

GW - 71

**Interim Corrective Action
Report and Supplemental
Site Investigation Work
Plan – Dec 2014**

**Chaco Gas Plant
Bisti Receiver Tanks**

Date: 2014



ENTERPRISE PRODUCTS PARTNERS L.P.
ENTERPRISE PRODUCTS HOLDINGS LLC
(General Partner)

ENTERPRISE PRODUCTS OPERATING LLC

December 16, 2014

Return Receipt Requested
7012 3460 0001 7236 2565

Ms. Freida White, Program Manager
Navajo Nation EPA Superfund Program
P.O. Box 2946
Window Rock, AZ 86511

District Copy
For Scanning Only
Has NOT been processed.

**RE: Supplemental Site Investigation Work Plan (2014) -
Bisti Receiver Tanks (6/23/07 Release)
Enterprise Field Services, LLC
Chaco Gas Plant (OCD GW-071)
San Juan County, NM
Section 21, Township 26 North, Range 12 West**

OIL CONS. DIV DIST. 3

DEC 22 2014

Attn: Michele Dineyazhe

Dear Ms. White,

The attached report entitled: *Supplemental Site Investigation Work Plan (2014)*, dated December 11, 2014, provides proposed site investigations necessary to determine the full extent of affected soil and groundwater at the release site referenced above. The site is located immediately south of the Enterprise Field Services, LLC (Enterprise) Chaco Gas Plant, on leased Navajo Land. Initial investigations of the release site indicated that soils and groundwater were impacted. Additional investigations were proposed in the *Supplemental Site Investigation Work Plan*, dated September 26, 2011, as submitted to the Navajo Nation EPA Superfund Program (NNSP) in correspondence dated October 11, 2011. This work plan is pending approval by the NNSP.

The attached *Supplemental Site Investigation Work Plan (2014)* provides an amended site investigation approach based on current site conditions, and recommends proper plugging and abandonment of piezometers (monitor wells) installed during initial site investigations.

Following NNSP review, Enterprise recommends proceeding with the site investigations proposed in the attached work plan. If you have any questions or concerns, please do not hesitate to call me at (713) 381-2286, or drsmith@eprod.com.

Sincerely,

David R. Smith, P.E.
Sr. Environmental Scientist

Gregory E. Miller, P.G.,
Supervisor, Environmental

/dep
Attachment

cc: Michele Dineyazhe, NNEPA Superfund, Window Rock, AZ
Steve Austin, NNEPA WQ/NPDES Program, Shiprock, NM
Brandon Powell, NMOCD, Aztec, NM

ec: Jim Griswold, NMOCD, Santa Fe, NM (ftp submittal)
Glenn von Gonten, NMOCD
Elizabeth Scaggs, APEX, Dallas, TX
Kyle Summers, APEX, Aztec, NM

called Colen von
Gonten to address
concerns with work
plan he said he could
look into it
12/23/14



**SUPPLEMENTAL SITE
INVESTIGATION WORK PLAN (2014)**

Property:

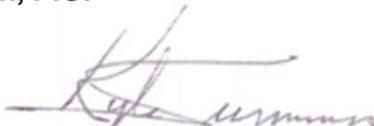
**Former Bisti Receiver Tanks
Chaco Gas Plant
GW Discharge Permit No. (GW-071)
Section 21, Township 26N, Range 12W
Navajo Nation, San Juan County, New Mexico**

December 11, 2014
Apex Project No. 7030410G001C

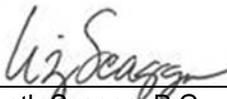
Prepared for:

**Enterprise Field Services, LLC
P.O. Box 4324
Houston, Texas 77210-4324
Attn: Mr. David R. Smith, P.G.**

Prepared by:



Kyle Summers, CPG
Branch Manager / Senior Geologist



Elizabeth Scaggs, P.G.
Senior Program Manager

TABLE OF CONTENTS

1.0	SITE LOCATION AND HISTORY	1
2.0	CONSTITUENTS OF CONCERN.....	2
3.0	PROPOSED CLEANUP GOALS	2
4.0	SUPPLEMENTAL SITE INVESTIGATION.....	2
4.1	Soil Boring and Monitoring Well Installation	3
4.2	Sampling Program.....	4
4.3	Laboratory Analytical Program	4
4.4	Top-of-Casing Survey	5
4.5	Piezometer Plugging and Abandonment.....	5
5.0	SUPPLEMENTAL SITE INVESTIGATION REPORT	5
6.0	SCHEDULE.....	5

LIST OF APPENDICES

Appendix A: Figure 1: Topographic Map
Figure 2: Site Vicinity Map
Figure 3: Site Map

Appendix B: Table 1: Soil Analytical Results – Lodestar Soil Borings
Table 2: Soil Analytical Results - Interim Excavations
Table 3: Groundwater Analytical Results

Appendix C: NNEPA September 2014 Review of Project

**SUPPLEMENTAL SITE
INVESTIGATION WORK PLAN (2014)**

**Former Bisti Receiver Tanks
Chaco Gas Plant
GW Discharge Permit No. (GW-071)
Section 21, Township 26N, Range 12W
Navajo Nation, San Juan County, New Mexico**

Apex Project No. 7030410G001C

1.0 SITE LOCATION AND HISTORY

The former Bisti Receiver Tanks Site is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) in the northwest (NW) $\frac{1}{4}$ of Section 21 in Township 26 North and Range 12 West in San Juan County, New Mexico (36.480222N, 108.120325W), referred to hereinafter as the “Site” or “subject Site”. The Site is located directly south of the Enterprise Chaco Gas Plant on land owned by the Navajo Nation. The property surrounding the Site is primarily natural gas gathering and refining facilities with agricultural land (operated by the Navajo Agricultural Products Industry (NAPI)) to the south.

The Site originally consisted of four (4) natural gas condensate¹ “drip” tanks that formerly received fluids from the Bisti Recovery System. On July 23, 2007, an overflow of one of the condensate tanks resulted in an estimated 60 barrel (bbl) release to the ground surface. Envirotech, Inc. (Envirotech) excavated approximately 612 cubic yards of affected soil from the western portion of the bermed area between July and August 2007. This material was transported to the Envirotech landfarm near Hilltop, NM for treatment/disposal. The excavation activities are documented in the *Enterprise Products Excavation Monitoring Report*, dated October 11, 2007 (Envirotech). A Geoprobe® investigation was subsequently performed at the Site during June 2008 by Lodestar Services, Inc. (Lodestar). Results from the investigation and two subsequent quarterly groundwater sampling events were documented in the letter report *Enterprise Field Services, LLC – Geoprobe Investigation at Bisti*, dated November 5, 2008 (Lodestar). The investigation results indicated remaining impact to soil and groundwater in the vicinity of the tanks, non-aqueous phase liquid (NAPL) on the groundwater at piezometer P-1, as well as potential staining and/or impact at further distances from the tanks. During August 2014, two (2) exploratory excavations were performed within the tank battery footprint. Details from these excavations are presented in the *Interim Corrective Action Report*, dated December 2, 2014 (Apex TITAN, Inc. (Apex)). The Bisti Receiving Tanks are no longer in service, and have been physically removed from the location.

The Site is under the regulatory jurisdiction of the Navajo Nation Environmental Protection Agency (NNEPA) Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) group which refers to a combination of published guidance from the United States Environmental Protection Agency (EPA), New Mexico Oil Conservation Division (OCD), and New Mexico Water Quality Control Commission (WQCC) for environmental remediation standards for this Site.

The Site location is depicted on Figure 1 of Appendix A which was reproduced from United States Geological Survey (USGS) 7.5-minute series topographic maps. A Site Vicinity Map of the subject Site and adjoining properties is included as Figure 2 of Appendix A.

¹ Natural gas condensate is a low-density mixture of hydrocarbon liquids present as gaseous components in the raw natural gas produced from many natural gas fields, which condenses out of the gas stream during production when the temperature is reduced to below the hydrocarbon dew point temperature.

2.0 CONSTITUENTS OF CONCERN

As a result of the potential source of constituents of concern (COCs) in soil and groundwater at the Site being limited to natural gas condensate, COCs targeted for investigation are limited to total petroleum hydrocarbon (TPH) gasoline range organics (GRO)/diesel range organics (DRO) and benzene, toluene, ethylbenzene, and xylenes (BTEX), which are the primary constituents in unrefined petroleum products that may present a risk to human health and the environment.

The soil and groundwater samples collected to date indicate remaining COC concentrations in soil and groundwater at the Site. Additionally, NAPL was identified on the groundwater in the vicinity of piezometer P-1.

Figure 3 indicates the approximate locations of the borings/piezometers and excavations completed to date at the Site in relation to pertinent Site features and general Site boundaries.

Soil and groundwater analytical results for the Site borings, piezometers, and excavations are included in Tables 1, 2, and 3 (Appendix A).

3.0 PROPOSED CLEANUP GOALS

The Site is under the regulatory jurisdiction of the NNEPA CERCLA group refers to a combination of published guidance from the United States EPA, New Mexico OCD, and New Mexico WQCC for environmental remediation standards. For this Site, the NNEPA has indicated that it concurs with the remediation levels derived from the OCD's *Guidelines for Remediation of Leaks, Spills and Releases*, with the exception of benzene, which is deferred to the EPA Region 9 Regional Screening Level of 5.4 mg/Kg.

- **Based on this information, the cleanup goals for soil located at the Site include: 5.4 milligrams per kilogram (mg/Kg) for benzene, 50 mg/Kg for total BTEX and 100 mg/Kg for TPH GRO/DRO.**

In addition, NNEPA has indicated accepted cleanup goals for groundwater located at the Site will include a combination of EPA Maximum Contaminant Levels (MCLs) and the New Mexico WQCC *Water Quality Standards*.

- **Based on this information, the cleanup goals for groundwater located at the Site include: 5 micrograms per liter ($\mu\text{g/L}$) for benzene, 750 $\mu\text{g/L}$ for toluene, 700 $\mu\text{g/L}$ for ethylbenzene, and 620 $\mu\text{g/L}$ for xylenes.**

4.0 SUPPLEMENTAL SITE INVESTIGATION

The primary objective of the proposed supplemental site investigation activities is to further evaluate the magnitude and extent, both horizontal and vertical, of COCs in soil and groundwater at the Site.

In addition, the objective will be to utilize geospatial survey data collected from the proposed monitoring well network to evaluate the direction of groundwater flow within the initial groundwater-bearing unit at the Site.

4.1 Soil Boring and Monitoring Well Installation

Up to fifteen (15) soil borings will be advanced on-site utilizing a direct-push Geoprobe® rig. The soil borings will be advanced in the vicinity of the June 23, 2007 condensate release from the on-Site storage tanks, and surrounding areas, based on visual, olfactory and photoionization detector (PID) evidence of impairment. The soil borings will be advanced to a maximum depth of approximately thirty (30) feet bgs, five feet below the initial water table, or auger refusal, whichever is more shallow. A Site Plan (Figure 3), that indicates the approximate locations of the proposed soil borings, is attached to this work plan. Actual boring locations may vary depending on conditions encountered in the field.

Reusable sampling and drilling equipment will be decontaminated using an Alconox® wash and potable water rinse prior to commencement of the project and between the advancement of each soil boring.

Soil samples will be collected continuously using core barrels or split spoon samplers to document lithology, color, relative moisture content and visual or olfactory evidence of impairment. In addition, the samples will be scanned with a PID for the presence of volatile organic compounds (VOCs).

Drill cuttings and decontamination water will be stored temporarily on-site in labeled, 55-gallon, DOT-approved drums pending the results of the laboratory analyses. The drum labels will bear the apparent contents of the drum and the accumulation date.

Subsequent to the completion of the soil borings, each soil boring will be converted to either a groundwater monitoring well or a temporary sampling well, as practicable, to further evaluate the initial groundwater-bearing unit on the Site. Subsurface conditions will dictate the ability to install the 2-inch diameter permanent monitoring wells during this stage of the investigation while utilizing the Geoprobe® rig. If permanent monitoring well installations prove feasible, they will be installed in the vicinity of known impact and surrounding the storage tank secondary containment area, while temporary sampling wells will be used to further evaluate the extent of groundwater impact, providing information that will allow the proper placement of future permanent monitoring wells, if necessary. The permanent monitoring wells will be completed as follows:

- Installation of 10 to 15 feet of 2-inch diameter, machine slotted PVC well screen assembly with a threaded bottom plug;
- Installation of riser pipe to surface;
- Addition of graded silica sand for annular sand pack around the well screen from the bottom of the well to two feet above the top of the screen;
- Placement of two (2) feet of hydrated bentonite pellets above the sand pack;
- Addition of cement/bentonite slurry to the surface; and
- Installation of a locking above-grade steel riser.

