

Bratcher, Mike, EMNRD

From: Tavarez, Ike [Ike.Tavarez@tetrattech.com]
Sent: Wednesday, October 27, 2010 12:32 PM
To: Bratcher, Mike, EMNRD; Terry Gregston (terry_gregston@nm.blm.gov)
Cc: Pat Ellis; Joshua Russo
Subject: COG - Beech Federal #2 TB - Work Plan Approval Request
Attachments: COG - Beech Federal #2 TB Work Plan .pdf

COG Operating
Beech Federal #2 Tank Battery
Section 25, T17S, R27E
Eddy County, New Mexico
32.80212 104.22891

Mike and Terry,

Please find enclosed the Work Plan for the COG - Beech Federal #2 Tank Battery located in Eddy County, New Mexico. Once the work plan is approved, Tetra Tech will schedule the soil remediation and notify you before we start. Please let me know if you need additional information or call me if you have any questions, thanks

Ike Tavarez, PG | Senior Project Manager

Main: 432.601.4559 | Fax: 432.682.3546 | Cell: 432.425.0678

Ike.Tavarez@tetrattech.com

Tetra Tech | Complex World. Clear Solutions™

1910 North Big Spring | Midland, TX 79705 | www.tetrattech.com

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TETRA TECH

October 10, 2010

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

Re: Work Plan for the COG Operating LLC., Beech Federal #2 Tank Battery, Unit J, Section 25, Township 17 South, Range 27 East, Eddy County, New Mexico.

Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC. (COG) to assess a spill at the Beech Federal #2 Tank Battery, Unit J, Section 25, Township 17 South, Range 27 East, Eddy County, New Mexico. (Site). The spill site coordinates are N 32.80212°, W 104.22891°. The site location is shown on Figures 1 and 2.

Background

According to the State of New Mexico C-141 Initial Report, the leak was discovered on July 4, 2010, and released approximately twenty (20) barrels of produced water from a failed fire tube gasket at the heater treater. To alleviate the problem, COG personnel replaced the fire tube gasket. Due to recent rain, twenty-three (23) barrels of standing fluids were recovered. The impacted area measured approximately 30' x 110', east of the heater treater. The entire spill was contained within the facility's firewalls. The initial C-141 form is enclosed in Appendix A.

Groundwater

No water wells were listed within Section 25. According to the NMOCD groundwater map, the average depth to groundwater in this area is 125' below surface. The average depth to groundwater map is shown in Appendix B

Tetra Tech

1210 North 5th Street, Garland, TX 75042

Tel: (937) 662-4559 Fax: (937) 662-3946 www.tetratech.com



Regulatory

A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the depth to groundwater, the proposed RRAL for TPH is 5,000 mg/kg.

Soil Assessment and Analytical Results

On August 10, 2010, Tetra Tech personnel inspected and sampled the spill area. A total of three (3) auger holes (AH-1 through AH-3) were installed in the spill area and one (1) auger hole (background) using a stainless steel hand auger to assess the soils. Select samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C. The results of the sampling are summarized in Table 1. The auger hole locations are shown on Figure 3.

Referring to Table 1, all of the submitted samples were below RRAL for TPH and BTEX. A shallow chloride impact was detected in AH-2 and AH-3 to a depth of 1.5' to 2.0' below surface. Auger hole (AH-1) did show a deeper impact that declined with depth to 1,300 mg/kg at 3-3.5' below surface. The background auger hole showed a chloride high of 508 mg/kg at 2-2.5' below surface.

Work Plan

In order to remove the chloride impacted soils, COG proposes to excavate the spill area. Based on the buried lines, limited impacted area and safety concerns, the excavated depths will range from 2.0' to 4.0' below surface within the spill's footprint, if accessible. The excavation depths are shown in Table 1. In the area of AH-1, deeper samples will be collected with a backhoe (trench) to vertically define the chloride impact to background concentrations. All of the excavated soil will be transported for proper disposal.



