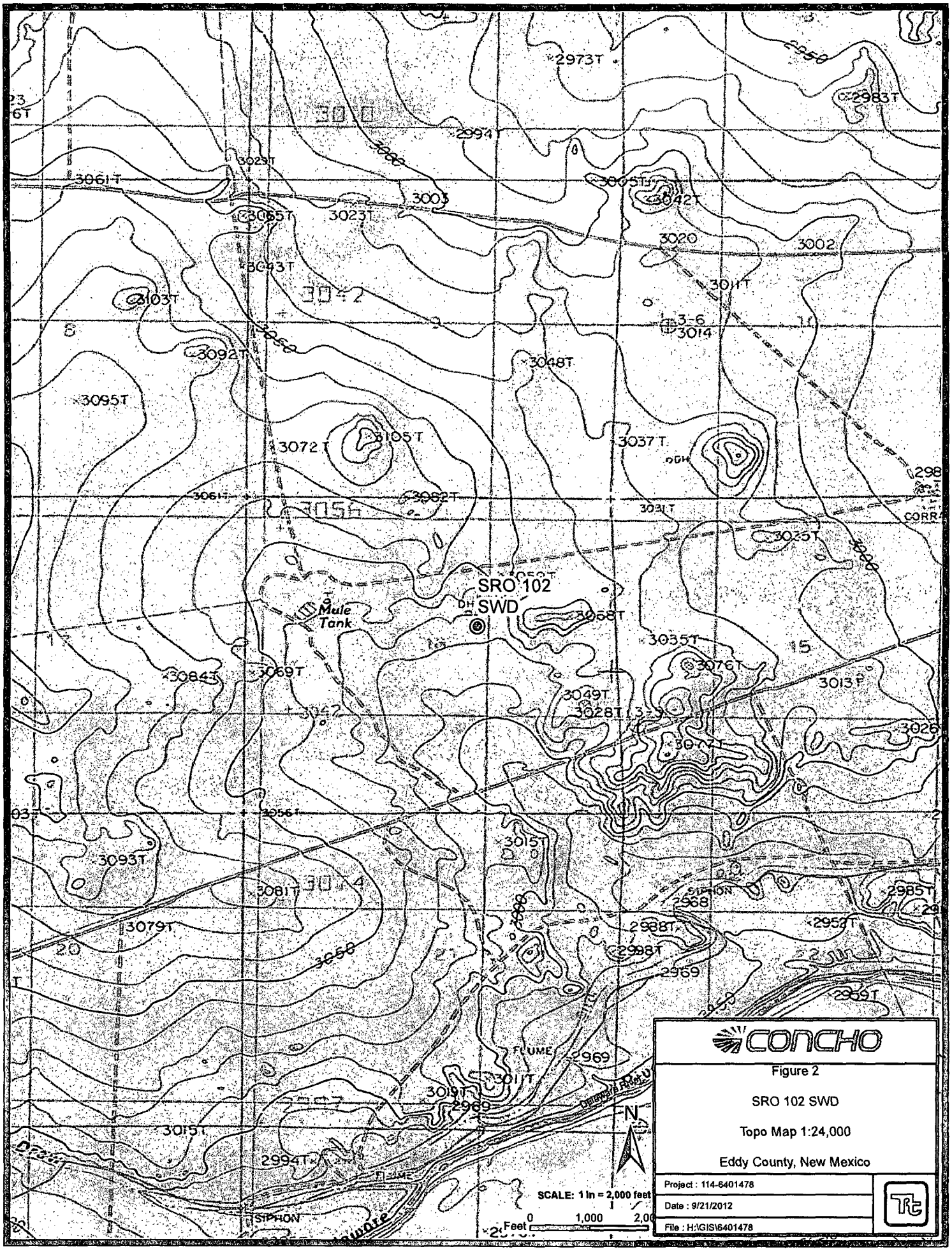
Ike Tavarez
Senior Project Manager

cc: Pat Ellis – COG

# Figures




Drawn By: Isabel Marmolejo




Drawn By: Isabel Marmolejo

PAD

117'

96'

8'

13'

154'

175'

10'

HEADER

TANK

SB-1 SB-2 SB-3

T-1 T-2 T-3 T-4 T-5 T-6 T-7

AH-1 AH-2 AH-3 AH-4 AH-5 AH-6 AH-7 AH-8 AH-9 AH-10 AH-11 AH-12 AH-13 AH-14 AH-15 AH-16 AH-17 AH-18 AH-19 AH-20 AH-21 AH-22 AH-23 AH-24 AH-25

2'

388'

674'

LEASE ROAD

PASTURE

60'

788'

1014'

68'

228'

247'

222'

1' TO 2' WIDE

N

SCALE: 1"IN = 117 FEET

0 50 100

Feet

## EXPLANATION

- AUGER HOLE SAMPLE LOCATIONS
- SOIL BORING SAMPLE LOCATIONS
- TRENCH LOCATIONS
- SPILL AREAS

CONCHO

Figure 3

SRO 102 SWD

Spill Assessment Map

Eddy County, New Mexico

Project : 114-6401478

Date : 9/21/2012

File : H:\GIS\6401478

Drawn By: Isabel Marmolejo

PAD

PASTURE

PASTURE

PASTURE

LEASE ROAD

117'

96'

8'

13'

154'

HEADER

175'

10'

SB-1

SB-2

SB-3

T-1

T-2

T-3

T-4

T-5

T-6

T-7

TANK

AH-1

AH-2

AH-3

AH-4

AH-5

AH-6

AH-7

AH-8

AH-9

AH-10

AH-11

AH-12

AH-13

AH-14

AH-15

AH-16

AH-17

AH-18

AH-19

AH-20

AH-21

AH-22

AH-23

AH-24

AH-25

2'

388'

674'

60'

788'

1014'

68'

228'

247'

222'

1' TO 2' WIDE

## EXPLANATION

- AUGER HOLE SAMPLE LOCATIONS
- SOIL BORING SAMPLE LOCATIONS
- TRENCH LOCATIONS
- SPILL AREAS

N

SCALE: 1 IN = 117 FEET

Feet 0 50 100

CONCHO

Figure 3

SRO 102 SWD

Spill Assessment Map

Eddy County, New Mexico

Project : 114-6401478

Date : 9/21/2012

File : H:\GIS\6401478

Drawn By: Isabel Marmolejo

PAD

5' DEEP W/ LINER

6' DEEP W/ LINER

4' DEEP W/ LINER

T-7

SB-3

T-6

SB-2

T-5

SB-1

T-4

96'

8'

154'

HEADER

175'

117'

13'

10'

TANK

AH-1

AH-2

AH-3

AH-4

AH-5

AH-6

AH-7

AH-8

AH-9

AH-10

AH-11

AH-12

AH-13

AH-14

AH-15

AH-16

AH-17

AH-18

AH-19

AH-20

AH-21

AH-22

AH-23

AH-24

AH-25

2'

388'

2' DEEP

674'

3' DEEP

LEASE ROAD

PASTURE

T-2

T-3

60'

1' - 1.5' DEEP

788'

2'

1014'

68'

228'

247'

222'

PASTURE

1' TO 2' WIDE

## EXPLANATION

- AUGER HOLE SAMPLE LOCATIONS
- SOIL BORING SAMPLE LOCATIONS
- TRENCH LOCATIONS
- INSTALLED LINER
- EXCAVATED AREAS

N

SCALE: 1 IN = 108 FEET

Feet 0 50 100

CONCHO

Figure 4

SRO 102 SWD

Excavation Areas & Depths Map

Eddy County, New Mexico

Project : 114-6401478

Date : 3/12/2013

File : H:\GIS\6401478

Drawn By: Isabel Marmolejo

# Tables

# Table 1
## COG Operating
## SRO 102 Salt Water Disposal
## Eddy County, New Mexico

| Sample ID | Sample Date | Sample 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 | | | | | | |
| **Pasture Area** | | | | | | | | | | | | | |
| **AH-1** | 8/28/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | 13,000 |
| | " | 1-1.5 | X | | - | - | - | - | - | - | - | - | 133 |
| | " | 2-2.5 | X | | - | - | - | - | - | - | - | - | 140 |
| | " | 3-3.5 | X | | - | - | - | - | - | - | - | - | 231 |
| | " | 4-4.5 | X | | - | - | - | - | - | - | - | - | 105 |
| | " | 5-5.5 | X | | - | - | - | - | - | - | - | - | 140 |
| **AH-2** | 8/28/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | 2,440 |
| | " | 1-1.5 | | X | - | - | - | - | - | - | - | - | 623 |
| | " | 2-2.5 | | X | - | - | - | - | - | - | - | - | 3,240 |
| | " | 3-3.5 | | X | - | - | - | - | - | - | - | - | 3,660 |
| liner | " | 4-4.5 | | X | - | - | - | - | - | - | - | - | 3,820 |
| | " | 5-5.5 | X | | - | - | - | - | - | - | - | - | 3,070 |
| | " | 6-6.5 | X | | - | - | - | - | - | - | - | - | 2,250 |
| | " | 6.5-7 | X | | - | - | - | - | - | - | - | - | 2,720 |
| **Trench-1** | 10/23/2012 | 5 | X | | - | - | - | - | - | - | - | - | 2,140 |
| | " | 7 | X | | - | - | - | - | - | - | - | - | 1,930 |
| | " | 9 | X | | - | - | - | - | - | - | - | - | 531 |
| **AH-3** | 8/28/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | - | - | - | - | - | 11,000 |
| | " | 1-1.5 | | X | - | - | - | - | - | - | - | - | 6,950 |
| | " | 2-2.5 | X | | - | - | - | - | - | - | - | - | 756 |
| | " | 3-3.5 | X | | - | - | - | - | - | - | - | - | 122 |
| | " | 4-4.5 | X | | - | - | - | - | - | - | - | - | 562 |
| | " | 5-5.5 | X | | - | - | - | - | - | - | - | - | 176 |
| | " | 6-6.5 | X | | - | - | - | - | - | - | - | - | 267 |

**Table 1**
**COG Operating**
**SRO 102 Salt Water Disposal**
**Eddy County, New Mexico**

| Sample ID | Sample Date | Sample 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 | | | | | | |
| AH-4 | 8/28/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | | | | | | 7,390 |
| | " | 1-1.5 | | X | - | - | - | - | - | - | - | - | 3,670 |
| | " | 2-2.5 | X | | - | - | - | - | - | - | - | - | 260 |
| | " | 3-3.5 | X | | - | - | - | - | - | - | - | - | 1,120 |
| | " | 4-4.5 | X | | - | - | - | - | - | - | - | - | 1,060 |
| | " | 5-5.5 | X | | - | - | - | - | - | - | - | - | 1,110 |
| | " | 6-6.5 | X | | - | - | - | - | - | - | - | - | 1,120 |
| AH-5 | 8/29/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | 9,530 |
| | " | 1-1.5 | | X | - | - | - | - | - | - | - | - | 7,570 |
| | " | 2-2.5 | X | | - | - | - | - | - | - | - | - | 122 |
| | " | 3-3.5 | X | | - | - | - | - | - | - | - | - | 161 |
| | " | 4-4.5 | X | | - | - | - | - | - | - | - | - | 359 |
| | " | 4.5-5 | X | | - | - | - | - | - | - | - | - | 382 |
| AH-6 | 8/29/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | - | | | | | 8,580 |
| | " | 1-1.5 | | X | - | - | - | - | - | - | - | - | 10,000 |
| | " | 2-2.5 | X | | - | - | - | - | - | - | - | - | 260 |
| | " | 3-3.5 | X | | - | - | - | - | - | - | - | - | 329 |
| | " | 4-4.5 | X | | - | - | - | - | - | - | - | - | 245 |
| | " | 4.5-5 | X | | - | - | - | - | - | - | - | - | 658 |

**Table 1**
**COG Operating**
**SRO 102 Salt Water Disposal**
**Eddy County, New Mexico**

| Sample ID | Sample Date | Sample 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 | | | | | | |
| **AH-7** | 8/29/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | 8,290 |
| | " | 1-1.5 | | X | | | | | | | | | 12,700 |
| | " | 2-2.5 | | X | | | | | | | | | 4,530 |
| | " | 3-3.5 | X | | - | - | - | - | - | - | - | - | 84.2 |
| | " | 4-4.5 | X | | - | - | - | - | - | - | - | - | 199 |
| | " | 5-5.5 | X | | - | - | - | - | - | - | - | - | 191 |
| **AH-8** | 8/29/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | | | | | | 5,710 |
| | " | 1-1.5 | | X | - | - | - | | | | | | 1,560 |
| | " | 2-2.5 | X | | - | - | - | - | - | - | - | - | 589 |
| | " | 3-3.5 | X | | - | - | - | - | - | - | - | - | 959 |
| | " | 4-4.5 | X | | - | - | - | - | - | - | - | - | 1,110 |
| **AH-9** | 8/29/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | 9,600 |
| | " | 1-1.5 | | X | | | | | | | | | 5,150 |
| | " | 2-2.5 | X | | - | - | - | - | - | - | - | - | 468 |
| | " | 3-3.5 | X | | - | - | - | - | - | - | - | - | 491 |
| | " | 4-4.5 | X | | - | - | - | - | - | - | - | - | 337 |
| | " | 5-5.5 | X | | - | - | - | - | - | - | - | - | 529 |

**Table 1**
**COG Operating**
**SRO 102 Salt Water Disposal**
**Eddy County, New Mexico**

| Sample ID | Sample Date | Sample 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 | | | | | | |
| AH-10 | 8/29/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | - | - | - | - | - | 8,900 |
| | " | 1-1.5 | | X | - | - | - | - | - | - | - | - | 7,550 |
| | " | 2-2.5 | X | | - | - | - | - | - | - | - | - | 792 |
| | " | 3-3.5 | X | | - | - | - | - | - | - | - | - | 533 |
| | " | 4-4.5 | X | | - | - | - | - | - | - | - | - | 251 |
| | " | 5-5.5 | X | | - | - | - | - | - | - | - | - | 219 |
| AH-11 | 8/29/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | 5,960 |
| | " | 1-1.5 | | X | - | - | - | - | - | - | - | - | 5,220 |
| | " | 2-2.5 | X | | - | - | - | - | - | - | - | - | 274 |
| | " | 3-3.5 | X | | - | - | - | - | - | - | - | - | 243 |
| | " | 4-4.5 | X | | - | - | - | - | - | - | - | - | 62.7 |
| | " | 4.5-5 | X | | - | - | - | - | - | - | - | - | 149 |
| AH-12 | 8/29/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | - | - | - | - | - | 8,240 |
| | " | 1-1.5 | X | | - | - | - | - | - | - | - | - | 540 |
| | " | 2-2.5 | X | | - | - | - | - | - | - | - | - | 405 |
| | " | 3-3.5 | X | | - | - | - | - | - | - | - | - | 866 |
| | " | 4-4.5 | X | | - | - | - | - | - | - | - | - | 604 |
| | " | 5-5.5 | X | | - | - | - | - | - | - | - | - | 453 |

# Table 1
## COG Operating
## SRO 102 Salt Water Disposal
## Eddy County, New Mexico

| Sample ID | Sample Date | Sample 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 | | | | | | |
| AH-13 | 8/29/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | | | | | | 2,720 |
| | " | 1-1.5 | X | | - | - | - | - | - | - | - | - | 318 |
| | " | 2-2.5 | X | | - | - | - | - | - | - | - | - | 921 |
| | " | 3-3.5 | X | | - | - | - | - | - | - | - | - | 1,370 |
| | " | 4-4.5 | X | | - | - | - | - | - | - | - | - | 1,020 |
| | " | 5-5.5 | X | | - | - | - | - | - | - | - | - | 1,470 |
| Trench-2 | 10/23/2012 | 5 | X | | - | - | - | - | - | - | - | - | 724 |
| | " | 7 | X | | - | - | - | - | - | - | - | - | 971 |
| | " | 9 | X | | - | - | - | - | - | - | - | - | 869 |
| AH-14 | 8/29/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | 12,700 |
| | " | 1-1.5 | | X | | | | | | | | | 7,730 |
| | " | 2-2.5 | X | | - | - | - | - | - | - | - | - | 186 |
| | " | 3-3.5 | X | | - | - | - | - | - | - | - | - | 279 |
| | " | 4-4.5 | X | | - | - | - | - | - | - | - | - | 24.4 |
| | " | 5-5.5 | X | | - | - | - | - | - | - | - | - | 220 |
| AH-15 | 8/29/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | | | | | | 5,260 |
| | " | 1-1.5 | X | | - | - | - | - | - | - | - | - | 371 |
| | " | 2-2.5 | X | | - | - | - | - | - | - | - | - | 1,040 |
| | " | 2.5-3 | X | | - | - | - | - | - | - | - | - | 1,900 |
| Trench-3 | 10/23/2012 | 3 | X | | - | - | - | - | - | - | - | - | 579 |
| | " | 5 | X | | - | - | - | - | - | - | - | - | 326 |
| | " | 7 | X | | - | - | - | - | - | - | - | - | 1,120 |
| | " | 9 | X | | - | - | - | - | - | - | - | - | 443 |

**Table 1**
**COG Operating**
**SRO 102 Salt Water Disposal**
**Eddy County, New Mexico**

| Sample ID | Sample Date | Sample 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 | | | | | | |
| AH-16 | 8/29/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | | | | | | 11,300 |
| | " | 1-1.5 | | X | | | | | | | | | 5,480 |
| | " | 2-2.5 | X | | - | - | - | - | - | - | - | - | 686 |
| | " | 3-3.5 | X | | - | - | - | - | - | - | - | - | 137 |
| AH-17 | 8/29/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | 9,680 |
| | " | 1-1.5 | | X | | | | | | | | | 6,410 |
| | " | 2-2.5 | X | | - | - | - | - | - | - | - | - | 240 |
| | " | 3-3.5 | X | | - | - | - | - | - | - | - | - | 260 |
| AH-18 | 8/29/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | | | | | | 7,120 |
| | " | 1-1.5 | X | | - | - | - | - | - | - | - | - | 615 |
| | " | 2-2.5 | X | | - | - | - | - | - | - | - | - | 649 |
| | " | 3-3.5 | X | | - | - | - | - | - | - | - | - | 484 |
| | " | 4-4.5 | X | | - | - | - | - | - | - | - | - | 765 |
| | " | 5-5.5 | X | | - | - | - | - | - | - | - | - | 1,080 |
| AH-19 | 8/30/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | 8,300 |
| | " | 1-1.5 | | X | | | | | | | | | 5,880 |
| | " | 2-2.5 | X | | - | - | - | - | - | - | - | - | 184 |

# Table 1
## COG Operating
## SRO 102 Salt Water Disposal
## Eddy County, New Mexico

| Sample ID | Sample Date | Sample 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 | | | | | | |
| AH-20 | 8/30/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | | | | | | 3,420 |
| | " | 1-1.5 | X | | - | - | - | - | - | - | - | - | 59.4 |
| | " | 2-2.5 | X | | - | - | - | - | - | - | - | - | 109 |
| AH-21 | 8/30/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | 5,060 |
| | " | 1-1.5 | | X | | | | | | | | | 7,100 |
| | " | 2-2.5 | X | | - | - | - | - | - | - | - | - | 1,520 |
| | " | 3-3.5 | X | | - | - | - | - | - | - | - | - | 158 |
| AH-22 | 8/30/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | 4,320 |
| | " | 1-1.5 | X | | - | - | - | - | - | - | - | - | 514 |
| | " | 2-2.5 | X | | - | - | - | - | - | - | - | - | 178 |
| AH-23 | 8/30/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | 7,670 |
| | " | 1-1.5 | X | | - | - | - | - | - | - | - | - | 796 |
| | " | 2-2.5 | X | | - | - | - | - | - | - | - | - | 252 |
| AH-24 | 8/30/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <0.0200 | 11,100 |
| | " | 1-1.5 | | X | | | | | | | | | 7,150 |
| | " | 2-2.5 | X | | - | - | - | - | - | - | - | - | 184 |
| | " | 3-3.5 | X | | - | - | - | - | - | - | - | - | 165 |
| | " | 4-4.5 | X | | - | - | - | - | - | - | - | - | 150 |
| | " | 5-5.5 | X | | - | - | - | - | - | - | - | - | 170 |
| | " | 6-6.5 | X | | - | - | - | - | - | - | - | - | 243 |
| | " | 7-7.5 | X | | - | - | - | - | - | - | - | - | 451 |
| | " | 8-8.5 | X | | - | - | - | - | - | - | - | - | 698 |

**Table 1**
**COG Operating**
**SRO 102 Salt Water Disposal**
**Eddy County, New Mexico**

| Sample ID | Sample Date | Sample 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 | | | | | | |
| AH-25 | 8/30/2012 | 0-1 | | X | <4.00 | <50.0 | <50.0 | - | - | - | - | - | 13,000 |
| | " | 1-1.5 | X | | - | - | - | - | - | - | - | - | 732 |
| | " | 2-2.5 | X | | - | - | - | - | - | - | - | - | 199 |

