Basin Environmental Service Technologies, LLC

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ඨ Effective Solutions

# **REMEDIATION SUMMARY &**

# SITE CLOSURE REQUEST

**BOPCO, LP** 

BASS 3 FEDERAL BATTERY #1 Eddy County, New Mexico Unit Letter "P" (NE/SE), Section 3, Township 22 South, Range 28 East Latitude 32.415370° North, Longitude 104.06990° West

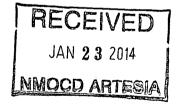
Prepared For:

2RP-99b 2RP-997 2RP-1102 2RP-1103

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

August 2013



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 Bass 3 Federal Battery #1. The legal description of the release site is Unit Letter "P" (SE/SE), Section 3, Township 22 South, Range 28 East, in Eddy County, New Mexico. The geographic coordinates of the release site are 32.415370° North latitude and 104.06990° 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 January 3, 2012, BOPCO discovered a release (Release #1) had occurred at Bass 3 Federal Battery #1. A hole in the bottom of an on-site production tank resulted in a release of crude oil. The release was confined to the earthen containment area surrounding the tank battery.

The release was reported to the New Mexico Oil Conservation Division (NMOCD) Artesia District Office on January 4, 2012. The "Release Notification and Corrective Action" (Form C-141) indicated approximately twenty barrels (20 bbls) of crude oil were release. During initial response activities, a vacuum truck was utilized to recover approximately five barrels (5 bbls) of crude oil. The release affected an area inside the earthen containment berm measuring approximately two thousand, four hundred and thirty square feet (2,430 ft<sup>2</sup>) and commingled with an area impacted by a series of historical releases of crude oil and produced water.

On January 11, 2012, BOPCO discovered a second release (Release #2) had occurred at Bass 3 Federal Battery #1. A two-inch (2") pipeline from the heater treater to the on-site storage tanks developed a leak, resulting in a release of crude oil and produced water. The leak was attributed to external corrosion. The release was confined to the earthen containment area surrounding the tank battery.

The release was immediately reported to the NMOCD Artesia District Office. The Form C-141 indicated approximately sixty-five barrels (65 bbls) of produced water and less than five barrels (<5 bbls) of crude oil were released. During initial response activities, a vacuum truck was utilized to recover approximately sixty barrels (60 bbls) of produced water and approximately two barrels (2 bbls) of crude oil. The release affected an area inside the earthen containment berm measuring approximately two thousand square feet (2,000 ft<sup>2</sup>) and commingled with the area impacted by Release #1.

On March 27, 2012, BOPCO discovered a third release (Release #3) had occurred at Bass 3 Federal Battery #1. Two (2) loads of produced water were unloaded into the on-site produced water tank without prior approval from BOPCO. The water transfer pump malfunctioned and failed to discharge the excess water into a nearby salt water disposal system. The excess water, combined with the nightly crude oil and water production to the facility, caused an on-site storage tank to overflow, resulting in a release of crude oil.

The release was reported to the NMOCD Artesia District Office on April 9, 2012. The Form C-141 indicated approximately fifteen barrels (15 bbls) of crude oil were released. The release impacted the area affected by Release #1 and Release #2, for which remediation activities had been completed on March 7, 2012. On April 3, 2012, BOPCO discovered a fourth release (Release #4) had occurred at Bass 3 Federal Battery #1. A three-quarter-inch (3/4") air eliminator on the water transfer pump broke in half due to a manufacturing defect, resulting in a release of produced water. The majority of the release was confined to the impermeable polyurethane containment area surrounding the tank battery, which had been installed at the site just prior to the release.

The release was reported to the NMOCD Artesia District Office on April 9, 2012. The Form C-141 indicated approximately two hundred and eighty-five barrels (285 bbls) of produced water were released. During initial response activities, the faulty air eliminator was replaced, and a vacuum truck was utilized to recover approximately two hundred and eighty barrels (280 bbls) of produced water.

The four (4) releases were remediated concurrently. The Forms C-141 are provided as Appendix A. General photographs of the release site(s) are provided as Appendix B.

#### 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 3, Township 22 South, Range 28 East. A depth to groundwater reference map utilized by the NMOCD indicates groundwater should be encountered at approximately one hundred and fifteen feet (115') to one hundred and twenty feet (120') below ground surface (bgs). Gauging data collected from a nearby monitor well indicates the depth to groundwater is approximately one hundred and nine feet (109') 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') 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 Bass 3 Federal Battery #1 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**

Following initial response activities, from January 16 through January 17, 2012, three (3) soil borings (SB-1, SB-2, and SB-3) were advanced inside the earthen containment area surrounding the Bass 3 Federal Battery #1 in order to investigate the vertical extent of soil impacted by Release #1 and Release #2. Soil samples were collected at five-foot (5') drilling intervals and field-screened using a Photo-Ionization Detector (PID) and/or chloride test kit. Selected soil samples were submitted to Cardinal Laboratories in Hobbs, New Mexico, for analysis of BTEX, TPH, and/or chloride concentrations in accordance with Environmental Protection Agency (EPA) Methods SW-846 8021b, SW-846 8015M, and 4500 Cl-B, respectively. Table 1 summarizes the "Concentrations of Benzene, BTEX, TPH & Chloride in Soil". A "Site & Sample Location Map" is provided as Figure 2. Soil boring logs are provided as Appendix C. Laboratory analytical reports are provided as Appendix D.

Soil boring SB-1 was located to the east of the two (2) on-site crude oil storage tanks. The soil boring was advanced to a total depth of approximately sixty feet (60') bgs. Soil samples collected at drilling depths of five feet (5'), ten feet (10'), twenty feet (20'), thirty feet (30'), forty feet (40'), fifty-five feet (55'), and sixty feet (60') bgs were submitted to the laboratory for analysis of BTEX, TPH, and/or chloride concentrations. Laboratory analytical results indicated BTEX constituent concentrations were less than the appropriate laboratory method detection limit (MDL) in all submitted soil samples. TPH concentrations ranged from 35.4 mg/kg in soil sample SB-1 @ 60' to 3,008 mg/kg in soil sample SB-1 @ 5'. Chloride concentrations ranged from 16.0 mg/kg in soil sample SB-1 @ 60' to 1,540 mg/kg in soil sample SB-1 @ 20'.

Soil boring SB-2 was located near the on-site water transfer pump. The soil boring was advanced to a total depth of approximately one hundred feet (100') bgs. Soil samples collected at drilling depths of five feet (5'), ten feet (10'), twenty feet (20'), fifty feet (50'), seventy-five feet (75'), ninety-five feet (95'), and one hundred feet (100') bgs were submitted to the laboratory for analysis of BTEX, TPH, and/or chloride concentrations. Laboratory analytical results indicated BTEX constituent concentrations were less than the appropriate laboratory MDL in all submitted soil samples. TPH concentrations were less than the laboratory MDL in all submitted soil samples, with the exception of soil sample SB-2 @ 100', which exhibited a TPH concentration of 11.9 mg/kg. Chloride concentrations ranged from 48.0 mg/kg in soil sample SB-2 @ 95' to 2,360 mg/kg in soil sample SB-2 @ 50'.

Soil boring SB-3 was located midway between the heater treater and the westernmost produced water tank. The soil boring was advanced to a total depth of approximately forty-five feet (45') bgs. Soil samples collected at drilling depths of five feet (5'), ten feet (10'), twenty-five feet (25'), forty feet (40'), and forty-five feet (45') bgs were submitted to the laboratory for analysis of BTEX, TPH, and/or chloride concentrations. Laboratory analytical results indicated BTEX constituent concentrations were less than the appropriate laboratory MDL in all submitted soil samples. TPH concentrations were less than the laboratory MDL in all submitted soil samples, with the exception of soil sample SB-3 @ 5', which exhibited a TPH concentration of 40.9 mg/kg. Chloride concentrations ranged from 64.0 mg/kg in soil sample SB-3 @ 45' to 1,840 mg/kg in soil sample SB-3 @ 10'.

On February 21, 2012, excavation of soil impacted by Release #1 and Release #2 commenced at the site. A chloride field test kit was used to field-screen the horizontal extent of impacted soil and to guide the excavation. From February 21 through March 2, 2012, excavated soil was stockpiled on-site, pending final disposition. To preserve the structural integrity of the on-site storage tanks, the excavation was limited to a depth of six inches (6") to one foot (1') bgs. The boundaries of the excavation are depicted in Figure 2 as "Excavation 1".

From March 1 through March 2, 2012, approximately two hundred and sixty cubic yards (260  $yd^3$ ) of impacted soil was transported to Lea Land, Inc. (NMOCD Permit # WM-01-035), for disposal.