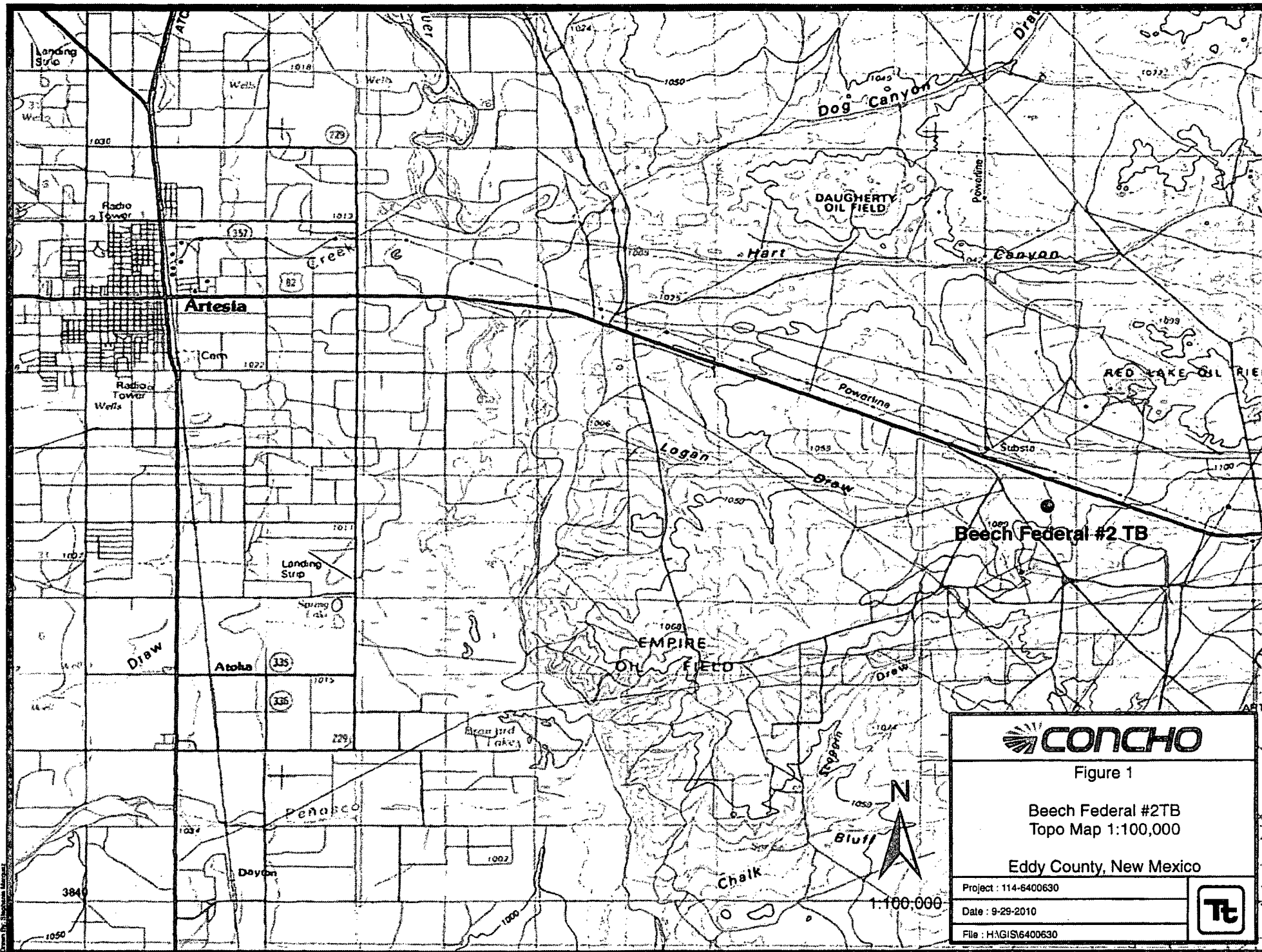
TETRA TECH

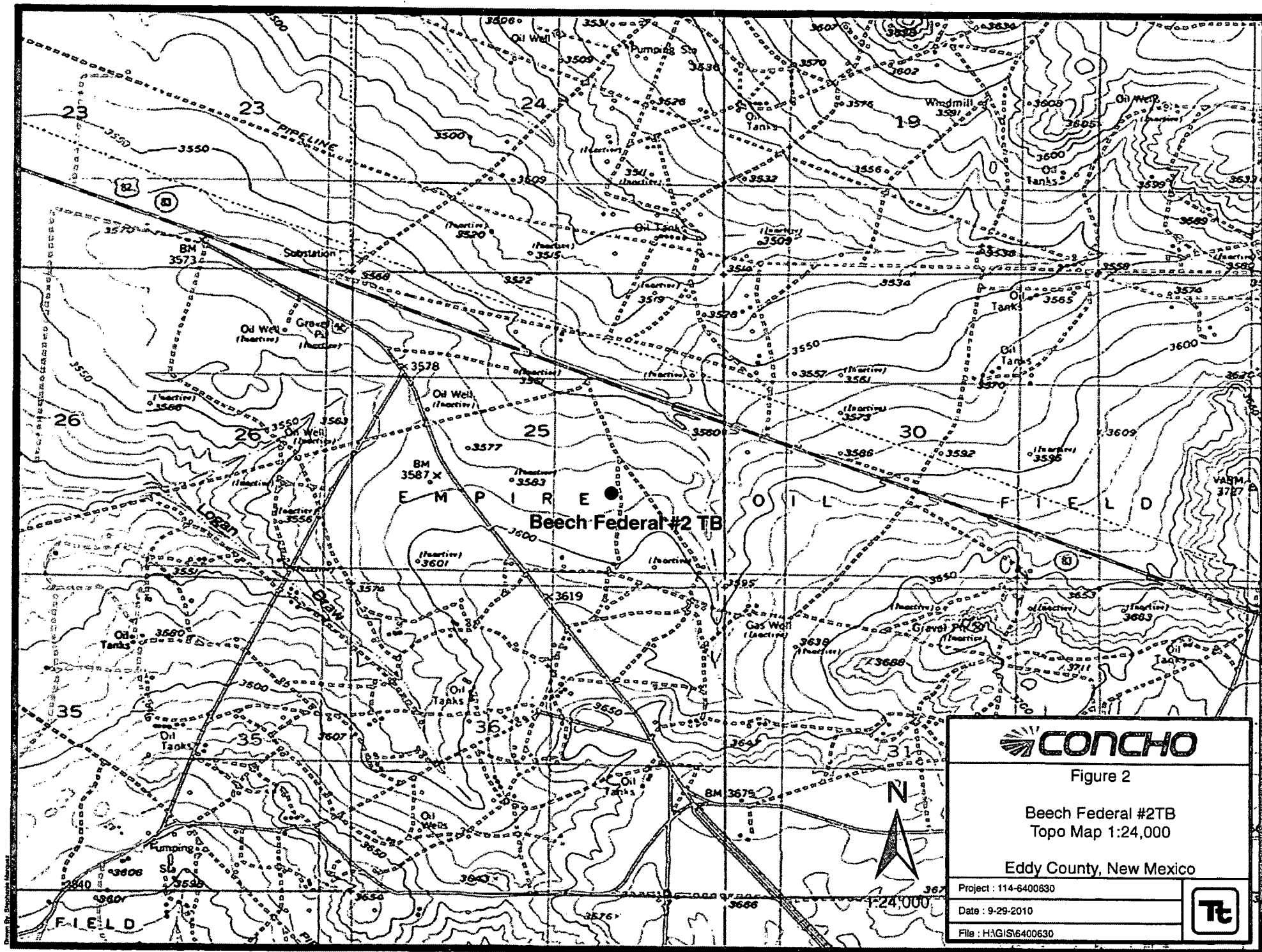
If you have any questions or comments concerning the assessment or the proposed remediation activities at the site, please call me at (432) 682-4559.