Temporary sampling wells will be completed as follows:

- Installation of 5 to 10 feet of 1-inch, machine slotted PVC well screen assembly with a threaded bottom plug;
- Installation of riser pipe to the surface; and,
- Addition of graded silica sand for annular sand pack around well screen from the bottom of the well to two (2) feet above the top of the screen.

The monitoring wells and temporary sampling wells will be developed by surging and removing groundwater until the fluid appears relatively free of fine-grained sediment. Development groundwater will be stored temporarily on-site in labeled, 55-gallon, DOT-approved drums pending the results of the laboratory analyses. The drum labels will bear the apparent contents of the drum and the accumulation date.

Following groundwater sample collection, the temporary sampling wells will be plugged and abandoned in accordance with NMAC 19.27.4.30 *RULES AND REGULATIONS GOVERNING WELL DRILLER LICENSING; CONSTRUCTION, REPAIR AND PLUGGING OF WELLS*.

4.2 Sampling Program

The sampling program will consist of the following:

- 1) Collection of two (2) or more soil samples from each soil boring from any of the following locations:
 - a) the zone exhibiting the highest concentration of VOC's based on visual, olfactory or PID evidence,
 - b) from the capillary fringe zone,
 - c) from a change in lithology, or
 - d) from the bottom of the boring (to assess vertical extent of COCs).
- 2) Collection of one (1) groundwater sample from each monitoring well and each temporary sampling well.

Prior to sample collection, each monitoring well or temporary sampling well will be micro-purged utilizing low-flow sampling techniques. Low-flow refers to the velocity with which groundwater enters the peristaltic pump intake and that is imparted to the formation pore water in the immediate vicinity of the well screen. It does not necessarily refer to the flow rate of water discharged at the surface which can be affected by flow regulators or restrictions. Water level drawdown provides the best indication of the stress imparted by a given flow-rate for a given hydrological situation. The objective is to pump in a manner that minimizes stress (drawdown) to the system to the extent practical taking into account established site sampling objectives. Flow rates on the order of 0.1 to 0.5 L/min will be maintained during the sampling activities using dedicated sampling equipment.

The utilization of low-flow minimal drawdown techniques enables the isolation of the screened interval groundwater from the overlying stagnant casing water. The pump intake is placed within the screened interval such that the groundwater pumped is drawn in directly from the formation with little mixing of casing water or disturbance to the sampling zone.

The monitoring wells will be purged until produced groundwater is consistent in color, clarity, pH, temperature and conductivity.

The groundwater samples will be collected in laboratory prepared glassware and placed on ice in a cooler, which will be secured with a custody seal. The samples will be transported to a selected analytical laboratory along with a completed chain-of-custody form.

4.3 Laboratory Analytical Program

The soil samples collected from the soil borings/monitoring wells/temporary sampling wells will be analyzed for TPH GRO/DRO utilizing EPA SW-846 Method 8015 and BTEX utilizing EPA SW-846 Method 8021. Groundwater samples will be analyzed for BTEX utilizing EPA SW-846 Method 8021.

A summary of the analysis, sample type, estimated sample frequency and EPA-approved methods are presented in the following table:

Analysis	Sample Type	No. of Samples	EPA Method
TPH GRO/DRO	Soil	30	SW-846 8015
BTEX	Soil	30	SW-846 8021
BTEX	Groundwater	15	SW-846 8021

4.4 Top-of-Casing Survey

Subsequent to the completion of supplemental site investigation activities, and assuming that the installation of permanent monitoring wells was proven practicable, a geospatial survey of the monitoring well network will be performed to identify the top-of-casing elevations to accurately determine the groundwater gradient for the initial groundwater-bearing unit at the facility. The survey will be performed by professional licensed surveyor, and tied to known landmarks or benchmarks. If a benchmark cannot be located nearby, one will be set at the facility as a point of reference.

4.5 Piezometer Plugging and Abandonment

Piezometers installed during previous investigative activities will be plugged and abandoned in accordance with guidance contained in NMAC 19.27.4.30 *RULES AND REGULATIONS GOVERNING WELL DRILLER LICENSING; CONSTRUCTION, REPAIR AND PLUGGING OF WELLS*.

5.0 SUPPLEMENTAL SITE INVESTIGATION REPORT

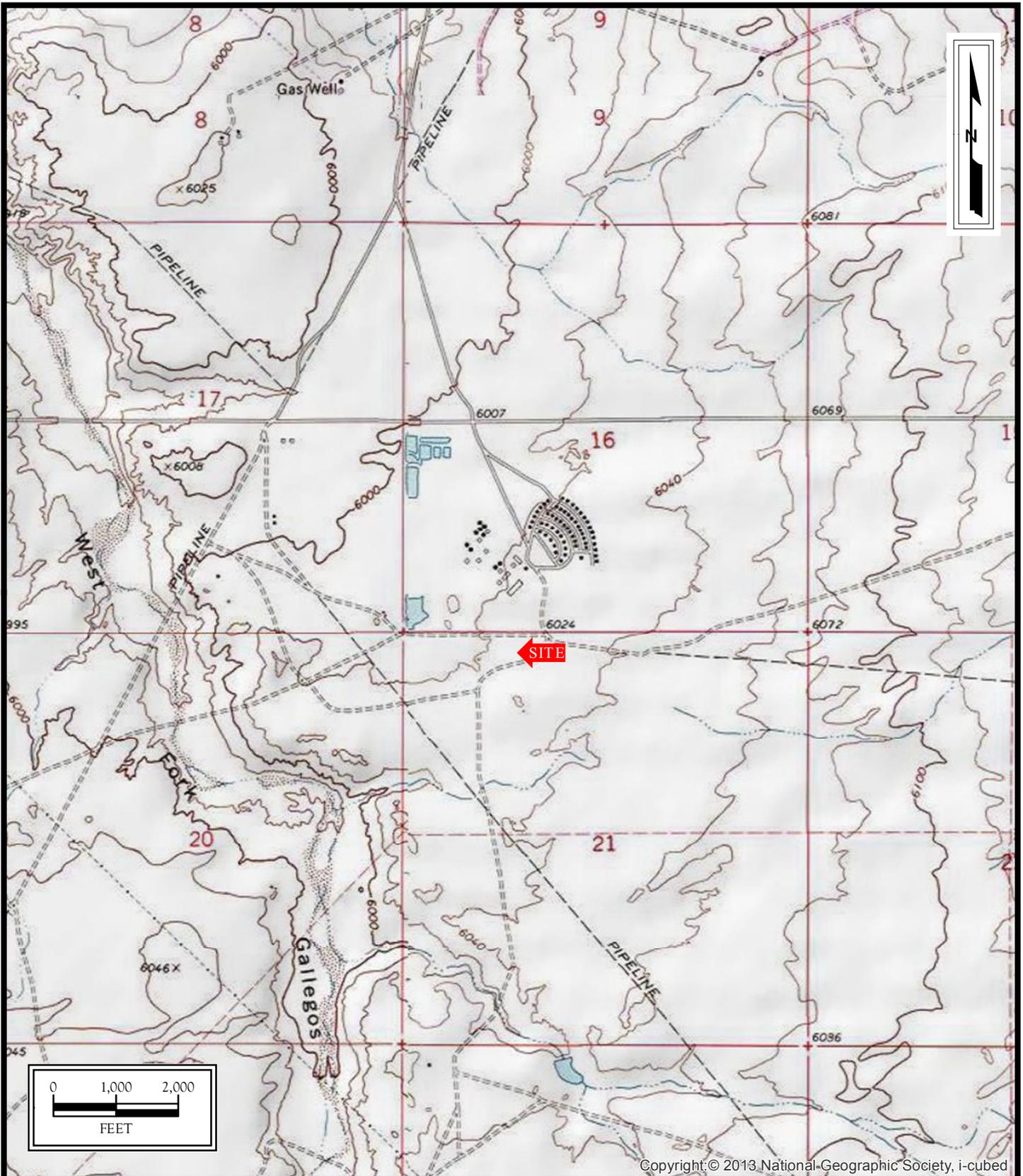
Upon completion of the supplemental site investigation field activities and receipt of final analytical results, a final report will be prepared that will include documentation of field investigation activities, a site plan detailing pertinent site features, logs of subsurface exploration, laboratory analytical results, an evaluation of investigation results, suggested monitoring frequency, discussion regarding the potential need for additional investigation and/or monitoring wells, and recommendations concerning corrective actions. The Supplemental Site Investigation Report will be provided to Enterprise in draft form, three (3) weeks following receipt of final analytical results.

6.0 SCHEDULE

The completion of the proposed supplemental site investigation field activities will require an estimated five (5) days after initiation; however, time estimations regarding the completion of field activities depend upon several factors, many of which cannot be pre-determined.

APPENDIX A

Figures



Former Bisti Receiver Tanks
 NW1/4 S21 T26N R12W
 Rural San Juan County, New Mexico
 Navajo Nation
 36.480222N, 108.120325W

Project No. 7030410G001C.001



Apex TITAN, Inc.
 606 South Rio Grande, Suite A
 Aztec, NM 87410
 Phone: (505) 334-5200
www.apexcos.com
 A Subsidiary of Apex Companies, LLC

FIGURE 1
Topographic Map
 Carson Trading Post
 NM Quadrangle
 1966



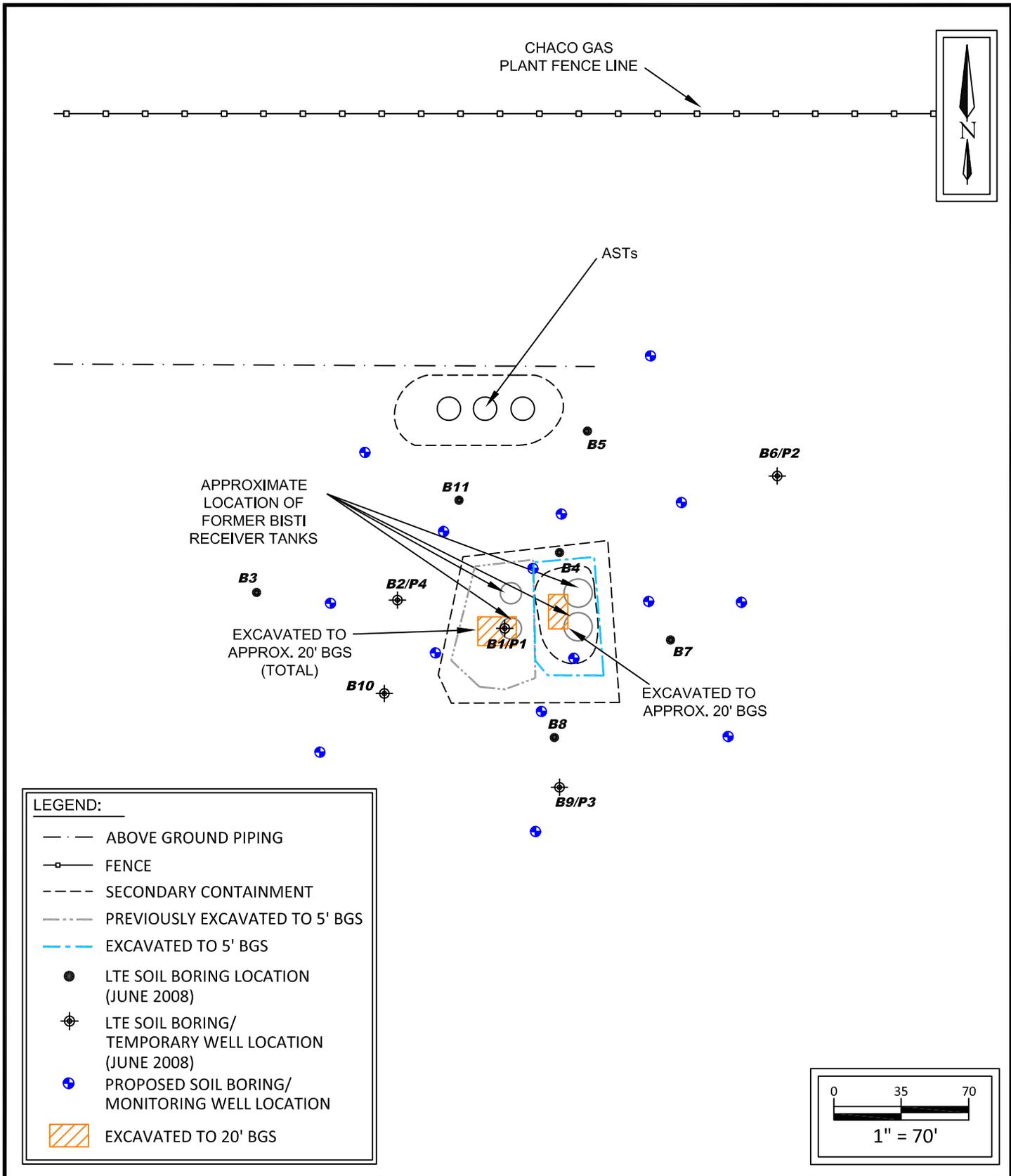
Former Bisti Receiver Tanks
 NW1/4 S21 T26N R12W
 Rural San Juan County, New Mexico
 Navajo Nation
 36.480222N, 108.120325W