On March 5, 2012, six (6) soil samples (Sample #1 through Sample #6) were collected from the floor of the excavation and submitted to the laboratory for analysis of TPH and chloride concentrations. Laboratory analytical results indicated TPH concentrations ranged from 158 mg/kg in Sample #4 to 26,130 mg/kg in Sample #3. Chloride concentrations ranged from 2,440 mg/kg in Sample #1 to 11,100 mg/kg in Sample #6. Soil sample locations are depicted in Figure 2.

Based on laboratory analytical results and field-screens, from March 5 through March 7, 2012, Excavation #1 was backfilled with non-impacted material, water-packed, and contoured to fit the surrounding grade.

On March 27, 2012, immediately following discovery of Release #3, Basin Environmental was dispatched to the location to begin excavation of the impacted soil. From March 27 through March 30, 2012, approximately two hundred and ten cubic yards (210 yd<sup>3</sup>) of visibly stained, heavily impacted soil was excavated and transported to Lea Land, Inc., for disposal. The boundaries of the excavation are depicted in Figure 2 as "Excavation 2".

On March 29, 2012, four (4) soil samples (Sample #1 through Sample #4) were collected from the floor of the excavation and submitted to the laboratory for analysis of TPH concentrations. Laboratory analytical results indicated TPH concentrations ranged from 74.6 mg/kg in Sample #2 to 621 mg/kg in Sample #1.

From March 29 through March 30, 2012, Excavation #2 was backfilled with non-impacted material, water-packed, and contoured to fit the surrounding grade.

Immediately following remediation activities, a new, steel-walled containment area was constructed around Bass 3 Federal Battery #1 to mitigate future releases. A felt liner was installed in the floor of the new containment area, and the floor and perimeter walls were coated with an impermeable, spray-on polyurethane liner. The steel perimeter walls extend approximately two feet (2') above ground surface.

On April 16, 2012, excavation of Release #4 commenced. A chloride field test kit was used to field-screen the horizontal extent of impacted soil and to guide the excavation. From April 16 through April 17, 2012, approximately one hundred and eight cubic yards (108 yd<sup>3</sup>) of impacted soil was excavated and transported to Lea Land, Inc., for disposal. The boundaries of the excavation are depicted in Figure 2 as "Excavation 3".

On April 17, 2012, five (5) soil samples (Sample #1 through Sample #5) were collected from the floor of the excavation and submitted to the laboratory for analysis of chloride concentrations. Laboratory analytical results indicated chloride concentrations ranged from 288 mg/kg in Sample #5 to 656 mg/kg in Sample #1. Soil sample locations are depicted in Figure 2.

Based on field-screens, from April 17 through April 18, 2012, Excavation #3 was backfilled with non-impacted material, water-packed, and contoured to fit the surrounding grade.

# 4.0 QA/QC PROCEDURES

### 4.1 Soil Sampling

Soil samples were delivered to Cardinal Laboratories, Inc., in Hobbs, New Mexico, for 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 Method 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

The Bass 3 Federal Battery #1 releases were excavated to the extent practicable. During the course of remediation activities, a steel-walled containment area was constructed around the tank battery, and the floor and perimeter walls were coated with a spray-on polyurethane liner. This engineered control will help mitigate future releases and effectively inhibit vertical migration of contaminants to groundwater. In-situ soil exhibiting chloride and/or TPH contamination above the regulatory remediation action levels established for the site will be remediated upon decommission and/or abandonment of the currently active tank battery.

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 Bass 3 Federal Battery #1 release site.

#### 6.0 LIMITATIONS

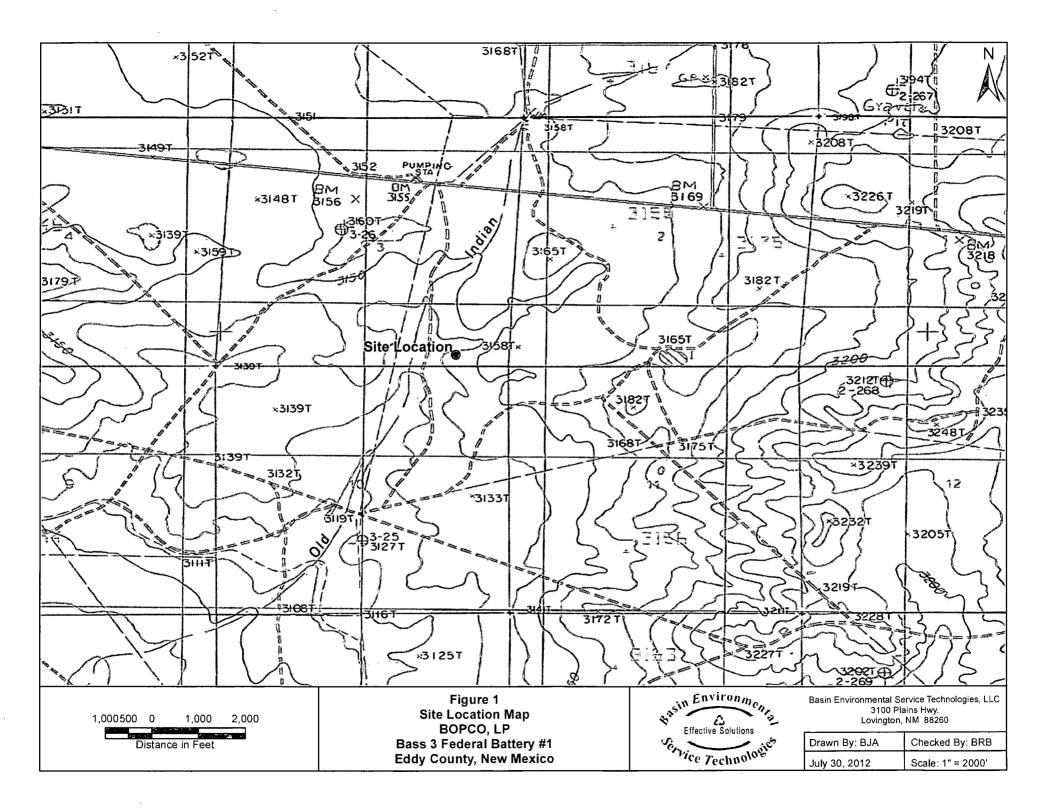
Basin Environmental Service Technologies, LLC, has prepared this *Remediation Summary & Risk-Based Site Closure Request* to the best of its ability. No other warranty, expressed or implied, is made or intended. Basin Environmental has examined and relied upon documents referenced in the report and on 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.

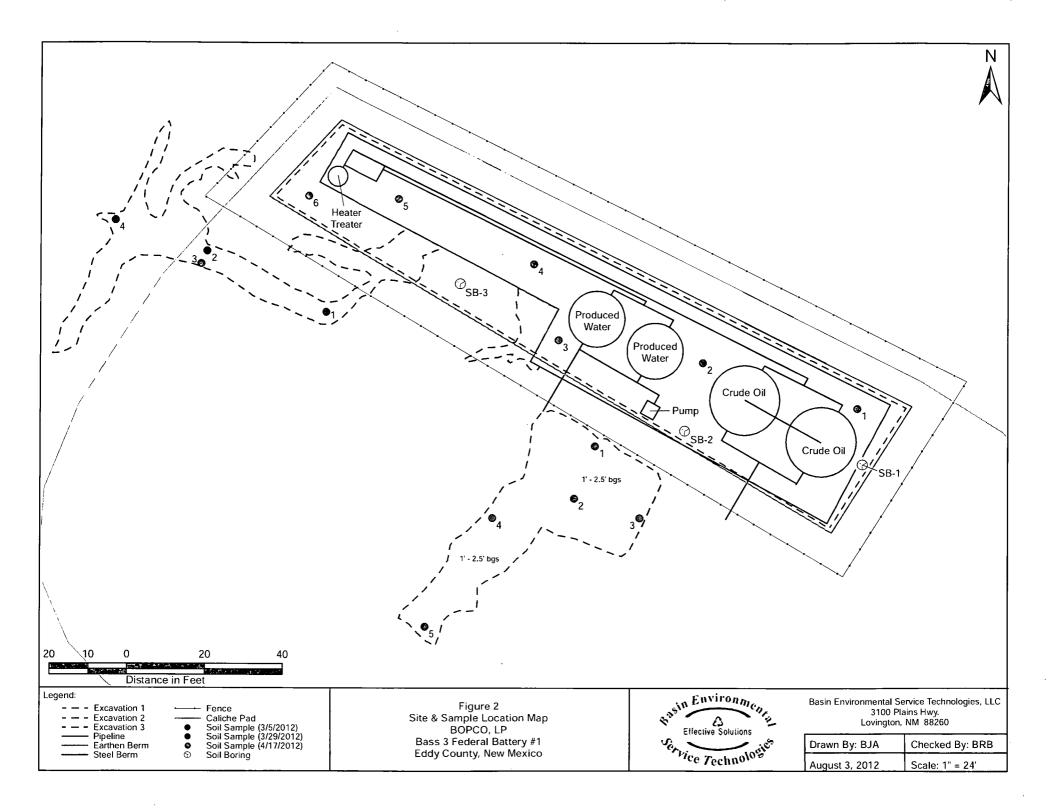
This report has been prepared for the benefit of BOPCO, LP. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Service Technologies, LLC, and/or BOPCO, LP.