Respectfully submitted,
TETRA TECH

Ike Tavaréz
Project Manager

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





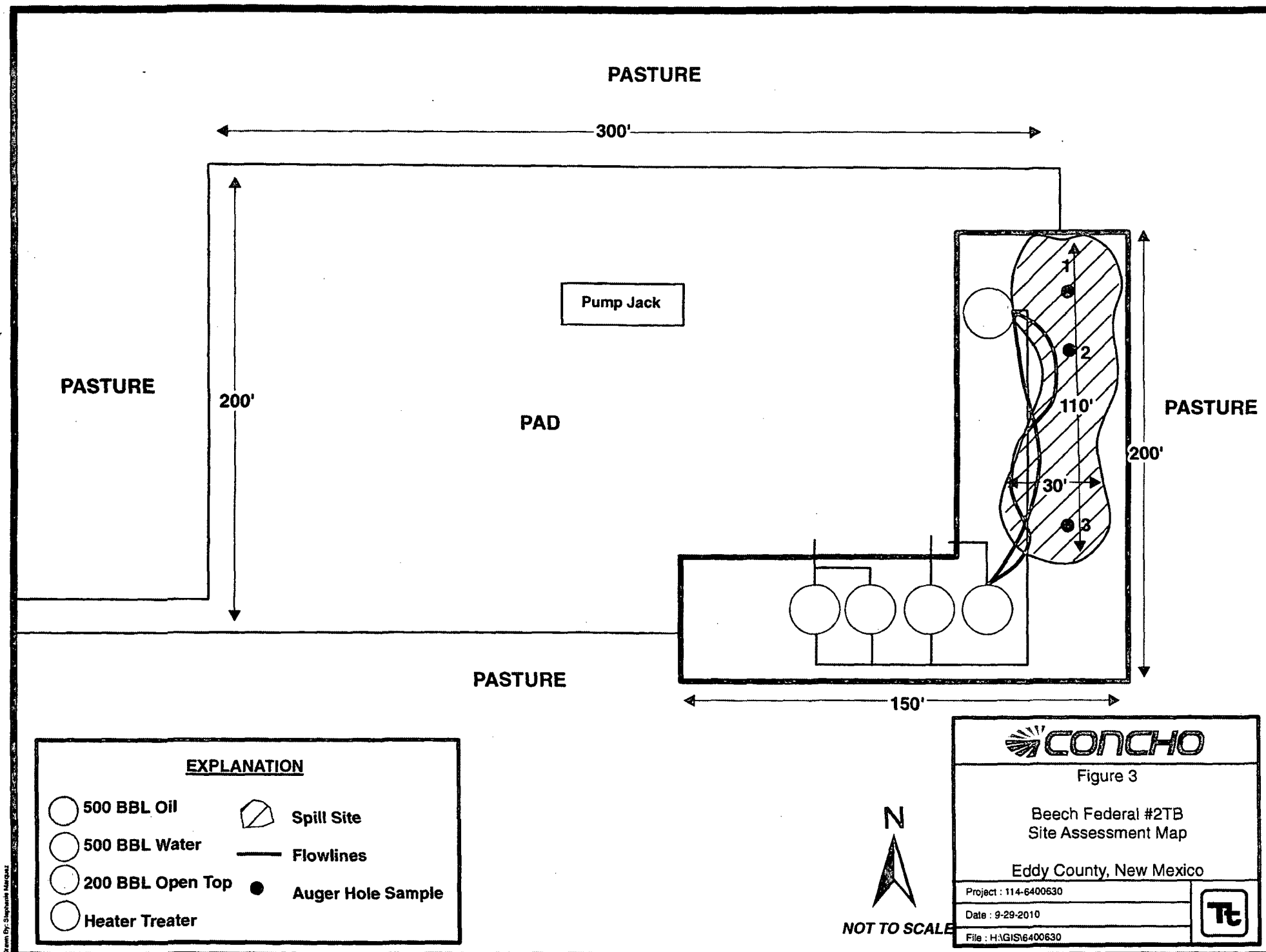


Table 1
COG Operating LLC.
BEECH FEDERAL #2 TANK BATTERY
EDDY COUNTY, NEW MEXICO

Sample ID	Sample Date	Sample Depth (ft)	Depth (BEB)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
				In-Situ	Removed	GRO	DRO	Total					
AH-1	8/10/2010	0-1'		X		<2.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	10,100
	"	1-1.5'		X		-	-	-	-	-	-	-	10,500
	"	2-2.5'		X		-	-	-	-	-	-	-	9,380
	"	3-3.5'		X		-	-	-	-	-	-	-	1,300
AH-2	8/10/2010	0-1'		X		<2.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	9,970
	"	1-1.5'		X		-	-	-	-	-	-	-	4,350
	"	2-2.5'		X		-	-	-	-	-	-	-	368
	"	3-3.5'		X		-	-	-	-	-	-	-	259
	"	4-4.5'		X		-	-	-	-	-	-	-	353
	"	5-5.5'		X		-	-	-	-	-	-	-	244
AH-3	8/10/2010	0-1'		X		<2.00	<50.0	<50.0	-	-	-	-	7,520
	"	1-1.5'		X		-	-	-	-	-	-	-	4,010
	"	2-2.5'		X		-	-	-	-	-	-	-	407
BG	8/10/2010	0-1'		X		<2.00	<50.0	<50.0	-	-	-	-	212
	"	1-1.5'		X		-	-	-	-	-	-	-	317
	"	2-2.5'		X		-	-	-	-	-	-	-	508
	"	3-3.5'		X		-	-	-	-	-	-	-	328

BEB Below Excavation Bottom

(--) Not Analyzed

☐ Proposed Excavation Depths

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
side of

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	Beech Federal #2 Tank Battery	Facility Type	Tank Battery
Surface Owner	Federal	Mineral Owner	
		Lease No.	NMLC-058181

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	25	17S	27E					Eddy

Latitude 32 48.140 Longitude 104 13.725

NATURE OF RELEASE

Type of Release	Produced Water	Volume of Release	20bbls	Volume Recovered	23bbls
Source of Release	Heater Treater	Date and Hour of Occurrence	07/04/2010	Date and Hour of Discovery	07/04/2010 9:00 a.m.
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?			
By Whom?	Date and Hour				
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			
If a Watercourse was Impacted, Describe Fully.*					

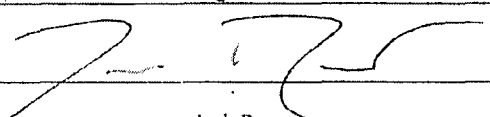