**Table 1**
**COG Operating**
**SRO 102 Salt Water Disposal**
**Eddy County, New Mexico**

| Sample ID | Sample Date | Sample 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 | | | | | | |
| **Background Sampling** | | | | | | | | | | | | | |
| **BG-1** | 3/22/2012 | 0-1 | X | | - | - | - | - | - | - | - | - | <200 |
| **Background** | " | 2-3 | X | | - | - | - | - | - | - | - | - | 243 |
| | " | 4-5 | X | | - | - | - | - | - | - | - | - | 421 |
| | " | 6-7 | X | | - | - | - | - | - | - | - | - | 455 |
| | " | 9-10 | X | | - | - | - | - | - | - | - | - | 495 |
| | " | 14-15 | X | | - | - | - | - | - | - | - | - | 1,030 |
| | " | 19-20 | X | | - | - | - | - | - | - | - | - | 846 |
| | " | 24-25 | X | | - | - | - | - | - | - | - | - | 851 |

Table 1
COG Operating
SRO 102 Salt Water Disposal
Eddy County, New Mexico

| Sample ID | Sample Date | Sample 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 | | | | | | |
| **SWD Location** | | | | | | | | | | | | | |
| Trench-4 | 10/24/2012 | Surface | | X | - | - | - | - | - | - | - | - | 4,860 |
| Southeast Area | " | 2 | | X | - | - | - | - | - | - | - | - | 3,420 |
| | " | 4 | | X | - | - | - | - | - | - | - | - | 3,020 |
| liner | " | 6 | | X | - | - | - | - | - | - | - | - | 3,050 |
| | " | 8 | X | | - | - | - | - | - | - | - | - | 3,220 |
| | " | 10 | X | | - | - | - | - | - | - | - | - | 2,660 |
| SB-1 | 1/18/2013 | 6-7 | X | | - | - | - | - | - | - | - | - | 2,250 |
| | " | 9-10 | X | | - | - | - | - | - | - | - | - | 3,090 |
| | " | 14-15 | X | | - | - | - | - | - | - | - | - | 1,750 |
| | " | 19-20 | X | | - | - | - | - | - | - | - | - | 1,440 |
| | " | 24-25 | X | | - | - | - | - | - | - | - | - | 297 |
| | " | 29-30 | X | | - | - | - | - | - | - | - | - | 267 |
| Trench-5 | 10/24/2012 | Surface | | X | - | - | - | - | - | - | - | - | 30,200 |
| East | " | 2 | | X | - | - | - | - | - | - | - | - | 3,420 |
| | " | 4 | | X | - | - | - | - | - | - | - | - | 1,330 |
| liner | " | 6 | | X | - | - | - | - | - | - | - | - | 3,360 |
| | " | 7 | X | | - | - | - | - | - | - | - | - | 3,700 |
| SB-2 | 1/18/2013 | 6-7 | X | | - | - | - | - | - | - | - | - | 3,670 |
| | " | 9-10 | X | | - | - | - | - | - | - | - | - | 2,440 |
| | " | 14-15 | X | | - | - | - | - | - | - | - | - | 1,010 |
| | " | 19-20 | X | | - | - | - | - | - | - | - | - | 924 |
| | " | 24-25 | X | | - | - | - | - | - | - | - | - | 619 |
| | " | 29-30 | X | | - | - | - | - | - | - | - | - | 267 |

# Table 1
## COG Operating
## SRO 102 Salt Water Disposal
## Eddy County, New Mexico

| Sample ID | Sample Date | Sample 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 | | | | | | |
| Trench-6 | 10/25/2012 | Surface | | X | - | - | - | - | - | - | - | - | 3,080 |
| Southwest | " | 2 | | X | - | - | - | - | - | - | - | - | 6,640 |
| | " | 4 | | X | - | - | - | - | - | - | - | - | 4,440 |
| liner | " | 6 | X | | - | - | - | - | - | - | - | - | 991 |
| | " | 8 | X | | - | - | - | - | - | - | - | - | 2,630 |
| | " | 10 | X | | - | - | - | - | - | - | - | - | 1,540 |
| Trench-7 | 10/25/2012 | Surface | | X | - | - | - | - | - | - | - | - | 33,800 |
| West | " | 2 | | X | - | - | - | - | - | - | - | - | 20,000 |
| | " | 4 | | X | - | - | - | - | - | - | - | - | 4,330 |
| liner | " | 6 | X | | - | - | - | - | - | - | - | - | 3,630 |
| | " | 8 | X | | - | - | - | - | - | - | - | - | 1,650 |
| | " | 10 | X | | - | - | - | - | - | - | - | - | 1,520 |
| SB-3 | 1/17/2013 | 6-7 | X | | - | - | - | - | - | - | - | - | 2,300 |
| | " | 9-10 | X | | - | - | - | - | - | - | - | - | 1,310 |
| | " | 14-15 | X | | - | - | - | - | - | - | - | - | 877 |
| | " | 19-20 | X | | - | - | - | - | - | - | - | - | 1,880 |
| | " | 24-25 | X | | - | - | - | - | - | - | - | - | 663 |
| | " | 29-30 | X | | - | - | - | - | - | - | - | - | 913 |
| | " | 39-40 | X | | - | - | - | - | - | - | - | - | 757 |
| | " | 49-50 | X | | - | - | - | - | - | - | - | - | 113 |

