Basin Environmental Service Technologies, LLC

3100 Plains Highway
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Lovington, New Mexico 88260
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REMEDIATION SUMMARY &

RISK-BASED SITE CLOSURE REQUEST

BOPCO, LP
INDIAN FLATS BASS FEDERAL SWD TANK BATTERY
Eddy County, New Mexico
Unit Letter "J" (NW/SE), Section 35, Township 21 South, Range 28 East
Latitude 32.433935° North, Longitude 104.055036° West
NMOCD Reference #: 2RP-2198

Prepared For:

BOPCO, LP
522 W. Mermod, Suite 704
Carlsbad, New Mexico 88220

Prepared By:
Basin Environmental Service Technologies, LLC
3100 Plains Highway
Lovington, New Mexico 88260

September 2014

Ben J. Arguijo
Project Manager

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1.0 INTRODUCTION & BACKGROUND INFORMATION

Basin Environmental Service Technologies, LLC (Basin Environmental), on behalf of BOPCO, LP (BOPCO), has prepared this *Remediation Summary & Risk-Based Site Closure Request* for the release site known as Indian Flats Bass Federal SWD Tank Battery (Indian Flats SWD). The legal description of the release site is Unit Letter "J" (NW/SE), Section 35, Township 21 South, Range 28 East, in Eddy County, New Mexico. The geographic coordinates of the release site are 32.433935° North latitude and 104.055036° West longitude. The property affected by the release is owned by the United States Department of the Interior - Bureau of Land Management (BLM). Please reference Figure 1 for a "Site Location Map".

On February 10, 2014, BOPCO discovered a release had occurred at the Indian Flats Salt Water Disposal (SWD) facility. A one-inch (1") fitting on the SWD pump failed, resulting in a release of produced water. The release was immediately reported to the New Mexico Oil Conservation Division (NMOCD) Artesia District Office. The "Release Notification and Corrective Action" (Form C-141) indicated approximately one hundred fifty-three barrels (153 bbls) of produced water were released. During initial response activities, the fitting was replaced, and a vacuum truck was utilized to recover approximately one hundred thirty-eight barrels (138 bbls) of produced water. The majority of the release (approximately 110 bbls) was confined to the impermeable containment area surrounding the Indian Flats SWD facility. The release impacted an area outside of the containment measuring approximately three thousand, eighty square feet (3,080 ft^2), which included the caliche pad surrounding the facility and a nearby lease road.

The Form C-141 is provided as Appendix A. General photographs of the release site are provided in Appendix B.

The release impacted an area which had been affected by several releases in the past (see NMOCD reference #'s 2RP-1037, 1207, 1208, 1209, 1457, and 1656). The previous releases were remediated concurrently, to the extent practicable, and remediation activities are summarized in the "Remediation Summary & Risk-Based Site Closure Request" dated August 2013. A portion of the February 10, 2014, release comingled with a zone of contaminated soil, which had been left in-situ with NMOCD approval. A portion of the release also impacted an area which had been previously remediated and lined with an impermeable, twenty-millimeter (20mm) polyurethane plastic liner prior to backfilling.

2.0 NMOCD SITE CLASSIFICATION

A search of the New Mexico Water Rights Reporting System (NMWRRS) database maintained by the New Mexico Office of the State Engineer (NMOSE) indicated information was unavailable for Section 35, Township 21 South, Range 28 East. A depth-to-groundwater reference map utilized by the NMOCD indicates groundwater should be encountered approximately one hundred and forty feet (140') below ground surface (bgs). Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

A search of the NMWRRS database indicated there are no water wells within one thousand feet (1,000') of the release. Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

There are no surface water bodies within one thousand feet (1,000') of the release. Based on the NMOCD ranking system, zero (0) points will be assigned to the site as a result of this criterion.

NMOCD guidelines indicate the Indian Flats SWD release site has an initial ranking score of zero (0) points. The soil remediation levels for a site with a ranking score of zero (0) points are as follows:

- Benzene – 10 mg/kg (ppm)
- Benzene, ethylbenzene, toluene, and xylenes (BTEX) – 50 mg/kg (ppm)
- Total petroleum hydrocarbons (TPH) – 5,000 mg/kg (ppm)

The New Mexico Administrative Code (NMAC) does not currently specify a remediation level for chloride concentrations in soil. Chloride remediation levels are set by the NMOCD on a site-specific basis.

3.0 SUMMARY OF SOIL REMEDIATION ACTIVITIES

On Ju1y 14, 2014, excavation of impacted soil commenced at the site. A chloride test kit was used to field-screen the horizontal extent of impacted soil and to guide the excavation. From July 15 through July 23, 2014, approximately seven hundred and eighty cubic yards (780 yd^3) of impacted soil was excavated and transported to Lea Land, Inc. (NMOCD Permit # WM-01-035), for disposal.

On July 15, 2014, six (6) soil samples (Floor #1, Floor #2, Floor #3, N. Wall #1, N. Wall #2, and E. Wall #1) were collected from the floor and sidewalls of the excavation and submitted to Cardinal Laboratories in Hobbs, New Mexico, for analysis of chloride concentrations in accordance with Environmental Protection Agency (EPA) Method 4500 Cl-B. Laboratory analytical results indicated chloride concentrations ranged from 2,320 mg/kg in soil sample Floor #3 to 6,960 mg/kg in soil sample N. Wall #1. Table 1 summarizes the "Concentrations of Benzene, BTEX, TPH & Chloride in Soil". A "Site & Sample Location Map" is provided as Figure 2. Laboratory analytical reports are provided as Appendix D.