Describe Cause of Problem and Remedial Action Taken.*

Heater treater fire tube gasket failed. The heater treater fire tube gasket has been replaced and the heater treater has been put back into service.

Describe Area Affected and Cleanup Action Taken.*

Initially 20bbls of produced water was released from the heater treater. Due to rainwater, we were able to recover 23bbls of free fluid from a low area where the fluid pooled behind the heater treater. All free fluids were recovered. The dimensions of the pooling area was 20' x 40'. All fluid was contained inside the firewall of the facility. (The closest well location to the release is the Beech Federal #2, API# 30-015-31790, Unit J, Sec. 25-T17S-R27E, 1650' FSL 1650' FEL, 32.8023065 - 104.229053). Terra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD / BLM for 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:	
Date: 07/16/2010 Phone: 432-212-2399		Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary

Water Well Data
Average Depth to Groundwater (ft)
COG - Beech Federal #2 Tank Battery
Eddy County, New Mexico

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

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

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

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







17 South			27 East		
6	5	4	3	2	1
7	8	9	10	11	12
14				54	
18	17	16	15	14	13
86	283	194			
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36
	120				

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

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

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

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

-  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

Summary Report

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

Report Date: August 23, 2010

Work Order: 10081609



Project Location: Eddy County, NM
Project Name: COG/Beech Fed. #2 TB
Project Number: 114-6400630