(--) Not Analyzed

BG Background

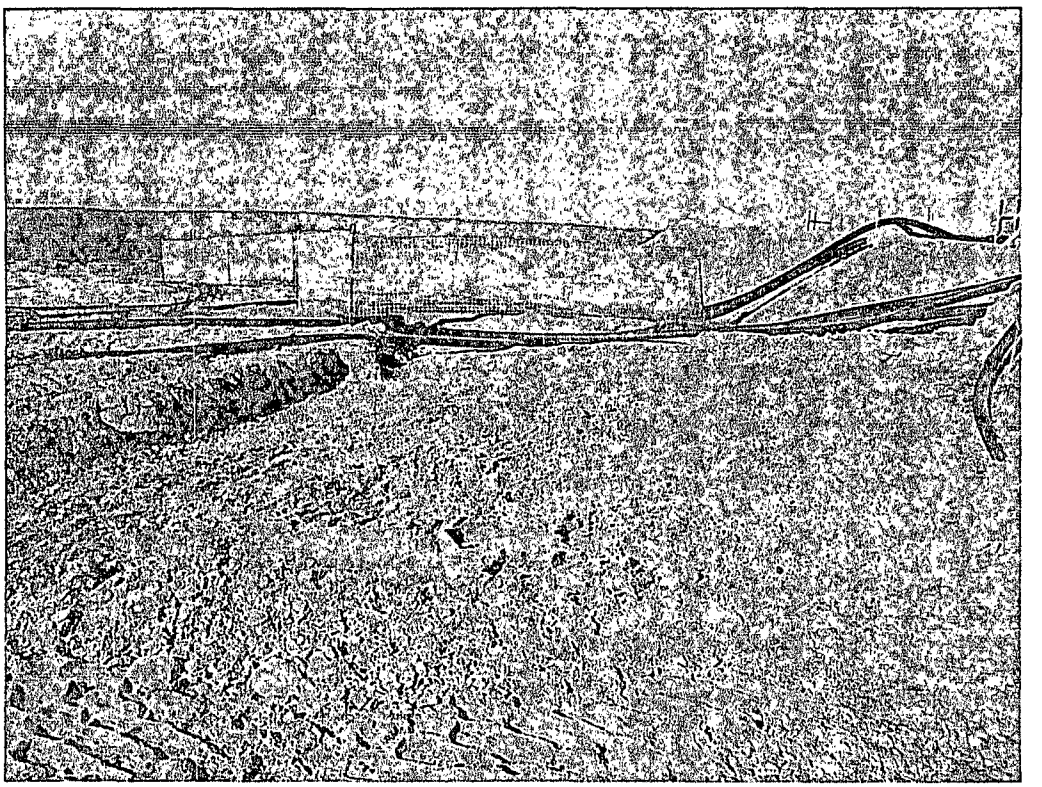
Excavation Depths

40 mil liner

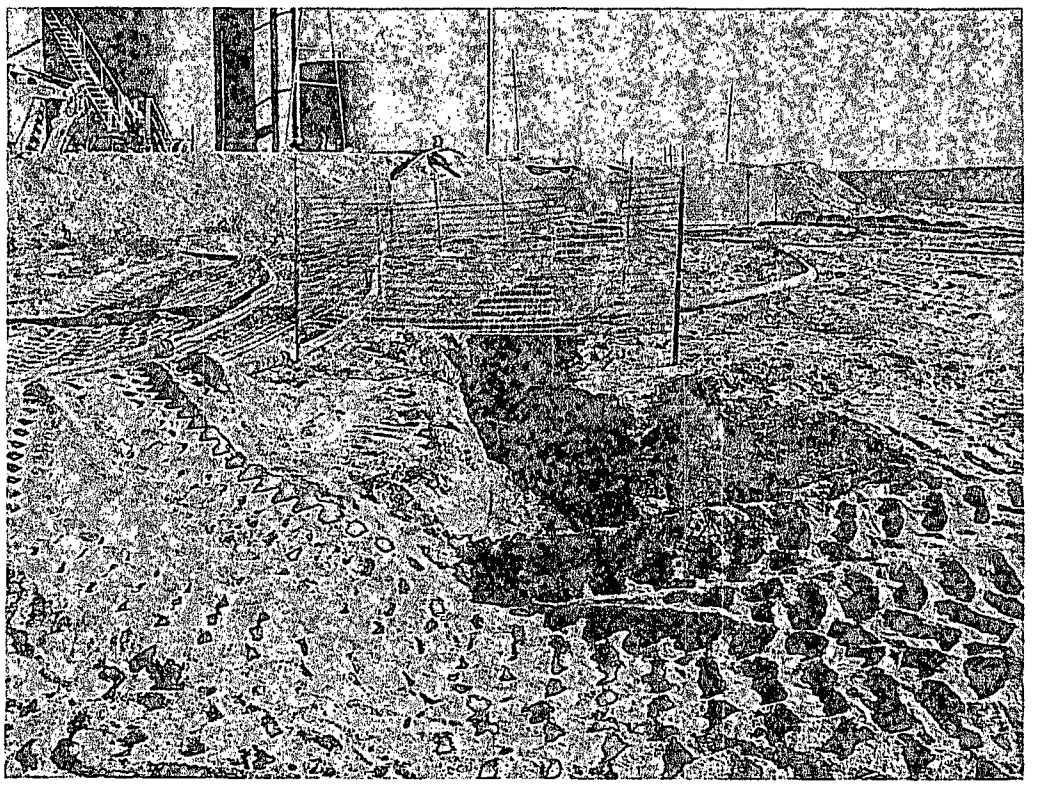
# Photos

# COG Operating LLC
# SRO 102 SWD
# Eddy County, New Mexico

TETRA TECH



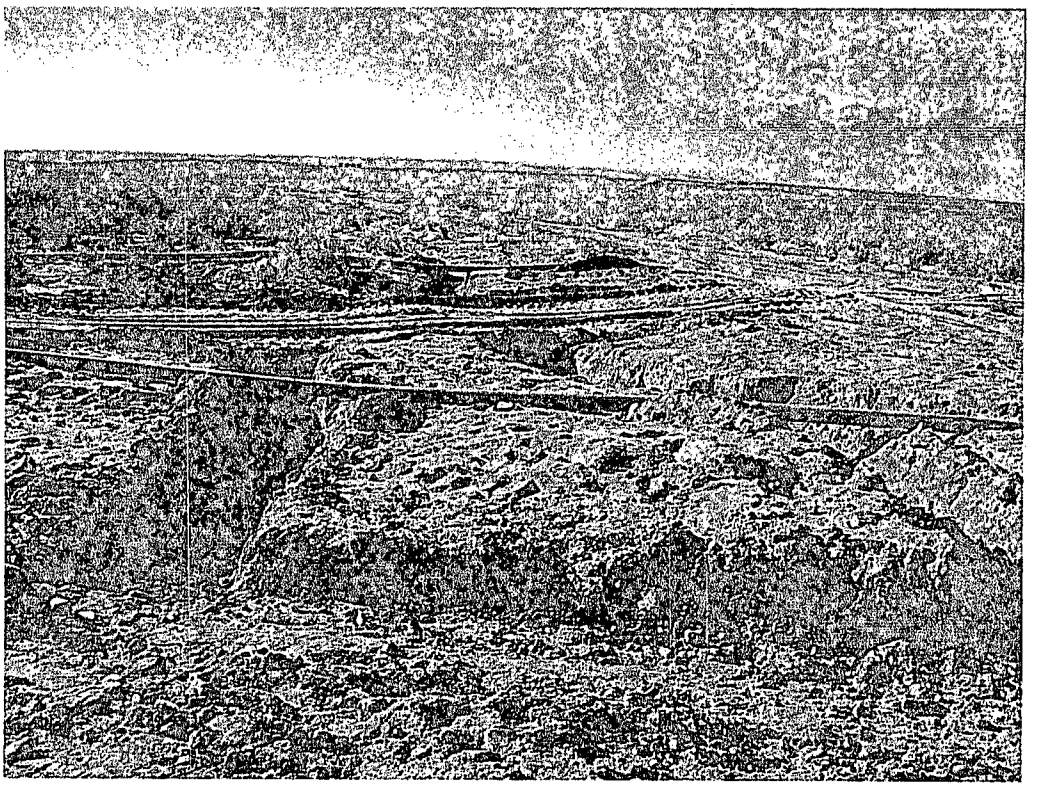
View West – Area of AH-1 and AH-2



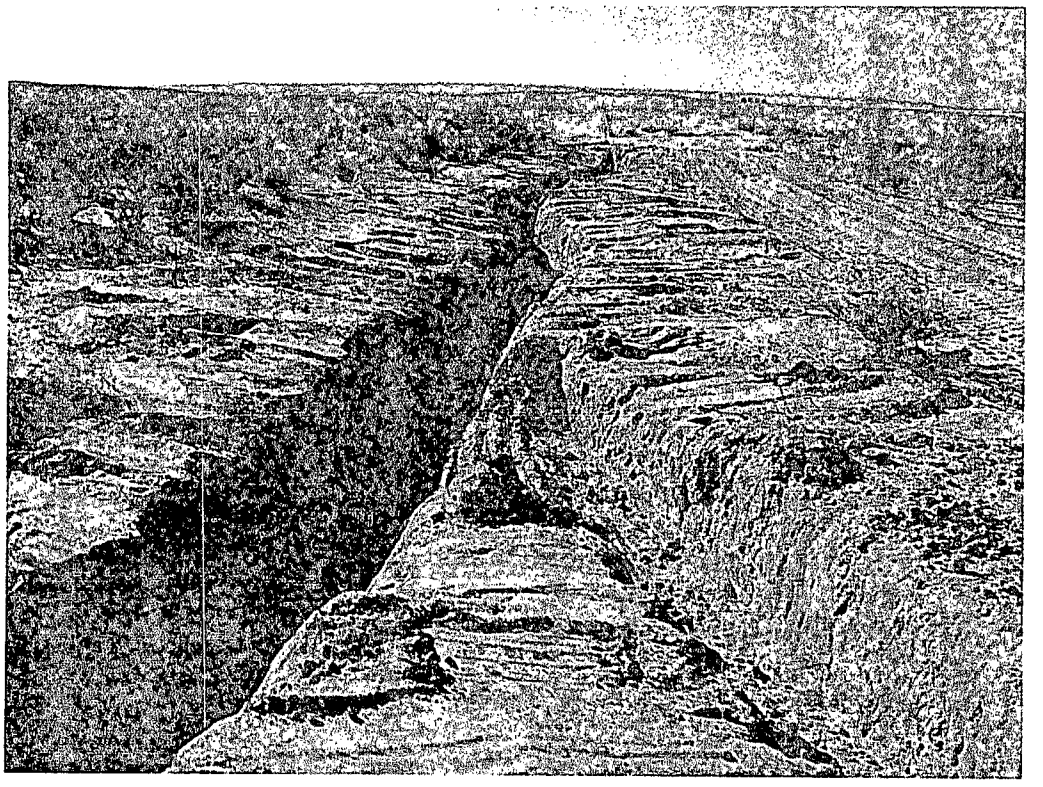
View East – Area of AH-4 and AH-2

# COG Operating LLC
# SRO 102 SWD
# Eddy County, New Mexico





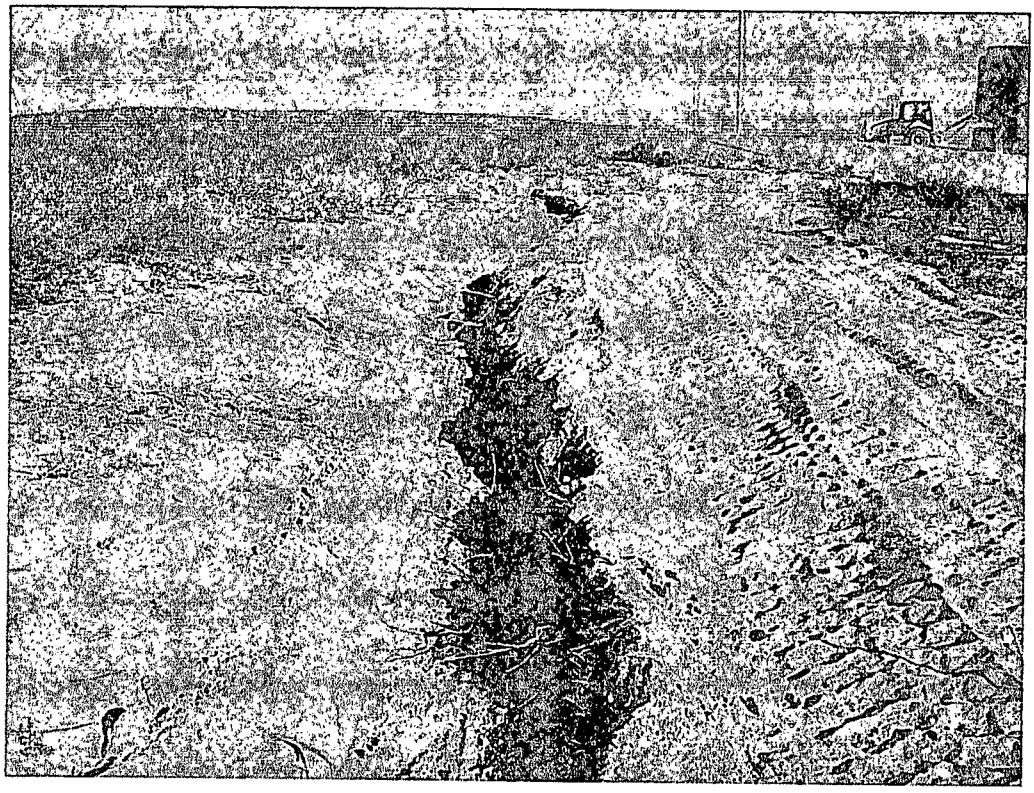
View South – Area of AH-3 and AH-5



View Southeast – Area of AH-6 and AH-7

# COG Operating LLC
# SRO 102 SWD
# Eddy County, New Mexico

TETRA TECH

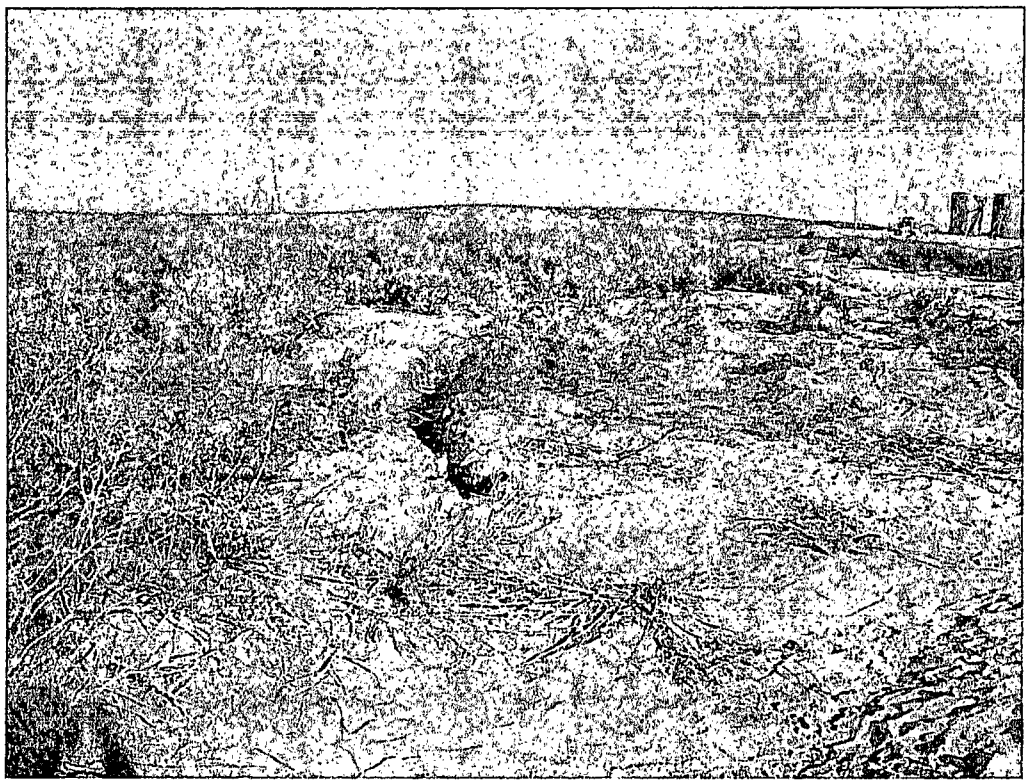


View North – Area of AH-9 and AH-8

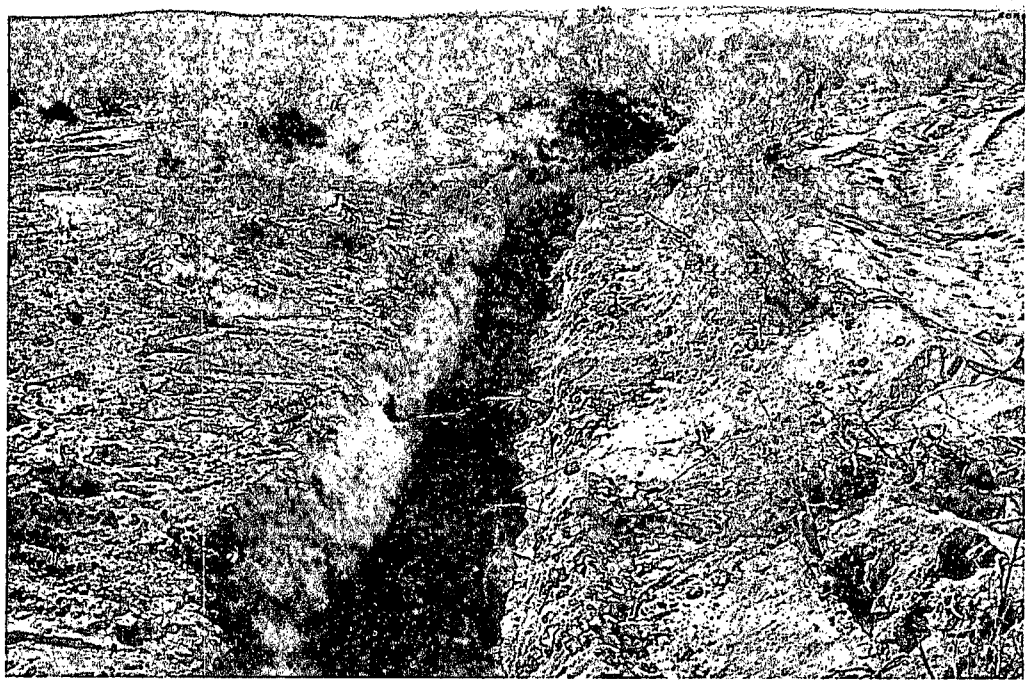
View North – Area of AH-11 and AH-10

# COG Operating LLC
# SRO 102 SWD
# Eddy County, New Mexico

TETRA TECH



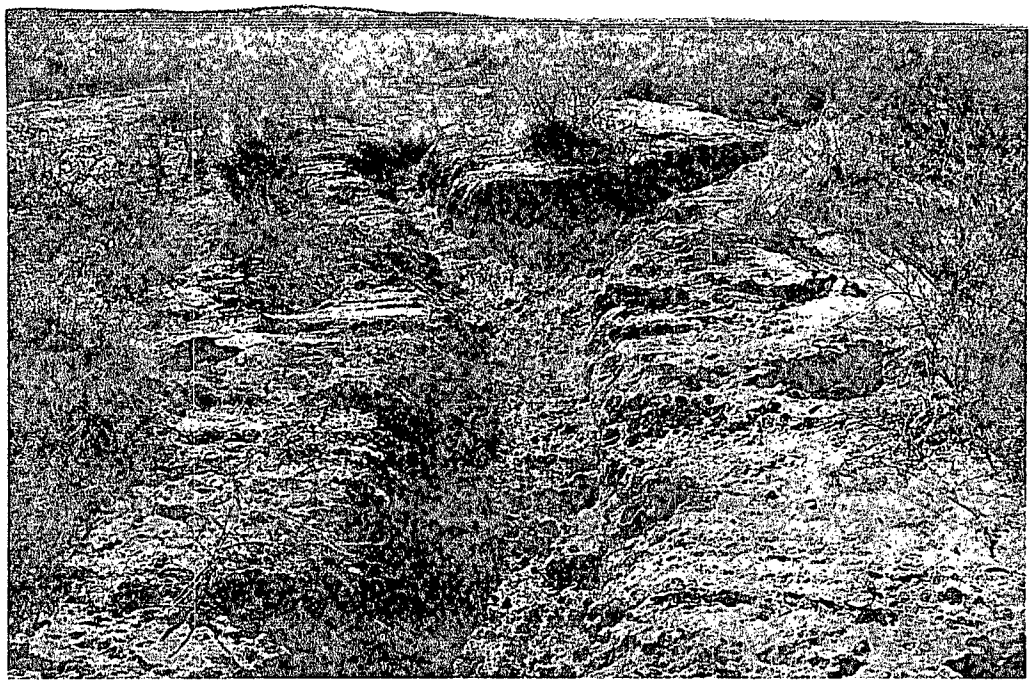
View North – Area of AH-13 and AH-12



View Southeast – Area of AH-15 and AH-16

# COG Operating LLC
# SRO 102 SWD
# Eddy County, New Mexico

TETRA TECH

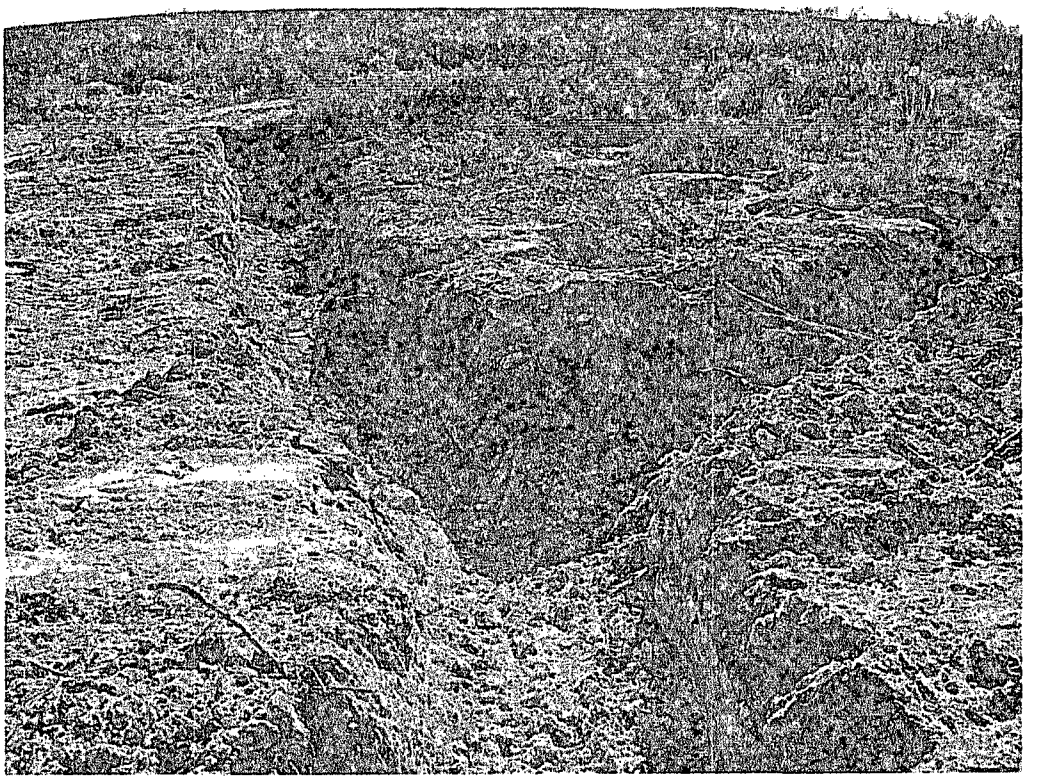


View Southeast – Area of AH-17 and AH-18

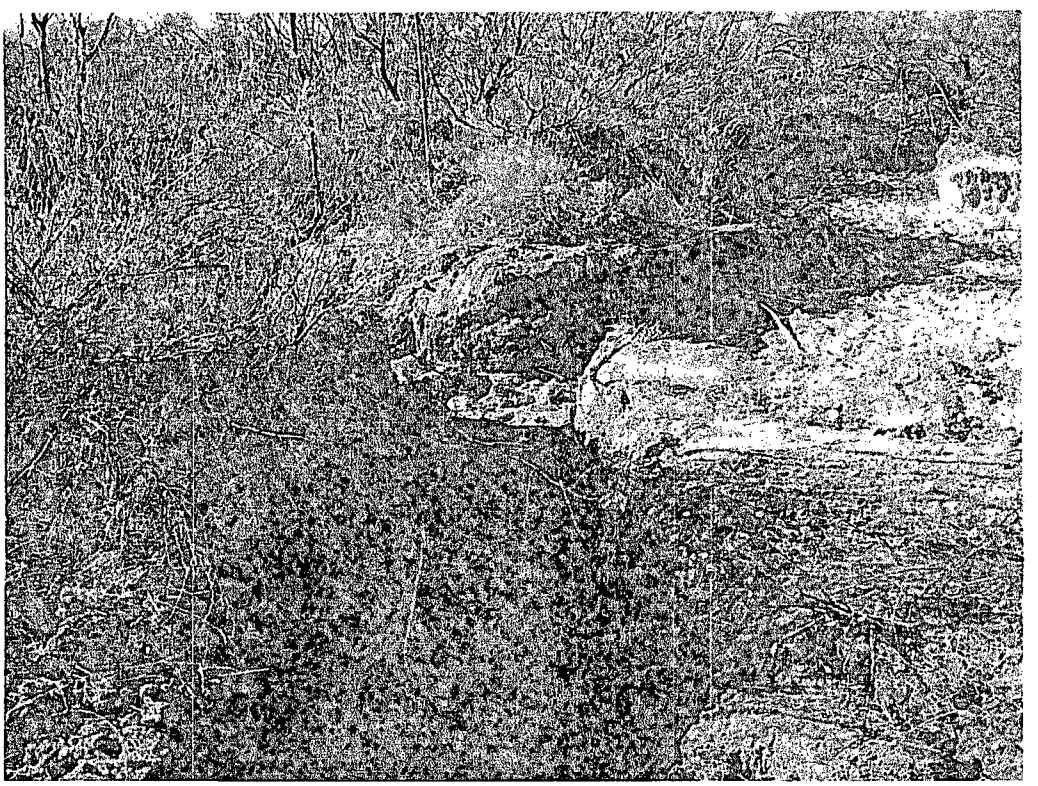
View South – Area of AH-19 and AH-20

# COG Operating LLC
# SRO 102 SWD
# Eddy County, New Mexico

TETRA TECH



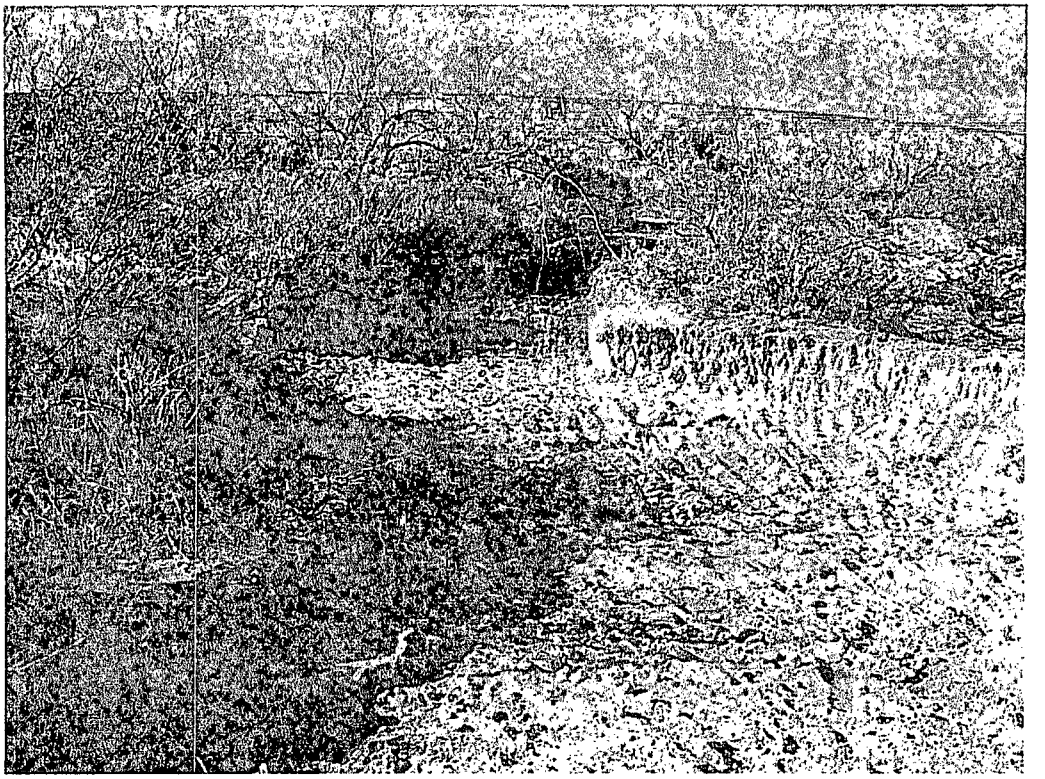
View South – Area of AH-21



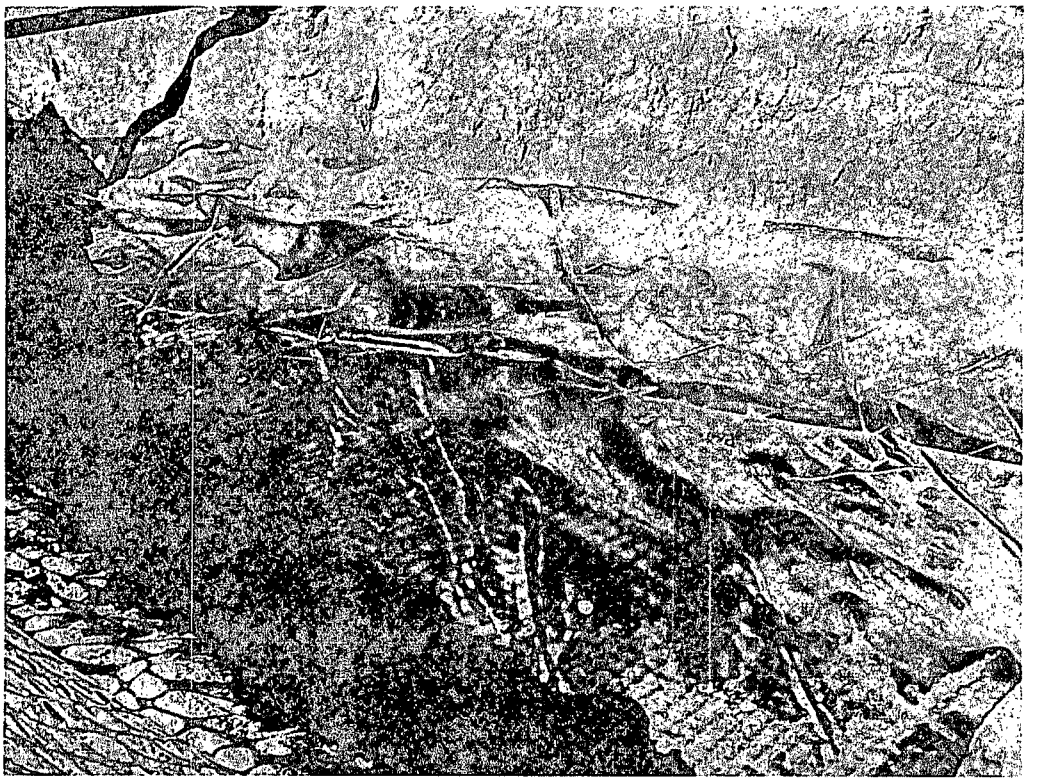
View South – Area of AH-24 and AH-22

# COG Operating LLC
# SRO 102 SWD
# Eddy County, New Mexico

TETRA TECH



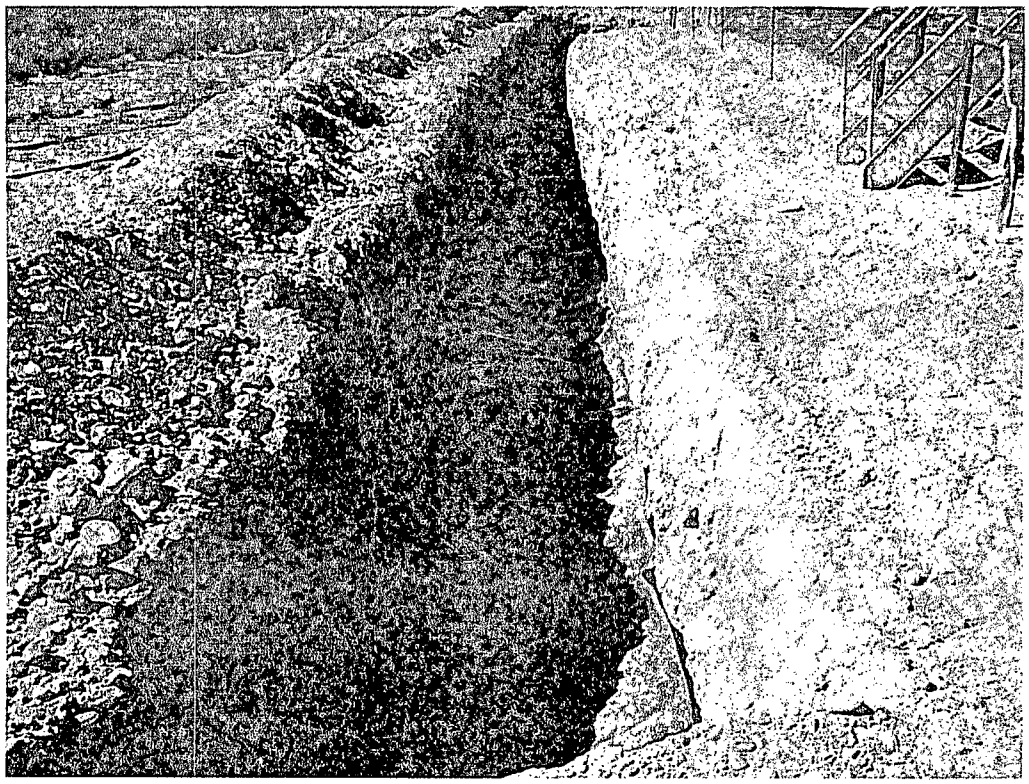
View South – Area of AH-23 and AH-25



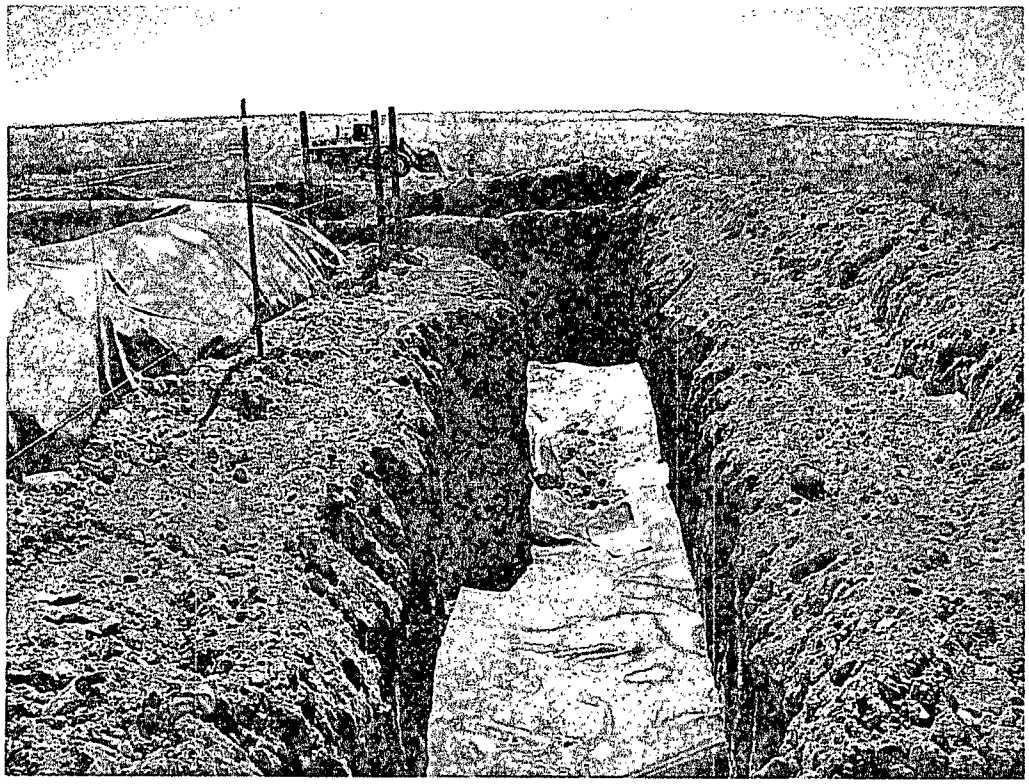
View North – Lined area of AH-2

# COG Operating LLC
# SRO 102 SWD
# Eddy County, New Mexico

TETRA TECH



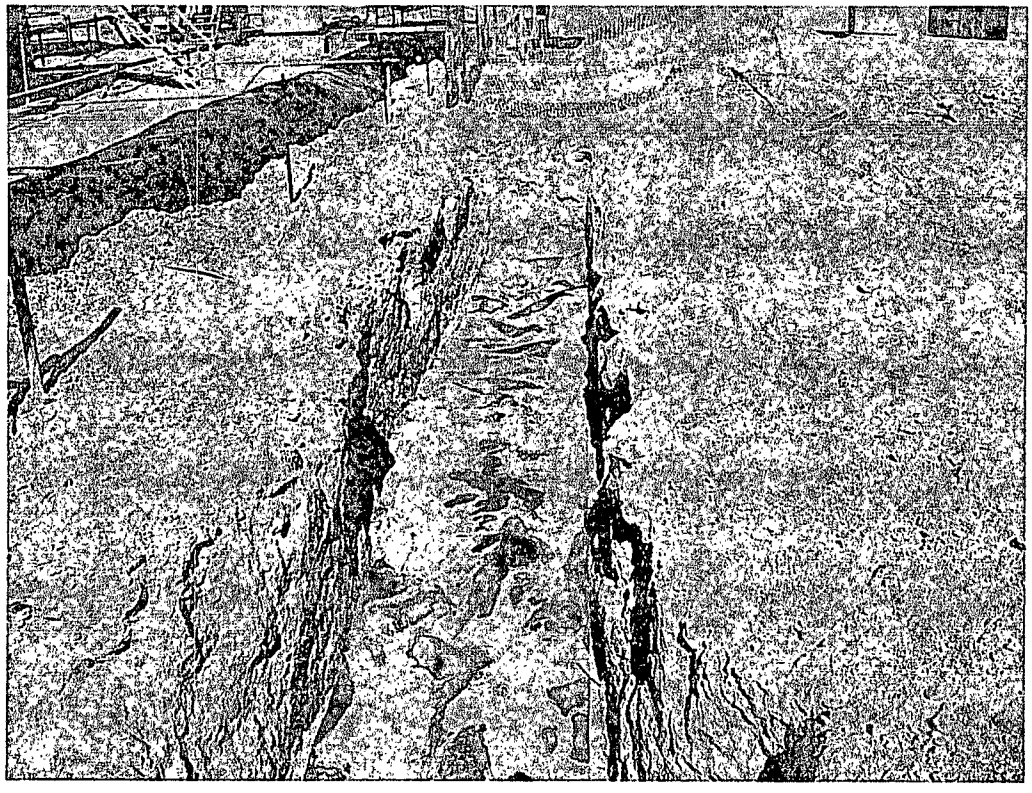
View West – Lined area of Leak Source



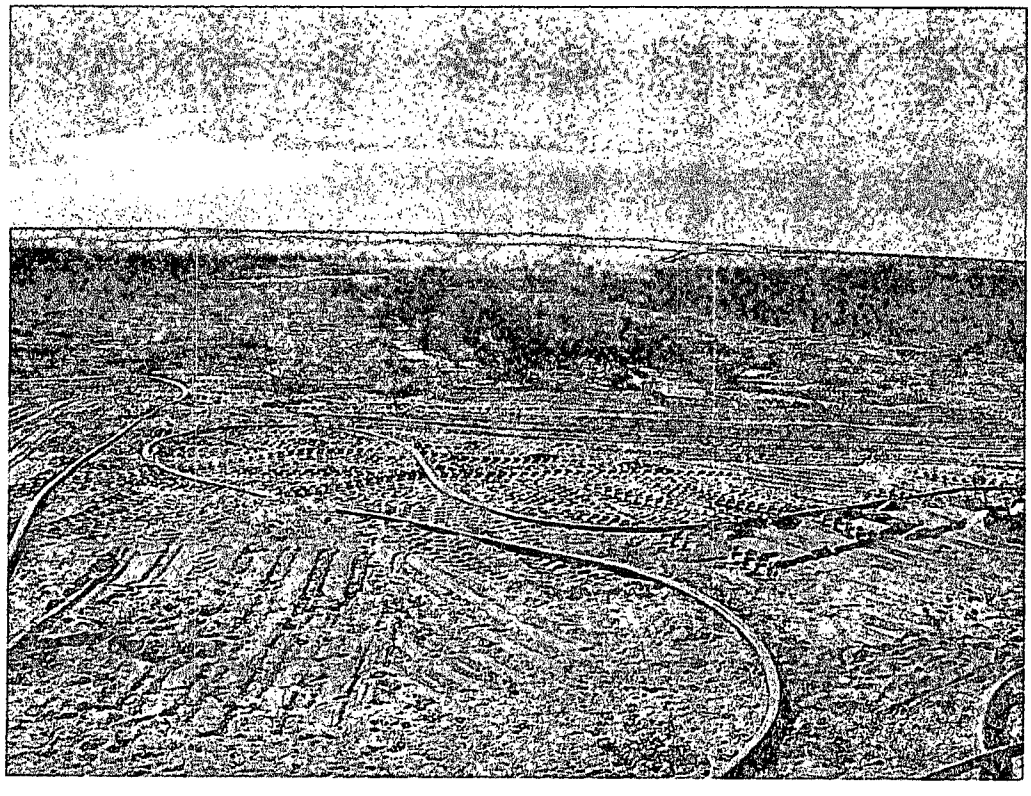
View South – Lined area of T-6, T-7 and SB-3

# COG Operating LLC
# SRO 102 SWD
# Eddy County, New Mexico

TETRA TECH



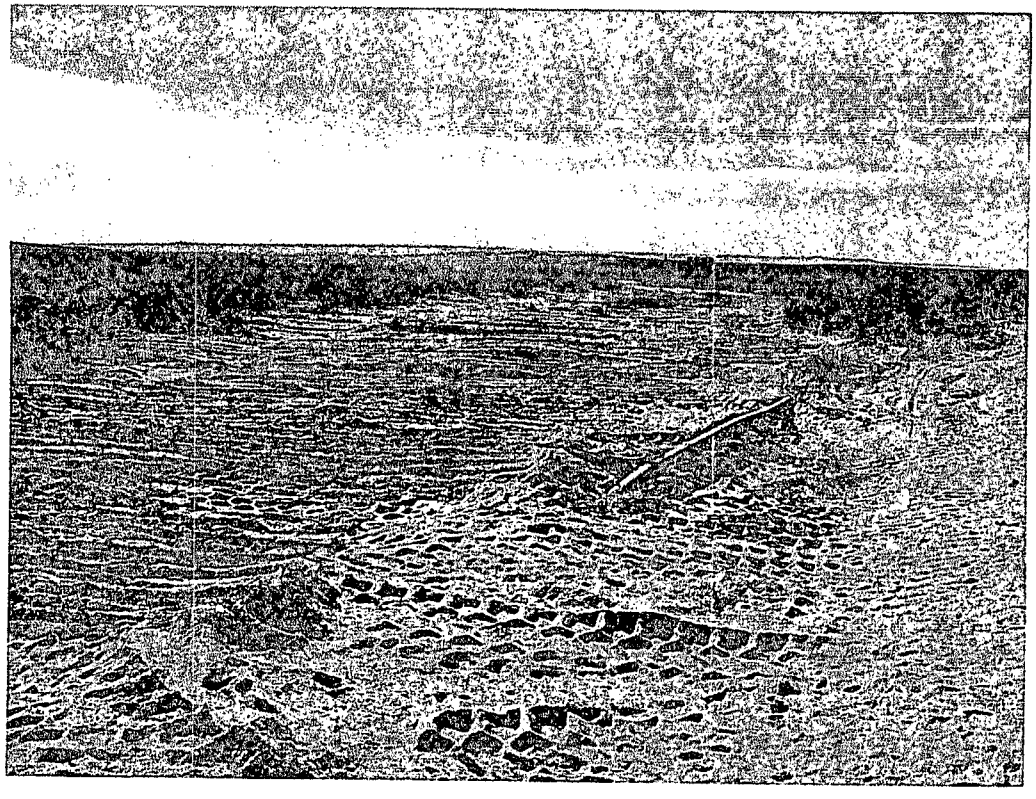
View North – Lined area of T-4, T-5 and SB-1, SB-2



View South - Backfill

# COG Operating LLC
# SRO 102 SWD
# Eddy County, New Mexico

TETRA TECH



View Southeast - Backfill

# 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

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NMOCD ARTESIA

Form C-141
Revised October 10, 2003

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

# Release Notification and Corrective Action

## OPERATOR

☐ Initial Report ☒ Final Report

| | | | |
|---|---|---|---|
| Name of Company | COG Operating LLC | Contact | Pat Ellis |
| Address | 600 W. Illinois Ave., Midland, TX 79701 | Telephone No. | (432) 230-0077 |
| Facility Name | SRO 102 SWD | Facility Type | SWD |

| | | |
|---|---|---|
| Surface Owner: State | Mineral Owner | Lease No. (API#) 30-015-21398 |

## LOCATION OF RELEASE

| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County |
|---|---|---|---|---|---|---|---|---|
| G | 16 | 26S | 28E | | | | | Eddy |

**Latitude** N 32.04381° **Longitude** W 104.09047°

## NATURE OF RELEASE

| | | |
|---|---|---|
| Type of Release: Produced Water | Volume of Release 160 bbls | Volume Recovered 100 bbls |
| Source of Release: Fiberglass Header Connection | Date and Hour of Occurrence 07/21/2012 | Date and Hour of Discovery 07/21/2012 4:00 p.m. |
| Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required | If YES, To Whom? Mike Bratcher-OCD | |
| By Whom? Michelle Mullins | Date and Hour 07/22/2012 12:45 p.m. | |
| 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 fiberglass connection failed at the inlet header on the south side of the SWD. The connection is being repaired.

Describe Area Affected and Cleanup Action Taken.*

Tetra Tech personnel inspected the site and collected samples to define the spills extent. Soil that exceeded RRAL was removed and hauled away for proper disposal. The site was then brought up to surface grade with clean backfill material. Tetra Tech prepared a closure report and submitted it to NMOCD for review.

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

| | | |
|---|---|---|
| Signature: | OIL CONSERVATION DIVISION | |
| Printed Name: Ike Tavarez | Approved by District Supervisor: | |
| Title: Project Manager | Approval Date: | Expiration Date: |
| E-mail Address: Ike.Tavarez@TetraTech.com | Conditions of Approval: | Attached ☐ |
| Date: 3-11-13 Phone: (432) 682-4559 | | |

* Attach Additional Sheets If Necessary

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

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

# Release Notification and Corrective Action

## OPERATOR

☒ Initial Report ☐ Final Report

| | | | |
|---|---|---|---|
| Name of Company | COG OPERATING LLC | Contact | Pat Ellis |
| Address | 550 W. Texas, Suite 100, Midland, TX 79701 | Telephone No. | 432-230-0077 |
| Facility Name | SRO 102 SWD | Facility Type | SWD |

| | | |
|---|---|---|
| Surface Owner State | Mineral Owner | Lease No. (API#) 30-015-21398 |

## LOCATION OF RELEASE

| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County |
|---|---|---|---|---|---|---|---|---|
| G | 16 | 26S | 28E | | | | | Eddy |

**Latitude** 32 02.657 **Longitude** 104 05.431

## NATURE OF RELEASE

| | | |
|---|---|---|
| Type of Release Produced water | Volume of Release 160bbls | Volume Recovered 100bbls |
| Source of Release Fiberglass header connection | Date and Hour of Occurrence 07/21/2012 | Date and Hour of Discovery 07/21/2012 4:00 p.m. |
| Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required | If YES, To Whom? Mike Bratcher-OCD | |
| By Whom? Michelle Mullins | Date and Hour 07/22/2012 12:45 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.*

A fiberglass connection failed at the inlet header on the south side of the SWD. The connection is being repaired.

Describe Area Affected and Cleanup Action Taken.*

Initially 160bbls were released from the failed connection and were able to recover 100bbls with a vacuum truck. Some of the fluid was contained inside the dike walls on the south side of the facility. Some of the fluid escaped the dike walls and streamed to a low lying area to the south of the location in 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 for approval prior to any significant remediation work.

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

| | | |
|---|---|---|
| Signature: | OIL CONSERVATION DIVISION | |
| Printed Name: Josh Russo | Approved by District Supervisor: | |
| Title: HSE Coordinator | Approval Date: | Expiration Date: |
| E-mail Address: jrusso@conchoresources.com | Conditions of Approval: | Attached ☐ |
| Date: 08/01/2012 Phone: 432-212-2399 | | |

* Attach Additional Sheets If Necessary

# Appendix B

# Water Well Data
# Average Depth to Groundwater (ft)
# COG - SRO 102 SWD
# Eddy County, New Mexico

**24 South 27 East**

| | | | | | |
|---|---|---|---|---|---|
| 6 | 5 | 4 | 3 | 2 | 1 |
| 7 | 8 **26** | 9 **43** | 10 | 11 | 12 **27** |
| 18 **34** | 17 | 16 | 15 | 14 | 13 **31** |
| 19 | 20 | 21 | 22 **70** | 23 | 24 |
| 30 | 29 | 28 | 27 | 26 | 25 |
| 31 | 32 | 33 | 34 | 35 | 36 |

**24 South 28 East**

| | | | | | |
|---|---|---|---|---|---|
| 6 **70** | 5 **30** | 4 **30** | 3 | 2 **55** | 1 **60** |
| 7 | 8 **50** | 9 | 10 **17** | 11 **20** | 12 **73** |
| 18 | 17 **42** | 16 **29** | 15 **18** | 14 **52** | 13 **34** |
| 19 | 20 **48** | 21 | 22 | 23 | 24 |
| 30 | 29 | 28 | 27 | 26 | 25 |
| 31 | 32 | 33 | 34 | 35 | 36 |

**24 South 29 East**

| | | | | | |
|---|---|---|---|---|---|
| 6 | 5 | 4 | 3 | 2 | 1 |
| 7 **160** | 8 | 9 | 10 | 11 | 12 |
| 18 | 17 | 16 **18** | 15 | 14 | 13 |
| 19 | 20 | 21 | 22 | 23 | 24 |
| 30 | 29 | 28 | 27 | 26 | 25 |
| 31 | 32 | 33 | 34 | 35 | 36 |

**25 South 27 East**

| | | | | | |
|---|---|---|---|---|---|
| 6 | 5 | 4 | 3 | 2 | 1 |
| 7 | 8 | 9 | 10 | 11 | 12 **92** |
| 18 | 17 | 16 | 15 | 14 | 13 |
| 19 | 20 | 21 | 22 | 23 | 24 |
| 30 | 29 | 28 | 27 | 26 | 25 |
| 31 | 32 | 33 **19** | 34 | 35 | 36 |

**25 South 28 East**

| | | | | | |
|---|---|---|---|---|---|
| 6 | 5 **59** | 4 **35** | 3 **32** | 2 | 1 |
| 7 | 8 | 9 | 10 | 11 | 12 |
| 18 **67** | 17 | 16 | 15 **48** **49** | 14 | 13 |
| 19 | 20 **96** | 21 | 22 | 23 | 24 |
| 30 | 29 **15** | 28 **90** | 27 | 26 **30** | 25 |
| 31 | 32 | 33 | 34 | 35 | 36 **40** |

**25 South 29 East**

| | | | | | |
|---|---|---|---|---|---|
| 6 **40** | 5 | 4 | 3 | 2 | 1 |
| 7 | 8 | 9 | 10 **40** | 11 | 12 |
| 18 | 17 | 16 | 15 **60** | 14 | 13 |
| 19 | 20 | 21 | 22 | 23 | 24 |
| 30 **30** | 29 | 28 | 27 | 26 | 25 |
| 31 | 32 | 33 | 34 | 35 | 36 |

**26 South 27 East**

| | | | | | |
|---|---|---|---|---|---|
| 6 | 5 **12** | 4 | 3 | 2 | 1 |
| 7 | 8 | 9 | 10 | 11 | 12 |
| 18 | 17 | 16 | 15 | 14 | 13 **35** |
| 19 | 20 | 21 | 22 **50** | 23 | 24 |
| 30 | 29 | 28 | 27 | 26 | 25 |
| 31 | 32 | 33 | 34 | 35 | 36 |

**26 South 28 East**

| | | | | | |
|---|---|---|---|---|---|
| 6 | 5 | 4 | 3 | 2 **120** | 1 |
| 7 | 8 | 9 | 10 | 11 | 12 **100** |
| 18 25 | 17 | 16 SITE | 15 | 14 **120** | 13 **56** |
| 19 | 20 | 21 | 22 **120** | 23 | 24 |
| 30 | 29 | 28 | 27 | 26 | 25 |
| 31 | 32 | 33 | 34 | 35 | 36 |

**26 South 29 East**

| | | | | | |
|---|---|---|---|---|---|
| 6 | 5 | 4 | 3 | 2 | 1 |
| 7 | 8 | 9 | 10 | 11 | 12 |
| 18 | 17 | 16 | 15 | 14 | 13 |
| 19 | 20 | 21 | 22 **57** **69** | 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

# Appendix C

# Summary Report

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

Report Date: September 17, 2012

Work Order: 12090405

Project Location: Eddy Co., NM