### 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





# Tables

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

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#### BOPCO, LP BASS 3 FEDERAL BATTERY #1 EDDY COUNTY, NEW MEXICO

	SAMPLE				METHOD: EF	PA SW 846-80	21B, 5030		METHOD: 8015M			TOTAL	E 300
SAMPLE		SAMPLE	SOIL			ETHYL-	TOTAL	TOTAL	GRO	DRO	ORO	трн	
LOCATION	DEPTH	DATE	STATUS	BENZENE	TOLUENE	BENZENE	XYLENES	BTEX	C <sub>6</sub> -C <sub>12</sub>	C <sub>12</sub> -C <sub>28</sub>	C <sub>28</sub> -C <sub>35</sub>	C <sub>6</sub> -C <sub>35</sub>	CHLORIDE
	(BGS)			(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
SB-1 @ 5'	5'	1/16/2012	In-Situ	-	-	-	-	-	394	2,300	314	3,008	-
SB-1 @ 10'	10'	1/16/2012	In-Situ	-	-	-	-	-	<10.0	79.5	33.8	113	-
SB-1 @ 20'	20'	1/16/2012	In-Situ	-	-	-	-	-	207	1,660	275	2,142	1,540
SB-1 @ 30'	30'	1/16/2012	In-Situ	< 0.050	< 0.050	<0.050	<0.150	<0.150	<10.0	105	24.1	129	-
SB-1 @ 40'	40'	1/16/2012	In-Situ	-	-	-	-	-	55.5	721	109	886	400
SB-1 @ 55'	55'	1/16/2012	In-Situ	-	-	-	-	-		-	-	-	32.0
SB-1 @ 60'	60'	1/16/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	16.2	19.2	35.4	16.0
SB-2 @ 5'	5'	1/17/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	-
SB-2 @ 10'	10'	1/17/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	-
SB-2 @ 20'	20'	1/17/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	718
SB-2 @ 50'	50'	1/17/2012	In-Situ	< 0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	2,360
SB-2 @ 75'	75'	1/17/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	1,390
SB-2 @ 95'	95'	1/17/2012	In-Situ	-	-	-	-	-	-	-	-		48.0
SB-2 @ 100'	100'	1/17/2012	In-Situ	<0.050	<0.050	< 0.050	<0.150	<0.150	<10.0	11.9	<10.0	11.9	112
		-								l			
SB-3 @ 5'	5'	1/17/2012	In-Situ	-	-	-	-		<10.0	40.9	<10.0	40.9	-
SB-3 @ 10'	10'	1/17/2012	In-Situ		-	-	-	-	<10.0	<10.0	<10.0	<10.0	1,840
SB-3 @ 25'	25'	1/17/2012	In-Situ	< 0.050	< 0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	192
SB-3 @ 40'	40'	1/17/2012	In-Situ	-	-	-	-	-	-	-	-	-	224
SB-3 @ 45'	45'	1/17/2012	In-Situ	<0.050	< 0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	64.0
······							v		· · · · ·				
Sample #1	0.5'	3/5/2012	In-Situ		-	-	-	-	1,100	7,180	1,140	9,420	2,440
Sample #2	0.5'	3/5/2012	In-Situ		-		-	-	3,920	11,000	1,820	16,740	2,680
Sample #3	0.5'	3/5/2012	In-Situ		-	-	-	-	5,360	18,300	2,470	26,130	4,240
Sample #4	0.5'	3/5/2012	In-Situ	-	-	-	-	-	<10.0	116	41.5	158	4,160
Sample #5	0.5'	3/5/2012	In-Situ	-	-	-	-	-	2,530	17,700	1,910	22,140	5,440
Sample #6	0.5'	3/5/2012	In-Situ		-	-	-	-	644	12,500	1,900	15,044	11,100
											· · ·		
Sample #1	1.5'	3/29/2012	In-Situ	-	-	-	-	-	106	470	44.8	621	-
Sample #2	1.5'	3/29/2012	In-Situ	-	-	-	-	-	<10.0	58.9	15.7	74.6	-
Sample #3	1.5'	3/29/2012	In-Situ	-	-	-	-	-	<10.0	201	64.3	265	-
Sample #4	1.5'	3/29/2012	In-Situ		-	-	-	-	61.8	460	37.5	559	-
<u> </u>								· · · · · ·					
Sample #1	2.5'	4/17/2012	In-Situ	-	-	-	-	-	-	-	-	-	656
Sample #2	2.5'	4/17/2012	In-Situ		-	-	-	-	-	-	-	-	464
Sample #3	2,5'	4/17/2012	In-Situ	-	-		-	-	-	-	-		576
Sample #4	2.5'	4/17/2012	In-Situ		-	-	-	-	-	-			480
Sample #5	2.5'	4/17/2012	In-Situ		-	-	-	-	-	-	-		288
				· · · · · · · · · · · · · · · · · · ·			<i></i>				· · · · · · · · · · · · · · · · · · ·	· · ·	
NMOCD Criteria		· · · · ·		10				50				5.000	1,000

- = Not analyzed.

# Appendices

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

# State of New Mexico Energy Minerals and Natural Resources

.

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

1220 S St. Fran	cis Dr., Santa	a Fe, NM 87505	i	S	anta Fe	, NM 875	05					side of form
30-015	-253	30	Rela	ease Notifi	cation	and Co	orrective A	ction	1	anna a sananna an Arabar a		
MUB/2						<b>OPERA</b>				al Report	Π	Final Report
Name of Co			BEF	20 1801		Contact Tony Savoie						
				ad, N.M. 8822		Telephone No. 432-556-8730						
Facility Nar	ne: Bass 3	Federal Ba	ttery #1		] ]	Facility Typ	e: E&P					
Surface Ow	ner Federa	al		Mineral	Owner F	ederal		· · ·	Lease M	No. LC-060	853A	
						OF RE	LEASE					
Unit Letter	Section	Township	Range	Feet from the		South Line	Feet from the		West Line	County		
P	P 3 22S 28E 230 South						1090	East		Eddy		
			I	Latitude N 32	.415370	Longitu	de W 104.0699	0		•		
						OF REL		-	·			
Type of Rele	ase: Crude	oil	, ``	1418			Release: 20 Bbl	s of	Volume l	Recovered: 5	bbls	
						Crude oil						
Source of Re	elease: Oil p	oroduction tan	k#113678	\$			lour of Occurrenc e unknown	ce	Date and 1/3/12 2:	Hour of Dis 00 p.m.	covery	
Was Immedi	ate Notice (					If YES, To			1			
			Yes _	No 🗌 Not I	Required		tergency #104					
By Whom? Was a Water							lour 1/4/12 2:37 polume Impacting		ercource			
Was ii Water	course rea		Yes 🛛	No No		RECEIVED						
If a Waterco	urse was Im	pacted, Descr	ibe Fully.	*								
		. ,	2							JAN	17	2012
	NMOCD ARTESIA											
Describe Cau	use of Probl	em and Reme	dial Actio	on Taken.* A hol	e was disc	overed in the	e bottom of the so	outh oil	production	tank. The ta	nk was	taken out of
service the d	ay of discov	very. The tank	was clear	ned, repaired and	l coated or	n 1/6/12.			r			
Describe Are	a Affected	and Cleanup	Action Ta	ken.*The crude	oil was co	ntained insid	e the earthen cont	tainmen	t. A vacuur	n truck reco	vered a	pproximately
5 bbls of cru	de oil, the r	emainder of th	ne spill soa	aked into the gro	und. The	total area affe	ected by this relea	ise meas	sured appro	ximately 24	30 sq. f	t. During the
An air rotary	ent it was no	oted that were	areas insi 2 to try a	de the containme	ent that we	ere obviously	impacted from p tent of the release	revious	releases of	crude oil an	d produ	iced water.
The Site rem	ediation for	the produced	water and	d crude oil spill v	will follow	the NMOC	D guidelines for b	eaks and	t spills.			
I hereby cert	ify that the	information g	iven abov	e is true and corr	plete to the	e best of my	knowledge and u	ındersta	nd that pur	suant to NM	OCD r	iles and
public health	or the envi	ronment. The	o report a	ce of a C-141 rei	ort by the	e NMOCD m	nd perform correct arked as "Final R	ctive act	tions for rel	eases which	may er	idanger liability
should their (	operations h	nave failed to a	adequately	y investigate and	remediate	e contaminat	ion that pose a thr	reat to g	round wate	r. surface wa	ater, hu	man health
federal, state	nment. In a	addition, NMC ws and/or regi	OCD accep alations	ptance of a C-14	1 report de	bes not reliev	e the operator of	respons	ibility for c	compliance v	vith any	other
				·, ·, ·, ·			OIL CON	SERV	ATION	DIVISIO	DN	
Signature: 1 One Sauce						OIL CONSERVATION DIVISION						
ingiliatere.	Approved by USSERE & UBERVINGER /// BRATINIER											
Printed Name: Tony Savoie												
Title: Waste	Mgmt.& R	emediation Sp	ecialist			Approval Da	EB 0 2 201	2	Expiration	Date:		
E-mail Addr	ess: TASav	oie@BassPet.	com		ļ	Conditions o						
Data: 1/0/12				)h 420, 555 0		Romedi	iation per OCD	Rules	&	Attached		
Date: 1/9/12 * Attach Addi	tional She	ets If Necess		Phone:432-556-8	G	uidelines.	SUBMIT REM	EDIAT	ION			]
					p p	POPOSAL	NOT LATER TI	HAN:		JRF	J- 9	96
					•	3/.	2/2012				(	