Project No. 7030410G001C.001



Apex TITAN, Inc.
 606 South Rio Grande, Suite A
 Aztec, NM 87410
 Phone: (505) 334-5200
www.apexcos.com
 A Subsidiary of Apex Companies, LLC

FIGURE 2
Site Vicinity Map



LEGEND:

— — —	ABOVE GROUND PIPING
— □ —	FENCE
- - - -	SECONDARY CONTAINMENT
- - - -	PREVIOUSLY EXCAVATED TO 5' BGS
- - - -	EXCAVATED TO 5' BGS
●	LTE SOIL BORING LOCATION (JUNE 2008)
⊕	LTE SOIL BORING/ TEMPORARY WELL LOCATION (JUNE 2008)
+	PROPOSED SOIL BORING/ MONITORING WELL LOCATION
▨	EXCAVATED TO 20' BGS

Former Bisti Receiver Tanks
 NW $\frac{1}{4}$ S21 T26N R12W
 Rural San Juan County, New Mexico
 Navajo Nation
 36.480222N, 108.120325W

Project No. 7030410G001C.001



Apex TITAN, Inc.
 606 S. Rio Grande, Suite A
 Aztec, New Mexico 87410
 Phone: (505) 334-5200
www.apexcos.com
 A Subsidiary of Apex Companies, LLC

FIGURE 3
Site Map

APPENDIX B

Tables



TABLE 1
BISTI RECEIVER TANKS RELEASE
SOIL ANALYTICAL SUMMARY - Lodestar Soil Borings

Sample I.D.	Date	Sample Depth (feet)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)
New Mexico Entergy, Mineral & Natural Resources Department, Oil Conservation Division, Remediation Action Level			5.4	NE	NE	NE	50	100	
Lodestar Soil Boring Samples									
B-1	6.24.08	14.5	<0.050	<0.050	<0.050	<0.10	ND	5.2	<10
B-2	6.24.08	23	<0.050	<0.050	<0.050	<0.10	ND	<5.0	<10
B-3	6.24.08	22	<0.050	<0.050	<0.050	<0.10	ND	<5.0	<10
B-4	6.24.08	20	<0.25	0.73	0.39	3.4	5	91	280
B-5	6.24.08	20	<0.050	<0.050	<0.050	<0.10	ND	<5.0	<10
B-6	6.24.08	20	<0.050	<0.050	<0.050	<0.10	ND	<5.0	<10
B-7	6.25.08	20	<0.050	<0.050	<0.050	<0.10	ND	<5.0	<10
B-8	6.25.08	20	<1.0	3.1	9.4	58	70.5	2,200	1,600
B-8	6.25.08	22	<0.050	<0.050	<0.050	<0.10	ND	<5.0	<10
B-9	6.25.08	24	<0.050	<0.050	<0.050	<0.10	ND	<5.0	<10
B-10	6.25.08	24	<0.050	<0.050	<0.050	<0.10	ND	<5.0	<10
B-11	6.25.08	22	<0.050	<0.050	<0.050	<0.10	ND	<5.0	<10
B-11	6.25.08	24	<0.050	<0.050	<0.050	<0.10	ND	<5.0	<10

Note: Concentrations in **bold** and yellow exceed the NNEPA approved screening level

NE = Not Established

ND = Not Detected above laboratory PQLs



TABLE 2
Former Bisti Reciever Tanks
SOIL ANALYTICAL SUMMARY - Interim Excavations

Sample I.D.	Date	Sample Depth (feet) below grade	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)
Navajo Nation Environmental Protection Agency Approved Screening Levels			5.4	NE	NE	NE	50	100	
Exploratory Excavation Samples - Western Excavation									
C-1	8/7/2014	15	<0.097	0.22	0.23	1.50	1.95	43	190
C-2	8/7/2014	10	<0.25	<0.25	<0.25	0.60	0.60	<25	540
C-3	8/7/2014	15	<0.048	<0.048	<0.048	<0.097	ND	<4.8	<10
C-4	8/7/2014	10	<0.049	<0.049	<0.049	<0.097	ND	<4.9	<10
C-5	8/7/2014	15	5.2	26	4.8	37	73	1,300	250
C-6	8/7/2014	10	<0.049	<0.049	<0.049	<0.099	ND	<4.9	<10
Exploratory Excavation Sample - Load Line Area									
C-7	8/7/2014	4	<0.93	<1.9	3.3	40	43.3	770	2,600
Exploratory Excavation Samples - Eastern Excavation									
C-8	8/8/2014	14	0.74	<0.98	2.4	18	21.14	520	820
C-9	8/8/2014	9	27	<2.4	19	150	196	5,400	5,900
C-10	8/8/2014	14	1.5	1.2	2.6	20	25.3	690	890
C-11	8/8/2014	10	0.19	<0.24	1.2	8.9	10.29	220	660
C-12	8/8/2014	11	0.14	<0.047	0.12	0.74	1	26	120
C-13	8/8/2014	14	1.7	<0.96	3.3	23	28	880	900
C-14	8/8/2014	10	6.2	12	6.7	48	72.9	1,800	2,000

Note: Concentrations in **bold** and yellow exceed the NNEPA approved screening level

NA = Not Analyzed

ND = Not Detected above laboratory reporting limits



TABLE 3 BISTI RECEIVER TANKS RELEASE GROUNDWATER ANALYTICAL SUMMARY					
Sample I.D.	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)
New Mexico Water Quality Control Commission Groundwater Quality Standards		5	750	700	620
Lodestar Groundwater Results					
P-1*	6.30.08	9,700	15,000	870	7,400
P-1*	8.20.09	NAPL	NAPL	NAPL	NAPL
P-1*	11.24.09	NAPL	NAPL	NAPL	NAPL
P-2	6.30.08	<1.0	2.3	<1.0	<2.0
P-2	8.20.09	<1.0	<1.0	<1.0	<2.0
P-2	11.24.09	<1.0	<1.0	<1.0	<2.0
P-3	6.30.08	1.2	2.6	<1.0	<2.0
P-3	8.20.09	<1.0	<1.0	<1.0	<2.0
P-3	11.24.09	<1.0	<1.0	<1.0	<2.0
P-4	6.30.08	<1.0	<1.0	<1.0	<2.0
P-4	8.20.09	NA	NA	NA	NA
P-4	11.24.09	NA	NA	NA	NA
Southwest Geoscience Groundwater Results (APEX)					
P-1	8.22.13	NAPL	NAPL	NAPL	NAPL
P-2	8.22.13	NA	NA	NA	NA
P-3	8.22.13	<1.0	<1.0	<1.0	<2.0
P-4	8.22.13	NA	NA	NA	NA

Note: Concentrations in **bold** and yellow exceed the NNEPA approved GQs or MCLs

NA = Not Analyzed

NE = Not Established

* = NAPL Present (Non-Aqueous Phase Liquid)

APPENDIX C

NNEPA September 2014 Review of Project

September 14, 2011

TO: Freida White, Program Manager
NNEPA Superfund

FROM: Michele Dineyazhe, Remedial Project Manager, IPA
NNEPA Superfund

RE: BISTI Receiver Tanks Overflow

On June 23, 2007, Enterprise Field Services, LLC (Enterprise) experienced a condensate release due to a tank overflow at the Bisti Receiver Tanks. November 10, 2008.

- Enterprise hired Envirotech Inc. to pick up contaminated soils. An initial response by Envirotech on July 26, 2007 removed 612 yards of contaminated soil. All impacted soil had not been excavated (10/11/07 letter to Enterprise).
- In June of 2008, Lodestar Services Inc. conducted a geoprobe investigation at the release site. The study was to determine lateral and vertical extent of affected soil before proceeding further. Constituents of concern include benzene, toluene, ethyl benzene, and xylenes (BTEX), and total petroleum hydrocarbons (TPH).
- On November 10, 2008, a letter detailing this incident was sent to New Mexico Oil Conservation Division (NMOCD) by Enterprise Products. Enterprise stated that a remedial action plan will be submitted to the NMOCD and NNEPA within 90 days for approval. Study results from Lodestar's investigation were attached.

Lodestar Services, Inc. Investigation Report, November 5, 2008.

Subsurface Soil. Lodestar concluded that impacted soil is limited to within the bermed area from the ground surface to the groundwater table at a depth of approximately 20 ft. bgs. They further concluded that impacted soil extends south of the bermed area (near B-8)...but only in a small lens....2 inches thick.

The majority of the data indicates that there is impacted soil as a result from this operation, either from recent or historic operations, within and outside the bermed area in all directions. Soil laboratory results indicate contamination in B-1, B-4, and B-8. Although some of these results are low, they shouldn't be in the soil at all. Additionally, the contamination appears to be at levels down to at least 23 ft. bgs. In B-8, according to the drill log, the lens of contamination is most likely from 13-23 bgs. That is within a 7 inch lense and not a 2 inch lense (as Lodestar stated and also at a deeper depth of at least 23 bgs). There is no indication how deep the contamination goes for the soil boring was only taken to 23 feet.

Further evidence of impacted soil outside the berm is contained within the drill logs themselves. Logs from B2, B5, B7, B8, B9, B10, and B11 all had indications of black staining or odor.

Groundwater. Lodestar concluded *that groundwater sampled from piezometers installed outside of the bermed area does not contain detectable levels of BTEX, indicating migration of the product along the water table is limited. Following manual bailing, this well did not yield any additional free-phase hydrocarbon.*

The data on Table 2 does indicate that there are detectable levels of BTEX outside of the bermed area. Additionally, there are no monitoring wells in the direct gradient of the groundwater flow, except for P4 which could be above a possible source, and P3 which is at the edge of the site in question.

On August 20, 2009, Lodestar Services conducted quarterly groundwater sampling at the site. No BTEX was found in 2 (P2 & P3) out of 4 wells sampled. In one well that was not sampled (P1-located within a bermed area) there was .86 feet of free product. P4 was not sampled due to low water content. When Lodestar initially developed P1 in June of 2008, P1 had .02 feet of free product. Without further groundwater results the conclusion is that there is a possible source of free product that is about 15 feet below ground surface (bgs) in the vicinity of P1.

The Navajo Nation expects the site to be cleaned up and appreciates the work that Enterprise Field Services has done to date to accomplish this goal. Table 1 has some Soil Standards from NMOCD. Navajo is in agreement with these proposed standards except for benzene. Since benzene is a known carcinogen, a Soil Screening¹ value of 5.4 mg/kg should be used for benzene. This may be a non-issue now; however, if any soil is tested in the future, then this value will apply.

Table 2 lists Groundwater Standards from NMWQCC. Navajo applies standards which are most protective of human health and the environment. In this case, for benzene and ethyl-benzene the Maximum Contaminant Level (MCL) will apply. The table lists a standard of 10 µg/L for benzene. The MCL for benzene is 5 µg/L. The table lists a standard of 750 µg/L for ethyl-benzene. The MCL for ethyl-benzene is 700 µg/L.