Project Name: COG/SRO 102 SWD
Project Number: 114-6401478

| Sample | Description | Matrix | Date Taken | Time Taken | Date Received |
|---|---|---|---|---|---|
| 308336 | AH-1 0-1' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308337 | AH-1 1-1.5' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308338 | AH-1 2-2.5' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308339 | AH-1 3-3.5' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308340 | AH-1 4-4.5' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308341 | AH-1 5-5.5' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308342 | AH-2 0-1' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308343 | AH-2 1-1.5' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308344 | AH-2 2-2.5' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308345 | AH-2 3-3.5' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308346 | AH-2 4-4.5' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308347 | AH-2 5-5.5' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308348 | AH-2 6.5-7' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308349 | AH-3 0-1' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308350 | AH-3 1-1.5' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308351 | AH-3 2-2.5' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308352 | AH-3 3.-3.5' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308353 | AH-3 4-4.5' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308354 | AH-3 5-5.5' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308355 | AH-3 6-6.5' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308356 | AH-4 0-1' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308357 | AH-4 1-1.5' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308358 | AH-4 2-2.5' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308359 | AH-4 3-3.5' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308360 | AH-4 4-4.5' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308361 | AH-4 5-5.5' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308362 | AH-4 6-6.5' | soil | 2012-08-28 | 00:00 | 2012-08-31 |
| 308363 | AH-5 0-1' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308364 | AH-5 1-1.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308365 | AH-5 2-2.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |

| Sample | Description | Matrix | Date Taken | Time Taken | Date Received |
|---|---|---|---|---|---|
| 308366 | AH-5 3-3.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308367 | AH-5 4-4.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308368 | AH-5 4.5-5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308369 | AH-6 0-1' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308370 | AH-6 1-1.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308371 | AH-6 2-2.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308372 | AH-6 3-3.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308373 | AH-6 4-4.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308374 | AH-6 4.5-5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308375 | AH-7 0-1' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308376 | AH-7 1-1.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308377 | AH-7 2-2.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308378 | AH-7 3-3.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308379 | AH-7 4-4.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308380 | AH-7 5-5.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308381 | AH-8 0-1' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308382 | AH-8 1-1.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308383 | AH-8 2-2.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308384 | AH-8 3-3.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308385 | AH-8 4-4.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308386 | AH-9 0-1' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308387 | AH-9 1-1.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308388 | AH-9 2-2.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308389 | AH-9 3-3.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308390 | AH-9 4-4.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308391 | AH-9 5-5.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308392 | AH-10 0-1' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308393 | AH-10 1-1.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308394 | AH-10 2-2.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308395 | AH-10 3-3.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308396 | AH-10 4-4.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308397 | AH-10 5-5.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308398 | AH-11 0-1' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308399 | AH-11 1-1.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308400 | AH-11 2-2.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308401 | AH-11 3-3.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308402 | AH-11 4-4.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308403 | AH-11 4.5-5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308404 | AH-12 0-1' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308405 | AH-12 1-1.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308406 | AH-12 2-2.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308407 | AH-12 3-3.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308408 | AH-12 4-4.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308409 | AH-12 5-5.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308410 | AH-13 0-1' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308411 | AH-13 1-1.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308412 | AH-13 2-2.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308413 | AH-13 3-3.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308414 | AH-13 4-4.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |

| Sample | Description | Matrix | Date Taken | Time Taken | Date Received |
|---|---|---|---|---|---|
| 308415 | AH-13 5-5.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308416 | AH-14 0-1' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308417 | AH-14 1-1.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308418 | AH-14 2-2.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308419 | AH-14 3-3.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308420 | AH-14 4-4.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308421 | AH-14 5-5.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308422 | AH-15 0-1' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308423 | AH-15 1-1.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308424 | AH-15 2-2.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308425 | AH-15 2.5-3' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308426 | AH-16 0-1' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308427 | AH-16 1-1.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308428 | AH-16 2-2.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308429 | AH-16 3-3.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308430 | AH-17 0-1' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308431 | AH-17 1-1.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308432 | AH-17 2-2.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308433 | AH-17 3-3.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308434 | AH-18 0-1' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308435 | AH-18 1-1.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308436 | AH-18 2-2.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308437 | AH-18 3-3.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308438 | AH-18 4-4.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308439 | AH-18 5-5.5' | soil | 2012-08-29 | 00:00 | 2012-08-31 |
| 308440 | AH-19 0-1' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308441 | AH-19 1-1.5' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308442 | AH-19 2-2.5' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308443 | AH-20 0-1' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308444 | AH-20 1-1.5' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308445 | AH-20 2-2.5' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308446 | AH-21 0-1' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308447 | AH-21 1-1.5' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308448 | AH-21 2-2.5' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308449 | AH-21 3-3.5' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308450 | AH-22 0-1' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308451 | AH-22 1-1.5' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308452 | AH-22 2-2.5' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308453 | AH-23 0-1' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308454 | AH-23 1-1.5' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308455 | AH-23 2-2.5' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308456 | AH-24 0-1' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308457 | AH-24 1-1.5' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308458 | AH-24 2-2.5' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308459 | AH-24 3-3.5' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308460 | AH-24 4-4.5' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308461 | AH-24 5-5.5' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308462 | AH-24 6-6.5' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308463 | AH-24 7-7.5' | soil | 2012-08-30 | 00:00 | 2012-08-31 |