Further excavation to the north was precluded by the presence of the active SWD and associated sump, booster pumps, electrical utilities, pipes, and appurtenances. Further excavation to the east was precluded by an active pipeline adjacent to the excavation.

On July 17, 2014, three (3) soil samples (Floor #4, S. Wall #1, and W. Wall #1) were collected from the floor and sidewalls of the excavation and submitted to the laboratory for analysis of chloride concentrations. Soil sample S. Wall #1 was also analyzed for concentrations of TPH and BTEX in accordance with EPA Methods SW-846 80 and SW-846 8021b, respectively. Laboratory analytical results indicated chloride concentrations ranged from 192 mg/kg in soil sample S. Wall #1 to 4,720 mg/kg in soil sample W. Wall #1. TPH and BTEX constituent concentrations in soil sample S. Wall #1 were less than the appropriate laboratory method detection limit (MDL).

Soil sample W. Wall #1 represents an area of comingled contamination from the February 10, 2014, release and the six (6) prior releases referenced in Section 1.0, "Introduction & Background Information". Further excavation in that area was deemed impracticable due to the presence of an

active truck lane and load lines adjacent to the excavation. The truck lane represents the only thoroughfare to two (2) active production wells to the west of the Indian Flats SWD. Limiting access to both the production wells and the Indian Flats SWD would have placed an undue financial burden on BOPCO and introduced an environmental hazard due to the increased risk for subsequent releases.

July 1, 2014, a twenty (20) mil polyurethane liner was installed on the floor excavation at approximately four feet (4') bgs. A cushion of sand was installed approximately one foot (1') both above and below the liner to protect the liner from damage during installation and backfilling activities.

On July 28, 2014, one (1) soil boring (SB-1) was advanced in the area represented by soil sample Floor #2 to further investigate the vertical extent of impacted soil. Soil samples were collected at five-foot (5') drilling intervals and field-screened using a chloride test kit. Soil samples collected at drilling depths of five feet (5'), ten feet (10'), twenty feet (20'), thirty feet (30'), thirty-five feet (35'), and forty feet (40') bgs were submitted to the laboratory for analysis of TPH, BTEX, and/or chloride concentrations. Laboratory analytical results indicated TPH concentrations were less than the laboratory MDL in all submitted soil samples, with the exception of soil sample SB-1 @ 5', which exhibited a TPH concentration of 79.6 mg/kg. BTEX constituent concentrations were less than the appropriate laboratory MDL in all submitted soil samples. Chloride concentrations ranged from 80.0 mg/kg in soil sample SB-1 @ 5' to 3,280 mg/kg in soil sample SB-1 @ 10'. A soil boring log is provided as Appendix C.

Based on laboratory analytical results, and with NMOCD approval, from July 19 through July 24, 2014, the excavation was backfilled with non-impacted material, compacted, and contoured to fit the surrounding topography. Prior to backfilling, the final dimensions of the excavation were approximately two hundred and sixty feet (260') in length, varying in width from approximately forty feet (40') to approximately eighty feet (80'), and approximately five feet (5') in depth.

On August 28, 2014, a disturbed area of pastureland adjacent to the release site, which had been used as a staging area during remediation activities, was seeded with a BLM-approved seed mixture. Post-seeding photographs of the site are included in Appendix B.

4.0 QA/QC PROCEDURES

4.1 Soil Sampling

Soil samples were delivered to Cardinal Laboratories in Hobbs, New Mexico, for BTEX, TPH, and/or chloride analyses using the methods described below:

- BTEX concentrations in accordance with EPA Method SW-846 8021b
- TPH concentrations in accordance with EPA Method SW-846 8015M
- Chloride concentrations in accordance with EPA Methods 4500 Cl-B

4.2 Decontamination of Equipment

Cleaning of the sampling equipment was the responsibility of the environmental technician. Prior to use, and between each sample, the sampling equipment was cleaned with Liqui-Nox® detergent and rinsed with distilled water.

4.3 Laboratory Protocol

The laboratory was responsible for proper QA/QC procedures after signing the chain-of-custody form(s). These procedures were either transmitted with the laboratory reports or are on file at the laboratory.

5.0 SITE CLOSURE REQUEST

Soil samples collected from the sidewalls of the Indian Flats SWD excavation were analyzed by an NMOCD-approved laboratory, and concentrations of benzene, BTEX, and TPH were below the regulatory remediation action levels established for the site by the NMOCD.

The release site was excavated to the extent practicable. A twenty-millimeter (20mm), impermeable, polyurethane plastic liner was installed on the floor of the excavation prior to backfilling and chemically welded with an existing liner to the south of the excavation. This engineered control will help mitigate future releases and effectively inhibit vertical migration of contaminants to groundwater. In-situ soil exhibiting chloride contamination above the regulatory remediation action levels established for the site will be remediated upon decommission and/or abandonment of the currently salt water disposal system.

Basin Environmental recommends BOPCO provide the NMOCD Artesia District Office and BLM a copy of this *Remediation Summary & Risk-Based Site Closure Request* and request the NMOCD grant site closure to the Indian Flats SWD release site.