Navajo Superfund Program has determined that the full extent of the impacted site has not been fully delineated. In a correspondence sent (to Navajo Nation) dated February 16, 2010, Enterprise was considering drilling 7 groundwater wells at the Bisti site. Please inform our office if these wells were drilled. If so, please send all drilling information. Additional groundwater samples are advisable as indicated in the September 12, 2011 email from David Smith to Freida White. We look forward to additional data and would like a Remediation Plan on how Enterprise will be addressing both soil and groundwater contamination.

¹ USEPA Region 9 Regional Screening Level (RSL)



December 9, 2014

ENTERPRISE PRODUCTS PARTNERS L.P.
ENTERPRISE PRODUCTS HOLDINGS LLC
(General Partner)

ENTERPRISE PRODUCTS OPERATING LLC

Return Receipt Requested
7012 1010 0003 3760 7857

Ms. Freida White, Program Manager
Navajo Nation EPA Superfund Program
P.O. Box 2946
Window Rock, AZ 86511

District Copy
For Scanning Only
Has NOT been processed.

**RE: Bisti Receiver Tanks – Interim Corrective Action Report
Enterprise Field Services, LLC
Chaco Gas Plant (OCD GW-071)
San Juan County, NM
Section 21, Township 26 North, Range 12 West**

OIL CONS. DIV DIST. 3

DEC 15 2014

Attn: Michele Dineyazhe

Dear Ms. White,

The attached report entitled: *Interim Corrective Action Report*, dated December 2, 2014, provides a summary of interim remedial actions performed at the release site referenced above. This site is located immediately south of the Enterprise Field Services, LLC (Enterprise) Chaco Gas Plant on leased Navajo Land. On June 23, 2007, condensate storage tanks (formerly located at the site) overflowed. Initial response actions performed by Enterprise included the removal of approximately 600 cubic yards of contaminated soil prior to proper offsite disposal. Initial investigations of the release site indicated that additional affected soils were present, and that groundwater was impacted.

The attached report summarizes the removal of approximately 900 additional cubic yards of impacted soils at the release site during August 2014. In addition, the excavation remaining at the site from the original release response actions was properly backfilled with clean soils. Note that these actions only removed affected soils underlying the immediate release area, and additional site investigations are required to establish the full extent of affected soil and groundwater at the site. These additional investigations were proposed in the *Supplemental Site Investigation Work Plan*, dated September 26, 2011, as submitted to the Navajo Nation EPA Superfund Program (NNSP) in correspondence dated October 11, 2011. This work plan is pending approval by the NNSP.

Enterprise is currently preparing a revised site investigation work plan for review by the NNSP. The updated work plan will provide recommendations to complete delineation of affected soil and groundwater at the site, and recommendations for replacement of the existing monitor wells at the site.

If you have any questions or concerns, please do not hesitate to call me at (713) 381-2286, or drsmith@eprod.com.

Sincerely,

David R. Smith, P.G.
Sr. Environmental Scientist

Gregory E. Miller, P.G.
Supervisor, Remediation

/dep
Attachment

cc: Michele Dineyazhe, NNEPA Superfund, Window Rock, AZ
Steve Austin, NNEPA WQ/NPDES Program, Shiprock, NM
Brandon Powell, NMOCD, Aztec, NM

ec: Jim Griswold, NMOCD, Santa Fe, NM (ftp submittal)
Glenn von Gonten, NMOCD
Elizabeth Scaggs, APEX, Dallas, TX
Kyle Summers, APEX, Aztec, NM



INTERIM CORRECTIVE ACTION REPORT

Property:

**Former Bisti Receiver Tanks
NW 1/4, S21 T26N R12W
San Juan County, New Mexico**

December 2, 2014
Apex Project No. 7030410G001C

Prepared for:

**Enterprise Field Services, LLC
P.O. Box 4324
Houston, TX 77210-4324
Attn: Mr. David Smith**

Prepared by:

A handwritten signature in black ink, appearing to read 'Kyle Summers', written over a horizontal line.

Kyle Summers, CPG
Branch Manager/Senior Geologist

A handwritten signature in black ink, appearing to read 'Elizabeth Scaggs', written over a horizontal line.

Elizabeth Scaggs, P.G.
Senior Program Manager

TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	Site Description & Background.....	1
1.2	Project Objective	2
2.0	SITE RANKING	2
2.1	NNEPA-Approved Screening Levels	2
3.0	RESPONSE ACTIONS	3
3.1	Soil Excavation Activities	3
3.2	Soil Sampling Program	4
3.3	Laboratory Analytical Methods	4
4.0	DATA EVALUATION	4
4.1	Excavation Soil Samples	4
5.0	FINDINGS AND RECOMMENDATIONS	5
6.0	STANDARD OF CARE, LIMITATIONS, AND RELIANCE	6

LIST OF APPENDICES

Appendix A:	Figure 1 – Topographic Map Figure 2 – Site Vicinity Map Figure 3 – Site Map with Soil Analytical Results
Appendix B:	C-138 Solid Waste Acceptance Form
Appendix C:	Photographic Documentation
Appendix D:	Table
Appendix E:	Laboratory Data Sheets & Chain of Custody Documentation

INTERIM CORRECTIVE ACTION REPORT

Former Bisti Receiver Tanks

NW 1/4, S21 T26N R12W
San Juan County, New Mexico

Apex Project No. 7030410G001C

1.0 INTRODUCTION

1.1 Site Description & Background

The former Bisti Receiver Tanks Site is located within the Enterprise Field Services, LLC (Enterprise) pipeline right-of-way (ROW) in the northwest (NW) ¼ of Section 21 in Township 26 North and Range 12 West in San Juan County, New Mexico (36.480222N 108.120325W), referred to hereinafter as the “Site” or “subject Site”. The Site is located directly south of the Enterprise Chaco Gas Plant on land owned by the Navajo Nation. The property surrounding the Site is primarily natural gas gathering and refining facilities with agricultural land (operated by the Navajo Agricultural Products Industry (NAPI)) to the south.

The Site originally consisted of four (4) natural gas condensate¹ “drip” tanks that formerly received fluids from the Bisti Recovery System. On July 23, 2007, an overflow of one of the condensate tanks resulted in an estimated 60 barrel (bbl) release to the ground surface. Envirotech, Inc. (Envirotech) excavated approximately 612 cubic yards of affected soil from the western portion of the bermed area between July and August 2007. This material was transported to the Envirotech landfarm near Hilltop, NM for treatment/disposal. The excavation activities are documented in the *Enterprise Products Excavation Monitoring Report*, dated October 11, 2007 (Envirotech). A Geoprobe® investigation was subsequently performed at the site during June 2008 by Lodestar Services, Inc. (Lodestar). Results from the investigation and two subsequent quarterly groundwater sampling events were documented in the letter report *Enterprise Field Services, LLC – Geoprobe Investigation at Bisti*, dated November 5, 2008 (Lodestar). The investigation results indicated remaining impact to soil and groundwater in the vicinity of the tanks, as well as potential staining and/or impact at further distances from the tanks. The Bisti Receiving Tanks are no longer in service, and have been physically removed from the location.

Enterprise previously submitted a *Supplemental Site Investigation Work Plan*, dated September 26, 2011 (Southwest Geoscience) to the Navajo Nation Environmental Protection Agency (NNEPA) to perform additional delineation activities at the Site. This work plan has not yet been approved. The work plan will be updated to reflect information obtained during the interim corrective action activities described herein.

A topographic map depicting the location of the Site is included as Figure 1, and a Site Vicinity Map is included as Figure 2 in Appendix A.

¹ Natural gas condensate is a low-density mixture of hydrocarbon liquids present as gaseous components in the raw natural gas produced from many natural gas fields, which condenses out of the gas stream during production when the temperature is reduced to below the hydrocarbon dew point temperature.



1.2 Project Objective

The objectives of the interim corrective actions were to: evaluate the concentration of constituents of concern (COCs) in the on-Site soils beneath the former tank locations while removing a portion of the most heavily affected soils; backfill and level the area to surrounding grade to address safety concerns associated with the original excavation that had remained open since 2007; and, reduce the likelihood of storm water accumulating in the original excavation.

2.0 SITE RANKING

The Site is under the regulatory jurisdiction of the NNEPA Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) group which refers to a combination of published guidance from the United States Environmental Protection Agency (EPA), New Mexico Energy, Minerals, and Natural Resources Department (EMNRD) Oil Conservation Division (OCD), and New Mexico Water Quality Control Commission (WQCC) for environmental remediation standards.

Apex TITAN, Inc. (Apex) utilized the New Mexico ENMRD OCD's *Guidelines for Remediation of Leaks, Spills and Releases* in conjunction with the general site characteristics to determine the appropriate OCD "ranking" for the Site. The ranking criteria and associated scoring are provided in the following table:

Ranking Criteria			Ranking Score
Depth to Groundwater	<50 feet	20	20
	50 to 99 feet	10	
	>100 feet	0	
Wellhead Protection Area • <1,000 feet from a water source, or; <200 feet from private domestic water source.	Yes	20	0
	No	0	
Distance to Surface Water Body	<200 feet	20	0
	200 to 1,000 feet	10	
	>1,000 feet	0	
Total Ranking Score			20

Based on Apex's evaluation of the scoring criteria, the Site would have a maximum Total Ranking Score of "20". This ranking is based on the following:

- No water wells were identified on the New Mexico Office of the State Engineer website database within the search radius. However, gauging events of the temporary monitoring wells at the Site indicated groundwater is present at less than 20 feet below grade surface (bgs), resulting in a ranking of "20" for depth to groundwater.
- No water sources were identified within 1,000 feet of the Site.
- No surface water was identified within 1,000 feet of the Site.

2.1 NNEPA-Approved Screening Levels

For this Site, the NNEPA has indicated that it concurs with the soil remediation levels derived from the OCD's *Guidelines for Remediation of Leaks, Spills and Releases*, with the exception of benzene, which is deferred to the EPA Region 9 Regional Screening Level of 5.4 milligrams per kilogram (mg/Kg).

- **Based on this information, the screening levels for soil located at the Site include: 5.4 mg/Kg for benzene, 50 mg/Kg for BTEX (benzene, toluene, ethylbenzene, and total xylenes) and 100 mg/Kg for total petroleum hydrocarbons (TPH) gasoline range organics (GRO) and diesel range organics (DRO).**

3.0 RESPONSE ACTIONS

3.1 Soil Excavation Activities

Prior to initiation of the exploratory excavation activities, the Site generally consisted of two (2) areas within the former tank battery footprint; the eastern portion of the former tank battery which had not been investigated or excavated; and the western portion of the former tank battery which had previously been excavated to approximately five (5) feet bgs during 2007 and included one (1) temporary monitoring well (P-1) dating from the original Site investigation in 2008.

On August 5, 2014, prior to initiating exploratory excavation activities, temporary monitoring well P-1, located within the original 2007 excavation, was removed and the borehole plugged and abandoned (P&A'd) with bentonite.

Subsequent to the P&A of temporary monitoring well P-1, Enterprise initiated exploratory excavation activities within the footprint of the former Bisti Receiver Tanks Site. NNEPA CERCLA representative Michele Dineyazhe visited the Site during the exploratory excavation and witnessed a portion of the field activities. During the course of the exploratory activities, the following excavation tasks were completed:

- Affected soils in the eastern portion of the former tank battery footprint were excavated to approximately five (5) feet bgs, bringing it essentially level with the 2007 excavation depth of the western portion of the tank battery footprint. One (1) soil sample (C-7) was collected at a depth of 4-5 feet bgs from soil beneath the former load line area on the east side of the former eastern tank locations. Additional lateral and vertical assessment will be performed during Site investigation activities.
- An exploratory excavation was advanced in the western portion of the former tank battery footprint. The resulting excavation measured approximately 20 feet long by 15 feet wide, with a depth of approximately 20 feet bgs. Groundwater was encountered at approximately 18 feet bgs. Six (6) soil samples (C-1 through C-6) were collected from the excavation sidewalls for laboratory analysis.
- An exploratory excavation was advanced in the eastern portion of the former tank battery footprint subsequent to the overall removal of soils to five (5) feet bgs. The resulting excavation measured approximately 18 feet long by 10 feet wide, with an approximate depth of 20 feet bgs. Groundwater was encountered at approximately 18 feet bgs. Seven (7) soil samples (C-8 through C-14) were collected for laboratory analysis from the excavation sidewalls.