| Sample | Description | Matrix | Date Taken | Time Taken | Date Received |
|---|---|---|---|---|---|
| 308464 | AH-24 8-8.5' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308465 | AH-25 0-1' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308466 | AH-25 1-1.5' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308467 | AH-25 2-2.5' | soil | 2012-08-30 | 00:00 | 2012-08-31 |
| 308468 | AH-2 6-6.5' | soil | 2012-08-30 | 00:00 | 2012-08-31 |

| | BTEX | | | | TPH DRO - NEW | TPH GRO |
|---|---|---|---|---|---|---|
| Sample - Field Code | Benzene (mg/Kg) | Toluene (mg/Kg) | Ethylbenzene (mg/Kg) | Xylene (mg/Kg) | DRO (mg/Kg) | GRO (mg/Kg) |
| **308336 - AH-1 0-1'** | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <50.0 | <4.00 |
| **308342 - AH-2 0-1'** | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <50.0 | <4.00 |
| **308349 - AH-3 0-1'** | | | | | <50.0 | <4.00 |
| **308356 - AH-4 0-1'** | | | | | <50.0 | <4.00 |
| **308363 - AH-5 0-1'** | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <50.0 | <4.00 |
| **308369 - AH-6 0-1'** | | | | | <50.0 | <4.00 Qs |
| **308375 - AH-7 0-1'** | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <50.0 | <4.00 Qs |
| **308381 - AH-8 0-1'** | | | | | <50.0 | <4.00 Qs |
| **308386 - AH-9 0-1'** | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <50.0 | <4.00 |
| **308392 - AH-10 0-1'** | | | | | <50.0 | <4.00 Qs |
| **308398 - AH-11 0-1'** | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <50.0 | <4.00 |
| **308404 - AH-12 0-1'** | | | | | <50.0 | <4.00 |
| **308410 - AH-13 0-1'** | | | | | <50.0 | <4.00 |
| **308416 - AH-14 0-1'** | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <50.0 | <4.00 Qr |
| **308422 - AH-15 0-1'** | | | | | <50.0 | <4.00 |
| **308426 - AH-16 0-1'** | | | | | <50.0 | <4.00 Qs |
| **308430 - AH-17 0-1'** | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <50.0 | <4.00 Qs |
| **308434 - AH-18 0-1'** | | | | | <50.0 | <4.00 Qr |
| **308440 - AH-19 0-1'** | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <50.0 | <4.00 Qr |
| **308443 - AH-20 0-1'** | | | | | <50.0 | <4.00 Qr |
| **308446 - AH-21 0-1'** | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <50.0 | <4.00 |
| **308450 - AH-22 0-1'** | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <50.0 | <4.00 |
| **308453 - AH-23 0-1'** | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <50.0 | <4.00 |
| **308456 - AH-24 0-1'** | <0.0200 | <0.0200 | <0.0200 | <0.0200 | <50.0 | <4.00 |
| **308465 - AH-25 0-1'** | | | | | <50.0 | <4.00 |

**Sample: 308336 - AH-1 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **13000** | mg/Kg | 4 |

**Sample: 308337 - AH-1 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **133** | mg/Kg | 4 |

**Sample: 308338 - AH-1 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **140** | mg/Kg | 4 |

**Sample: 308339 - AH-1 3-3.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **231** | mg/Kg | 4 |

**Sample: 308340 - AH-1 4-4.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **105** | mg/Kg | 4 |

**Sample: 308341 - AH-1 5-5.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **140** | mg/Kg | 4 |

**Sample: 308342 - AH-2 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **2440** | mg/Kg | 4 |

**Sample: 308343 - AH-2 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **623** | mg/Kg | 4 |

**Sample: 308344 - AH-2 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **3240** | mg/Kg | 4 |

**Sample: 308345 - AH-2 3-3.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **3660** | mg/Kg | 4 |

**Sample: 308346 - AH-2 4-4.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **3820** | mg/Kg | 4 |

**Sample: 308347 - AH-2 5-5.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **3070** | mg/Kg | 4 |

**Sample: 308348 - AH-2 6.5-7'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **2720** | mg/Kg | 4 |

**Sample: 308349 - AH-3 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **11000** | mg/Kg | 4 |

**Sample: 308350 - AH-3 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **6950** | mg/Kg | 4 |

**Sample: 308351 - AH-3 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **756** | mg/Kg | 4 |

**Sample: 308352 - AH-3 3.-3.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **122** | mg/Kg | 4 |

**Sample: 308353 - AH-3 4-4.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **562** | mg/Kg | 4 |

**Sample: 308354 - AH-3 5-5.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **176** | mg/Kg | 4 |

**Sample: 308355 - AH-3 6-6.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **267** | mg/Kg | 4 |

**Sample: 308356 - AH-4 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **7390** | mg/Kg | 4 |

**Sample: 308357 - AH-4 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **3670** | mg/Kg | 4 |

**Sample: 308358 - AH-4 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **260** | mg/Kg | 4 |

**Sample: 308359 - AH-4 3-3.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **1120** | mg/Kg | 4 |

**Sample: 308360 - AH-4 4-4.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **1060** | mg/Kg | 4 |

**Sample: 308361 - AH-4 5-5.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **1110** | mg/Kg | 4 |

**Sample: 308362 - AH-4 6-6.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **1120** | mg/Kg | 4 |

**Sample: 308363 - AH-5 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **9530** | mg/Kg | 4 |

**Sample: 308364 - AH-5 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **7570** | mg/Kg | 4 |

**Sample: 308365 - AH-5 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **122** | mg/Kg | 4 |

**Sample: 308366 - AH-5 3-3.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **161** | mg/Kg | 4 |

**Sample: 308367 - AH-5 4-4.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **359** | mg/Kg | 4 |

**Sample: 308368 - AH-5 4.5-5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **382** | mg/Kg | 4 |

**Sample: 308369 - AH-6 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **8580** | mg/Kg | 4 |

**Sample: 308370 - AH-6 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **10000** | mg/Kg | 4 |

**Sample: 308371 - AH-6 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **260** | mg/Kg | 4 |

**Sample: 308372 - AH-6 3-3.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **329** | mg/Kg | 4 |

**Sample: 308373 - AH-6 4-4.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **245** | mg/Kg | 4 |

**Sample: 308374 - AH-6 4.5-5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **658** | mg/Kg | 4 |

**Sample: 308375 - AH-7 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **8290** | mg/Kg | 4 |

**Sample: 308376 - AH-7 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **12700** | mg/Kg | 4 |

**Sample: 308377 - AH-7 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **4530** | mg/Kg | 4 |

**Sample: 308378 - AH-7 3-3.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **84.2** | mg/Kg | 4 |

**Sample: 308379 - AH-7 4-4.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **199** | mg/Kg | 4 |

**Sample: 308380 - AH-7 5-5.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **191** | mg/Kg | 4 |

**Sample: 308381 - AH-8 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **5710** | mg/Kg | 4 |

**Sample: 308382 - AH-8 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **1560** | mg/Kg | 4 |

**Sample: 308383 - AH-8 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **589** | mg/Kg | 4 |

**Sample: 308384 - AH-8 3-3.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **959** | mg/Kg | 4 |

**Sample: 308385 - AH-8 4-4.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **1110** | mg/Kg | 4 |

**Sample: 308386 - AH-9 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **9600** | mg/Kg | 4 |

**Sample: 308387 - AH-9 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **5150** | mg/Kg | 4 |

**Sample: 308388 - AH-9 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **468** | mg/Kg | 4 |

**Sample: 308389 - AH-9 3-3.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **491** | mg/Kg | 4 |

**Sample: 308390 - AH-9 4-4.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **337** | mg/Kg | 4 |

**Sample: 308391 - AH-9 5-5.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **529** | mg/Kg | 4 |

**Sample: 308392 - AH-10 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **8900** | mg/Kg | 4 |

**Sample: 308393 - AH-10 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **7550** | mg/Kg | 4 |

**Sample: 308394 - AH-10 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **792** | mg/Kg | 4 |

**Sample: 308395 - AH-10 3-3.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **533** | mg/Kg | 4 |

**Sample: 308396 - AH-10 4-4.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **251** | mg/Kg | 4 |

**Sample: 308397 - AH-10 5-5.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **219** | mg/Kg | 4 |

**Sample: 308398 - AH-11 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **5960** | mg/Kg | 4 |

**Sample: 308399 - AH-11 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **5220** | mg/Kg | 4 |

**Sample: 308400 - AH-11 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **274** | mg/Kg | 4 |

**Sample: 308401 - AH-11 3-3.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **243** | mg/Kg | 4 |

**Sample: 308402 - AH-11 4-4.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **62.7** | mg/Kg | 4 |

**Sample: 308403 - AH-11 4.5-5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **149** | mg/Kg | 4 |

**Sample: 308404 - AH-12 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **8240** | mg/Kg | 4 |

**Sample: 308405 - AH-12 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **540** | mg/Kg | 4 |

**Sample: 308406 - AH-12 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **405** | mg/Kg | 4 |

**Sample: 308407 - AH-12 3-3.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **866** | mg/Kg | 4 |

**Sample: 308408 - AH-12 4-4.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **604** | mg/Kg | 4 |

**Sample: 308409 - AH-12 5-5.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **453** | mg/Kg | 4 |

**Sample: 308410 - AH-13 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **2720** | mg/Kg | 4 |

**Sample: 308411 - AH-13 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **318** | mg/Kg | 4 |

**Sample: 308412 - AH-13 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **921** | mg/Kg | 4 |

**Sample: 308413 - AH-13 3-3.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **1370** | mg/Kg | 4 |

**Sample: 308414 - AH-13 4-4.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **1020** | mg/Kg | 4 |

**Sample: 308415 - AH-13 5-5.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **1470** | mg/Kg | 4 |

**Sample: 308416 - AH-14 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **12700** | mg/Kg | 4 |

**Sample: 308417 - AH-14 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **7730** | mg/Kg | 4 |

**Sample: 308418 - AH-14 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **186** | mg/Kg | 4 |

**Sample: 308419 - AH-14 3-3.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **279** | mg/Kg | 4 |

**Sample: 308420 - AH-14 4-4.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **24.4** | mg/Kg | 4 |

**Sample: 308421 - AH-14 5-5.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **220** | mg/Kg | 4 |

**Sample: 308422 - AH-15 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **5260** | mg/Kg | 4 |

**Sample: 308423 - AH-15 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **371** | mg/Kg | 4 |

**Sample: 308424 - AH-15 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **1040** | mg/Kg | 4 |

**Sample: 308425 - AH-15 2.5-3'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **1900** | mg/Kg | 4 |

**Sample: 308426 - AH-16 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **11300** | mg/Kg | 4 |

**Sample: 308427 - AH-16 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **5480** | mg/Kg | 4 |

**Sample: 308428 - AH-16 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **686** | mg/Kg | 4 |

**Sample: 308429 - AH-16 3-3.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **137** | mg/Kg | 4 |

**Sample: 308430 - AH-17 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **9680** | mg/Kg | 4 |

**Sample: 308431 - AH-17 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **6410** | mg/Kg | 4 |

**Sample: 308432 - AH-17 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **240** | mg/Kg | 4 |

**Sample: 308433 - AH-17 3-3.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **260** | mg/Kg | 4 |

**Sample: 308434 - AH-18 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **7120** | mg/Kg | 4 |

**Sample: 308435 - AH-18 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **615** | mg/Kg | 4 |

**Sample: 308436 - AH-18 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **649** | mg/Kg | 4 |

**Sample: 308437 - AH-18 3-3.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **484** | mg/Kg | 4 |

**Sample: 308438 - AH-18 4-4.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **765** | mg/Kg | 4 |

**Sample: 308439 - AH-18 5-5.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **1080** | mg/Kg | 4 |

**Sample: 308440 - AH-19 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **8300** | mg/Kg | 4 |

**Sample: 308441 - AH-19 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **5880** | mg/Kg | 4 |

**Sample: 308442 - AH-19 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **184** | mg/Kg | 4 |

**Sample: 308443 - AH-20 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **3420** | mg/Kg | 4 |

**Sample: 308444 - AH-20 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **59.4** | mg/Kg | 4 |

**Sample: 308445 - AH-20 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **109** | mg/Kg | 4 |

**Sample: 308446 - AH-21 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **5060** | mg/Kg | 4 |

**Sample: 308447 - AH-21 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **7100** | mg/Kg | 4 |

**Sample: 308448 - AH-21 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **1520** | mg/Kg | 4 |

**Sample: 308449 - AH-21 3-3.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **158** | mg/Kg | 4 |

**Sample: 308450 - AH-22 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **4320** | mg/Kg | 4 |

**Sample: 308451 - AH-22 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **514** | mg/Kg | 4 |

**Sample: 308452 - AH-22 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **178** | mg/Kg | 4 |

**Sample: 308453 - AH-23 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **7670** | mg/Kg | 4 |

**Sample: 308454 - AH-23 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **796** | mg/Kg | 4 |

**Sample: 308455 - AH-23 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **252** | mg/Kg | 4 |

**Sample: 308456 - AH-24 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **11100** | mg/Kg | 4 |

**Sample: 308457 - AH-24 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **7150** | mg/Kg | 4 |

**Sample: 308458 - AH-24 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **184** | mg/Kg | 4 |

**Sample: 308459 - AH-24 3-3.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **165** | mg/Kg | 4 |

**Sample: 308460 - AH-24 4-4.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **150** | mg/Kg | 4 |

**Sample: 308461 - AH-24 5-5.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **170** | mg/Kg | 4 |

**Sample: 308462 - AH-24 6-6.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **243** | mg/Kg | 4 |

**Sample: 308463 - AH-24 7-7.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **451** | mg/Kg | 4 |

**Sample: 308464 - AH-24 8-8.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **698** | mg/Kg | 4 |

**Sample: 308465 - AH-25 0-1'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **13000** | mg/Kg | 4 |

**Sample: 308466 - AH-25 1-1.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **732** | mg/Kg | 4 |

**Sample: 308467 - AH-25 2-2.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **199** | mg/Kg | 4 |

**Sample: 308468 - AH-2 6-6.5'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **2250** | mg/Kg | 4 |

1209405 308336 - 308468 due 9/11

# Analysis Request of Chain of Custody Record

PAGE: 1 OF: 14


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


ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG
SITE MANAGER: Ike Tavarez
PROJECT NO.: 114-6401478
PROJECT NAME: SRO 102 SWD

| LAB I.D. NUMBER | DATE 2012 | TIME | MATRIX | COMP. | GRAB | SAMPLE IDENTIFICATION | NUMBER OF CONTAINERS | FILTERED (Y/N) | PRESERVATIVE METHOD: HCL | HNO3 | ICE | NONE | BTEX 8021B | TPH 8015 MOD. TX1005 (Ext. to C35) | PAH 8270 | RCRA Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Metals Ag As Ba Cd Vr Pd Hg Se | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC.MS Vol. 8240/8260/624 | GC.MS Semi. Vol. 8270/625 | PCB's 8080/608 | Pest. 8080/608 | Chloride | Gamma Spec. | Alpha Beta (Air) | PLM (Asbestos) | Major Anions/Cations, pH, TDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 308336 | 8/23 | | S | | X | AH-1 0-1' | 1 | | | | X | | X | X | | | | | | | | | | | X | | | | |
| 337 | | | | | | 1-1.5' | | | | | | | | | | | | | | | | | | | X | | | | |
| 338 | | | | | | 2-2.5' | | | | | | | | | | | | | | | | | | | X | | | | |
| 339 | | | | | | 3-3.5' | | | | | | | | | | | | | | | | | | | X | | | | |
| 340 | | | | | | 4-4.5' | | | | | | | | | | | | | | | | | | | X | | | | |
| 341 | | | | | | 5-5.5' | | | | | | | | | | | | | | | | | | | X | | | | |
| 342 | | | | | | AH-2 0-1' | | | | | | JMF | X | X | | | | | | | | | | | X | | | | |
| 343 | | | | | | 1-1.5' | | | | | | | | | | | | | | | | | | | X | | | | |
| 344 | | | | | | 2-2.5' | | | | | | | | | | | | | | | | | | | X | | | | |
| 345 | | | | | | 3-3.5' | | | | | | | | | | | | | | | | | | | X | | | | |

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Kane Fitch Date: 08-31-12 Time: 1300
SAMPLED BY: (Print & Initial) MK RP Date: 8-23-12 Time:

RELINQUISHED BY: (Signature) Kane Fitch Date: 08-31-12 Time: 1425
RECEIVED BY: (Signature) O'Hernand Date: 8/31/12 Time: 14:25
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS AIRBILL #: OTHER:

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Date: Time: TAT

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

TETRA TECH CONTACT PERSON: BTEX - Rebecca Cl - Midland Ike Tavarez BTEX added 9/7 - see attachment
Results by:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.7 intact
REMARKS: Run deeper Depths if TPH exceed 1,000 mg/kg.

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

* Run BTEX on 12 highest TPH 0-1' depth 8021B

Run deeper Depths if benzene exceed 10 mg/kg or total BTEX exceed 50 mg/kg

1209045

# Analysis Request of Chain of Custody Record



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

ANALYSIS REQUEST
*(Circle or Specify Method No.)*

| CLIENT NAME: | SITE MANAGER: |
|---|---|
| COG | Ike Tavarez |

| PROJECT NO.: | PROJECT NAME: |
|---|---|
| 114-6401478 | SRO 102 SWD Eddy Co NM |

| LAB I.D. NUMBER | DATE 2012 | TIME | MATRIX | COMP. | GRAB | SAMPLE IDENTIFICATION | NUMBER OF CONTAINERS | FILTERED (Y/N) | PRESERVATIVE METHOD: HCL | HNO3 | ICE | NONE | BTEX 8021B | TPH 8015 MOD. TX1005 (Ext. to C35) | PAH 8270 | RCRA Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Metals Ag As Ba Cd Vr Pd Hg Se | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC.MS Vol. 8240/8260/624 | GC.MS Semi. Vol. 8270/625 | PCB's 8080/608 | Pest. 808/608 | Chloride | Gamma Spec. | Alpha Beta (Air) | PLM (Asbestos) | Major Anions/Cations, pH, TDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 346 | 8/28 | | S | | X | AH-2 1-4.5' | 1 | | | | X | | | | | | | | | | | | | | | | | |
| 347 | | | | | | 5-5.5' | | | | | | | | | | | | | | | | | | | | | | |
| 348 | | | | | | 6.5-7' | | | | | | | | | | | | | | | | | | | | | | |
| 349 | | | | | | AH-3 0-1' | | | | | | | | X | | | | | | | | | | | | | | |
| 350 | | | | | | 1-1.5' | | | | | | | | | | | | | | | | | | | | | | |
| 351 | | | | | | 2-2.5' | | | | | | | | | | | | | | | | | | | | | | |
| 352 | | | | | | 3-3.5' | | | | | | | | | | | | | | | | | | | | | | |
| 353 | | | | | | 4-4.5' | | | | | | | | | | | | | | | | | | | | | | |
| 354 | | | | | | 5-5.5' | | | | | | | | | | | | | | | | | | | | | | |
| 355 | | | | | | 6-6.5' | | | | | | | | | | | | | | | | | | | | | | |

| RELINQUISHED BY: (Signature) | Date: / Time: | RECEIVED BY: (Signature) | Date: 08-31-12 / Time: 1300 |
|---|---|---|---|
| RELINQUISHED BY: (Signature) Jeanne Fitch | Date: 08-31-12 / Time: 1425 | RECEIVED BY: (Signature) A Hernandez | Date: 8/31/12 / Time: 14:25 |
| RELINQUISHED BY: (Signature) | Date: / Time: | RECEIVED BY: (Signature) | Date: / Time: |

SAMPLED BY: (Print & Initial) MK BR — Date: 8-28-12 / Time:

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

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

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.7 intact

REMARKS:

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

1209405

# Analysis Request of Chain of Custody Record



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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6401478

PROJECT NAME: SRO 102 SWD Eddy Co NM

ANALYSIS REQUEST (Circle or Specify Method No.)