6.0 LIMITATIONS

Basin Environmental Service Technologies, LLC, has prepared this *Remediation Summary & Risk-Based Site Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Basin Environmental has examined and relied upon documents referenced in the report and on oral statements made by certain individuals. Basin Environmental has not conducted an independent examination of the facts contained in referenced materials and statements. Basin Environmental has presumed the genuineness of these documents and statements and that the information provided therein is true and accurate. Basin Environmental has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of BOPCO, LP. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Service Technologies, LLC, and/or BOPCO, LP.

7.0 DISTRIBUTION:

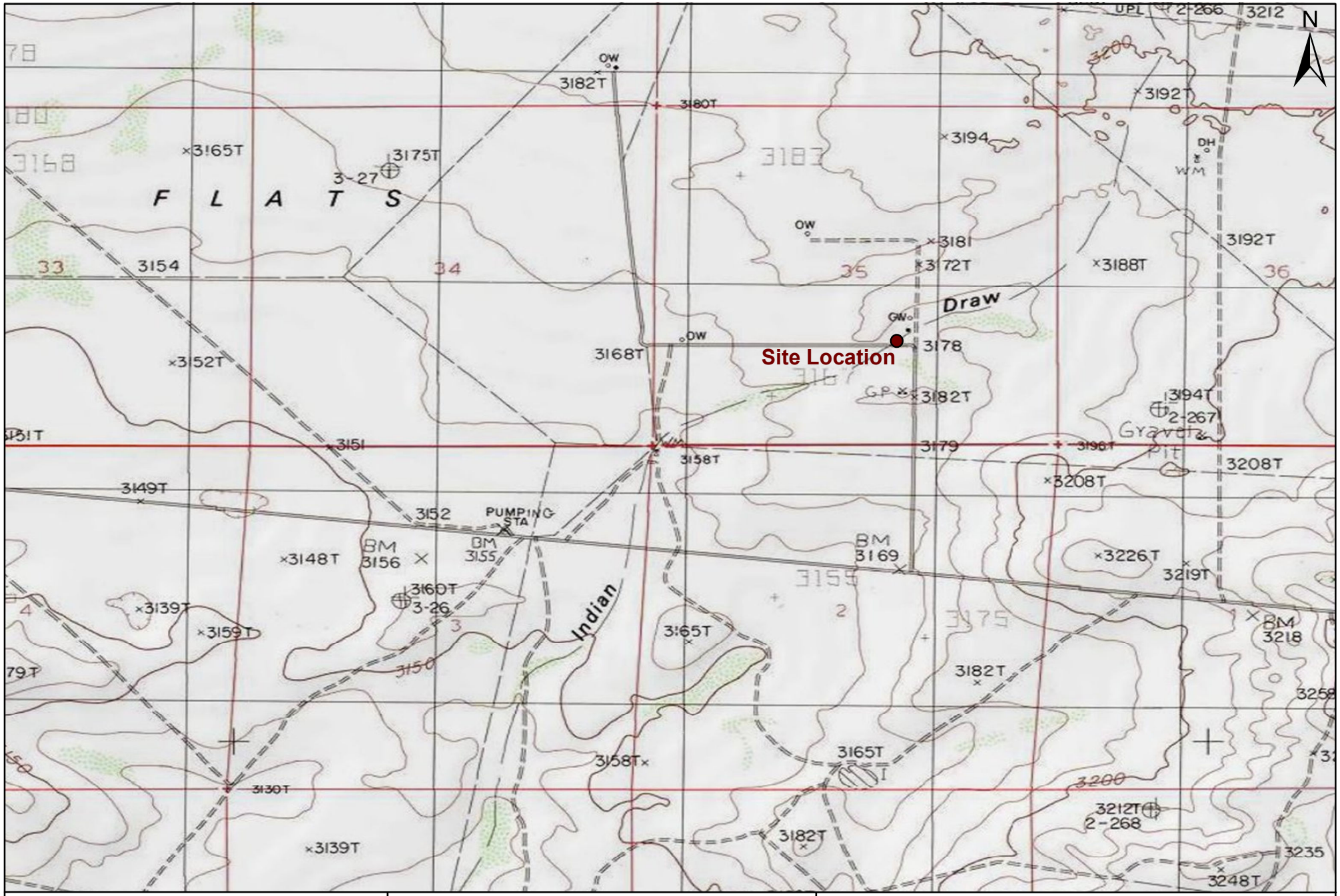
Copy 1: Mike Bratcher
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division (District 2)
1301 E. Grand Avenue
Artesia, NM 88210

Copy 2: James Amos
Bureau of Land Management
602 E. Greene Street
Carlsbad, NM 88220

Copy 3: Tony Savoie
BOPCO, LP
522 W. Mermod, Suite 704
Carlsbad, NM 88220

Copy 4: Basin Environmental Service Technologies, LLC
P.O. Box 301
Lovington, NM 88260