The lithology encountered during the completion of corrective action activities consisted primarily of unconsolidated silty sands and clayey silty sands.

An attempt was made to remove potentially affected water from the open excavation utilizing a vacuum truck. The activity was abandoned when it became evident that the truck did not provide enough lift to pull water from the bottom of the excavation.

Approximately 920 cubic yards of hydrocarbon affected soils from the exploratory excavation activities were transported to the Envirotech land farm near Hilltop, NM for treatment/disposal. The executed C-138 solid waste acceptance form is provided in Appendix B. The excavations

were backfilled with clean imported fill, and contoured to surrounding grade pending future corrective action.

Exploratory excavation activities at the Site were completed on August 8, 2014. Figure 3 is a site map that indicates the approximate location of the excavated area and sample locations in relation to pertinent land features (Appendix A). Photographic documentation of the field activities is provided in Appendix C.

3.2 Soil Sampling Program

Apex screened head-space samples of Site soils with a photoionization detector (PID) fitted with a 10.6 electron volt (eV) lamp. Soil samples were collected from the zones exhibiting the highest PID reading.

Apex's soil sampling program included the collection of fourteen (14) excavation samples (C-1 through C-14) from the resulting exploratory excavations for laboratory analysis. Figure 3 depicts the approximate location of the excavated areas and shows the soil sample locations in relation to the final excavation dimensions (Appendix A).

The samples were collected and placed in laboratory prepared glassware, labeled/sealed using the laboratory supplied labels, and placed on ice in a cooler, which was secured with a custody seal. The samples and completed chain-of-custody forms were relinquished to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico, for analysis.

3.3 Laboratory Analytical Methods

The excavation soil samples were analyzed for BTEX using EPA SW-846 Method #8021, and TPH GRO/DRO using EPA SW-846 Method #8015.

Laboratory results are summarized in Table 1, included in Appendix D. The executed chain-of-custody form and laboratory data sheets are provided in Appendix E.

4.0 DATA EVALUATION

The Site is subject to regulatory oversight by the NNEPA and the New Mexico EMNRD OCD. For this Site, the NNEPA has indicated that it concurs with the soil remediation levels derived from the OCD's *Guidelines for Remediation of Leaks, Spills and Releases*, with the exception of benzene, which is deferred to the EPA Region 9 Regional Screening Level of 5.4 mg/Kg.

Based on this information, the screening levels for soil located at the Site include: 5.4 mg/Kg for benzene, 50 mg/Kg for BTEX and 100 mg/Kg for TPH GRO/DRO.

4.1 Excavation Soil Samples

Apex compared the BTEX and TPH concentrations or reporting limits (RLs) associated with the excavation samples to the NNEPA-approved screening levels.

- The laboratory analyses of excavation samples C-1 through C-8 and C-10 through C-13 indicate benzene concentrations ranging from <0.048 mg/Kg to 5.2 mg/Kg, which are below the NNEPA-approved soil screening level of 5.4 mg/Kg.
- **The laboratory analyses of excavation samples C-9 and C-14 indicate benzene concentrations of 27 mg/Kg and 6.2 mg/Kg, respectively, which exceed the NNEPA-approved soil screening level of 5.4 mg/Kg.**
- The laboratory analyses of excavation samples C-1 through C-4, C-5 through C-8, and C-10 through C-13 indicate total BTEX concentrations ranging from below laboratory reporting limits to 43.3 mg/Kg, which are below the NNEPA-approved soil screening level of 50 mg/Kg.
- **The laboratory analyses of excavation samples C-5, C-9, and C-14 indicate total BTEX concentrations ranging from 72.9 mg/Kg to 205 mg/Kg, which exceed the NNEPA-approved soil screening level of 50 mg/Kg.**
- The laboratory analyses of excavation samples C-3, C-4, and C-6 indicate combined TPH GRO/DRO concentrations below the laboratory reporting detection limits, which are below the NNEPA-approved screening level of 100 mg/Kg.
- **The laboratory analyses of excavation samples C-1, C-2, C-5, and C-7 through C-14 indicate combined TPH GRO/DRO concentrations ranging from 146 mg/Kg to 11,300 mg/Kg which exceed the NNEPA-approved screening level of 100 mg/Kg.**

Excavation sample results are presented in Table 1 (Appendix D).

5.0 FINDINGS AND RECOMMENDATIONS

The former Bisti Receiver Tanks Site is located within the Enterprise pipeline ROW in the NW ¼ of Section 21 in Township 26 North and Range 12 West in San Juan County, New Mexico. The Site is located directly south of the Enterprise Chaco Gas Plant on land owned by the Navajo Nation. The property surrounding the Site is primarily natural gas gathering and refining facilities with agricultural land (operated by NAPI) to the south.

On August 5, 2014, prior to initiating exploratory excavation activities, temporary monitoring well P-1, located within the original 2007 excavation, was removed and the borehole P&A'd with bentonite. Subsequent to the P&A of temporary monitoring well P-1, Enterprise initiated exploratory excavation activities within the footprint of the former Bisti Receiver Tanks Site. The exploratory activities resulted in the excavation of the eastern area of the former tank battery to a depth of approximately 5 feet bgs, making it level with the western area that was excavated to 5 feet bgs during 2007 excavation activities. Additionally, two (2) exploratory excavations were advanced at the Site to total depths of 20 feet bgs each.

- The objectives of the interim corrective actions were to: evaluate the concentration of constituents of concern (COCs) in the on-Site soils beneath the former tank locations while removing a portion of the most heavily affected soils; backfill and level the area to surrounding grade to address safety concerns associated with the original excavation that had remained open since 2007; and, reduce the likelihood of storm water accumulating in the original excavation.
- The lithology encountered during the completion of corrective action activities consisted primarily of unconsolidated silty sands and clayey silty sands.

- Groundwater was encountered during exploratory excavation activities at approximately 18 feet bgs.
- Prior to backfilling, fourteen (14) excavation samples (C-1 through C-14) were collected from the resulting exploratory excavations for laboratory analysis.
- Approximately 920 cubic yards of hydrocarbon affected soils from the exploratory excavation activities were transported to the Envirotech land farm near Hilltop, NM for treatment/disposal. The excavations were backfilled with clean imported fill, and contoured to surrounding grade pending future corrective action.

Based on laboratory analytical results, affected soils are still present beneath the former Bisti Receiver Tank battery location. Laboratory data indicates that COC concentrations in soil generally decrease to the west and southwest within the former tank battery footprint.

Apex recommends performing additional soil and groundwater delineation at the Site to further define the extent of hydrocarbon impact. To facilitate this recommendation, the previously submitted work plan (*Supplemental Site Investigation Work Plan*, dated September 26, 2011 (SWG)) will be updated by Apex to incorporate information contained in this report.

6.0 STANDARD OF CARE, LIMITATIONS, AND RELIANCE

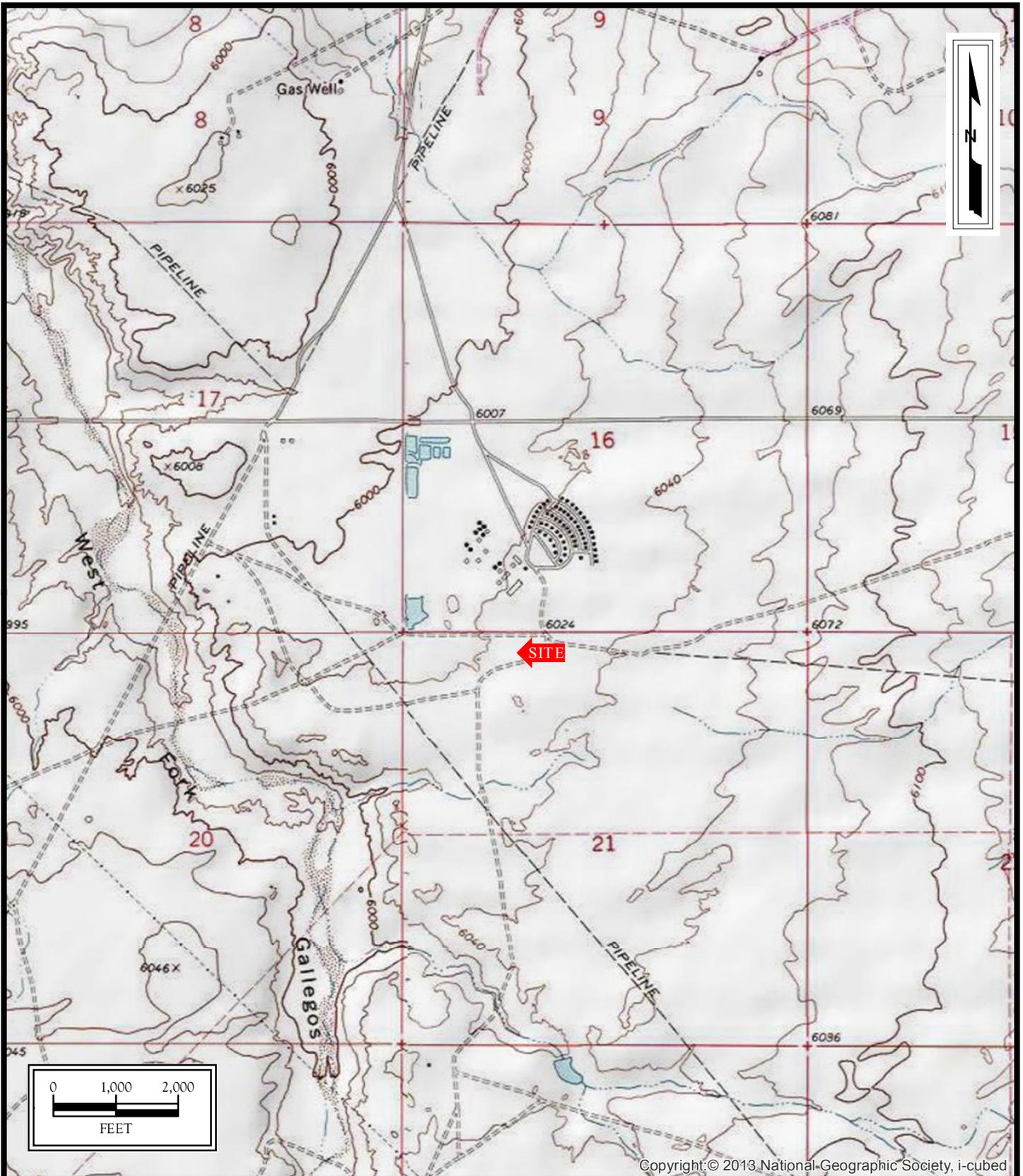
Apex's services were performed in accordance with standards customarily provided by a firm rendering the same or similar services in the area during the same time period. Apex makes no warranties, expressed or implied, as to the services performed hereunder. Additionally, Apex does not warrant the work of third parties supplying information used in the report (e.g. laboratories, regulatory agencies, or other third parties). This scope of services was performed in accordance with the scope of work agreed with the client.

Findings, conclusions and recommendations resulting from these services are based upon information derived from the on-Site activities and other services performed under this scope of work and it should be noted that this information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, or not present during these services, and Apex cannot represent that the Site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this scope of services. Environmental conditions at other areas or portions of the Site may vary from those encountered at actual sample locations. Apex's findings and recommendations are based solely upon data available to Apex at the time of these services.

This report has been prepared for the exclusive use of Enterprise, and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the Site) is prohibited without the expressed written authorization of Enterprise and Apex. Any unauthorized distribution or reuse is at the client's sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions and limitations stated in the proposal, the report, and Apex's Agreement. The limitation of liability defined in the agreement is the aggregate limit of Apex's liability to the client.