| LAB I.D. NUMBER | DATE 2012 | TIME | MATRIX | COMP. | GRAB | SAMPLE IDENTIFICATION | NUMBER OF CONTAINERS | FILTERED (Y/N) | PRESERVATIVE METHOD: HCL | HNO3 | ICE | NONE | BTEX 8021B | TPH 8015 MOD: TX1005 (Ext. to C35) | PAH 8270 | RCRA Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Metals Ag As Ba Cd Vr Pd Hg Se | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC.MS Vol. 8240/8260/624 | GC.MS Semi. Vol. 8270/625 | PCB's 8080/608 | Pest. 808/608 | Chloride | Gamma Spec. | Alpha Beta (Air) | PLM (Asbestos) | Major Anions/Cations, pH, TDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 356 | 8/28 | | S | | X | AH-4 0-1' | 1 | | | | X | | | X | | | | | | | | | | | X | | | | |
| 357 | | | | | | 1-1.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 358 | | | | | | 2-2.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 359 | | | | | | 3-3.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 360 | | | | | | 4-4.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 361 | | | | | | 5-5.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 362 | | | | | | 6-6.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 363 | 8/29 | | | | | AH-5 0-1' | | | | | | | X | X | | | | | | | | | | | | | | | |
| 364 | | | | | | 1-1.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 365 | | | | | | 2-2.5 | | | | | | | | | | | | | | | | | | | | | | | |

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Ikaine Fitch Date: 08-31-12 Time: 1300
SAMPLED BY: (Print & Initial) MK / RP Date: 8-28-12 Time:

RELINQUISHED BY: (Signature) Ikaine Fitch Date: 08-31-12 Time: 1425
RECEIVED BY: (Signature) Hernandez Date: 8/31/12 Time: 14:25
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS AIRBILL #: OTHER:

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

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

SAMPLE CONDITION WHEN RECEIVED: 3.7 intact

REMARKS:

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

1209045

# Analysis Request of Chain of Custody Record


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


PAGE: 1 OF: 14

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-640 1478

PROJECT NAME: SRO 102 SWD

| LAB I.D. NUMBER | DATE 2012 | TIME | MATRIX | COMP. | GRAB | SAMPLE IDENTIFICATION | NUMBER OF CONTAINERS | FILTERED (Y/N) | PRESERVATIVE METHOD: HCL | HNO3 | ICE | NONE | BTEX 8021B | TPH 8015 MOD. TX1005 (Ext. to C35) | PAH 8270 | RCRA Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Metals Ag As Ba Cd Vr Pd Hg Se | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC.MS Vol. 8240/8260/624 | GC.MS Semi. Vol. 8270/625 | PCB's 8080/608 | Pest. 808/608 | Chloride | Gamma Spec. | Alpha Beta (Air) | PLM (Asbestos) | Major Anions/Cations, pH, TDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 366 | 8/29 | | S | | X | AH-5 3-3.5' | 1 | | | | X | | | | | | | | | | | | | | | | | |
| 367 | | | | | | 4-4.5' | | | | | | | | | | | | | | | | | | | | | | |
| 368 | | | | | | 4.5-5' | | | | | | | | | | | | | | | | | | | | | | |
| 369 | | | | | | AH-6 0-1' | | | | | | | | X | | | | | | | | | | | | | | |
| 370 | | | | | | 1-1.5' | | | | | | | | | | | | | | | | | | | | | | |
| 371 | | | | | | 2-2.5' | | | | | | | | | | | | | | | | | | | | | | |
| 372 | | | | | | 3-3.5' | | | | | | | | | | | | | | | | | | | | | | |
| 373 | | | | | | 4-4.5' | | | | | | | | | | | | | | | | | | | | | | |
| 374 | | | | | | 4.5-5' | | | | | | | | | | | | | | | | | | | | | | |
| ~~375~~ | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

ANALYSIS REQUEST (Circle or Specify Method No.)

| | | | |
|---|---|---|---|
| RELINQUISHED BY: (Signature) | Date: / Time: | RECEIVED BY: (Signature) Jeanne Fitch | Date: 05-31-12 Time: 730 |
| SAMPLED BY: (Print & Initial) MK / RR | Date: 3-29-12 Time: | | |
| RELINQUISHED BY: (Signature) Jeanne Fitch | Date: 08-31-12 Time: 1425 | RECEIVED BY: (Signature) A. Hernandez | Date: 8/31/12 Time: 14:25 |
| SAMPLE SHIPPED BY: (Circle) FEDEX HAND DELIVERED BUS UPS | AIRBILL #: OTHER: | | |
| RELINQUISHED BY: (Signature) | Date: / Time: | RECEIVED BY: (Signature) | Date: / Time: |
| TETRA TECH CONTACT PERSON: Ike Tavarez | Results by: | | |
| RECEIVING LABORATORY: Trace ADDRESS: CITY: Midland STATE: TX ZIP: CONTACT: PHONE: | RECEIVED BY: (Signature) DATE: TIME: | | RUSH Charges Authorized: Yes No |
| SAMPLE CONDITION WHEN RECEIVED: | REMARKS: | | |

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

1209045

# Analysis Request of Chain of Custody Record



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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6401478

PROJECT NAME: SRO 102 SWD Eddy Co NM

| LAB I.D. NUMBER | DATE 2012 | TIME | MATRIX | COMP. | GRAB | SAMPLE IDENTIFICATION | NUMBER OF CONTAINERS | FILTERED (Y/N) | PRESERVATIVE METHOD: HCL | HNO3 | ICE | NONE | BTEX 8021B | TPH TX1005 (Ext. to C35) / TPH 8015 MOD | PAH 8270 | RCRA Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Metals Ag As Ba Cd Vr Pd Hg Se | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC.MS Vol. 8240/8260/624 | GC.MS Semi. Vol. 8270/625 | PCB's 8080/608 | Pest. 808/608 | Chloride | Gamma Spec. | Alpha Beta (Air) | PLM (Asbestos) | Major Anions/Cations, pH, TDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 376 | 8/29 | | S | | X | AH-7 0-1' | 1 | | | | X | | X | X | | | | | | | | | | | | | | | |
| 376 | | | | | | 1-1.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 378 | | | | | | 2-2.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 378 | | | | | | 3-3.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 380 | | | | | | 4-4.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 380 | | | | | | 5-5.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 382 | | | | | | AH-8 0-1' | | | | | | | | X | | | | | | | | | | | | | | | |
| 382 | | | | | | 1-1.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 384 | | | | | | 2-2.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 384 | | | | | | 3-3.5 | | | | | | | | | | | | | | | | | | | | | | | |

ANALYSIS REQUEST (Circle or Specify Method No.)

| RELINQUISHED BY: (Signature) | Date: | Time: | RECEIVED BY: (Signature) | Date: | Time: |
|---|---|---|---|---|---|
| | | | Jeanne Fitch | 08-31-12 | 1300 |
| Jeanne Fitch | 08-31-12 | 1425 | A Hernandez | 8/31/12 | 14:25 |
| | | | | | |

SAMPLED BY: (Print & Initial) MK RD — Date: 8-29-12 — Time:

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

TETRA TECH CONTACT PERSON: Ike

Results by:

RUSH Charges Authorized: Yes No

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

SAMPLE CONDITION WHEN RECEIVED: 3.7 intact

REMARKS:

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

1209040S

# Analysis Request of Chain of Custody Record


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


PAGE: 6 OF: 14

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6401478

PROJECT NAME:

| LAB I.D. NUMBER | DATE 2012 | TIME | MATRIX | COMP. | GRAB | SAMPLE IDENTIFICATION | NUMBER OF CONTAINERS | FILTERED (Y/N) | PRESERVATIVE METHOD: HCL | HNO3 | ICE | NONE | BTEX 8021B | TPH 8015 MOD (Ext. to C35) TX1005 | PAH 8270 | RCRA Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Metals Ag As Ba Cd Vr Pd Hg Se | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC.MS Vol. 8240/8260/624 | GC.MS Semi. Vol. 8270/625 | PCB's 8080/608 | Pest. 808/608 | Chloride | Gamma Spec. | Alpha Beta (Air) | PLM (Asbestos) | Major Anions/Cations, pH, TDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 385 | 8/29 | | S | | X | AH-8 1-1.5' | 1 | | | | X | | | | | | | | | | | | | | | | | |
| 386 | | | | | | AH-9 0-1' | | | | | | | X | X | | | | | | | | | | | | | | |
| 387 | | | | | | 1-1.5' | | | | | | | | | | | | | | | | | | | | | | |
| 388 | | | | | | 2-2.5' | | | | | | | | | | | | | | | | | | | | | | |
| 389 | | | | | | 3-3.5' | | | | | | | | | | | | | | | | | | | | | | |
| 390 | | | | | | 4-4.5' | | | | | | | | | | | | | | | | | | | | | | |
| 391 | | | | | | 5-5.5' | | | | | | | | | | | | | | | | | | | | | | |
| 392 | | | | | | AH-10 0-1' | | | | | | | | X | | | | | | | | | | | | | | |
| 393 | | | | | | 1-1.5' | | | | | | | | | | | | | | | | | | | | | | |
| 394 | | | | | | 2-2.5' | | | | | | | | | | | | | | | | | | | | | | |

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Jeana Fitch Date: 08-31-12 Time: 1500

SAMPLED BY: (Print & Initial) MK / PR Date: 8-29-12 Time:

RELINQUISHED BY: (Signature) Jeana Fitch Date: 08-31-12 Time: 1425

RECEIVED BY: (Signature) A Hernandez Date: 8/31/12 Time: 14:25

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

AIRBILL #:

OTHER:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

TETRA TECH CONTACT PERSON: Ike

Results by:

RECEIVING LABORATORY: Xenco

ADDRESS:

CITY: Midland STATE: TX ZIP:

CONTACT: PHONE:

RECEIVED BY: (Signature)

DATE: TIME:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.7 intact

REMARKS:

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

12090405

# Analysis Request of Chain of Custody Record



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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6401478

PROJECT NAME: SRD 102 SWD Edday Co NM

ANALYSIS REQUEST (Circle or Specify Method No.)

| LAB I.D. NUMBER | DATE 2012 | TIME | MATRIX | COMP. | GRAB | SAMPLE IDENTIFICATION | NUMBER OF CONTAINERS | FILTERED (Y/N) | PRESERVATIVE METHOD: HCL | HNO3 | ICE | NONE | BTEX 8021B | TPH 8015 MOD. TX1005 (Ext. to C35) | PAH 8270 | RCRA Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Metals Ag As Ba Cd Vr Pd Hg Se | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC.MS Vol. 8240/8260/624 | GC.MS Semi. Vol. 8270/625 | PCB's 8080/608 | Pest. 808/608 | Chloride | Gamma Spec. | Alpha Beta (Air) | PLM (Asbestos) | Major Anions/Cations, pH, TDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 395 | 8/29 | | S | | X | AH-10 3-3.5' | 1 | | | | X | | | | | | | | | | | | | X | | | | |
| 396 | | | | | | 4-4.5' | | | | | | | | | | | | | | | | | | | | | | |
| 397 | | | | | | 5-5.5' | | | | | | | | | | | | | | | | | | | | | | |
| 398 | | | | | | AH-11 0-1' | | | | | | | X | X | | | | | | | | | | | | | | |
| 399 | | | | | | 1-1.5' | | | | | | | | | | | | | | | | | | | | | | |
| 400 | | | | | | 2-2.5' | | | | | | | | | | | | | | | | | | | | | | |
| 401 | | | | | | 3-3.5' | | | | | | | | | | | | | | | | | | | | | | |
| 402 | | | | | | 4-4.5' | | | | | | | | | | | | | | | | | | | | | | |
| 403 | | | | | | 4.5-5' | | | | | | | | | | | | | | | | | | | | | | |
| 404 | | | | | | AH-12 0-1' | | | | | | | X | | | | | | | | | | | | | | | |

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Jeanne Fitch Date: 08-31-12 Time: 1300
SAMPLED BY: (Print & Initial) MIL RP Date: 8-29-12 Time:

RELINQUISHED BY: (Signature) Jeanne Fitch Date: 08-31-12 Time: 1425
RECEIVED BY: (Signature) A Hernandez Date: 8/31/12 Time: 14:25
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS
AIRBILL #:
OTHER:

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

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

SAMPLE CONDITION WHEN RECEIVED:

REMARKS:

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

1209045

# Analysis Request of Chain of Custody Record



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

ANALYSIS REQUEST
*(Circle or Specify Method No.)*

| CLIENT NAME: | SITE MANAGER: |
|---|---|
| COG | Ike Tavarez |

| PROJECT NO.: | PROJECT NAME: |
|---|---|
| 114-6401478 | SDO 102 SWD Eddy Co NM |

| LAB I.D. NUMBER | DATE 2012 | TIME | MATRIX | COMP. | GRAB | SAMPLE IDENTIFICATION | NUMBER OF CONTAINERS | FILTERED (Y/N) | PRESERVATIVE METHOD: HCL | HNO3 | ICE | NONE | BTEX 8021B | TPH 8015 MOD (Ext. to C35) | TX1005 | PAH 8270 | RCRA Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Metals Ag As Ba Cd Vr Pd Hg Se | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC:MS Vol. 8240/8260/624 | GC:MS Semi. Vol. 8270/625 | PCB's 8080/608 | Pest. 808/608 | Chloride | Gamma Spec. | Alpha Beta (Air) | PLM (Asbestos) | Major Anions/Cations, pH, TDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 405 | 8/29 | | S | | X | AH-12 1-1.5' | 1 | | | | X | | | X | | | | | | | | | | | | | | | |
| 406 | | | | | | 2-2.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 407 | | | | | | 3-3.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 408 | | | | | | 4-4.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 409 | | | | | | 5-5.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 410 | | | | | | AH-13 0-1' | | | | | | | | X | | | | | | | | | | | | | | | |
| 411 | | | | | | 1-1.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 412 | | | | | | 2-2.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 413 | | | | | | 3-3.5' | | | | | | | | | | | | | | | | | | | | V | | | |
| 414 | ↓ | | ↓ | | ↓ | 4-4.5' | ↓ | | | | ↓ | | | | | | | | | | | | | | | | | | |

| RELINQUISHED BY: (Signature) | Date: / Time: | RECEIVED BY: (Signature) | Date: / Time: |
|---|---|---|---|
| | | Jeanne Fitch | 08-31-12 1300 |
| Jeanne Fitch | 08-31-12 1475 | A Hernandez | 8/31/12 14:35 |
| | | | |

SAMPLED BY: (Print & Initial) MR RR — Date: 8-29-12 Time:

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

TETRA TECH CONTACT PERSON: Ike — Results by:

RECEIVING LABORATORY: Trace — RECEIVED BY: (Signature)
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: PHONE: DATE: TIME:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED:

REMARKS:

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

1209040S

# Analysis Request of Chain of Custody Record


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




ANALYSIS REQUEST
*(Circle or Specify Method No.)*

CLIENT NAME: COG
SITE MANAGER: Ike Tavarez
PROJECT NO.: 114-6401478
PROJECT NAME: SRO 102 SWD

| LAB I.D. NUMBER | DATE 2012 | TIME | MATRIX | COMP. | GRAB | SAMPLE IDENTIFICATION | NUMBER OF CONTAINERS | FILTERED (Y/N) | PRESERVATIVE METHOD: HCL | HNO3 | ICE | NONE | BTEX 8021B | TPH 8015 MOD. TX1005 (Ext. to C35) | PAH 8270 | RCRA Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Metals Ag As Ba Cd Vr Pd Hg Se | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC.MS Vol. 8240/8260/624 | GC.MS Semi. Vol. 8270/625 | PCB's 8080/608 | Pest. 808/608 | Chloride | Gamma Spec. | Alpha Beta (Air) | PLM (Asbestos) | Major Anions/Cations, pH, TDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 415 | 8/29 | | S | | X | AH-13 5-5.5' | 1 | | | | X | | | | | | | | | | | | | | | | | |
| 416 | | | | | | AH-14 0-1' | | | | | | | X | X | | | | | | | | | | | | | | |
| 417 | | | | | | 1-1.5' | | | | | | | | | | | | | | | | | | | | | | |
| 418 | | | | | | 2-2.5' | | | | | | | | | | | | | | | | | | | | | | |
| 419 | | | | | | 3-3.5' | | | | | | | | | | | | | | | | | | | | | | |
| 420 | | | | | | 4-4.5' | | | | | | | | | | | | | | | | | | | | | | |
| 421 | | | | | | 5-5.5' | | | | | | | | | | | | | | | | | | | | | | |
| 422 | | | | | | AH-15 0-1' | | | | | | | | X | | | | | | | | | | | | | | |
| 423 | | | | | | 1-1.5' | | | | | | | | | | | | | | | | | | | | | | |
| 424 | | | | | | 2-2.5' | | | | | | | | | | | | | | | | | | | | | | |

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Jeanne Fitch Date: 08-31-12 Time: 1300
SAMPLED BY: (Print & Initial) MK / RR Date: 8-29-12 Time:

RELINQUISHED BY: (Signature) Jeanne Fitch Date: 08-31-12 Time: 1425
RECEIVED BY: (Signature) A. Hernandez Date: 8/31/12 Time: 14:25
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS AIRBILL #: OTHER:

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

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

SAMPLE CONDITION WHEN RECEIVED: 3.7 intact
REMARKS:

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

1209405

# Analysis Request of Chain of Custody Record



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

ANALYSIS REQUEST
*(Circle or Specify Method No.)*

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6401478

PROJECT NAME: SRO 102 SWD Eddy Co NM

| LAB I.D. NUMBER | DATE 2012 | TIME | MATRIX | COMP. | GRAB | SAMPLE IDENTIFICATION | NUMBER OF CONTAINERS | FILTERED (Y/N) | PRESERVATIVE METHOD: HCL | HNO3 | ICE | NONE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 425 | 8/29 | | S | | X | AH-15 2.5-3' | 1 | | | | X | |
| 426 | | | | | | AH-16 0-1' | | | | | | |
| 427 | | | | | | 1-1.5' | | | | | | |
| 428 | | | | | | 2-2.5' | | | | | | |
| 429 | | | | | | 3-3.5' | | | | | | |
| 430 | | | | | | AH-17 0-1' | | | | | | |
| 431 | | | | | | 1-1.5' | | | | | | |
| 432 | | | | | | 2-2.5' | | | | | | |
| 433 | | | | | | 3-3.5' | | | | | | |
| 434 | | | | | | AH-18 0-1' | | | | | | |

ANALYSIS REQUEST (Circle or Specify Method No.)

| BTEX 8021B | TPH 8015 MOD TX1005 (Ext. to C35) | PAH 8270 | RCRA Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Metals Ag As Ba Cd Vr Pd Hg Se | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC.MS Vol. 8240/8260/624 | GC.MS Semi. Vol. 8270/625 | PCB's 8080/608 | Pest. 808/608 | (Chloride) | Gamma Spec. | Alpha Beta (Air) | PLM (Asbestos) | Major Anions/Cations, pH, TDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | X | | | | | | | | | | | V | | | | |
| X | X | | | | | | | | | | | | | | | |

RELINQUISHED BY: (Signature) — Date: — Time:
RECEIVED BY: (Signature) Jeane Fitch — Date: 08-31-12 — Time: 1300
SAMPLED BY: (Print & Initial) MH RR — Date: 8-29-12 — Time:

RELINQUISHED BY: (Signature) Jeane Fitch — Date: 08-31-12 — Time: 1425
RECEIVED BY: (Signature) A Hernandez — Date: 8-31-12 — Time: 14:25
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS — AIRBILL #: — OTHER:

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

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

SAMPLE CONDITION WHEN RECEIVED: 3.7 intact

REMARKS:

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

1209040S

# Analysis Request of Chain of Custody Record

PAGE: 11 OF: 14


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


ANALYSIS REQUEST
*(Circle or Specify Method No.)*

| CLIENT NAME: | SITE MANAGER: |
|---|---|
| COG | Ike Tavarez |

| PROJECT NO.: | PROJECT NAME: |
|---|---|
| 114-640147B | JRO 102 SWD Eddy Co NM |

| LAB I.D. NUMBER | DATE 2012 | TIME | MATRIX | COMP. | GRAB | SAMPLE IDENTIFICATION | NUMBER OF CONTAINERS | FILTERED (Y/N) | PRESERVATIVE METHOD: HCL | HNO3 | ICE | NONE | BTEX 8021B | TPH 8015 MOD. TX1005 (Ext. to C35) | PAH 8270 | RCRA Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Metals Ag As Ba Cd Vr Pd Hg Se | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC.MS Vol. 8240/8260/624 | GC.MS Semi. Vol. 8270/625 | PCB's 8080/608 | Pest. 808/608 | Chloride | Gamma Spec. | Alpha Beta (Air) | PLM (Asbestos) | Major Anions/Cations, pH, TDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 435 | 8/29 | | S | | X | AH-18 1-1.5' | 1 | | | | X | | | | | | | | | | | | | | | | | |
| 436 | | | | | | 2-2.5' | | | | | | | | | | | | | | | | | | | | | | |
| 438 | | | | | | 3-3.5' | | | | | | | | | | | | | | | | | | | | | | |
| 438 | | | | | | 4-4.5' | | | | | | | | | | | | | | | | | | | | | | |
| 439 | | | | | | 5-5.5' | | | | | | | | | | | | | | | | | | | | | | |
| 440 | 8/30 | | | | | AH-19 0-1' | | | | | | | X | X | | | | | | | | | | | | | | |
| 441 | | | | | | 1-1.5' | | | | | | | | | | | | | | | | | | | | | | |
| 442 | | | | | | 2-2.5' | | | | | | | | | | | | | | | | | | | | | | |
| 443 | | | | | | AH-20 0-1' | | | | | | | | X | | | | | | | | | | | | | | |
| 444 | | | | | | 1-1.5' | | | | | | | | | | | | | | | | | | | | | | |

| RELINQUISHED BY: (Signature) | Date: / Time: | RECEIVED BY: (Signature) | Date: 08-31-12 Time: 1500 | SAMPLED BY: (Print & Initial) MK RR | Date: 8-30-12 Time: |
|---|---|---|---|---|---|
| RELINQUISHED BY: (Signature) Jeanne Fitch | Date: 08-31-12 Time: 1425 | RECEIVED BY: (Signature) A Hernandez | Date: 8/31/12 Time: 14:25 | SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS | AIRBILL #: OTHER: |
| RELINQUISHED BY: (Signature) | Date: / Time: | RECEIVED BY: (Signature) | Date: / Time: | TETRA TECH CONTACT PERSON: Ike | Results by: |
| RECEIVING LABORATORY: Envirotech ADDRESS: CITY: Midland STATE: TX ZIP: CONTACT: PHONE: | | RECEIVED BY: (Signature) DATE: TIME: | | | RUSH Charges Authorized: Yes No |
| SAMPLE CONDITION WHEN RECEIVED: 3.7 intact | REMARKS: | | | | |