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
241062	AH-1 0-1'	soil	2010-08-10	00:00	2010-08-13
241063	AH-1 1-1.5'	soil	2010-08-10	00:00	2010-08-13
241064	AH-1 2-2.5'	soil	2010-08-10	00:00	2010-08-13
241065	AH-1 3-3.5'	soil	2010-08-10	00:00	2010-08-13
241066	AH-2 0-1'	soil	2010-08-10	00:00	2010-08-13
241067	AH-2 1-1.5'	soil	2010-08-10	00:00	2010-08-13
241068	AH-2 2-2.5'	soil	2010-08-10	00:00	2010-08-13
241069	AH-2 3-3.5'	soil	2010-08-10	00:00	2010-08-13
241070	AH-2 4-4.5'	soil	2010-08-10	00:00	2010-08-13
241071	AH-2 5-5.5'	soil	2010-08-10	00:00	2010-08-13
241072	AH-3 0-1'	soil	2010-08-10	00:00	2010-08-13
241073	AH-3 1-1.5'	soil	2010-08-10	00:00	2010-08-13
241074	AH-3 2-2.5'	soil	2010-08-10	00:00	2010-08-13
241075	BG-Background 0-1'	soil	2010-08-10	00:00	2010-08-13
241076	BG-Background 1-1.5'	soil	2010-08-10	00:00	2010-08-13
241077	BG-Background 2-2.5'	soil	2010-08-10	00:00	2010-08-13
241078	BG-Background 3-3.5'	soil	2010-08-10	00:00	2010-08-13

Sample - Field Code	BTEX				TPH DRO - NEW	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
241062 - AH-1 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
241066 - AH-2 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
241072 - AH-3 0-1'					<50.0	<2.00
241075 - BG-Background 0-1'					<50.0	<2.00

Sample: 241062 - AH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		10100	mg/Kg	4.00

Sample: 241063 - AH-1 1-1.5'

Param	Flag	Result	Units	RL
Chloride		10500	mg/Kg	4.00

Sample: 241064 - AH-1 2-2.5'

Param	Flag	Result	Units	RL
Chloride		9380	mg/Kg	4.00

Sample: 241065 - AH-1 3-3.5'

Param	Flag	Result	Units	RL
Chloride		1300	mg/Kg	4.00

Sample: 241066 - AH-2 0-1'

Param	Flag	Result	Units	RL
Chloride		9970	mg/Kg	4.00

Sample: 241067 - AH-2 1-1.5'

Param	Flag	Result	Units	RL
Chloride		4350	mg/Kg	4.00

Sample: 241068 - AH-2 2-2.5'

Param	Flag	Result	Units	RL
Chloride		368	mg/Kg	4.00

Sample: 241069 - AH-2 3-3.5'

Param	Flag	Result	Units	RL
Chloride		259	mg/Kg	4.00

Sample: 241070 - AH-2 4-4.5'

Param	Flag	Result	Units	RL
Chloride		353	mg/Kg	4.00

Sample: 241071 - AH-2 5-5.5'

Param	Flag	Result	Units	RL
Chloride		244	mg/Kg	4.00

Sample: 241072 - AH-3 0-1'

Param	Flag	Result	Units	RL
Chloride		7520	mg/Kg	4.00

Sample: 241073 - AH-3 1-1.5'

Param	Flag	Result	Units	RL
Chloride		4010	mg/Kg	4.00

Sample: 241074 - AH-3 2-2.5'

Param	Flag	Result	Units	RL
Chloride		407	mg/Kg	4.00

Sample: 241075 - BG-Background 0-1'

Param	Flag	Result	Units	RL
Chloride		212	mg/Kg	4.00

Sample: 241076 - BG-Background 1-1.5'

Param	Flag	Result	Units	RL
Chloride		317	mg/Kg	4.00

Sample: 241077 - BG-Background 2-2.5'

Param	Flag	Result	Units	RL
Chloride		508	mg/Kg	4.00

Sample: 241078 - BG-Background 3-3.5'

Param	Flag	Result	Units	RL
Chloride		328	mg/Kg	4.00

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: 2

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:

COG

SITE MANAGER:

Eric Tavaraz

PROJECT NO.:

114-6400630

PROJECT NAME:

COG / Beach Field # 2 TB
EJH Co, VA

LAB I.D.
NUMBER

DATE

TIME

MATRIX

COMP.