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#### State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

30-015-25330 Release	Notification	and Co	rrective A	ction	anna 1990 - Canada Anna II, an an II an an II anna 1997 - Canada Anna 1997 - Canada Anna 1997 - Canada	ang na kanang na kang di kanang na kang di kang		
nMLB1203927842		<b>OPERA</b>		$\boxtimes$	Initial Report 🛛 🗍 Fi	nal Report		
Name of Company BOPCO, L.P. 1901		Contact Ton						
Address 522 W. Mermod, Suite 704 Carlsbad, N.			lo. 432-556-873	30				
Facility Name: Bass 3 Federal Battery #1		Facility Typ	e: E&P					
Surface Owner Federal	Mineral Owner F	ederal		Lea	ase No. LC-060853A			
	LOCATION				ine County			
Unit LetterSectionTownshipRangeFeetP322S28E230								
Latitue	le_N 32.415370_			0_				
The Cost all adverted as the	NATURE	7				<u> </u>		
Type of Release: Crude oil and produced water			Release: 65 bbls vater and less that de oil.		me Recovered: 60 bbls of r and 2 bbls crude oil	produced		
Source of Release: 2" line from the heater to the produ	ction tanks		lour of Occurrenc		and Hour of Discovery			
Was Immediate Notice Given?		1/11/12 tin If YES, To	e unknown Whom?	1/11	/12 9:00 a.m.			
Yes IN No	Not Required		ergency #104			}		
By Whom? Tony Savoie		Date and H	lour 1/11/12 11:1	3 a.m.				
Was a Watercourse Reached?		If YES, Volume Impacting the Watercourse.						
🗌 Yes 🛛 No					RECEIV			
Describe Cause of Problem and Remedial Action Take	n.* A 2" line going	from the hea	iter treater to the t	anks leaked d	JAN 17 20 NMOCD ART	1		
temporary repair clamp was placed on the affected pier Describe Area Affected and Cleanup Action Taken.*T	e of pipe.					ound the		
tank battery location. A vacuum truck picked up all of	the free standing fl	uid. Vertical	and horizontal ext	tent will be de	termined on 1/13/11.	ound the		
The Site remediation for the produced water and crude I hereby certify that the information given above is true regulations all operators are required to report and/or f public health or the environment. The acceptance of a should their operations have failed to adequately invest or the environment. In addition, NMOCD acceptance federal, state, or local laws and/or regulations.	e and complete to the le certain release n C-141 report by the igate and remediat	ne best of my otifications a e NMOCD m e contaminati	knowledge and u nd perform correc arked as "Final R on that pose a thr	inderstand that tive actions for eport" does no eat to ground	t pursuant to NMOCD rule or releases which may enda ot relieve the operator of lia water, surface water, huma	nger Ibility n health		
?			OIL CON	SERVATI	ON DIVISION			
Signature: 1 5mg Danie		Approved by	DisgighSuppryis	Alily L	Sessenter			
Printed Name: Tony Savoie			· · · · · · · · · · · · · · · · · · ·					
Title: Waste Mgmt.& Remediation Specialist		Approval Da	EEB 08 20	712 Expire	ation Date:			
E-mail Address: TASavoic@BassPet.com	1	Conditions o	tion ner OCD	Rules &	Attached			
	432-556-8730	Kemeule	SUBMIT REME	DIATION				
Attach Additional Sheets If Necessary	G P	ROPOSAL	NOT LATER TH	IAN:	2RP-99	7		

1625 N. French Dr., Flobbs, NM 88240       Energy Minera         District II       III         1301 W Grand Avenue, Artesia, NM 88210       Oil Con         District III       000 Rio Brazos Road, Aztec, NM 87410       1220 So         District IV       1220 So       Santa	of New Mexico als and Natural Resources APR 11 2012 servation Division buth St. Francis Dr. a Fe, NM 87505 Ion and Corrective Action OPERATOR Initial Report Final Report Contact Tony Savoie Telephone No. 432-556-8730 Facility Type: E&P
Surface Owner Federal Mineral Own	er Federal Lease No. LC-060853A
	ION OF RELEASE 30-015-25330
	orth/South Line Feet from the East/West Line County buth 1090 East Eddy
Latitude_N 32.4153	370 Longitude W 104.06990_
	RE OF RELEASE
Type of Release: Crude oil	Volume of Release: 15 bbls crude Volume Recovered: 5 bbls crude oil oil
Source of Release: Production Tank	Date and Hour of OccurrenceDate and Hour of Discovery3/27/12 time unknown3/27/12 8:30 a.m.
Was Immediate Notice Given?	If YES, To Whom?
Yes No X Not Requi	
Was a Watercourse Reached?	Date and Hour           If YES, Volume Impacting the Watercourse.
If a Watercourse was Impacted, Describe Fully.* Describe Cause of Problem and Remedial Action Taken.* Two loads from BOPCO, the water transfer pump would have normally pumped through the night ran the tank over.	s of produced water were unloaded into the facility water tank without prior approval the water to a SWD failed to pump properly and the daily oil/water production
<ul> <li>in response to 2 previous spills at the facility. The impacted soil was a submitted with the data from the previous remediation.</li> <li>I hereby certify that the information given above is true and complete regulations all operators are required to report and/or file certain relead public health or the environment. The acceptance of a C-141 report be should their operations have failed to adequately investigate and remediations.</li> </ul>	the tanks and process area had recently been excavated and backfilled with clean soil removed, the areas re-sampled and backfilled with clean soil. A closure report will be to the best of my knowledge and understand that pursuant to NMOCD rules and use notifications and perform corrective actions for releases which may endanger by the NMOCD marked as "Final Report" does not relieve the operator of liability ediate contamination that pose a threat to ground water, surface water, human health ort does not relieve the operator of responsibility for compliance with any other
	OIL CONSERVATION DIVISION
Signature: 1 Ou Sauce	Approved by Districted Bernard Benarding
Title: Waste Mgmt.& Remediation Specialist	Approval Date: Expiration Date:
E-mail Address: TASavoie@BassPet.com	Conditions of Approval:
Date: 4/9/12 Phone:432-556-8730 * Attach Additional Sheets If Necessary	Remediation per OCD Rules & Attached Guidelines. SUBMIT REMEDIATION PROPOSAL NOT LATER THAN: 3/24/2012 3/24/2012 Attached