APPENDIX A

Figures



Former Bisti Receiver Tanks
 NW1/4 S21 T26N R12W
 Rural San Juan County, New Mexico
 Navajo Nation
 36.480222N, 108.120325W

Project No. 7030410G001C.001



Apex TITAN, Inc.
 606 South Rio Grande, Suite A
 Aztec, NM 87410
 Phone: (505) 334-5200
www.apexcos.com
 A Subsidiary of Apex Companies, LLC

FIGURE 1
Topographic Map
 Carson Trading post
 NM Quadrangle
 1966



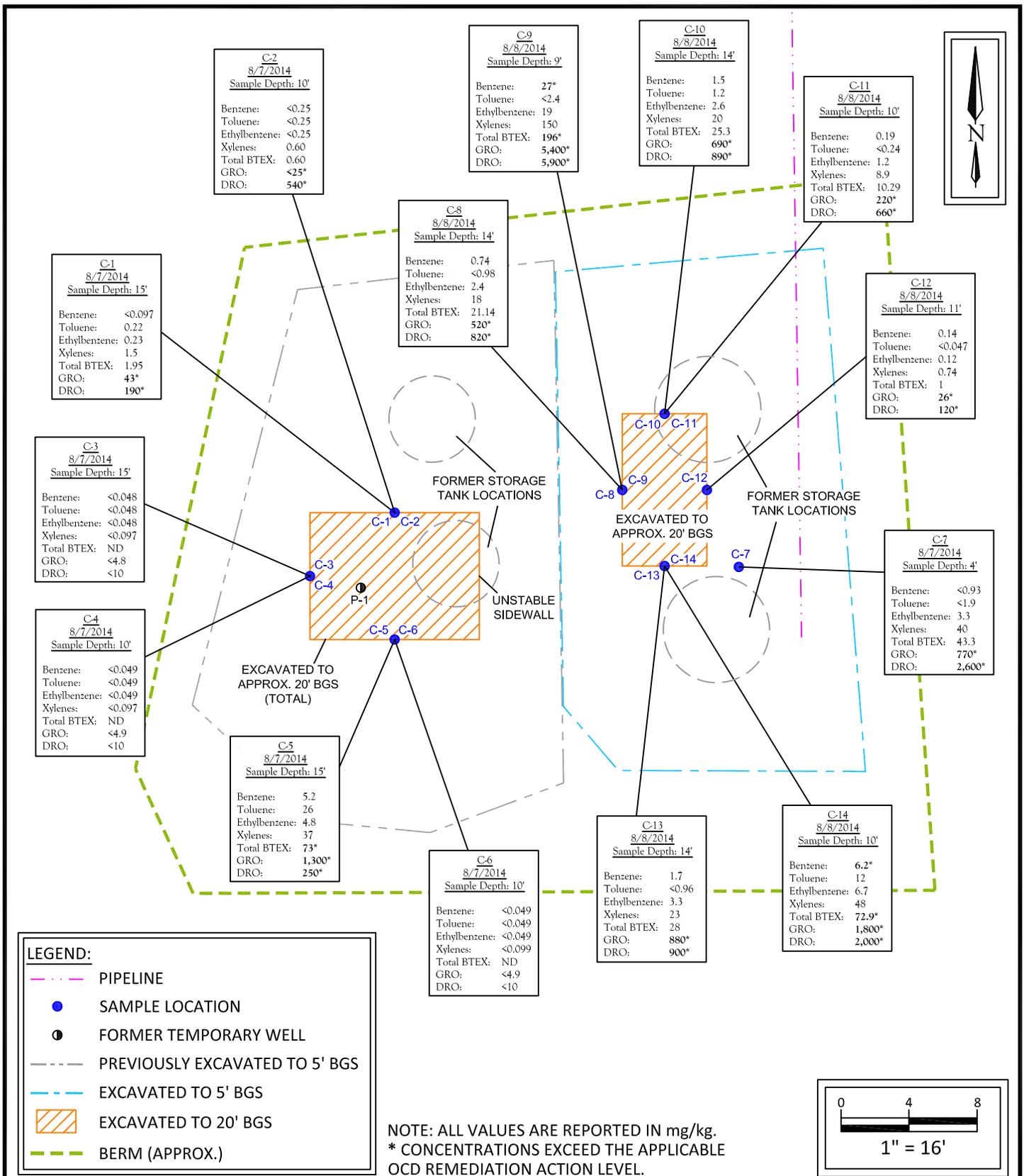
Former Bisti Receiver Tanks
 NW1/4 S21 T26N R12W
 Rural San Juan County, New Mexico
 Navajo Nation
 36.480222N, 108.120325W

Project No. 7030410G001C.001



Apex TITAN, Inc.
 606 South Rio Grande, Suite A
 Aztec, NM 87410
 Phone: (505) 334-5200
www.apexcos.com
 A Subsidiary of Apex Companies, LLC

FIGURE 2
Site Vicinity Map



Former Bisti Receiver Tanks
 NW¼ S21 T26N R12W
 Rural San Juan County, New Mexico
 Navajo Nation
 36.480222N, 108.120325W

Project No. 7030410G001C.001



Apex TITAN, Inc.
 606 S. Rio Grande, Suite A
 Aztec, New Mexico 87410
 Phone: (505) 334-5200
www.apexcos.com
 A Subsidiary of Apex Companies, LLC

**FIGURE 3
Site Map with
Soil Analytical Results**

APPENDIX B

C-138 Solid Waste Acceptance Form

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 **97057-0650**
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-138
Revised 08/01/11

*Surface Waste Management Facility Operator
and Generator shall maintain and make this
documentation available for Division inspection.

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. **Generator Name and Address:**
Enterprise Field Services, LLC, 614 Reilly Ave, Farmington NM 87401

2. **Originating Site:** Chaco Bisti Receiver Tank Aug. 2014

3. **Location of Material (Street Address, City, State or ULSTR):**
Unit Letter C Section 21 T 26N R 12W, GPS 36.480229, -108.120313, San Juan County, NM

4. **Source and Description of Waste:**
Source: Condensate Release
Description: Exempt petroleum affected soil from clean-up efforts at storage tank release.
Estimated Volume 1000 yd³ bbls Known Volume (to be entered by the operator at the end of the haul) 920 yd³ bbls

5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS

I, Thomas Long, representative or authorized agent for Enterprise Field Services, LLC do hereby
Generator Signature
certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988
regulatory determination, the above described waste is: (Check the appropriate classification)

RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. Operator Use Only: Waste Acceptance Frequency Monthly Weekly Per Load

RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)

MSDS Information RCRA Hazardous Waste Analysis Process Knowledge Other (Provide description in Box 4)

GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS

I, Thomas Long, representative for Enterprise Field Services, LLC authorize Envirotech, Inc. to complete
Generator Signature
the required testing/sign the Generator Waste Testing Certification.

I, Kendra Running, representative for Envirotech, Inc do hereby certify that
Representative Agent Signature
representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.

5. **Transporter:** West States Energy Contractors, Sewage, EMS, JPF Trucking
OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: Envirotech, Inc. Soil Remediation Facility * Permit #: NM 01-0011
Address of Facility: Hilltop, NM

Method of Treatment and/or Disposal:
 Evaporation Injection Treating Plant Landfarm Landfill Other

Waste Acceptance Status: APPROVED DENIED (Must Be Maintained As Permanent Record)

PRINT NAME: Kendra Running
SIGNATURE: Kendra Running
Surface Waste Management Facility Authorized Agent

TITLE: Waste Coordinator DATE: 8/5/14
TELEPHONE NO.: 505-632-0615

APPENDIX C

Photographic Documentation

Photograph 1

Early stages of western excavation, facing west.

**Photograph 2**

View of western excavation prior to encountering groundwater, facing northeast.

**Photograph 3**

Attempting to withdraw water from the western excavation.



Photograph 4

View of eastern excavation, facing north. Groundwater is visible at the base of the excavation.

**Photograph 5**

View of backfilling activities, facing west.



APPENDIX D

Table



TABLE 1
Former Bisti Reciever Tanks
SOIL ANALYTICAL SUMMARY

Sample I.D.	Date	Sample Depth (feet) below grade	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)
Navajo Nation Environmental Protection Agency Approved Screening Levels			5.4	NE	NE	NE	50	100	
Exploratory Excavation Samples - Western Excavation									
C-1	8/7/2014	15	<0.097	0.22	0.23	1.50	1.95	43	190
C-2	8/7/2014	10	<0.25	<0.25	<0.25	0.60	0.60	<25	540
C-3	8/7/2014	15	<0.048	<0.048	<0.048	<0.097	ND	<4.8	<10
C-4	8/7/2014	10	<0.049	<0.049	<0.049	<0.097	ND	<4.9	<10
C-5	8/7/2014	15	5.2	26	4.8	37	73	1,300	250
C-6	8/7/2014	10	<0.049	<0.049	<0.049	<0.099	ND	<4.9	<10
Exploratory Excavation Sample - Load Line Area									
C-7	8/7/2014	4	<0.93	<1.9	3.3	40	43.3	770	2,600
Exploratory Excavation Samples - Eastern Excavation									
C-8	8/8/2014	14	0.74	<0.98	2.4	18	21.14	520	820
C-9	8/8/2014	9	27	<2.4	19	150	196	5,400	5,900
C-10	8/8/2014	14	1.5	1.2	2.6	20	25.3	690	890
C-11	8/8/2014	10	0.19	<0.24	1.2	8.9	10.29	220	660
C-12	8/8/2014	11	0.14	<0.047	0.12	0.74	1	26	120
C-13	8/8/2014	14	1.7	<0.96	3.3	23	28	880	900
C-14	8/8/2014	10	6.2	12	6.7	48	72.9	1,800	2,000

Note: Concentrations in **bold** and yellow exceed the NNEPA approved screening level

NA = Not Analyzed

ND = Not Detected above laboratory reporting limits

APPENDIX E

Laboratory Analytical Reports & Chain of Custody Documentation



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

August 19, 2014

Kyle Summers
Apex Titan, Inc.
606 S. Rio Grande Unit A
Aztec, NM 87410
TEL: (903) 821-5603
FAX (214) 350-2914

RE: Bisti Reciever

OrderNo.: 1408418

Dear Kyle Summers:

Hall Environmental Analysis Laboratory received 14 sample(s) on 8/9/2014 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a light blue horizontal line.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1408418

Date Reported: 8/19/2014

CLIENT: Apex Titan, Inc.

Client Sample ID: C-1

Project: Bisti Reciever

Collection Date: 8/7/2014 10:00:00 AM

Lab ID: 1408418-001

Matrix: SOIL

Received Date: 8/9/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	190	9.9		mg/Kg	1	8/14/2014 4:44:42 PM	14713
Surr: DNOP	118	57.9-140		%REC	1	8/14/2014 4:44:42 PM	14713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	43	9.7		mg/Kg	2	8/13/2014 12:55:18 PM	14696
Surr: BFB	141	80-120	S	%REC	2	8/13/2014 12:55:18 PM	14696
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.097		mg/Kg	2	8/13/2014 12:55:18 PM	14696
Toluene	0.22	0.097		mg/Kg	2	8/13/2014 12:55:18 PM	14696
Ethylbenzene	0.23	0.097		mg/Kg	2	8/13/2014 12:55:18 PM	14696
Xylenes, Total	1.5	0.19		mg/Kg	2	8/13/2014 12:55:18 PM	14696
Surr: 4-Bromofluorobenzene	113	80-120		%REC	2	8/13/2014 12:55:18 PM	14696

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E	Value above quantitation range	H Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1408418

Date Reported: 8/19/2014

CLIENT: Apex Titan, Inc.

Client Sample ID: C-2

Project: Bisti Reciever

Collection Date: 8/7/2014 10:05:00 AM

Lab ID: 1408418-002

Matrix: SOIL

Received Date: 8/9/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	540	9.9		mg/Kg	1	8/14/2014 5:06:04 PM	14713
Surr: DNOP	112	57.9-140		%REC	1	8/14/2014 5:06:04 PM	14713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	8/13/2014 1:25:28 PM	14696
Surr: BFB	101	80-120		%REC	5	8/13/2014 1:25:28 PM	14696
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.25		mg/Kg	5	8/13/2014 1:25:28 PM	14696
Toluene	ND	0.25		mg/Kg	5	8/13/2014 1:25:28 PM	14696
Ethylbenzene	ND	0.25		mg/Kg	5	8/13/2014 1:25:28 PM	14696
Xylenes, Total	0.60	0.50		mg/Kg	5	8/13/2014 1:25:28 PM	14696
Surr: 4-Bromofluorobenzene	105	80-120		%REC	5	8/13/2014 1:25:28 PM	14696

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E	Value above quantitation range	H Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1408418

Date Reported: 8/19/2014

CLIENT: Apex Titan, Inc.