Figures



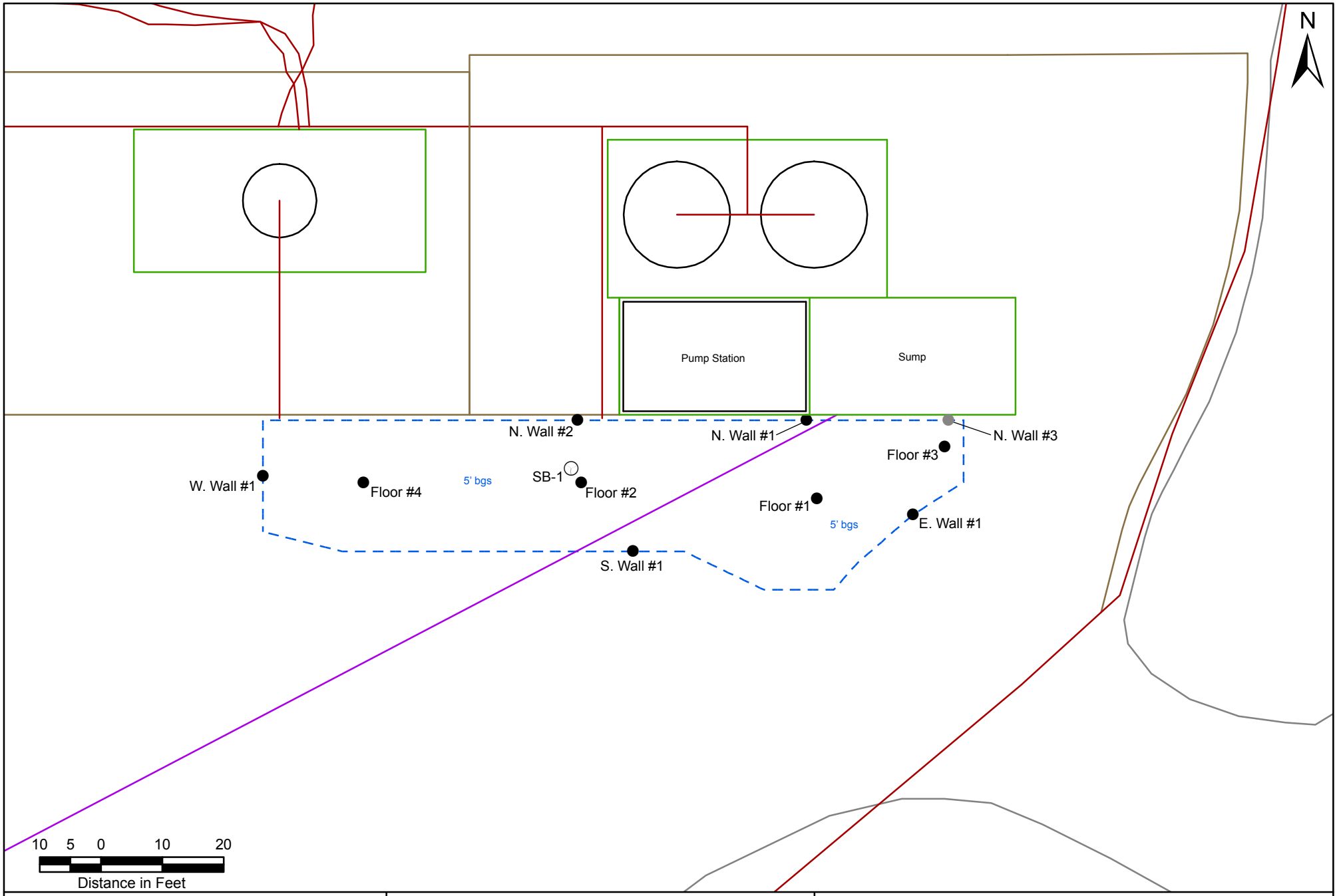
1,000 500 0 1,000 2,000

Distance in Feet

Figure 1
Site Location Map
BOPCO, LP
Indian Flats Bass Federal SWD Tank Battery
Eddy County, New Mexico
NMOCD Reference #: 2RP-2198

Basin Environmental Service Technologies, LLC
3100 Plains Hwy.
Lovington, NM 88260

Drawn By: BJA	Checked By: BRB
August 11, 2014	Scale: 1" = 2,000'



Legend

- Pipeline
- Excavation Extent
- Caliche Pad/Road
- Steel Berm
- Earthen Berm
- Electrical Conduit
- Soil Boring
- Sample Location
- Field-Screen

Figure 2
Site & Sample Location Map
BOPCO, LP
Indian Flats Bass Federal SWD
Eddy County, New Mexico
NMOCD Reference #: 2RP-2198

Basin Environmental Service Technologies, LLC
3100 Plains Hwy.
Lovington, NM 88260

Drawn By: BJA	Checked By: BRB
October 24, 2014	Scale: 1" = 60'