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District 1 1625 N. French District II 1301 W. Grand District III 1000 Rio Brazo District IV 1220 S. St. Fran	Avenue, Art s Road, Azte	esia, NM 88210 c, NM 87410		Energy Mi Oil ( 1220	neral Conse Sou	f New Mexis and Natura ervation Div th St. Franc Fe, NM 875	l Resources vision is Dr.	AP	CEIV R 11 2 CD AR	012 R	evised Octob Copies to a Office in a with Rule 11	nnronriate	
1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - N	ning on the state of the state of		Rel	ease Notific				ction			2 1941 Bis 2 19	and the state of the	
nmLB/2/	5357	20				OPERAT				al Report	🔲 Fi	nal Report	
Name of Co	ompany B	OPCO, L.P.		· · · · · · · · · · · · · · · · · · ·		Contact Ton	y Savoie			• • • • • • • • • • • • • • • • • • • •			
				ad, N.M. 88220		Telephone No. 432-556-8730							
Facility Nat	me: Bass 3	Federal Ba	ttery #1	<u></u>		Facility Typ	e: E&P						
Surface Ow	mer Federa	al .		Mineral C	wner	Federal			Lease N	No. LC-06	i0853A		
				LOCA	TIC	DN OF REI	EASE		30-	015-	-253	30	
Unit Letter	Section	Township	Range	Feet from the		th/South Line	Feet from the		est Line	County	<u> </u>		
Р	3	22S	28E	230	Sout	th	1090	East		Eddy			
			L	<u> </u>	L			I		L		J	
			I	Latitude_N 32.4	1537	0 Longitu	de W 104.0699	90					
				NAT	URI	E OF RELI	EASE	5					
Type of Rele	ase: Produc	ed water	·····		-	Volume of	Release: 285 bbl	s	Volume R	Recovered:	280 bbls pr	oduced	
Source of Pa	lagger Air e	liminator on th	ne water te	mansfar numn		produced w			water	Hour of Di			
Source of Ke	Source of Release: Air eliminator on the water transfer pump.						Date and Hour of Occurrence 4/3/12 time unknown / / / / / / / / / / / / / / / / / / /						
Was Immedia	Was Immediate Notice Given?					If YES, To	Whom?	lotiti	cotion A	PEQU	IRED O	W.	
			Yes L	No Not Re	quireo	1 OTHE	= Release	Vo/u	me exu	ceeding	23 64	6/5	
By Whom? Was a Water	Dourse Dage	had?				<ul> <li>Date and H</li> <li>If VES, Ves</li> </ul>				NMAC	<u>(asza</u>	: 4s	
was a water	course Real		Yes 🛛	No		II 165, VO	lume Impacting t	ine wate	rcourse.			-	
If a Watercou	urse was Im	pacted, Descri	be Fully	•									
. If a watereot	1150 Was III	puolou, Desen	oe i uny.										
											<b>.</b>		
		em and Remed	lial Action	n Taken.* A ¾" a	ir elin	ninator on the w	ater transfer pur	np broke	in half due	to a manu	ifacture defe	ect. The	
part was repla	aced.												
Describe Are	a Affected a	and Cleanup A	ction Tak	en.*The tank batt	ery loo	cation had just r	ecently been retr	o-fitted v	with a 0-pe	rm polyure	ea containm	ent, most	
of the release	d water stay	ed inside the	containme	ent area and was re	ecover	ed with a vacu	im truck and pun	nped bac	k into the t	ank. A sma	all amount o	of water	
				the caliche pad are ines for spills.	ea arou	and the tank dat	tery. The impact	ed callen	e will be re	emoved an	d the area w	All de	
I hereby certi	fy that the i	nformation giv	en above	is true and compl	ete to	the best of my l	cnowledge and u	nderstand	d that pursi	uant to NM	10CD rules	and	
public health	or the envir	are required to onment. The s	ereport an acceptance	id/or file certain re c of a C-141 repo	elease : rt hv tl	notifications an he NMOCD ma	d perform correc rked as "Final Re	tive actions of the section of the s	ons for rele les not relie	eve the one	n may endan erator of liat	iger	
should their o	perations h	ave failed to a	dequately	investigate and re	media	te contaminatio	in that pose a three	eat to gro	ound water,	, surface w	ater, human	health	
		ddition, NMO vs and/or regul		tance of a C-141	eport	does not relieve	the operator of r	esponsit	oility for co	mpliance	with any oth	ier	
icucial, state,	or local law	vs and/or regul	ations.	<u></u>	T		OIL CONS	SERV	ATION				
	<u> </u>	$\mathbf{Q}$	0					<u> </u>		011101	<u> <u> </u></u>		
Signature: 2		4 Su	un-	·····		Approved by I	District Superior	Sila K	1				
Printed Name	: Tony Savo	Die						, <u> </u>	KASTULIS	<u>t</u>			
							ADR 2 / 20	12	··· <u></u>	<u> </u>	······		
Title: Waste N	Agmt.& Rei	mediation Spe	cialist	·		Approval Date	APR 2 4 20	IZ E	xpiration D	Date:		]	
E-mail Addres	ss: TASavo	ie@BassPet.co	om			Conditions of A	Approval:				. —		
						Remediati	on per OCD R	ules &		Attached			
Date: 4/9/12 Attach Addit	ional Shee	to If Nacason		none:432-556-873	— G	uidelines, <b>SL</b>	IBMIT REMED	DIATIO	N _			]	
Audult	ional Slice	IS IT INCUESSE	чy		P	ROPOSAL	THATER THA	AN:		2	RP-1	102	
					-	5/2	412012			<i>A</i>	n = /	100	

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District II       Energy Minera         1301 W. Grand Avenue, Artesia, NM 88210       Oil Cons         District III       011 Cons         1000 Rio Brazos Road, Aztec, NM 87410       1220 Sot         District IV       1220 Sot         1220 S. St. Francis Dr., Santa Fe, NM 87505       Santa         Release Notificati	of New Mexico als and Natural Resources ECEIVED servation Division buth St. Francis Dr. A Fe, NM 87505 <b>JAN 23</b> 2014 JAN 23 2014 JAN 23 2014 JAN 23 2014 <b>Submit 2 Copies to approp</b> District Office in accord with Rule 116 on side of <b>ion and Corrective Action</b> <b>PERATOR</b> Contact Tony Savoie							
Address 522 W. Mermod, Suite 704, Carlsbad, NM 88220	Telephone No. (432)556-8730							
Facility Name   Bass 3 Federal Battery #1								
Surface Owner Federal Mineral Owner								
LOCATI	ION OF RELEASE							
	SouthFeet from the 1090East/West Line EastCounty Eddy							
Latitude 32.415370° No	orth Longitude 104.06990° West							
NATUR	RE OF RELEASE							
Type of Release Crude oil	Volume of Release 20 bbls of Volume Recovered 5 bbls							
Source of Release Oil production tank #113678	crude oil     Date and Hour of Occurrence       1/3/12 Time unknown     1/3/12 2:00 p.m.							
Was Immediate Notice Given? X Yes No Not Required	If YES, To Whom? NMOCD Emergency #104							
By Whom? Tony Savoie	Date and Hour 1/4/12 2:37 p.m.							
Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse.							
service the day of discovery. The tank was cleaned, repaired, and coate Describe Area Affected and Cleanup Action Taken.* The crude approximately 5 bbls of crude oil. The release affected an area measur areas inside the containment that were obviously impacted from previo releases were remediated as per NMOCD recommended guidelines. <i>Request</i> for remediation details. I hereby certify that the information given above is true and complet regulations all operators are required to report and/or file certain rele public health or the environment. The acceptance of a C-141 report should their operations have failed to adequately investigate and reme or the environment. In addition, NMOCD acceptance of a C-141 re federal, state, or local laws and/or regulations.	s discovered in the bottom of the south oil production tank. The tank was taken of ed on 1/6/12. oil was contained inside the earthen containment. A vacuum truck recovering approximately 2,430 ft <sup>2</sup> . During the site assessment, it was noted that there ous releases of crude oil and produced water. Following initial response activities. Please reference the attached <i>Remediation Summary &amp; Risk-Based Site Cla</i> te to the best of my knowledge and understand that pursuant to NMOCD rules ease notifications and perform corrective actions for releases, which may end by the NMOCD marked as "Final Report" does not relieve the operator of lia ediate contamination that pose a threat to ground water, surface water, human h eport does not relieve the operator of responsibility for compliance with any <u>OIL CONSERVATION DIVISION</u>							
Printed Name: Tony Savoie	Approved by District Supervisor:							
Title: Waste Mgmt. & Remediation Specialist	Approval Date: Expiration Date:							
E-mail Address: TASavoie@BassPet.com	Conditions of Approval:							
Date: 1/22/14 Phone: 432-5568730	2RP-996							