Client Sample ID: C-3

Project: Bisti Reciever

Collection Date: 8/7/2014 10:10:00 AM

Lab ID: 1408418-003

Matrix: SOIL

Received Date: 8/9/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/14/2014 5:27:31 PM	14713
Surr: DNOP	121	57.9-140		%REC	1	8/14/2014 5:27:31 PM	14713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/12/2014 3:45:49 PM	14696
Surr: BFB	88.2	80-120		%REC	1	8/12/2014 3:45:49 PM	14696
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.048		mg/Kg	1	8/12/2014 3:45:49 PM	14696
Toluene	ND	0.048		mg/Kg	1	8/12/2014 3:45:49 PM	14696
Ethylbenzene	ND	0.048		mg/Kg	1	8/12/2014 3:45:49 PM	14696
Xylenes, Total	ND	0.097		mg/Kg	1	8/12/2014 3:45:49 PM	14696
Surr: 4-Bromofluorobenzene	100	80-120		%REC	1	8/12/2014 3:45:49 PM	14696

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	Page 3 of 18
	O RSD is greater than RSDlimit	P Sample pH greater than 2.	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1408418

Date Reported: 8/19/2014

CLIENT: Apex Titan, Inc.

Client Sample ID: C-4

Project: Bisti Reciever

Collection Date: 8/7/2014 10:15:00 AM

Lab ID: 1408418-004

Matrix: SOIL

Received Date: 8/9/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/14/2014 5:48:49 PM	14713
Surr: DNOP	107	57.9-140		%REC	1	8/14/2014 5:48:49 PM	14713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/13/2014 1:55:36 PM	14696
Surr: BFB	88.0	80-120		%REC	1	8/13/2014 1:55:36 PM	14696
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	8/13/2014 1:55:36 PM	14696
Toluene	ND	0.049		mg/Kg	1	8/13/2014 1:55:36 PM	14696
Ethylbenzene	ND	0.049		mg/Kg	1	8/13/2014 1:55:36 PM	14696
Xylenes, Total	ND	0.097		mg/Kg	1	8/13/2014 1:55:36 PM	14696
Surr: 4-Bromofluorobenzene	91.0	80-120		%REC	1	8/13/2014 1:55:36 PM	14696

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	Page 4 of 18
	O RSD is greater than RSDlimit	P Sample pH greater than 2.	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1408418

Date Reported: 8/19/2014

CLIENT: Apex Titan, Inc.

Client Sample ID: C-5

Project: Bisti Reciever

Collection Date: 8/7/2014 10:20:00 AM

Lab ID: 1408418-005

Matrix: SOIL

Received Date: 8/9/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	250	10		mg/Kg	1	8/14/2014 6:10:12 PM	14713
Surr: DNOP	109	57.9-140		%REC	1	8/14/2014 6:10:12 PM	14713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	1300	240		mg/Kg	50	8/12/2014 9:47:18 PM	14696
Surr: BFB	114	80-120		%REC	50	8/12/2014 9:47:18 PM	14696
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	5.2	2.4		mg/Kg	50	8/12/2014 9:47:18 PM	14696
Toluene	26	2.4		mg/Kg	50	8/12/2014 9:47:18 PM	14696
Ethylbenzene	4.8	2.4		mg/Kg	50	8/12/2014 9:47:18 PM	14696
Xylenes, Total	37	4.7		mg/Kg	50	8/12/2014 9:47:18 PM	14696
Surr: 4-Bromofluorobenzene	113	80-120		%REC	50	8/12/2014 9:47:18 PM	14696

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E	Value above quantitation range	H Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1408418

Date Reported: 8/19/2014

CLIENT: Apex Titan, Inc.

Client Sample ID: C-6

Project: Bisti Reciever

Collection Date: 8/7/2014 10:25:00 AM

Lab ID: 1408418-006

Matrix: SOIL

Received Date: 8/9/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/14/2014 6:31:41 PM	14713
Surr: DNOP	125	57.9-140		%REC	1	8/14/2014 6:31:41 PM	14713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	8/13/2014 2:25:44 PM	14696
Surr: BFB	96.1	80-120		%REC	1	8/13/2014 2:25:44 PM	14696
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.049		mg/Kg	1	8/13/2014 2:25:44 PM	14696
Toluene	ND	0.049		mg/Kg	1	8/13/2014 2:25:44 PM	14696
Ethylbenzene	ND	0.049		mg/Kg	1	8/13/2014 2:25:44 PM	14696
Xylenes, Total	ND	0.099		mg/Kg	1	8/13/2014 2:25:44 PM	14696
Surr: 4-Bromofluorobenzene	98.9	80-120		%REC	1	8/13/2014 2:25:44 PM	14696

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	Page 6 of 18
	O RSD is greater than RSDlimit	P Sample pH greater than 2.	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1408418

Date Reported: 8/19/2014

CLIENT: Apex Titan, Inc.

Client Sample ID: C-7

Project: Bisti Reciever

Collection Date: 8/7/2014 10:30:00 AM

Lab ID: 1408418-007

Matrix: SOIL

Received Date: 8/9/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	2600	99		mg/Kg	10	8/15/2014 1:53:18 PM	14713
Surr: DNOP	0	57.9-140	S	%REC	10	8/15/2014 1:53:18 PM	14713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	770	190		mg/Kg	40	8/13/2014 2:56:02 PM	14696
Surr: BFB	125	80-120	S	%REC	40	8/13/2014 2:56:02 PM	14696
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	ND	0.93		mg/Kg	40	8/13/2014 2:56:02 PM	14696
Toluene	ND	1.9		mg/Kg	40	8/13/2014 2:56:02 PM	14696
Ethylbenzene	3.3	1.9		mg/Kg	40	8/13/2014 2:56:02 PM	14696
Xylenes, Total	40	3.7		mg/Kg	40	8/13/2014 2:56:02 PM	14696
Surr: 4-Bromofluorobenzene	100	80-120		%REC	40	8/13/2014 2:56:02 PM	14696

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E	Value above quantitation range	H Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1408418

Date Reported: 8/19/2014

CLIENT: Apex Titan, Inc.

Client Sample ID: C-8

Project: Bisti Reciever

Collection Date: 8/8/2014 9:15:00 AM

Lab ID: 1408418-008

Matrix: SOIL

Received Date: 8/9/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	820	10		mg/Kg	1	8/14/2014 7:14:32 PM	14713
Surr: DNOP	105	57.9-140		%REC	1	8/14/2014 7:14:32 PM	14713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	520	98		mg/Kg	20	8/13/2014 3:26:10 PM	14696
Surr: BFB	121	80-120	S	%REC	20	8/13/2014 3:26:10 PM	14696
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.74	0.49		mg/Kg	20	8/13/2014 3:26:10 PM	14696
Toluene	ND	0.98		mg/Kg	20	8/13/2014 3:26:10 PM	14696
Ethylbenzene	2.4	0.98		mg/Kg	20	8/13/2014 3:26:10 PM	14696
Xylenes, Total	18	2.0		mg/Kg	20	8/13/2014 3:26:10 PM	14696
Surr: 4-Bromofluorobenzene	110	80-120		%REC	20	8/13/2014 3:26:10 PM	14696

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E	Value above quantitation range	H Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1408418

Date Reported: 8/19/2014

CLIENT: Apex Titan, Inc.

Client Sample ID: C-9

Project: Bisti Reciever

Collection Date: 8/8/2014 9:20:00 AM

Lab ID: 1408418-009

Matrix: SOIL

Received Date: 8/9/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	5900	100		mg/Kg	10	8/15/2014 2:23:19 PM	14713
Surr: DNOP	0	57.9-140	S	%REC	10	8/15/2014 2:23:19 PM	14713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	5400	240		mg/Kg	50	8/12/2014 11:47:51 PM	14696
Surr: BFB	147	80-120	S	%REC	50	8/12/2014 11:47:51 PM	14696
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	27	2.4		mg/Kg	50	8/12/2014 11:47:51 PM	14696
Toluene	ND	2.4		mg/Kg	50	8/12/2014 11:47:51 PM	14696
Ethylbenzene	19	2.4		mg/Kg	50	8/12/2014 11:47:51 PM	14696
Xylenes, Total	150	4.8		mg/Kg	50	8/12/2014 11:47:51 PM	14696
Surr: 4-Bromofluorobenzene	119	80-120		%REC	50	8/12/2014 11:47:51 PM	14696

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E	Value above quantitation range	H Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1408418

Date Reported: 8/19/2014

CLIENT: Apex Titan, Inc.

Client Sample ID: C-10

Project: Bisti Reciever

Collection Date: 8/8/2014 9:25:00 AM

Lab ID: 1408418-010

Matrix: SOIL

Received Date: 8/9/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	890	100		mg/Kg	10	8/15/2014 2:53:22 PM	14713
Surr: DNOP	0	57.9-140	S	%REC	10	8/15/2014 2:53:22 PM	14713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	690	93		mg/Kg	20	8/13/2014 3:56:18 PM	14696
Surr: BFB	128	80-120	S	%REC	20	8/13/2014 3:56:18 PM	14696
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	1.5	0.93		mg/Kg	20	8/13/2014 3:56:18 PM	14696
Toluene	1.2	0.93		mg/Kg	20	8/13/2014 3:56:18 PM	14696
Ethylbenzene	2.6	0.93		mg/Kg	20	8/13/2014 3:56:18 PM	14696
Xylenes, Total	20	1.9		mg/Kg	20	8/13/2014 3:56:18 PM	14696
Surr: 4-Bromofluorobenzene	113	80-120		%REC	20	8/13/2014 3:56:18 PM	14696

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	Page 10 of 18
	O RSD is greater than RSDlimit	P Sample pH greater than 2.	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1408418

Date Reported: 8/19/2014

CLIENT: Apex Titan, Inc.

Client Sample ID: C-11

Project: Bisti Reciever

Collection Date: 8/8/2014 9:30:00 AM

Lab ID: 1408418-011

Matrix: SOIL

Received Date: 8/9/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	660	9.9		mg/Kg	1	8/14/2014 8:18:50 PM	14713
Surr: DNOP	121	57.9-140		%REC	1	8/14/2014 8:18:50 PM	14713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	220	24		mg/Kg	5	8/13/2014 1:18:00 AM	14696
Surr: BFB	190	80-120	S	%REC	5	8/13/2014 1:18:00 AM	14696
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.19	0.12		mg/Kg	5	8/13/2014 1:18:00 AM	14696
Toluene	ND	0.24		mg/Kg	5	8/13/2014 1:18:00 AM	14696
Ethylbenzene	1.2	0.24		mg/Kg	5	8/13/2014 1:18:00 AM	14696
Xylenes, Total	8.9	0.48		mg/Kg	5	8/13/2014 1:18:00 AM	14696
Surr: 4-Bromofluorobenzene	120	80-120		%REC	5	8/13/2014 1:18:00 AM	14696

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1408418

Date Reported: 8/19/2014

CLIENT: Apex Titan, Inc.

Client Sample ID: C-12

Project: Bisti Reciever

Collection Date: 8/8/2014 9:35:00 AM

Lab ID: 1408418-012

Matrix: SOIL

Received Date: 8/9/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	120	10		mg/Kg	1	8/14/2014 8:40:09 PM	14713
Surr: DNOP	118	57.9-140		%REC	1	8/14/2014 8:40:09 PM	14713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	26	4.7		mg/Kg	1	8/13/2014 1:48:05 AM	14696
Surr: BFB	136	80-120	S	%REC	1	8/13/2014 1:48:05 AM	14696
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	0.14	0.047		mg/Kg	1	8/13/2014 1:48:05 AM	14696
Toluene	ND	0.047		mg/Kg	1	8/13/2014 1:48:05 AM	14696
Ethylbenzene	0.12	0.047		mg/Kg	1	8/13/2014 1:48:05 AM	14696
Xylenes, Total	0.74	0.094		mg/Kg	1	8/13/2014 1:48:05 AM	14696
Surr: 4-Bromofluorobenzene	106	80-120		%REC	1	8/13/2014 1:48:05 AM	14696

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E	Value above quantitation range	H Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1408418

Date Reported: 8/19/2014

CLIENT: Apex Titan, Inc.