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

1209040S

# Analysis Request of Chain of Custody Record



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

ANALYSIS REQUEST
*(Circle or Specify Method No.)*

| CLIENT NAME: | SITE MANAGER: |
|---|---|
| COG | Ike Tavarez |

| PROJECT NO.: | PROJECT NAME: |
|---|---|
| 114-6401478 | 3RD 102 SWD Eddy Co NM |

| LAB I.D. NUMBER | DATE 2012 | TIME | MATRIX | COMP. | GRAB | SAMPLE IDENTIFICATION | NUMBER OF CONTAINERS | FILTERED (Y/N) | PRESERVATIVE METHOD: HCL | HNO3 | ICE | NONE | BTEX 8021B | TPH 8015 MOD. TX1005 (Ext. to C35) | PAH 8270 | RCRA Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Metals Ag As Ba Cd Vr Pd Hg Se | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC.MS Vol. 8240/8260/624 | GC.MS Semi. Vol. 8270/625 | PCB's 8080/608 | Pest. 808/608 | Chloride | Gamma Spec. | Alpha Beta (Air) | PLM (Asbestos) | Major Anions/Cations, pH, TDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 445 | 8/30 | | S | | X | AH-20 2-2.5' | 1 | | | | X | | | | | | | | | | | | | | | | | |
| 446 | | | | | | AH-21 0-1' | | | | | | | X | X | | | | | | | | | | | | | | |
| 448 | | | | | | 1-1.5' | | | | | | | | | | | | | | | | | | | | | | |
| 448 | | | | | | 2-2.5' | | | | | | | | | | | | | | | | | | | | | | |
| 449 | | | | | | 3-3.5' | | | | | | | | | | | | | | | | | | | | | | |
| 450 | | | | | | AH-22 0-1' | | | | | | | X | X | | | | | | | | | | | | | | |
| 451 | | | | | | 1-1.5' | | | | | | | | | | | | | | | | | | | | | | |
| 452 | | | | | | 2-2.5' | | | | | | | | | | | | | | | | | | | | | | |
| 453 | | | | | | AH-23 0-1' | | | | | | | X | X | | | | | | | | | | | | | | |
| 454 | ↓ | | ↓ | | ↓ | 1-1.5' | ↓ | | | | ↓ | | | | | | | | | | | | | ↓ | | | | |

| RELINQUISHED BY: (Signature) | Date: / Time: | RECEIVED BY: (Signature) | Date: 08-31-12 / Time: 1300 |
|---|---|---|---|
| RELINQUISHED BY: (Signature) Jeanne Fitch | Date: 08-31-12 / Time: 1425 | RECEIVED BY: (Signature) A Hernandez | Date: 8/31/12 / Time: 14:25 |
| RELINQUISHED BY: (Signature) | Date: / Time: | RECEIVED BY: (Signature) | Date: / Time: |

SAMPLED BY: (Print & Initial) MK / RR — Date: 8-30-12 / Time:

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

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

TETRA TECH CONTACT PERSON: Ike

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.7 intact

REMARKS:

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

1209405

# Analysis Request of Chain of Custody Record



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

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6401478

PROJECT NAME: SRD 102 SWD Eddy Co NM

ANALYSIS REQUEST (Circle or Specify Method No.)

| LAB I.D. NUMBER | DATE 2012 | TIME | MATRIX | COMP. | GRAB | SAMPLE IDENTIFICATION | NUMBER OF CONTAINERS | FILTERED (Y/N) | PRESERVATIVE METHOD: HCL | HNO3 | ICE | NONE | BTEX 8021B | TPH 8015 MOD. TX1005 (Ext. to C35) | PAH 8270 | RCRA Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Metals Ag As Ba Cd Vr Pd Hg Se | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC.MS Vol. 8240/8260/624 | GC.MS Semi. Vol. 8270/625 | PCB's 8080/608 | Pest. 808/608 | Chloride | Gamma Spec. | Alpha Beta (Air) | PLM (Asbestos) | Major Anions/Cations, pH, TDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 455 | 8/30 | | S | | X | AH-23 2-2.5' | 1 | | | | X | | | | | | | | | | | | | | X | | | | |
| 456 | | | | | | AH-24 0-1' | | | | | | | X | X | | | | | | | | | | | | | | | |
| 457 | | | | | | 1-1.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 458 | | | | | | 2-2.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 459 | | | | | | 3-3.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 460 | | | | | | 4-4.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 461 | | | | | | 5-5.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 462 | | | | | | 6-6.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 463 | | | | | | 7-7.5' | | | | | | | | | | | | | | | | | | | | | | | |
| 464 | | | | | | 8-8.5' | | | | | | | | | | | | | | | | | | | | | | | |

| | | | |
|---|---|---|---|
| RELINQUISHED BY: (Signature) | Date: / Time: | RECEIVED BY: (Signature) Jeanne Fitch | Date: 08-31-12 Time: 1300 |
| SAMPLED BY: (Print & Initial) MK / PP | Date: 8-30-12 Time: | | |
| RELINQUISHED BY: (Signature) Jeanne Fitch | Date: 08-31-12 Time: 1425 | RECEIVED BY: (Signature) A Hernandez | Date: 8/31/12 Time: 14:25 |
| SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS | AIRBILL #: OTHER: | | |
| RELINQUISHED BY: (Signature) | Date: / Time: | RECEIVED BY: (Signature) | Date: / Time: |
| TETRA TECH CONTACT PERSON: Ike | Results by: | | |
| RECEIVING LABORATORY: Trace | RECEIVED BY: (Signature) | | |
| ADDRESS: CITY: Midland STATE: TX ZIP: | | | |
| CONTACT: PHONE: | DATE: TIME: | | RUSH Charges Authorized: Yes No |

SAMPLE CONDITION WHEN RECEIVED: 3.7 intact

REMARKS:

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

1209405

# Analysis Request of Chain of Custody Record

PAGE: 1 OF: 1


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


ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 111-6401478

PROJECT NAME: SRO 102 SWD Eddy Co NM

| LAB I.D. NUMBER | DATE 2012 | TIME | MATRIX | COMP. | GRAB | SAMPLE IDENTIFICATION | NUMBER OF CONTAINERS | FILTERED (Y/N) | PRESERVATIVE METHOD: HCL | HNO3 | ICE | NONE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 465 | 8/30 | | S | | X | AH-25 0-1' | 1 | | | | X | |
| 466 | | | | | | 1-1.5' | | | | | | |
| 467 | | | | | | 2-2.5' | | | | | | |
| | | | | | | ~~3-3.5'~~ | | | | | | |
| 468 | | | | | | AH-32 6-6.5' | | | | | | |

ANALYSIS REQUEST (Circle or Specify Method No.)

| BTEX 8021B | TPH 8015 MOD. TX1005 (Ext. to C35) | PAH 8270 | RCRA Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Metals Ag As Ba Cd Vr Pd Hg Se | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC.MS Vol. 8240/8260/624 | GC.MS Semi. Vol. 8270/625 | PCB's 8080/608 | Pest. 808/608 | Chloride | Gamma Spec. | Alpha Beta (Air) | PLM (Asbestos) | Major Anions/Cations, pH, TDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | X | | | | | | | | | | | ↓ | | | | |

RELINQUISHED BY: (Signature) Date: Time:
RECEIVED BY: (Signature) Jesse Fitch Date: 08-31-12 Time: 1300
SAMPLED BY: (Print & Initial) TTK BB Date: 8-30-12 Time:

RELINQUISHED BY: (Signature) Jesse Fitch Date: 08-31-12 Time: 1425
RECEIVED BY: (Signature) A. Hernandez Date: 8/31/12 Time: 14:25
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS AIRBILL #: OTHER:

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

RECEIVING LABORATORY: Xenco
ADDRESS:
CITY: Midland STATE: Tx ZIP:
CONTACT: PHONE:
RECEIVED BY: (Signature)
DATE: TIME:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 3.7 intact
REMARKS:

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

# Summary Report

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

Report Date: November 5, 2012

Work Order: 12102923

Project Location: Eddy Co., NM
Project Name: COG/SRO 102 SWD
Project Number: 114-6401478

| Sample | Description | Matrix | Date Taken | Time Taken | Date Received |
|---|---|---|---|---|---|
| 312942 | Trench-1 5' (AH-2) | soil | 2012-10-23 | 00:00 | 2012-10-29 |
| 312943 | Trench-1 7' (AH-2) | soil | 2012-10-23 | 00:00 | 2012-10-29 |
| 312944 | Trench-1 9' (AH-2) | soil | 2012-10-23 | 00:00 | 2012-10-29 |
| 312945 | Trench-2 5' (AH-13) | soil | 2012-10-23 | 00:00 | 2012-10-29 |
| 312946 | Trench-2 7' (AH-13) | soil | 2012-10-23 | 00:00 | 2012-10-29 |
| 312947 | Trench-2 9' (AH-13) | soil | 2012-10-23 | 00:00 | 2012-10-29 |
| 312948 | Trench-3 3' (AH-15) | soil | 2012-10-23 | 00:00 | 2012-10-29 |
| 312949 | Trench-3 5' (AH-15) | soil | 2012-10-23 | 00:00 | 2012-10-29 |
| 312950 | Trench-3 7' (AH-15) | soil | 2012-10-23 | 00:00 | 2012-10-29 |
| 312951 | Trench-3 9' (AH-15) | soil | 2012-10-23 | 00:00 | 2012-10-29 |
| 312952 | Trench-4 Surface South East | soil | 2012-10-24 | 00:00 | 2012-10-29 |
| 312953 | Trench-4 2' South East | soil | 2012-10-24 | 00:00 | 2012-10-29 |
| 312954 | Trench-4 4' South East | soil | 2012-10-24 | 00:00 | 2012-10-29 |
| 312955 | Trench-4 6' South East | soil | 2012-10-24 | 00:00 | 2012-10-29 |
| 312956 | Trench-4 8' South East | soil | 2012-10-24 | 00:00 | 2012-10-29 |
| 312957 | Trench-4 10' South East | soil | 2012-10-24 | 00:00 | 2012-10-29 |
| 312958 | Trench-5 Surface East | soil | 2012-10-24 | 00:00 | 2012-10-29 |
| 312959 | Trench-5 2' East | soil | 2012-10-24 | 00:00 | 2012-10-29 |
| 312960 | Trench-5 4' East | soil | 2012-10-24 | 00:00 | 2012-10-29 |
| 312961 | Trench-5 6' East | soil | 2012-10-24 | 00:00 | 2012-10-29 |
| 312962 | Trench-5 7' East | soil | 2012-10-24 | 00:00 | 2012-10-29 |
| 312963 | Trench-6 Surface South West | soil | 2012-10-25 | 00:00 | 2012-10-29 |
| 312964 | Trench-6 2' South West | soil | 2012-10-25 | 00:00 | 2012-10-29 |
| 312965 | Trench-6 4' South West | soil | 2012-10-25 | 00:00 | 2012-10-29 |
| 312966 | Trench-6 6' South West | soil | 2012-10-25 | 00:00 | 2012-10-29 |
| 312967 | Trench-6 8' South West | soil | 2012-10-25 | 00:00 | 2012-10-29 |
| 312968 | Trench-6 10' South West | soil | 2012-10-25 | 00:00 | 2012-10-29 |
| 312969 | Trench-7 Surface West | soil | 2012-10-25 | 00:00 | 2012-10-29 |
| 312970 | Trench-7 2' West | soil | 2012-10-25 | 00:00 | 2012-10-29 |
| 312971 | Trench-7 4' West | soil | 2012-10-25 | 00:00 | 2012-10-29 |

| Sample | Description | Matrix | Date Taken | Time Taken | Date Received |
|---|---|---|---|---|---|
| 312972 | Trench-7 6' West | soil | 2012-10-25 | 00:00 | 2012-10-29 |
| 312973 | Trench-7 8' West | soil | 2012-10-25 | 00:00 | 2012-10-29 |
| 312974 | Trench-7 10' West | soil | 2012-10-25 | 00:00 | 2012-10-29 |

**Sample: 312942 - Trench-1 5' (AH-2)**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **2140** | mg/Kg | 4 |

**Sample: 312943 - Trench-1 7' (AH-2)**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **1930** | mg/Kg | 4 |

**Sample: 312944 - Trench-1 9' (AH-2)**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **531** | mg/Kg | 4 |

**Sample: 312945 - Trench-2 5' (AH-13)**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **724** | mg/Kg | 4 |

**Sample: 312946 - Trench-2 7' (AH-13)**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **971** | mg/Kg | 4 |

**Sample: 312947 - Trench-2 9' (AH-13)**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **869** | mg/Kg | 4 |

**Sample: 312948 - Trench-3 3' (AH-15)**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **579** | mg/Kg | 4 |

**Sample: 312949 - Trench-3 5' (AH-15)**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **326** | mg/Kg | 4 |

**Sample: 312950 - Trench-3 7' (AH-15)**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **1120** | mg/Kg | 4 |

**Sample: 312951 - Trench-3 9' (AH-15)**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **443** | mg/Kg | 4 |

**Sample: 312952 - Trench-4 Surface South East**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **4860** | mg/Kg | 4 |

**Sample: 312953 - Trench-4 2' South East**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **3420** | mg/Kg | 4 |

**Sample: 312954 - Trench-4 4' South East**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **3020** | mg/Kg | 4 |

**Sample: 312955 - Trench-4 6' South East**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **3050** | mg/Kg | 4 |

**Sample: 312956 - Trench-4 8' South East**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **3220** | mg/Kg | 4 |

**Sample: 312957 - Trench-4 10' South East**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **2660** | mg/Kg | 4 |

**Sample: 312958 - Trench-5 Surface East**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **30200** | mg/Kg | 4 |

**Sample: 312959 - Trench-5 2' East**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **3420** | mg/Kg | 4 |

**Sample: 312960 - Trench-5 4' East**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **1330** | mg/Kg | 4 |

**Sample: 312961 - Trench-5 6' East**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **3360** | mg/Kg | 4 |

**Sample: 312962 - Trench-5 7' East**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **3700** | mg/Kg | 4 |

**Sample: 312963 - Trench-6 Surface South West**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **3080** | mg/Kg | 4 |

**Sample: 312964 - Trench-6 2' South West**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **6640** | mg/Kg | 4 |

**Sample: 312965 - Trench-6 4' South West**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **4440** | mg/Kg | 4 |

**Sample: 312966 - Trench-6 6' South West**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **991** | mg/Kg | 4 |

**Sample: 312967 - Trench-6 8' South West**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **2630** | mg/Kg | 4 |

**Sample: 312968 - Trench-6 10' South West**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **1540** | mg/Kg | 4 |

**Sample: 312969 - Trench-7 Surface West**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **33800** | mg/Kg | 4 |

**Sample: 312970 - Trench-7 2' West**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **20000** | mg/Kg | 4 |

**Sample: 312971 - Trench-7 4' West**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **4330** | mg/Kg | 4 |

**Sample: 312972 - Trench-7 6' West**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **3630** | mg/Kg | 4 |

**Sample: 312973 - Trench-7 8' West**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **1650** | mg/Kg | 4 |

**Sample: 312974 - Trench-7 10' West**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **1520** | mg/Kg | 4 |

1/21/2013

# Analysis Request of Chain of Custody Record


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


PAGE: 1 of 4

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6401478

PROJECT NAME: COG / SRO 102 SWD Com Eddy Co, NM

| LAB I.D. NUMBER | DATE 2012 | TIME | MATRIX | COMP. | GRAB | SAMPLE IDENTIFICATION | NUMBER OF CONTAINERS | FILTERED (Y/N) | PRESERVATIVE METHOD: HCL | HNO3 | ICE | NONE | BTEX 8021B | TPH 8015 MOD. TX1005 (Ext. to C35) | PAH 8270 | RCRA Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Metals Ag As Ba Cd Vr Pd Hg Se | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC.MS Vol. 8240/8260/624 | GC.MS Semi. Vol. 8270/625 | PCB's 8080/608 | Pest. 808/608 | Chlorides | Gamma Spec. | Alpha Beta (Air) | PLM (Asbestos) | Major Anions/Cations, pH, TDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 362942 | 10-23 | | S | | X | Trench-1 5' (AH-2) | 1 | | | | X | | | | | | | | | | | | | X | | | | |
| 943 | | | | | | Trench-1 7' (AH-2) | | | | | | | | | | | | | | | | | | | | | | |
| 944 | | | | | | Trench-1 9' (AH-2) | | | | | | | | | | | | | | | | | | | | | | |
| 945 | | | | | | Trench-2 5' (AH-13) | | | | | | | | | | | | | | | | | | | | | | |
| 946 | | | | | | Trench-2 7' (AH-13) | | | | | | | | | | | | | | | | | | | | | | |
| 947 | | | | | | Trench-2 9' (AH-13) | | | | | | | | | | | | | | | | | | | | | | |
| 948 | | | | | | Trench-3 3' (AH-15) | | | | | | | | | | | | | | | | | | | | | | |
| 949 | | | | | | Trench-3 5' (AH-15) | | | | | | | | | | | | | | | | | | | | | | |
| 950 | | | | | | Trench-3 7' (AH-15) | | | | | | | | | | | | | | | | | | | | | | |
| 951 | | | | | | Trench-3 9' (AH-15) | | | | | | | | | | | | | | | | | | | | | | |

RELINQUISHED BY: (Signature) — Date: 10-26-12 Time: 1800
RECEIVED BY: (Signature) — Date: 10/29/12 Time: 0915
SAMPLED BY: (Print & Initial) Robert Gubbs Jr — Date: 10-26-12 Time: 1800

RELINQUISHED BY: (Signature) — Date: 10/29/12 Time: 0915
RECEIVED BY: (Signature) — Date: 10/29/12 Time: 9:15
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS — AIRBILL #: — OTHER:

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

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

SAMPLE CONDITION WHEN RECEIVED: 1.3°

REMARKS: Midland all

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

12104923

# Analysis Request of Chain of Custody Record


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


PAGE: 2 of 4

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-640147B

PROJECT NAME: COG/SRO 102 SWD Com Eddy Co, NM

| LAB I.D. NUMBER | DATE 2012 | TIME | MATRIX | COMP. | GRAB | SAMPLE IDENTIFICATION | NUMBER OF CONTAINERS | FILTERED (Y/N) | PRESERVATIVE METHOD: HCL | HNO3 | ICE | NONE | BTEX 8021B | TPH 8015 MOD. TX1005 (Ext. to C35) | PAH 8270 | RCRA Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Metals Ag As Ba Cd Vr Pd Hg Se | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC.MS Vol. 8240/8260/624 | GC.MS Semi. Vol. 8270/625 | PCB's 8080/608 | Pest. 808/608 | Chloride | Gamma Spec. | Alpha Beta (Air) | PLM (Asbestos) | Major Anions/Cations, pH, TDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 952 | 10-24 | | S | | X | Trench-4 Surface South East | 1 | | | | X | | | | | | | | | | | | | X | | | | |
| 953 | | | | | | Trench-4 2' South East | | | | | | | | | | | | | | | | | | | | | | |
| 954 | | | | | | Trench-4 4' South East | | | | | | | | | | | | | | | | | | | | | | |
| 955 | | | | | | Trench-4 6' South East | | | | | | | | | | | | | | | | | | | | | | |
| 956 | | | | | | Trench-4 8' South East | | | | | | | | | | | | | | | | | | | | | | |
| 957 | | | | | | Trench-4 10' South East | | | | | | | | | | | | | | | | | | | | | | |
| 958 | | | | | | Trench-5 Surface East | | | | | | | | | | | | | | | | | | | | | | |
| 959 | | | | | | Trench-5 2' East | | | | | | | | | | | | | | | | | | | | | | |
| 960 | | | | | | Trench-5 4' East | | | | | | | | | | | | | | | | | | | | | | |
| 961 | | | | | | Trench-5 6' East | | | | | | | | | | | | | | | | | | | | | | |

RELINQUISHED BY: (Signature) — Date: 10-26-12 Time: 1800
RECEIVED BY: (Signature) — Date: 10/29/12 Time: 0945
SAMPLED BY: (Print & Initial) Robert Gobles Jr — Date: 10-26-12 Time: 1800

RELINQUISHED BY: (Signature) — Date: 10/29/12 Time: 0945
RECEIVED BY: (Signature) — Date: 10/29/12 Time: 9:15
SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS — AIRBILL #: — OTHER:

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

RECEIVING LABORATORY: Test America
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: Marcella PHONE:
RECEIVED BY: (Signature)
DATE: TIME:
RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 1.3°

REMARKS:

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

1210243

# Analysis Request of Chain of Custody Record

PAGE: 3 : 4


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


ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6401478

PROJECT NAME: COG / SID 103 5610 Com Eddy Co, NM

| LAB I.D. NUMBER | DATE 2012 | TIME | MATRIX | COMP. | GRAB | SAMPLE IDENTIFICATION | NUMBER OF CONTAINERS | FILTERED (Y/N) | PRESERVATIVE METHOD: HCL | HNO3 | ICE | NONE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 963 | 10-24 | | S | | X | Trench-5 7' East | 1 | | | | X | |
| 963 | 10-25 | | | | | Trench-6 Surface South West | | | | | | |
| 965 | | | | | | Trench-6 2' South West | | | | | | |
| 966 | | | | | | Trench-6 4' South West | | | | | | |
| 967 | | | | | | Trench-6 6' South West | | | | | | |
| 968 | | | | | | Trench-6 8' South west | | | | | | |
| 969 | | | | | | Trench-6 10' South west | | | | | | |
| 970 | | | | | | Trench-7 Surface West | | | | | | |
| 971 | | | | | | Trench-7 2' West | | | | | | |
| 972 | | | | | | Trench-7 4' West | | | | | | |

BTEX 8021B | TPH 8015 MOD. TX1005 (Ext. to C35) | PAH 8270 | RCRA Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Metals Ag As Ba Cd Vr Pd Hg Se | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC.MS Vol. 8240/8260/624 | GC.MS Semi. Vol. 8270/625 | PCB's 8080/608 | Pest. 808/608 | Chloride | Gamma Spec. | Alpha Beta (Air) | PLM (Asbestos) | Major Anions/Cations, pH, TDS

| | | | |
|---|---|---|---|
| RELINQUISHED BY: (Signature) | Date: 10-26-12 Time: 1800 | RECEIVED BY: (Signature) | Date: 10/29/12 Time: 0945 |
| SAMPLED BY: (Print & Initial) Robert Gallegos Jr | Date: 10-26-12 Time: 1800 | | |
| RELINQUISHED BY: (Signature) | Date: 10/26/12 Time: 2015 | RECEIVED BY: (Signature) | Date: 10-29-12 Time: 0945 |
| SAMPLE SHIPPED BY: (Circle) FEDEX HAND DELIVERED BUS UPS | AIRBILL #: OTHER: | | |
| RELINQUISHED BY: (Signature) | Date: Time: | RECEIVED BY: (Signature) | Date: Time: |
| TETRA TECH CONTACT PERSON: Ike Tavarez | Results by: | | |
| RECEIVING LABORATORY: Trace | RECEIVED BY: (Signature) | | |
| ADDRESS: CITY: Midland STATE: TX ZIP: CONTACT: Monica PHONE: | DATE: TIME: | | RUSH Charges Authorized: Yes No |

SAMPLE CONDITION WHEN RECEIVED: 1.3

REMARKS:

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

10/10/12

# Analysis Request of Chain of Custody Record



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

ANALYSIS REQUEST
*(Circle or Specify Method No.)*

| CLIENT NAME: | SITE MANAGER: |
|---|---|
| COG | Ike Tavarez |

| PROJECT NO.: | PROJECT NAME: |
|---|---|
| 114-6401478 | COG / SRO 102 SWD Pond Expansion |

| LAB I.D. NUMBER | DATE | TIME | MATRIX | COMP. | GRAB | SAMPLE IDENTIFICATION | NUMBER OF CONTAINERS | FILTERED (Y/N) | PRESERVATIVE METHOD: HCL | HNO3 | ICE | NONE | BTEX 8021B | TPH 8015 MOD. TX1005 (Ext. to C35) | PAH 8270 | RCRA Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Metals Ag As Ba Cd Vr Pd Hg Se | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC.MS Vol. 8240/8260/624 | GC.MS Semi. Vol. 8270/625 | PCB's 8080/608 | Pest. 808/608 | Chloride | Gamma Spec. | Alpha Beta (Air) | PLM (Asbestos) | Major Anions/Cations, pH, TDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 97 | 10-25-2012 | | S | | X | Trench-7 6' West | 1 | | | | X | | | | | | | | | | | | | X | | | | |
| 97 | | | S | | X | Trench-7 8' West | 1 | | | | X | | | | | | | | | | | | | X | | | | |
| 97 | | | S | | X | Trench-7 10' West | 1 | | | | X | | | | | | | | | | | | | X | | | | |

| RELINQUISHED BY: (Signature) | Date: 10-26-12 Time: 1800 | RECEIVED BY: (Signature) | Date: 10/27/12 Time: 0915 |
|---|---|---|---|
| RELINQUISHED BY: (Signature) | Date: 10/29/12 Time: 0915 | RECEIVED BY: (Signature) | Date: 10/29/12 Time: 9:15 |
| RELINQUISHED BY: (Signature) | Date: Time: | RECEIVED BY: (Signature) | Date: Time: |

SAMPLED BY: (Print & Initial) Robert Lambert J. Date: 10-26-12 Time: 1800

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

RECEIVING LABORATORY: Trace
ADDRESS:
CITY: Midland STATE: TX ZIP:
CONTACT: Phone PHONE:
RECEIVED BY: (Signature)
DATE: TIME:

TETRA TECH CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 1.3°

REMARKS:

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

# Summary Report

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

Report Date: January 24, 2013

Work Order: 13012202

Project Location: Eddy Co., NM
Project Name: COG/SRO 102 SWD
Project Number: 114-6401478

| Sample | Description | Matrix | Date Taken | Time Taken | Date Received |
|---|---|---|---|---|---|
| 318888 | SB-1 @ T-4 6-7' | soil | 2013-01-18 | 00:00 | 2013-01-21 |
| 318889 | SB-1 @ T-4 9-10' | soil | 2013-01-18 | 00:00 | 2013-01-21 |
| 318890 | SB-1 @ T-4 14-15' | soil | 2013-01-18 | 00:00 | 2013-01-21 |
| 318891 | SB-1 @ T-4 19-20' | soil | 2013-01-18 | 00:00 | 2013-01-21 |
| 318892 | SB-1 @ T-4 24-25' | soil | 2013-01-18 | 00:00 | 2013-01-21 |
| 318893 | SB-1 @ T-4 29-30' | soil | 2013-01-18 | 00:00 | 2013-01-21 |
| 318897 | SB-2 @ T-5 6-7' | soil | 2013-01-18 | 00:00 | 2013-01-21 |
| 318898 | SB-2 @ T-5 9-10' | soil | 2013-01-18 | 00:00 | 2013-01-21 |
| 318899 | SB-2 @ T-5 14-15' | soil | 2013-01-18 | 00:00 | 2013-01-21 |
| 318900 | SB-2 @ T-5 19-20' | soil | 2013-01-18 | 00:00 | 2013-01-21 |
| 318901 | SB-2 @ T-5 24-25' | soil | 2013-01-18 | 00:00 | 2013-01-21 |
| 318902 | SB-2 @ T-5 29-30' | soil | 2013-01-18 | 00:00 | 2013-01-21 |
| 318906 | SB-3 @ T-7 6-7' | soil | 2013-01-17 | 00:00 | 2013-01-21 |
| 318907 | SB-3 @ T-7 9-10' | soil | 2013-01-17 | 00:00 | 2013-01-21 |
| 318908 | SB-3 @ T-7 14-15' | soil | 2013-01-17 | 00:00 | 2013-01-21 |
| 318909 | SB-3 @ T-7 19-20' | soil | 2013-01-17 | 00:00 | 2013-01-21 |
| 318910 | SB-3 @ T-7 24-25' | soil | 2013-01-17 | 00:00 | 2013-01-21 |
| 318911 | SB-3 @ T-7 29-30' | soil | 2013-01-17 | 00:00 | 2013-01-21 |
| 318912 | SB-3 @ T-7 39-40' | soil | 2013-01-17 | 00:00 | 2013-01-21 |
| 318913 | SB-3 @ T-7 49-50' | soil | 2013-01-17 | 00:00 | 2013-01-21 |

**Sample: 318888 - SB-1 @ T-4 6-7'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **2250** | mg/Kg | 4 |

**Sample: 318889 - SB-1 @ T-4 9-10'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **3090** | mg/Kg | 4 |

**Sample: 318890 - SB-1 @ T-4 14-15'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **1750** | mg/Kg | 4 |

**Sample: 318891 - SB-1 @ T-4 19-20'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **1440** | mg/Kg | 4 |

**Sample: 318892 - SB-1 @ T-4 24-25'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **297** | mg/Kg | 4 |

**Sample: 318893 - SB-1 @ T-4 29-30'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **267** | mg/Kg | 4 |

**Sample: 318897 - SB-2 @ T-5 6-7'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **3670** | mg/Kg | 4 |

**Sample: 318898 - SB-2 @ T-5 9-10'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **2440** | mg/Kg | 4 |

**Sample: 318899 - SB-2 @ T-5 14-15'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **1010** | mg/Kg | 4 |

**Sample: 318900 - SB-2 @ T-5 19-20'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **924** | mg/Kg | 4 |

**Sample: 318901 - SB-2 @ T-5 24-25'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **619** | mg/Kg | 4 |

**Sample: 318902 - SB-2 @ T-5 29-30'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **267** | mg/Kg | 4 |

**Sample: 318906 - SB-3 @ T-7 6-7'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **2300** | mg/Kg | 4 |

**Sample: 318907 - SB-3 @ T-7 9-10'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **1310** | mg/Kg | 4 |

**Sample: 318908 - SB-3 @ T-7 14-15'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **877** | mg/Kg | 4 |

**Sample: 318909 - SB-3 @ T-7 19-20'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **1880** | mg/Kg | 4 |

**Sample: 318910 - SB-3 @ T-7 24-25'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **663** | mg/Kg | 4 |

**Sample: 318911 - SB-3 @ T-7 29-30'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **913** | mg/Kg | 4 |

**Sample: 318912 - SB-3 @ T-7 39-40'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **757** | mg/Kg | 4 |

**Sample: 318913 - SB-3 @ T-7 49-50'**

| Param | Flag | Result | Units | RL |
|---|---|---|---|---|
| Chloride | | **113** | mg/Kg | 4 |

1301 2202

# Analysis Request of Chain of Custody Record

PAGE: 1 OF: 4


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


ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6d01478

PROJECT NAME: SRO State Unit Com 102 SWD Eddy Co NM

| LAB I.D. NUMBER | DATE 2013 | TIME | MATRIX | COMP. | GRAB | SAMPLE IDENTIFICATION | NUMBER OF CONTAINERS | FILTERED (Y/N) | PRESERVATIVE METHOD: HCL | HNO3 | ICE | NONE | BTEX 8021B | TPH 8015 MOD. TX1005 (Ext. to C35) | PAH 8270 | RCRA Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Metals Ag As Ba Cd Vr Pd Hg Se | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC.MS Vol. 8240/8260/624 | GC.MS Semi. Vol. 8270/625 | PCB's 8080/608 | Pest. 808/608 | Chloride | Gamma Spec. | Alpha Beta (Air) | PLM (Asbestos) | Major Anions/Cations, pH, TDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 318885 | 1/18 | | S | | X | SB-1 @ T-4 0-1' | 1 | | | | | | | | | | | | | | | | | X | | | | |
| 886 | | | | | | 2-3' | | | | | | | | | | | | | | | | | | X | | | | |
| 887 | | | | | | 4-5' | | | | | | | | | | | | | | | | | | X | | | | |
| 888 | | | | | | 6-7' | | | | | | | | | | | | | | | | | | X | | | | |
| 889 | | | | | | 9-10' | | | | | | | | | | | | | | | | | | X | | | | |
| 890 | | | | | | 14-15' | | | | | | | | | | | | | | | | | | X | | | | |
| 891 | | | | | | 19-20' | | | | | | | | | | | | | | | | | | X | | | | |
| 892 | | | | | | 24-25' | | | | | | | | | | | | | | | | | | X | | | | |
| 893 | ↓ | | ↓ | | ↓ | 29-30' | ↓ | | | | | | | | | | | | | | | | | X | | | | |

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Jeanne Fitch Date: 01-21-13 Time: 1600

SAMPLED BY: (Print & Initial) TF Date: 1-18-13 Time:

RELINQUISHED BY: (Signature) Jeanne Fitch Date: 01-21-13 Time: 1640

RECEIVED BY: (Signature) Date: 1/21/13 Time: 16:40

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

AIRBILL #:

OTHER:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

TETRA TECH CONTACT PERSON: Ike

Results by:

RUSH Charges Authorized: Yes No

RECEIVING LABORATORY: Trace

ADDRESS:

CITY: Midland STATE: TX ZIP:

CONTACT: PHONE:

RECEIVED BY: (Signature)

DATE: TIME:

SAMPLE CONDITION WHEN RECEIVED: 5.8°

REMARKS: Midland all

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

1301 2203

# Analysis Request of Chain of Custody Record


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


PAGE: 2 OF: 4

CLIENT NAME: COG

SITE MANAGER: Ike Tavarez

PROJECT NO.: 114-6401478

PROJECT NAME: SRO State Unit Com 102 SWD Eddy Co NM

ANALYSIS REQUEST (Circle or Specify Method No.)

| LAB I.D. NUMBER | DATE 2013 | TIME | MATRIX | COMP. | GRAB | SAMPLE IDENTIFICATION | NUMBER OF CONTAINERS | FILTERED (Y/N) | PRESERVATIVE METHOD: HCL | HNO3 | ICE | NONE | BTEX 8021B | TPH 8015 MOD. TX1005 (Ext. to C35) | PAH 8270 | RCRA Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Metals Ag As Ba Cd Vr Pd Hg Se | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC.MS Vol. 8240/8260/624 | GC.MS Semi. Vol. 8270/625 | PCB's 8080/608 | Pest. 808/608 | Chloride | Gamma Spec. | Alpha Beta (Air) | PLM (Asbestos) | Major Anions/Cations, pH, TDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 894 | 1/18 | | S | | X | SB-2 @ T-5 0-1' | 1 | | | | | | | | | | | | | | | | | X | | | | |
| 895 | | | | | | 2-3' | | | | | | | | | | | | | | | | | | X | | | | |
| 896 | | | | | | 4-5' | | | | | | | | | | | | | | | | | | X | | | | |
| 897 | | | | | | 6-7' | | | | | | | | | | | | | | | | | | X | | | | |
| 898 | | | | | | 9-10' | | | | | | | | | | | | | | | | | | X | | | | |
| 899 | | | | | | 14-15' | | | | | | | | | | | | | | | | | | X | | | | |
| 900 | | | | | | 19-20' | | | | | | | | | | | | | | | | | | X | | | | |
| 901 | | | | | | 24-25' | | | | | | | | | | | | | | | | | | X | | | | |
| 902 | ↓ | | ↓ | | ↓ | 29-30' | ↓ | | | | | | | | | | | | | | | | | X | | | | |

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Jeanne Fitch Date: 01-21-13 Time: 1600

SAMPLED BY: (Print & Initial) TF Date: 1-18-13 Time:

RELINQUISHED BY: (Signature) Jeanne Fitch Date: 01-21-13 Time: 1640

RECEIVED BY: (Signature) Date: 1/21/13 Time: 16:40

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

AIRBILL #:

OTHER:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

RECEIVING LABORATORY: Xenco

ADDRESS:

CITY: Midland STATE: TX ZIP:

CONTACT: PHONE:

RECEIVED BY: (Signature)

DATE: TIME:

TETRA TECH ~~CONTACT~~ PERSON: Ike

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: 5.8°

REMARKS:

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

130122202

# Analysis Request of Chain of Custody Record

PAGE: 3 OF: 4


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


CLIENT NAME: COG

SITE MANAGER: IKE Tavarez

PROJECT NO.: 114-6461478

PROJECT NAME: SEO Hale Com 102 SWD Eddy Co. NM.

| LAB I.D. NUMBER | DATE | TIME | MATRIX | COMP. | GRAB | SAMPLE IDENTIFICATION | NUMBER OF CONTAINERS | FILTERED (Y/N) | PRESERVATIVE METHOD: HCL | HNO3 | ICE | NONE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 130903 | 1-17-13 | | S | | X | SB-307-01 | 1 | | | | | X |
| 904 | | | S | | X | 2-3 | 1 | | | | | X |
| 905 | | | S | | X | 4-5 | 1 | | | | | X |
| 906 | | | S | | X | 6-7 | 1 | | | | | X |
| 907 | | | S | | X | 9-10 | 1 | | | | | X |
| 908 | | | S | | X | 14-15 | 1 | | | | | X |
| 909 | | | S | | X | 19-20 | 1 | | | | | X |
| 910 | | | S | | X | 24-25 | 1 | | | | | X |
| 911 | | | S | | X | 29-30 | 1 | | | | | X |
| 912 | | | S | | X | 39-40 | 1 | | | | | X |

ANALYSIS REQUEST (Circle or Specify Method No.)

| BTEX 8021B | TPH 8015 MOD. TX1005 (Ext. to C35) | PAH 8270 | RCRA Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Metals Ag As Ba Cd Vr Pd Hg Se | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC.MS Vol. 8240/8260/624 | GC.MS Semi. Vol. 8270/625 | PCB's 8080/608 | Pest. 808/608 | Chloride | Gamma Spec. | Alpha Beta (Air) | PLM (Asbestos) | Major Anions/Cations, pH, TDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | X | X | | | | |
| | | | | | | | | | | | X | | | | | |
| | | | | | | | | | | | X | | | | | |
| | | | | | | | | | | | | X | | | | |
| | | | | | | | | | | | | X | | | | |
| | | | | | | | | | | | | X | | | | |
| | | | | | | | | | | | | X | | | | |
| | | | | | | | | | | | | X | | | | |
| | | | | | | | | | | | | X | | | | |
| | | | | | | | | | | | | X | | | | |

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: 01-21-13 Time: 1400

SAMPLED BY: (Print & Initial) Date: Time:

RELINQUISHED BY: (Signature) Date: 01-21-13 Time: 1610

RECEIVED BY: (Signature) Date: 1/21/13 Time: 16:40

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

AIRBILL #:

OTHER:

RELINQUISHED BY: (Signature) Date: Time:

RECEIVED BY: (Signature) Date: Time:

TETRA TECH CONTACT PERSON: IKE Tavarez

Results by:

RUSH Charges Authorized: Yes No

RECEIVING LABORATORY: TraCe

ADDRESS:

CITY: STATE: ZIP:

CONTACT: PHONE:

RECEIVED BY: (Signature)

DATE: TIME:

SAMPLE CONDITION WHEN RECEIVED: 5.8°

REMARKS:

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1301 2202

# Analysis Request of Chain of Custody Record

PAGE: 4 OF: 4


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


ANALYSIS REQUEST
*(Circle or Specify Method No.)*

CLIENT NAME: C06 SITE MANAGER: IKE Tavarez

PROJECT NO.: 114-640 1478 PROJECT NAME: SEO State Com 102 SWD Eddy Co. NM.

| LAB I.D. NUMBER | DATE | TIME | MATRIX | COMP. | GRAB | SAMPLE IDENTIFICATION | NUMBER OF CONTAINERS | FILTERED (Y/N) | PRESERVATIVE METHOD: HCL | HNO3 | ICE | NONE | BTEX 8021B | TPH 8015 MOD. TX1005 (Ext. to C35) | PAH 8270 | RCRA Metals Ag As Ba Cd Cr Pb Hg Se | TCLP Metals Ag As Ba Cd Vr Pd Hg Se | TCLP Volatiles | TCLP Semi Volatiles | RCI | GC.MS Vol. 8240/8260/624 | GC.MS Semi. Vol. 8270/625 | PCB's 8080/608 | Pest. 808/608 | Chloride | Gamma Spec. | Alpha Beta (Air) | PLM (Asbestos) | Major Anions/Cations, pH, TDS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 318913 | 1-17-13 | | S | | | SB-3 @ T-7 49-50 | 1 | | | | | X | | | | | | | | | | | | X | | | | |
| 914 | " | | | | | 59-60 | | | | | | | | | | | | | | | | | Hold | | | | | |

| RELINQUISHED BY: (Signature) | Date: / Time: | RECEIVED BY: (Signature) | Date: 01-21-13 Time: 1600 | SAMPLED BY: (Print & Initial) TP | Date: / Time: |
|---|---|---|---|---|---|
| RELINQUISHED BY: (Signature) Joanne Fitch | Date: 01-21-13 Time: 1640 | RECEIVED BY: (Signature) | Date: 1/21/13 Time: 1640 | SAMPLE SHIPPED BY: (Circle) FEDEX BUS HAND DELIVERED UPS | AIRBILL #: OTHER: |
| RELINQUISHED BY: (Signature) | Date: / Time: | RECEIVED BY: (Signature) | Date: / Time: | TETRA TECH CONTACT PERSON: IKE Tavarez | Results by: RUSH Charges Authorized: Yes No |

RECEIVING LABORATORY: Trace RECEIVED BY: (Signature)
ADDRESS:
CITY: STATE: ZIP:
CONTACT: PHONE: DATE: TIME:

SAMPLE CONDITION WHEN RECEIVED: 5.8°

REMARKS:

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