Address       522 W. Merrnod, Suite 704, Carlsbad, NM. 88220       Facility Type       E&P       APT - 30 -015 - 2.5 330         Surface Owner Federal       Mineral Owner       Federal       Losee.No. LC 040857A         Surface Owner Federal       Mineral Owner       Federal       Losee.No. LC 040857A         Unit Letter       Section       Township       Range       Federal from the North/South Line       Federal Good         Unit Letter       Section       Township       Range       Federal Good       South       East         Unit Letter       Section       Township       Range       Federal Good       South       County       East         Unit Letter       Section       Township       Range       Federal Good       South       County       East       County       East       Eddy         Latitude 32.415370° North       Longitude 104.06990° West         NATURE OF RELEASE         Type of Release       2° line from the heater treater to the production tank       Date and Hour of Occurrence       I/11/12 Time unknown       I/11/12 9:00 a.m.       I/11/12 9:00	1625 N. French Dr., Hobbs, NM 88240       Energy Minerals         District II       Oil Conser         1301 W. Grand Avenue, Artesia, NM 88210       Oil Conser         1000 Rio Brazos Road, Aztec, NM 87410       1220 South         District IV       1220 South         1220 S. St. Francis Dr., Santa Fe, NM 87505       Santa Fe         Release Notification         OPEI         Name of Company       BOPCO, LP         260737       260737	New Mexico       Form C-141         and Natural Resources       Revised October 10, 2003         vation Division       FECEIVE Submit 2 Copies to appropriate         St. Francis Dr.       JAN 2 3 2014         and Corrective Action ARTESIA       side of form         ATOR       Initial Report       X Final Report				
Surface Owner Federal         Mineral Owner         Federal         Lease No LC 060833A           Unit Letter         Section         Township         Range         Feet from the         North/South Line         Feet from the         County           28E         230         South         Longitude 104.0690°         West           NATURE OF RELEASE           Type of Release         Crude oil and produced water         Volume of Release 65 bbb of produced vater and less than 5         Volume Recovered         60 bbb of produced vater and less than 5           Source of Release         2" line from the heater treater to the production tanks         Date and Hour of Discovery         111/12         Time unknown         111/12         Time unknown         1111/12         9.00 an.           Was Immediate Notice Given?         X Yes         No Not Required         Date and Hour 1/11/12         111/12         1111/12         9.00 an.         1111/12         1111/12         1111/12         1111/12         1111/12         11111/12         11111/12         11111/12         11111/12         11111/12         11111/12         11111/12         11111/12         11111/12         111111/12         11111/12         111111/12         11111/12         111111/12         111111/12         111111/12         111111111         11111111         1111111 </td <td></td> <td></td>						
LOCATION OF RELEASE           Unit Letter         Section         Township         Range 28E         Feet from the 230         North/South Line         Feet from the 1090         East         County East           Latitude 32.415370° North         Longitude 104.06990° West           NATURE OF RELEASE           Type of Release         Crude oil and produced water         Volume of Release 65 bbls of produced water and less than 5 bbls of crude oil         Volume Recovered         60 bbls of produced water and 2 bbls crude oil           Source of Release         2" line from the heater treater to the production tank.         Date and Hour of Occurrence I/11/12 Time unknown.         Date and Hour of Occurrence I/11/12 Time unknown.         Date and Hour of Discovery.           Was Immediate Notice Given?         X Yes No Not Required         Date and Hour of Decurrence I/11/12 Time unknown.         Diff YES, Volume Impacting the Watercourse.         Date and Hour of Discovery.           Was a Watercourse Reached?         If YES, Volume Impacting the Watercourse.         If YES, Volume Impacting the Watercourse.         If YES, Volume Impacting the Watercourse.           Describe Area Affected and Cleamp Action Taken.* A 2" line going from the heater treater to the tanks leaked due to external corrosion. A temporary repair clamp was placed on the affected piece of pipe.           Describe Area Affected and Cleamp Action Taken.* The released fluid affected an approximately 2,000 ft <sup>2</sup> area inside the earthen containm						
Unit Letter       Section       Township       Range 28E       Feet from the South       North/South Line South       Feet from the I090       East/West Line Eady         Latitude 32.415370° North       Longitude 104.06990° West         Type of Release Crude oil and produced water       Volume of Release 65 bils of produced water and fees than 5       Volume Recovered       60 bils of produced water and 2 bils crude oil         Source of Release 2" line from the heater treater to the production tanks       Date and Hour of Occurrence       Date and Hour of Discovery 1/1/12       Date and Hour of Occurrence       Date and Hour of Discovery 1/1/12 sine unknown         Was Immediate Notice Given?       X yes No Not Required       NMOCD Emergency #104       Date and Hour 1/1/12 113 a.m.         Was a Watercourse Reached?       Yes X No       If YES, Volume Impacting the Watercourse.       If YES, Volume Impacting the Watercourse.         Describe Cause of Problem and Remedial Action Taken.* The released fluid affected an approximately 2.000 ft <sup>2</sup> area inside the earthen containment around the tank battery location. A vacuum truck picked up all of the free-standing fluid. The spill covered approximately the same area as another spill reported on 1/3/12. Following initial response activities, the releases were remediated as per NMOCD Correonnemed guidelines. Please reference the attached Remediation Summary & Risk-Baced Site Cosure Request for remediate and approximately due same area as another spill reported on 1/3/12. Following initial response activities, the release notifications and perform corrective actions for releases, which may endanger						
P       3       228       286       230       South       1090       East       Eddy         Latitude 32.415370° North       Longitude 104.06990° West         NATURE OF RELEASE         Type of Release Crude oil and produced water       Volume of Release 65 bils of produced water and less than 5 bils of crude oil       Volume of Release 65 bils of produced water and less than 5 bils of crude oil       Volume of Release 2" line from the heater treater to the production tanks       Date and Hour of Occurrence 1/11/12 9:00 a.m.       Date and Hour of Occurrence 1/11/12 9:00 a.m.         Was Immediate Notice Given?       X Yes No Not Required       NMOCD Emergency #104       Devention 1/11/12 9:00 a.m.       Diff YES, To Whom?         Was a Watercourse Reached?       Yes X No       If YES, Volume Impacting the Watercourse.       If YES, Volume Impacting the Watercourse.       If a Watercourse was Impacted, Describe Fully.*         Describe Cause of Problem and Remedial Action Taken:* A 2" line going from the heater treater to the tanks leaked due to external corrosion. A temporary repair clamp was placed on the affected piece of pipe.       Describe Area Affected and Cleamp Action Taken.* A 2" line going from the heater treater to the tanks leaked due to external corrosion. A temporary repair clamp was placed on the affected piece of pipe.         Describe Area Affected and Cleamp Action Taken.* A 12" line going from the heater treater to the tanks leaked to be activated of a per NMOCD recommended guidelines. Place reference the attached Remediations and perotinor corrective actions for releases, which m						
NATURE OF RELEASE           Type of Release Crude oil and produced water         Volume of Release 65 bbls of produced water and 25 bbls of crude oil         Volume Recovered 60 bbls of produced water and 2 bbls or crude oil           Source of Release 2" line from the heater treater to the production tanks         Date and Hour of Occurrence 1/11/12 Time unknown         Date and Hour of Discovery 1/11/12 Time unknown         Date and Hour of Discovery 1/11/12 Source         Date and Hour of Discovery 1/11/12 Source           Was Immediate Notice Given?         X Yes         No Not Required         NMOCD Emergency #104           By Whom? Tony Savoie         Date and Hour 1/11/12 Li13 a.m.         If YES, Volume Impacting the Watercourse.           Was a Watercourse was Impacted, Describe Fully.*         If YES, Volume Impacting the Watercourse.         If a Watercourse and Cleanup Action Taken.* A 2" line going from the heater treater to the tanks leaked due to external corrosion. A temporary repair clamp was placed on the affected piece of pipe.           Describe Aca Affocted and Cleanup Action Taken.* The released full affected an approximately 2,000 ft <sup>2</sup> area inside the earthen containment around the tank battery location. A vacuum truck picked up all of the free-standing fluid. The spill covered approximately the same area as another spill reported on 1/3/12. Following initial response activities, the releases were remediated as per NMOCD recommended guidelines. Please reference the attached Remediation Summary & Risk-Based Stic Clasure Requeres for remediation details.           I hereby certify that the information given above is true and complete to the best of my knowledge						
Type of Release Crude oil and produced water       Volume of Release 65 bbls of produced water and 2 bbls of produced water and 2 bbls of rude oil         Source of Release 2" line from the heater treater to the production tanks       Date and Hour of Occurrence       Date and Hour of Discovery         Was Immediate Notice Given?       If YES, To Whom?       Date and Hour of Discovery       I/1/1/2 1/1/2 9:00 a.m.         Was Immediate Notice Given?       If YES, To Whom?       NMOCD Emergency #104         By Whom? Tony Savoie       Date and Hour 1/11/12 11:13 a.m.       If YES, Volume Impacting the Watercourse.         Was a Watercourse was Impacted, Describe Fully.*       Date and Hour 1/11/12 11:13 a.m.       If YES, Volume Impacting the Watercourse.         Describe Cause of Problem and Remedial Action Taken.* A 2" line going from the heater treater to the tanks leaked due to external corrosion. A temporary repair clamp was placed on the affected piece of pipe.       Describe Area Affected and Cleamp Action Taken.* The released fluid affected an approximately 2.000 ft <sup>2</sup> area inside the earthen containment around the tank battery location. A vacuum truck picked up all of the free-standing fluid. The spill covered approximately the same area as another spill reported on 1/3/12. Following initial response activities, the releases were remediated as per NMOCD recommended guidelines. Please reference the attached Remediation Summary & Risk-Baaed Site Closure Reguest for remediation details.         1 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 rep	Latitude 32.415370° North	Longitude 104.06990° West				
Produced water and less than 5 bbls of crude oil       water and 2 bbls crude oil         Source of Release 2" line from the heater treater to the production tanks       Date and Hour of Occurrence 1/11/12 Time unknown       Date and Hour of Discovery 1/11/12 June         Was Immediate Notice Given?       X Yes No Not Required       If YES, To Whom? NMOCD Emergency #104       Date and Hour 1/11/12 11:13 a.m.         By Whom? Tony Savoie       Date and Hour 1/11/12 11:13 a.m.       If YES, Volume Impacting the Watercourse.         If a Watercourse Reached?       If YES, Volume Impacting the Watercourse.         If a Watercourse was Impacted, Describe Fully.*         Describe Cause of Problem and Remedial Action Taken.* A 2" line going from the heater treater to the tanks leaked due to external corrosion. A temporary repair clamp was placed on the affected piece of pipe.         Describe Area Affected and Cleanup Action Taken.* The released fluid affected an approximately 2,000 ft <sup>2</sup> area inside the earthen containment around the tank battery location. A vacuum truck picked up all of the free-standing fluid. The spill covered approximately the same area as another spill reported on 1/3/12. Following initial response activities, the releases were remediated as per NMOCD momended guidelines. Please reference the attached Remediation Summary & Risk-Based Site Closure Request for remediation details.         I hereby creatify 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 endang	NATURE	OF RELEASE				
Was Immediate Notice Given?       I/11/12 Time unknown       I/11/12 Stone unknown         Was Immediate Notice Given?       X Yes No Not Required       If YES, To Whom?         By Whom? Tony Savoie       Date and Hour I/11/12 11:13 a.m.         Was a Watercourse Reached?       If YES, Volume Impacting the Watercourse.         If a Watercourse was Impacted, Describe Fully.*         Describe Cause of Problem and Remedial Action Taken.* A 2* line going from the heater treater to the tanks leaked due to external corrosion. A temporary repair clamp was placed on the affected piece of pipe.         Describe Area Affected and Cleanup Action Taken.* The released fluid affected an approximately 2,000 ft <sup>2</sup> area inside the earthen containment around the tank battery location. A vacuum truck picked up all of the free-standing fluid. The spill covered approximately the same area as another spill reported on 1/3/12. Following initial response activities, the releases were remediated as per NMOCD recommended guidelines. Please reference the attached <i>Remediation Summary &amp; Risk-Based Site Closure Request for remediation</i> details.         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 headit 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. The acceptanc	Type of Release Crude oil and produced water	produced water and less than 5 water and 2 bbls crude oil				
Was Immediate Notice Given?       If YES, To Whom? NMOCD Emergency #104         By Whom? Tony Savoie       Date and Hour 1/11/12 11:13 a.m.         Was a Watercourse Reached?       If YES, Volume Impacting the Watercourse.         If a Watercourse was Impacted, Describe Fully.*       Describe Cause of Problem and Remedial Action Taken.* A 2" line going from the heater treater to the tanks leaked due to external corrosion. A temporary repair clamp was placed on the affected piece of pipe.         Describe Area Affected and Cleanup Action Taken.* The released fluid affected an approximately 2,000 ft <sup>2</sup> area inside the earthen containment around the tank battery location. A vacuum truck picked up all of the free-standing fluid. The spill covered approximately the same area as another spill reported on 1/3/12. Following initial response activities, the releases were remediated as per NMOCD recommended guidelines. Please reference the attached Remediation Summary & Risk-Based Site Closure Request for remediation deals.         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 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. The 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.         Signat	Source of Release 2" line from the heater treater to the production tanks					
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If a Watercourse was Impacted, Describe Fully.*         Describe Cause of Problem and Remedial Action Taken:* A 2" line going from the heater treater to the tanks leaked due to external corrosion. A temporary repair clamp was placed on the affected piece of pipe.         Describe Area Affected and Cleanup Action Taken.* The released fluid affected an approximately 2,000 fl <sup>2</sup> area inside the earthen containment around the tank battery location. A vacuum truck picked up all of the free-standing fluid. The spill covered approximately the same area as another spill reported on 1/3/12. Following initial response activities, the releases were remediated as per NMOCD recommended guidelines. Please reference the attached <i>Remediation Summary &amp; Risk-Based Site Closure Request</i> for remediation details.         I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases, which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.         Signature:       OIL CONSERVATION DIVISION         Signature:       Approved by District Supervisor:         Tritle: Waste Mgmt. & Remediation Specialist       Approval Date:       Expiration Date:						
Describe Cause of Problem and Remedial Action Taken:* A 2" line going from the heater treater to the tanks leaked due to external corrosion. A temporary repair clamp was placed on the affected piece of pipe.         Describe Area Affected and Cleanup Action Taken.* The released fluid affected an approximately 2,000 ft <sup>2</sup> area inside the earthen containment around the tank battery location. A vacuum truck picked up all of the free-standing fluid. The spill covered approximately the same area as another spill reported on 1/3/12. Following initial response activities, the releases were remediated as per NMOCD recommended guidelines. Please reference the attached <i>Remediation Summary &amp; Risk-Based Site Closure Request</i> for remediation details.         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:       Image: Ima	Yes X No					
Describe Area Affected and Cleanup Action Taken.* The released fluid affected an approximately 2,000 ft <sup>2</sup> area inside the earthen containment around the tank battery location. A vacuum truck picked up all of the free-standing fluid. The spill covered approximately the same area as another spill reported on 1/3/12. Following initial response activities, the releases were remediated as per NMOCD recommended guidelines. Please reference the attached <i>Remediation Summary &amp; Risk-Based Site Closure Request</i> for remediation details.         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:       Congulations         Market Remediation Specialist       Approved by District Supervisor:         Title:       Waste Mgmt. & Remediation Specialist         E-mail Address:       TASavoie@BassPet.com		going from the heater treater to the tanks leaked due to external corrosion. A				
Signature:       Image: Comparison of Approval Date:         Printed Name:       Tony Savoie         Approved by District Supervisor:         Title:       Waste Mgmt. & Remediation Specialist         Approval Date:       Expiration Date:         E-mail Address:       TASavoie@BassPet.com         Conditions of Approval:	Describe Area Affected and Cleanup Action Taken.* The released fluid a tank battery location. A vacuum truck picked up all of the free-standing 1/3/12. Following initial response activities, the releases were remed <i>Remediation Summary &amp; Risk-Based Site Closure Request</i> for remediation I hereby certify that the information given above is true and complete t regulations all operators are required to report and/or file certain release public health or the environment. The acceptance of a C-141 report by should their operations have failed to adequately investigate and remediation or the environment. In addition, NMOCD acceptance of a C-141 report	fluid. The spill covered approximately the same area as another spill reported on ated as per NMOCD recommended guidelines. Please reference the attached a details. To the best of my knowledge and understand that pursuant to NMOCD rules and a notifications and perform corrective actions for releases, which may endanger the NMOCD marked as "Final Report" does not relieve the operator of liability te contamination that pose a threat to ground water, surface water, human health				
Printed Name: Tony Savoie     Approved by District Supervisor:       Title: Waste Mgmt. & Remediation Specialist     Approval Date:     Expiration Date:       E-mail Address: TASavoie@BassPet.com     Conditions of Approval:	Signature: 1 Que Davieres	OIL CONSERVATION DIVISION				
E-mail Address: TASavoie@BassPet.com Conditions of Approval:		Approved by District Supervisor:				
	Title: Waste Mgmt. & Remediation Specialist	Approval Date: Expiration Date:				
Date: 1/22/14 Phone: 432-556-8730		Conditions of Approval:				
2RP-997	Date: 1/22/14 Phone: 432-556-8730	1PP-997				