Tables

TABLE 1
CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

BOPCO, LP
INDIAN FLATS BASS FEDERAL SWD TANK BATTERY
EDDY COUNTY, NEW MEXICO
NMOCD REFERENCE #: 2RP-2198

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TPH C_6-C_{35} (mg/Kg)	4500 Cl-B
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C_6-C_{12} (mg/Kg)	DRO C_{12}-C_{28} (mg/Kg)	ORO C_{28}-C_{35} (mg/Kg)		CHLORIDE (mg/Kg)
Floor #1	5'	7/15/2014	In-Situ	-	-	-	-	-	-	-	-	-	**2,360**
Floor #2	5'	7/15/2014	In-Situ	-	-	-	-	-	-	-	-	-	**6,080**
Floor #3	5'	7/15/2014	In-Situ	-	-	-	-	-	-	-	-	-	**2,320**
N. Wall #1	3.5'	7/15/2014	In-Situ	-	-	-	-	-	-	-	-	-	**6,960**
N. Wall #2	3.5'	7/15/2014	In-Situ	-	-	-	-	-	-	-	-	-	**6,640**
E. Wall #1	3.5'	7/15/2014	In-Situ	-	-	-	-	-	-	-	-	-	**3,160**
Floor #4	5'	7/17/2014	In-Situ	-	-	-	-	-	-	-	-	-	**3,080**
S. Wall #1	3.5'	7/17/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<20.0	<10.0	<10.0	<10.0	192
W. Wall #1	3.5'	7/17/2014	In-Situ	-	-	-	-	-	-	-	-	-	**4,720**
SB-1 @ 5'	5'	7/28/2014	In-Situ	-	-	-	-	-	<20.0	43.4	36.2	79.6	80.0
SB-1 @ 10'	10'	7/28/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<20.0	<10.0	<10.0	<10.0	**3,280**
SB-1 @ 20'	20'	7/28/2014	In-Situ	-	-	-	-	-	-	-	-	-	**2,240**
SB-1 @ 30'	30'	7/28/2014	In-Situ	-	-	-	-	-	-	-	-	-	336
SB-1 @ 35'	35'	7/28/2014	In-Situ	-	-	-	-	-	<20.0	<10.0	<10.0	<10.0	336
SB-1 @ 40'	40'	7/28/2014	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.300	<20.0	<10.0	<10.0	<10.0	240
NMOCD Criteria				**10**					**50**			**5,000**	**1,000**

- = Not analyzed.

Appendices

Appendix A
Release Notification &
Corrective Action (Form C-141)

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

nHMP1407130197

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P. 260737	Contact: Tony Savoie
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: Indian Flats Bass Federal SWD Tank Battery Battery is located 2996 ft. S.W. of Well #1 API 30-015-24968	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 30-015-24968

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County Eddy
J	35	21S	28E	1652	South	2150	East	

Latitude N. 32.433935 **Longitude** W. 104.055036

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 153 Bbls.	Volume Recovered: Total 138 Bbls. 110 bbls from the 0 perm cont. 28 bbls. off the ground.
Source of Release: 1" fitting on the SWD pump	Date and Hour of Occurrence: Date 2/10/14 time unknown	Date and Hour of Discovery: Date 2/10/14 at 9:30 a.m.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? NMOCD Emergency #104	
By Whom? Jody Walters	Date and Hour: 2/10/14 at 3:02 p.m.	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

RECEIVED
FEB 18 2014
NMOCD ARTESIA

Describe Cause of Problem and Remedial Action Taken.*
A one inch fitting on the SWD pump broke during the night. The pump was shut down and the failed fitting was replaced.

Describe Area Affected and Cleanup Action Taken.*
The SWD pump and tank battery have been fitted with 0 perm containment, the high pressure spray was not completely contained, an area covering approximately 3080 sq.ft. in front of the SWD was impacted by the release. This area had been impacted by several releases in the past. All previous spills were remediated and a closure request was submitted on 10/3/13. The area impacted this time may have an environmental liner in place approximately 3 ft below ground surface.
The spill area will be remediated in accordance to the NMOCD and BLM remediation guidelines.

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

Signature: Tony Savoie	OIL CONSERVATION DIVISION
Printed Name: Tony Savoie	Approved by Environmental Specialist:
Title: Waste Management and Remediation Specialist	Approval Date: 3/12/14 Expiration Date:
E-mail Address: tasavoie@basspet.com	Conditions of Approval: Remediation per OCD Rule & Guidelines, & like approval by BLM. SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 4/12/14 Attached ☐
Date: 2/18/14 Phone: 432-556-8730	

* Attach Additional Sheets If Necessary

2RP 2198

Appendix B
Photographs

Indian Flats Bass Federal SWD – Excavation (Looking East)

Indian Flats Bass Federal SWD – Excavation & Exposure of Existing Liner
(Looking East-Southeast)

Indian Flats Bass Federal SWD – Excavation (Looking North)

Indian Flats Bass Federal SWD – Excavation (Looking West-Northwest)

Indian Flats Bass Federal SWD – Liner Installation (Looking West)

Indian Flats Bass Federal SWD – Backfilled Excavation (Looking Northwest)

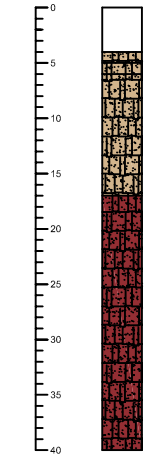
Indian Flats Bass Federal SWD – Staging Area Adjacent to Release Site
(Following Seeding; Looking West)

Indian Flats Bass Federal SWD – PVC Conduit for Advancement of Soil Boring SB-1

Indian Flats Bass Federal SWD – Advancement of Soil Boring SB-1

Appendix C
Soil Boring Logs

Soil Boring SB-1



Depth Below Ground Surface	Chloride Field Test	Petroleum Odor	Petroleum Stain	Soil Description
				0' - 4' - PVC Conduit
5	–	None	None	4' - 5' - Tan very fine sand - cement sandstone 5' - 6' - Tan very fine sand - siliceous sandstone
10	–	None	None	6' - 17' - Tan very fine sand - cement sandstone
15		None	None	
20	2,072	None	None	
25		None	None	
30	–	None	None	17' - 40' - Red fine sand - cement sandstone
35	352	None	None	
40	312	None	None	

Boring SB-1

Date Drilled July 28, 2014
Thickness of Bentonite Seal 38 Ft
Depth of Exploratory Boring 40 Ft bgs
Depth to Groundwater _____
Ground Water Elevation _____

▼ Indicates the PSH level measured on _____
▼ Indicates the groundwater level measured on _____
⬭ Indicates samples selected for Laboratory Analysis.
PID Head-space reading in ppm obtained with a photo-ionization detector.