GRAB

SAMPLE IDENTIFICATION

NUMBER OF CONTAINERS

FILTERED (Y/N)

HCL

HNO3

ICE

NONE

PRESERVATIVE
METHOD

BITEX 80218
TPH 8015 MOD. TX1005 (Ext. to C05)
PAH 8270
ICRA Metals Ag As Ba Cd Cr Pb Hg Se
TCLP Metals Ag As Ba Cd Cr Pb Hg Se
TCLP Volatiles
TCLP Semi Volatiles
PC1
GC/MS Vol. 8240/8260/824
GC/MS Semi. Vol. 8270/825
PCB's 8080/808
Pest. 808/808
Chloride
Gamma Spec.
Alpha Beta (Air)
PLM (Asbestos)
Major Anions/Cations, pH, TDS

241062

8/10

S

X

AH-1

0-1'

063

1

1

1

AH-1

1-1.5'

064

1

1

AH-1

2-2.5'

065

1

1

AH-1

3-3.5'

066

1

1

AH-2

0-1'

067

1

1

AH-2

1-1.5'

068

1

1

AH-2

2-2.5'

069

1

1

AH-2

3-3.5'

070

1

1

AH-2

4-4.5'

071

Y

Y

Y

AH-2

5-5.5'

RELINQUISHED BY: (Signature)

Date: 8-13-10

RECEIVED BY: (Signature)

Date:

SAMPLED BY: (Print & Initial)

Date: 8-10-10

RELINQUISHED BY: (Signature)

Date: 8-13-10

RECEIVED BY: (Signature)

Date:

SAMPLE SHIPPED BY: (Circle)

AIRBILL #:

RELINQUISHED BY: (Signature)

Date:

RECEIVED BY: (Signature)

Date:

FEDEX

BUS

OTHER:

RELINQUISHED BY: (Signature)

Date:

RECEIVED BY: (Signature)

Date:

WAND DELIVERED

UPS

OTHER:

RECEIVING LABORATORY:

RECEIVED BY: (Signature)

TETRA TECH CONTACT PERSON:

Results by:

ADDRESS:

RECEIVED BY: (Signature)

Eric Tavaraz

RUSH Charges

CITY:

STATE:

ZIP:

DATE:

TIME:

Authorized:

Yes No

CONTACT:

PHONE:

DATE:

TIME:

Authorized:

Yes No

SAMPLE CONDITION WHEN RECEIVED:

REMARKS: IF total TPH exceeds 5000 mg/kg Run deeper Sample

Authorized:

18.0°C

T & BTCH exceed 50 mg/kg on Benzene exceeds 10 mg/kg on BTEX Sample

Authorized:

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

2 highest TPH for BTCH

WO #: 10081609

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: 2

ANALYSIS REQUEST
(Circle or Specify Method No.)

CLIENT NAME:

SITE MANAGER:

PROJECT NO.:

PROJECT NAME:

LAB I.D. NUMBER

DATE

TIME

MATRIX

COMP.

GRAB

SAMPLE IDENTIFICATION

NUMBER OF CONTAINERS

FILTERED (Y/N)

HCL

HNO3

ICE

NONE

PRESERVATIVE METHOD

BTX 8021B

TPH 8015 MOD. TX1005 (Ext. to C35)

PAH 8270

PCRA Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Metals Ag As Ba Cd Cr Pb Hg Se

TCLP Volatiles

TCLP Semi Volatiles

PCI

GC/MS Vol. 8240/8260/824

GC/MS Semi. Vol. 8270/825

PCB's 8080/808

Pest. 808/808

Chloride

Gamma Spec.

Alpha Beta (Air)

PLM (Asbestos)

Major Anions/Cations, pH, TDS

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

SAMPLED BY: (Print & Initial)

Date:

Time:

RELINQUISHED BY: (Signature)

Date:

Time:

RECEIVED BY: (Signature)

Date:

Time:

SAMPLE SHIPPED BY: (Circle)

AIRBILL #:

FEDEX

BUS

HAND DELIVERED

UPS

OTHER:

RECEIVING LABORATORY:

RECEIVED BY: (Signature)

ADDRESS:

CITY:

STATE:

ZIP:

CONTACT:

PHONE:

DATE:

TIME:

TETRA TECH CONTACT PERSON:

Results by:

Ike Tavares

RUSH Charges Authorized:

Yes No

SAMPLE CONDITION WHEN RECEIVED:

REMARKS: *18.0' Contaminated*

IF BTX exceeds 50 mg/kg or Benzene exceeds 10 mg/kg Run clean Sample

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

Run highest TPH for BTX