1301 W. Grand Avenue, Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505	Energy Mir Oil C 1220 Sa e Notific	rvation Div h St. Franc e, NM 875	I <u>Resources</u> Ision <b>ECE</b> is Dr. IAN <b>2</b>	<b>3</b> 20	14	Form C-141 Revised October 10, 2003 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form Report X Final Report					
Name of Company BOPCO, LP 2	60737		Contact To	ny Savoie							
Address 522 W. Mermod, Suite 704, Carlsbac	I, NM 8822	0	Telephone N	No. (432)556-8	730						
Facility Name Bass 3 Federal Battery #1			Facility Typ	e E&P							
Surface Owner Federal	Mineral O	wner	Federal	·			No. LC-060853A API 30-015-25330				
	LOCATION OF RELEASE										
Unit LetterSectionTownshipRangeFeeP322S28E	et from the 230		/South Line outh	Feet from the 1090		Vest Line ast	County Eddy				
Latitude	Latitude 32.415370° North Longitude 104.06990° West										
NATURE OF RELEASE											
Type of Release Produced water     Volume of Release 285 bbls of produced water     Volume Recovered 280 bbls of produced water							Recovered 280 bbls of produced				
Source of Release Production Tank						Date and 4/3/12 9:	Hour of Discovery 00 a m				
Was Immediate Notice Given? Yes No X No	t Required		If YES, To Whom?								
By Whom?			Date and Hour								
Was a Watercourse Reached?	)		If YES, Volume Impacting the Watercourse.								
If a Watercourse was Impacted, Describe Fully.*			-								
Describe Cause of Problem and Remedial Action T The part was replaced.	Describe Cause of Problem and Remedial Action Taken:* A 3/4" air eliminator on the water transfer pump broke in half due to a manufacturing defect. The part was replaced										
Describe Area Affected and Cleanup Action Taken.* The tank battery location had just recently been retro-fitted with a 0-perm polyurea containment. Most of the released water stayed inside the containment area and was recovered with a vacuum truck and pumped back into the tank. A small amount of water was released outside the containment area on the caliche pad area around the tank battery. Following initial response activities, the release was remediated to NMOCD guidelines. Please reference the attached <i>Remediation Summary &amp; Risk-Based Site Closure Request</i> for remediation details.											
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 a regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases, which may endang 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 liabil should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human hea or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any oth federal, state, or local laws and/or regulations.											
Signature: 1 Our Dimes				OIL CON	SERV	ATION	DIVISION				