Completion Notes

1.) The soil boring was advanced on date using air rotary drilling techniques.
2.) The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.

Soil Boring SB-1

BOPCO, LP
Indian Flats Bass Federal SWD Tank Battery
Eddy County, New Mexico
NMOCD Reference #: 2RP-2198

Basin Environmental Service Technologies, LLC
3100 Plains Hwy.
Lovington, NM 88260

Prep By: BJA	Checked By: BRB
August 21, 2014	

Appendix D

Laboratory Analytical Reports

CARDINAL Laboratories

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

July 18, 2014

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: INDIAN FLATS BASS FEDERAL SWD

Enclosed are the results of analyses for samples received by the laboratory on 07/16/14 11:50.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

Basin Environmental Service
BEN J. ARGUIJO
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	07/16/2014	Sampling Date:	07/15/2014
Reported:	07/18/2014	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

Sample ID: FLOOR #1 (H402157-01)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2360**	16.0	07/18/2014	ND	400	100	400	3.92	

Sample ID: FLOOR #2 (H402157-02)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**6080**	16.0	07/18/2014	ND	400	100	400	3.92	

Sample ID: FLOOR #3 (H402157-03)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2320**	16.0	07/18/2014	ND	400	100	400	3.92	

Sample ID: N. WALL #1 (H402157-04)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**6960**	16.0	07/18/2014	ND	400	100	400	3.92	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

Basin Environmental Service
BEN J. ARGUIJO
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	07/16/2014	Sampling Date:	07/15/2014
Reported:	07/18/2014	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

Sample ID: N. WALL #2 (H402157-05)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**6640**	16.0	07/18/2014	ND	400	100	400	3.92	

Sample ID: E. WALL #1 (H402157-06)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**3160**	16.0	07/18/2014	ND	400	100	400	3.92	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

CARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	Basin Environmental Service Technologies, LLC	**BILL TO**	
Project Manager:	Ben Arguijo	**P.O. #:**	
Address:	P.O. Box 301	**Company:**	BOPCO, LP
City:	Lovington **State:** NM **Zip:** 88260	**Attn:**	Tony Savoie
Phone #:	(575)396-2378 **Fax #:** (575)396-1429	**Address:**	522 W. Marland
Project #:	**Project Owner:** BOPCO, LP	**City:**	Carlsbad
Project Name:	Indian Flats Bass Federal SWD Tank Battery	**State:**	NM **Zip:** 88220
Project Location:	Eddy Co., NM	**Phone #:**	(432)556-8730
Sampler Name:	Steve Taylor	**Fax #:**	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	Chloride	TPH (8015M)	BTEX (8021B)
H402157-1	Floor #1	G	1			X					X		7/15/14	0900	X		
2	Floor #2	G	1			X					X		7/15/14	0910	X		
3	Floor #3	G	1			X					X		7/15/14	1325	X		
4	N. Wall #1	G	1			X					X		7/15/14	1320	X		
5	N. Wall #2	G	1			X					X		7/15/14	0905	X		
6	E. Wall #1	G	1			X					X		7/15/14	0915	X		

Relinquished By: Steve Taylor	**Date:** 7/15/14 **Time:** 1700	**Received By:**	
Relinquished By:	**Date:** 7/16/14 **Time:** 0900	**Received By:** Linda Blackwood	
Delivered By: (Circle One) Linda Blackwood 1150 Sampler - UPS - Bus - Other: Jodi Henson	**Sample Condition** Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	5.4°C	**CHECKED BY: (Initials)** #54

Phone Result: ☐ Yes ☐ No **Add'l Phone #:**
Fax Result: ☐ Yes ☐ No **Add'l Fax #:**
REMARKS:

****Run TPH if chloride is <= 1,000. Run BTEX if TPH is <= 5,000.****
Please email results to bjarguijo@basinenv.com,
Tony Savoie, Jody Walters & Amy Ruth

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

CARDINAL Laboratories

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

July 28, 2014

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: INDIAN FLATS BASS FEDERAL SWD

Enclosed are the results of analyses for samples received by the laboratory on 07/18/14 9:30.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Hope S. Moreno

Hope S. Moreno For Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

Basin Environmental Service
BEN J. ARGUIJO
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	07/18/2014	Sampling Date:	07/17/2014
Reported:	07/28/2014	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kathy Perez
Project Location:	EDDY CO., NM		

Sample ID: FLOOR #4 (H402191-01)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**3080**	16.0	07/22/2014	ND	432	108	400	7.69	