Client Sample ID: C-13

Project: Bisti Reciever

Collection Date: 8/8/2014 9:40:00 AM

Lab ID: 1408418-013

Matrix: SOIL

Received Date: 8/9/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	900	10		mg/Kg	1	8/14/2014 9:01:39 PM	14713
Surr: DNOP	112	57.9-140		%REC	1	8/14/2014 9:01:39 PM	14713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	880	96		mg/Kg	20	8/13/2014 2:18:12 AM	14696
Surr: BFB	130	80-120	S	%REC	20	8/13/2014 2:18:12 AM	14696
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	1.7	0.96		mg/Kg	20	8/13/2014 2:18:12 AM	14696
Toluene	ND	0.96		mg/Kg	20	8/13/2014 2:18:12 AM	14696
Ethylbenzene	3.3	0.96		mg/Kg	20	8/13/2014 2:18:12 AM	14696
Xylenes, Total	23	1.9		mg/Kg	20	8/13/2014 2:18:12 AM	14696
Surr: 4-Bromofluorobenzene	113	80-120		%REC	20	8/13/2014 2:18:12 AM	14696

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E	Value above quantitation range	H Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P Sample pH greater than 2.
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1408418

Date Reported: 8/19/2014

CLIENT: Apex Titan, Inc.

Client Sample ID: C-14

Project: Bisti Reciever

Collection Date: 8/8/2014 9:45:00 AM

Lab ID: 1408418-014

Matrix: SOIL

Received Date: 8/9/2014 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: BCN
Diesel Range Organics (DRO)	2000	100		mg/Kg	10	8/15/2014 3:53:43 PM	14713
Surr: DNOP	0	57.9-140	S	%REC	10	8/15/2014 3:53:43 PM	14713
EPA METHOD 8015D: GASOLINE RANGE							Analyst: NSB
Gasoline Range Organics (GRO)	1800	47		mg/Kg	10	8/13/2014 11:55:07 AM	14696
Surr: BFB	227	80-120	S	%REC	10	8/13/2014 11:55:07 AM	14696
EPA METHOD 8021B: VOLATILES							Analyst: NSB
Benzene	6.2	0.47		mg/Kg	10	8/13/2014 11:55:07 AM	14696
Toluene	12	0.47		mg/Kg	10	8/13/2014 11:55:07 AM	14696
Ethylbenzene	6.7	0.47		mg/Kg	10	8/13/2014 11:55:07 AM	14696
Xylenes, Total	48	0.94		mg/Kg	10	8/13/2014 11:55:07 AM	14696
Surr: 4-Bromofluorobenzene	123	80-120	S	%REC	10	8/13/2014 11:55:07 AM	14696

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank	
	E Value above quantitation range	H Holding times for preparation or analysis exceeded	
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit	Page 14 of 18
	O RSD is greater than RSDlimit	P Sample pH greater than 2.	
	R RPD outside accepted recovery limits	RL Reporting Detection Limit	
	S Spike Recovery outside accepted recovery limits		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1408418

19-Aug-14

Client: Apex Titan, Inc.

Project: Bisti Reciever

Sample ID MB-14719	SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics							
Client ID: PBS	Batch ID: 14719		RunNo: 20529							
Prep Date: 8/12/2014	Analysis Date: 8/13/2014		SeqNo: 597002				Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.7		10.00		96.9	57.9	140			

Sample ID LCS-14719	SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 14719		RunNo: 20529							
Prep Date: 8/12/2014	Analysis Date: 8/13/2014		SeqNo: 597313				Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.6		5.000		91.5	57.9	140			

Sample ID MB-14743	SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics							
Client ID: PBS	Batch ID: 14743		RunNo: 20529							
Prep Date: 8/13/2014	Analysis Date: 8/13/2014		SeqNo: 598024				Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.9		10.00		89.5	57.9	140			

Sample ID LCS-14743	SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 14743		RunNo: 20529							
Prep Date: 8/13/2014	Analysis Date: 8/13/2014		SeqNo: 598025				Units: %REC			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.5		5.000		90.6	57.9	140			

Sample ID MB-14713	SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics							
Client ID: PBS	Batch ID: 14713		RunNo: 20529							
Prep Date: 8/12/2014	Analysis Date: 8/14/2014		SeqNo: 598257				Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.6		10.00		95.9	57.9	140			

Sample ID LCS-14713	SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 14713		RunNo: 20529							
Prep Date: 8/12/2014	Analysis Date: 8/14/2014		SeqNo: 598258				Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.3	68.6	130			
Surr: DNOP	4.9		5.000		97.2	57.9	140			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1408418

19-Aug-14

Client: Apex Titan, Inc.

Project: Bisti Reciever

Sample ID MB-14777	SampType: MBLK		TestCode: EPA Method 8015D: Diesel Range Organics							
Client ID: PBS	Batch ID: 14777		RunNo: 20599							
Prep Date: 8/14/2014	Analysis Date: 8/15/2014		SeqNo: 599319		Units: %REC					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.8		10.00		78.4	57.9	140			

Sample ID LCS-14777	SampType: LCS		TestCode: EPA Method 8015D: Diesel Range Organics							
Client ID: LCSS	Batch ID: 14777		RunNo: 20599							
Prep Date: 8/14/2014	Analysis Date: 8/15/2014		SeqNo: 599320		Units: %REC					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	3.9		5.000		78.6	57.9	140			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1408418

19-Aug-14

Client: Apex Titan, Inc.

Project: Bisti Reciever

Sample ID MB-14696	SampType: MBLK		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: PBS	Batch ID: 14696		RunNo: 20533							
Prep Date: 8/11/2014	Analysis Date: 8/12/2014		SeqNo: 597262		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	920		1000		91.5	80	120			

Sample ID LCS-14696	SampType: LCS		TestCode: EPA Method 8015D: Gasoline Range							
Client ID: LCSS	Batch ID: 14696		RunNo: 20533							
Prep Date: 8/11/2014	Analysis Date: 8/12/2014		SeqNo: 597263		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.0	65.8	139			
Surr: BFB	970		1000		97.2	80	120			

Qualifiers:

- | | |
|---|--|
| * Value exceeds Maximum Contaminant Level. | B Analyte detected in the associated Method Blank |
| E Value above quantitation range | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit |
| O RSD is greater than RSDlimit | P Sample pH greater than 2. |
| R RPD outside accepted recovery limits | RL Reporting Detection Limit |
| S Spike Recovery outside accepted recovery limits | |

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1408418

19-Aug-14

Client: Apex Titan, Inc.

Project: Bisti Reciever

Sample ID MB-14696	SampType: MBLK		TestCode: EPA Method 8021B: Volatiles							
Client ID: PBS	Batch ID: 14696		RunNo: 20533							
Prep Date: 8/11/2014	Analysis Date: 8/12/2014		SeqNo: 597291		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID LCS-14696	SampType: LCS		TestCode: EPA Method 8021B: Volatiles							
Client ID: LCSS	Batch ID: 14696		RunNo: 20533							
Prep Date: 8/11/2014	Analysis Date: 8/12/2014		SeqNo: 597292		Units: mg/Kg					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.050	1.000	0	87.4	80	120			
Toluene	0.86	0.050	1.000	0	85.6	80	120			
Ethylbenzene	0.88	0.050	1.000	0	88.2	80	120			
Xylenes, Total	2.8	0.10	3.000	0	92.4	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2.
- RL Reporting Detection Limit

Sample Log-In Check List

Client Name: APEX Titan

Work Order Number: 1408418

RcptNo: 1

Received by/date: 

Logged By: Lindsay Mangin

08/09/14
 8/9/2014 9:00:00 AM



Completed By: Lindsay Mangin

8/9/2014 10:22:53 AM



Reviewed By: IO

08/11/14

Chain of Custody

- 1. Custody seals intact on sample bottles? Yes No Not Present
- 2. Is Chain of Custody complete? Yes No Not Present
- 3. How was the sample delivered? Courier

Log In

- 4. Was an attempt made to cool the samples? Yes No NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
- 6. Sample(s) in proper container(s)? Yes No
- 7. Sufficient sample volume for indicated test(s)? Yes No
- 8. Are samples (except VOA and ONG) properly preserved? Yes No
- 9. Was preservative added to bottles? Yes No NA
- 10. VOA vials have zero headspace? Yes No No VOA Vials
- 11. Were any sample containers received broken? Yes No
- 12. Does paperwork match bottle labels? Yes No # of preserved bottles checked for pH: (<2 or >12 unless noted)
- 13. Are matrices correctly identified on Chain of Custody? Yes No Adjusted?
- 14. Is it clear what analyses were requested? Yes No
- 15. Were all holding times able to be met? Yes No Checked by:

Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: _____ Date: _____
 By Whom: _____ Via: eMail Phone Fax In Person
 Regarding: _____
 Client Instructions: _____

17. Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.4	Good	Yes			

Chain-of-Custody Record

Client: Apex-Titan

Mailing Address: 606 S. Rio Grande

Suite A, Artec

Phone #: 903 821 5603

email or Fax#: ksummers@ApexCos.com

QA/QC Package:

Standard Level 4 (Full Validation)

Accreditation

NELAP Other _____

EDD (Type) _____

Turn-Around Time:

Standard Rush

Project Name: Bisti Receiver

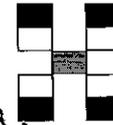
Project #: 703041060012

Project Manager: Summers

Sampler: K Summers

On Ice: Yes No

Sample Temperature: 22



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)	
<u>8/7/14</u>						<u>408418</u>													
<u>8/7/14</u>	<u>1000</u>	<u>S</u>	<u>C-1</u>	<u>1X402</u>	<u>ice</u>	<u>-001</u>	<u>X</u>	<u>X</u>											
	<u>1005</u>		<u>C-2</u>			<u>-002</u>													
	<u>1010</u>		<u>C-3</u>			<u>-003</u>													
	<u>1015</u>		<u>C-4</u>			<u>-004</u>													
	<u>1020</u>		<u>C-5</u>			<u>-005</u>													
	<u>1025</u>		<u>C-6</u>			<u>-006</u>													
	<u>1030</u>		<u>C-7</u>			<u>-007</u>													
<u>8/8/14</u>	<u>0915</u>		<u>C-8</u>			<u>-008</u>													
	<u>0920</u>		<u>C-9</u>			<u>-009</u>													
	<u>0925</u>		<u>C-10</u>			<u>-010</u>													
	<u>0930</u>		<u>C-11</u>			<u>-011</u>													
	<u>0935</u>		<u>C-12</u>			<u>-012</u>													

Date: 8/8/14 Time: 1313 Relinquished by: [Signature]

Received by: [Signature] Date: 8/8/14 Time: 1313

Remarks: BTEX 8021
TAN 6001 PRO

Date: 8/8/14 Time: 1758 Relinquished by: [Signature]

Received by: [Signature] Date: 08/09/14 Time: 0900

Chain-of-Custody Record

Client: Apex Titan

Mailing Address: 606 Rio Grande

Phone #: 903 821 5603

email or Fax#: ks Summers @ Apex Cos. com

QA/QC Package:
 Standard Level 4 (Full Validation)

Accreditation
 NELAP Other _____

EDD (Type) _____

Turn-Around Time:

Standard Rush

Project Name: Bisti Receiver

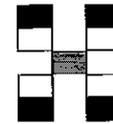
Project #: 70304103001C

Project Manager: Summers

Sampler: KS Summers

On Ice: Yes No

Sample Temperature: 2.4



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE + TBA's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO + MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)	
8/8/14	0940	S	C-13	1X402	ICE	408418	-013	X	X										
8/8/14	0945	S	C-14	1X402	ICE		-014	X	X										
<p>NFI RS</p>																			

Date: 8/8/14 Time: 1313 Relinquished by: [Signature]

Received by: Christie Wahlen Date: 8/8/14 Time: 1313

Remarks:

Date: 8/8/14 Time: 1758 Relinquished by: Christie Wahlen

Received by: [Signature] Date: 08/09/14 Time: 0900

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.