Sample ID: S. WALL #1 (H402191-02)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	07/25/2014	ND	2.20	110	2.00	1.98	
Toluene*	<0.050	0.050	07/25/2014	ND	2.23	111	2.00	2.89	
Ethylbenzene*	<0.050	0.050	07/25/2014	ND	2.27	113	2.00	3.00	
Total Xylenes*	<0.150	0.150	07/25/2014	ND	6.86	114	6.00	3.25	
Total BTEX	<0.300	0.300	07/25/2014	ND					

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

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**192**	16.0	07/22/2014	ND	432	108	400	7.69	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	07/25/2014	ND	176	88.2	200	2.52	
DRO >C10-C28	<10.0	10.0	07/25/2014	ND	194	97.0	200	3.54	
EXT DRO >C28-C35	<10.0	10.0	07/25/2014	ND					

Surrogate: 1-Chlorooctane *116 %* *65.2-140*

Cardinal Laboratories *=Accredited Analyte

Hope S. Moreno

Hope S. Moreno For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

Basin Environmental Service
BEN J. ARGUIJO
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	07/18/2014	Sampling Date:	07/17/2014
Reported:	07/28/2014	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kathy Perez
Project Location:	EDDY CO., NM		

Sample ID: S. WALL #1 (H402191-02)

TPH 8015M **mg/kg** **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Surrogate: 1-Chlorooctadecane	*130 %*	*63.6-154*							

Sample ID: W. WALL #1 (H402191-03)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**4720**	16.0	07/22/2014	ND	432	108	400	7.69	

Cardinal Laboratories

*=Accredited Analyte

Hope S. Moreno

Hope S. Moreno For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Hope S. Moreno

Hope S. Moreno For Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

CARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	Basin Environmental Service Technologies, LLC	**BILL TO**	
Project Manager:	Ben Arguijo	**P.O. #:**	
Address:	P.O. Box 301	**Company:**	BOPCO, LP
City:	Lovington **State:** NM **Zip:** 88260	**Attn:**	Tony Savoie
Phone #:	(575)396-2378 **Fax #:** (575)396-1429	**Address:**	522 W. Marland
Project #:	**Project Owner:** BOPCO, LP	**City:**	Carlsbad
Project Name:	Indian Flats Bass Federal SWD Tank Battery	**State:** NM **Zip:**	88220
Project Location:	Eddy Co., NM	**Phone #:**	(432)556-8730
Sampler Name:	Steve Taylor	**Fax #:**	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST												
Lab I.D.	**Sample I.D.**	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	**DATE**	**TIME**	Chloride	TPH (8015M)	BTEX (8021B)										
H402191																										
1	Floor #4	G	1			X					X		7/17/14	1000	X											
2	S. Wall #1	G	1			X					X		7/17/14	1005	X											
3	W. Wall #1	G	1			X					X		7/17/14	1010	X											

Relinquished By: Steve Taylor **Date:** 7/17/14 **Time:** 1700 **Received By:**

Relinquished By: **Date:** 7/18/14 **Time:** 0700 **Received By:** 9:30

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: 2.0°c #54

Sample Condition
Cool: ☐ Yes ☐ No
Intact: ☑ Yes ☐ No

CHECKED BY: (Initials) KP

Phone Result: ☐ Yes ☐ No **Add'l Phone #:**
Fax Result: ☐ Yes ☐ No **Add'l Fax #:**
REMARKS:

****Run TPH if chloride is <= 1,000. Run BTEX if TPH is <= 5,000.****

Please email results to bjarguijo@basinenv.com,
Tony Savoie, Jody Walters & Amy Ruth

FORM-006
Revision 1.0

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

CARDINAL Laboratories

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

August 11, 2014

BEN J. ARGUIJO

Basin Environmental Service

P.O. Box 301

Lovington, NM 88260

RE: INDIAN FLATS BASS FEDERAL SWD TANK BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 08/04/14 16:50.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

Basin Environmental Service
BEN J. ARGUIJO
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	08/04/2014	Sampling Date:	07/28/2014
Reported:	08/11/2014	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD TAN	Sampling Condition:	Cool & Intact
Project Number:	BOPCO, LP	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB-1 @ 5' (H402385-01)

Chloride, SM4500Cl-B mg/kg **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	08/07/2014	ND	416	104	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<20.0	20.0	08/06/2014	11.8	185	92.5	200	1.06	
DRO >C10-C28	**43.4**	10.0	08/06/2014	ND	188	94.1	200	0.965	
EXT DRO >C28-C35	**36.2**	10.0	08/06/2014	ND					

Surrogate: 1-Chlorooctane	*84.9 %*	*65.2-140*
Surrogate: 1-Chlorooctadecane	*96.8 %*	*63.6-154*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

Basin Environmental Service
BEN J. ARGUIJO
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	08/04/2014	Sampling Date:	07/28/2014
Reported:	08/11/2014	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD TAN	Sampling Condition:	Cool & Intact
Project Number:	BOPCO, LP	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB-1 @ 10' (H402385-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/06/2014	ND	2.08	104	2.00	8.22	
Toluene*	<0.050	0.050	08/06/2014	ND	2.13	107	2.00	8.36	
Ethylbenzene*	<0.050	0.050	08/06/2014	ND	2.16	108	2.00	8.86	
Total Xylenes*	<0.150	0.150	08/06/2014	ND	6.75	112	6.00	8.92	
Total BTEX	<0.300	0.300	08/06/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *89.4-126*

Chloride, SM4500Cl-B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**3280**	16.0	08/07/2014	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<20.0	20.0	08/06/2014	11.8	185	92.5	200	1.06	
DRO >C10-C28	<10.0	10.0	08/06/2014	ND	188	94.1	200	0.965	
EXT DRO >C28-C35	<10.0	10.0	08/06/2014	ND					

Surrogate: 1-Chlorooctane *79.1 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *80.6 %* *63.6-154*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

Basin Environmental Service
BEN J. ARGUIJO
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	08/04/2014	Sampling Date:	07/28/2014
Reported:	08/11/2014	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD TAN	Sampling Condition:	Cool & Intact
Project Number:	BOPCO, LP	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB-1 @ 20' (H402385-03)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2240**	16.0	08/07/2014	ND	416	104	400	0.00	

Sample ID: SB-1 @ 30' (H402385-04)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**336**	16.0	08/07/2014	ND	416	104	400	0.00	

Sample ID: SB-1 @ 35' (H402385-05)

Chloride, SM4500Cl-B **mg/kg** **Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**336**	16.0	08/07/2014	ND	416	104	400	0.00	

TPH 8015M **mg/kg** **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<20.0	20.0	08/06/2014	11.8	185	92.5	200	1.06	
DRO >C10-C28	<10.0	10.0	08/06/2014	ND	188	94.1	200	0.965	
EXT DRO >C28-C35	<10.0	10.0	08/06/2014	ND					

Surrogate: 1-Chlorooctane	*84.3 %*	*65.2-140*
Surrogate: 1-Chlorooctadecane	*88.9 %*	*63.6-154*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

Basin Environmental Service
BEN J. ARGUIJO
P.O. Box 301
Lovington NM, 88260
Fax To: (575) 396-1429

Received:	08/04/2014	Sampling Date:	07/28/2014
Reported:	08/11/2014	Sampling Type:	Soil
Project Name:	INDIAN FLATS BASS FEDERAL SWD TAN	Sampling Condition:	Cool & Intact
Project Number:	BOPCO, LP	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

Sample ID: SB-1 @ 40' (H402385-06)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	08/06/2014	ND	2.08	104	2.00	8.22	
Toluene*	<0.050	0.050	08/06/2014	ND	2.13	107	2.00	8.36	
Ethylbenzene*	<0.050	0.050	08/06/2014	ND	2.16	108	2.00	8.86	
Total Xylenes*	<0.150	0.150	08/06/2014	ND	6.75	112	6.00	8.92	
Total BTEX	<0.300	0.300	08/06/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *89.4-126*

Chloride, SM4500Cl-B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**240**	16.0	08/07/2014	ND	416	104	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<20.0	20.0	08/06/2014	11.8	185	92.5	200	1.06	
DRO >C10-C28	<10.0	10.0	08/06/2014	ND	188	94.1	200	0.965	
EXT DRO >C28-C35	<10.0	10.0	08/06/2014	ND					

Surrogate: 1-Chlorooctane *92.4 %* *65.2-140*

Surrogate: 1-Chlorooctadecane *99.1 %* *63.6-154*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	Basin Environmental Service Technologies, LLC	**BILL TO**	
Project Manager:	Ben Arguijo	**P.O. #:**	
Address:	P.O. Box 301	**Company:**	BOPCO, LP
City:	Lovington **State:** NM **Zip:** 88260	**Attn:**	Tony Savoie
Phone #:	(575)396-2378 **Fax #:** (575)396-1429	**Address:**	522 W. Marland
Project #:	**Project Owner:** BOPCO, LP	**City:**	Carlsbad
Project Name:	Indian Flats Bass Federal SWD Tank Battery	**State:** NM **Zip:**	88220
Project Location:	Eddy Co., NM	**Phone #:**	(432)556-8730
Sampler Name:	Ben J. Arguijo	**Fax #:**	

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST														
Lab I.D.	**Sample I.D.**	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chloride	TPH (8015M)	BTEX (8021B)												
H402385																												
1	SB-1 @ 5'	G	1			X					X		7/28/14	1115	X	X												
2	SB-1 @ 10'	G	1			X					X		7/28/14	1120	X	X	X											
3	SB-1 @ 20'	G	1			X					X		7/28/14	1130	X													
4	SB-1 @ 30'	G	1			X					X		7/28/14	1140	X													
5	SB-1 @ 35'	G	1			X					X		7/28/14	1145	X	X												
6	SB-1 @ 40'	G	1			X					X		7/28/14	1150	X	X	X											

Relinquished By:	**Date:** 8/4/14	**Received By:**	Jodi Henson
	Time: 1650		
Relinquished By:	**Date:**	**Received By:**	
	Time:		

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: 5.7°C

Sample Condition		CHECKED BY: (Initials)
Cool	Intact	
☑ Yes ☐ No	☑ Yes ☐ No	

Phone Result: ☐ Yes ☐ No **Add'l Phone #:**
Fax Result: ☐ Yes ☐ No **Add'l Fax #:**
REMARKS:

Please email results to Ben Arguijo, Tony Savoie, Jody Walters & Amy Ruth

FORM-006
Revision 1.0

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

#54