Printed Name: Tony Savoie	Approved by District Supervisor:	
Title: Waste Mgmt. & Remediation Specialist	Approval Date:	Expiration Date:
E-mail Address: TASavoie@BassPet.com	Conditions of Approval:	
Date: ( /22/14 Phone: 432-556-8730		
	28P 1102	

28P-1102

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 1301 W. Grand Avenue, Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505	Energy Minerals Oil Conse 1220 Sout	New Mexico and Natural Reso rvation Divisior h St. Francis Dr e, NM 87505	I JAN <b>7 3</b> 70	Submit 14 Distr	Form C-141 Revised October 10, 2003 t 2 Copies to appropriate rict Office in accordance with Rule 116 on back side of form					
Release Notification and Corrective Action										
	OPE	RATOR	In	itial Report	X Final Report					
Name of Company BOPCO, LP	260737	Contact Tony Sa	voie	<b>*</b>						
Facility Name Bass 3 Federal Battery #1		Facility Type E&	٤P							
Surface Owner Federal	Mineral Owner	Federal	Le		C-060853A PI 30-015-25330					

#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
Р	3	228	28Ĕ	230	South	1090	East	Eddy
							•	

Latitude 32.415370° North Longitude 104.06990° West

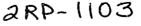
NATURE OF RELEASE		
Type of Release Crude oil	Volume of Release 15 bbls of crude oil	Volume Recovered 5 bbls of crude oil
Source of Release Production Tank	Date and Hour of Occurrence 3/27/12 Time unknown	Date and Hour of Discovery 3/27/12 8:30 a.m.
Was Immediate Notice Given? Yes No X Not Required	If YES, To Whom?	•
By Whom?	Date and Hour	
Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*	L	
Describe Cause of Problem and Remedial Action Taken:* Two loads	of produced water were unloaded into	the facility water tank without prior approva

Describe Cause of Problem and Remedial Action Taken:\* Two loads of produced water were unloaded into the facility water tank without prior approval from BOPCO. The water transfer pump that would have normally pumped the water to a SWD failed to pump properly, and the daily oil/water production through the night ran the tank over.

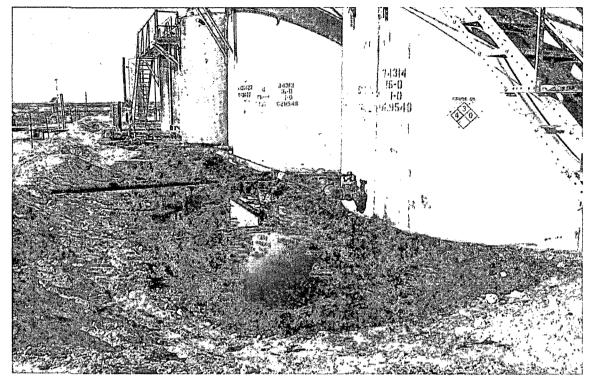
Describe Area Affected and Cleanup Action Taken.\* The around the tanks and process area had recently been excavated and backfilled with clean in soil in response to two leaks at the facility (1/3/12 and 1/11/12). The impacted soil was removed, and the areas were re-sampled and backfilled with clean soil. Please reference the attached *Remediation Summary & Risk-Based Site Closure Request* for remediation details.

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.

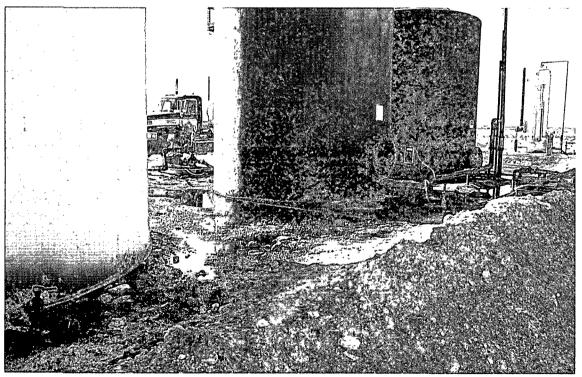
Signature: 1 au Danie	OIL CONSERVATION DIVISION	
Printed Name: Tony Savoie	Approved by District Supervisor:	
Title: Waste Mgmt. & Remediation Specialist	Approval Date:	Expiration Date:
E-mail Address: TASavoie@BassPet.com	Conditions of Approval:	
Date: 1/22/14 Phone: 432-556-8730		



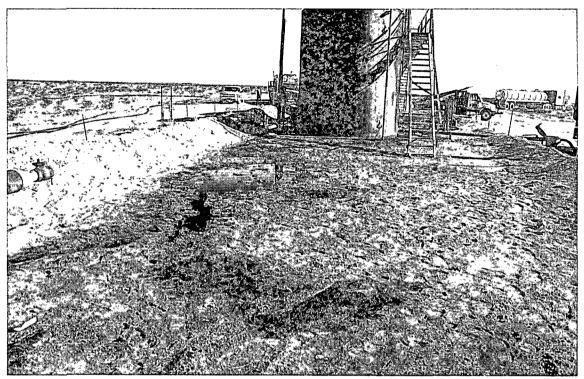
# Appendix B Photographs



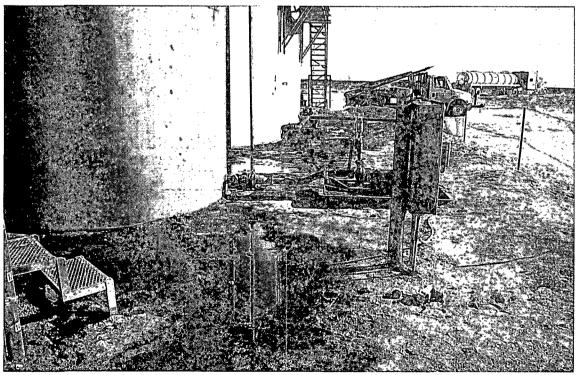
Bass 3 Federal Battery #1 - January 4, 2012, Release



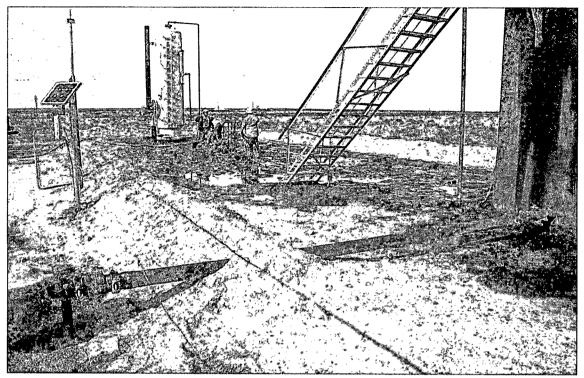
Bass 3 Federal Battery #1 - January 4, 2012, Release



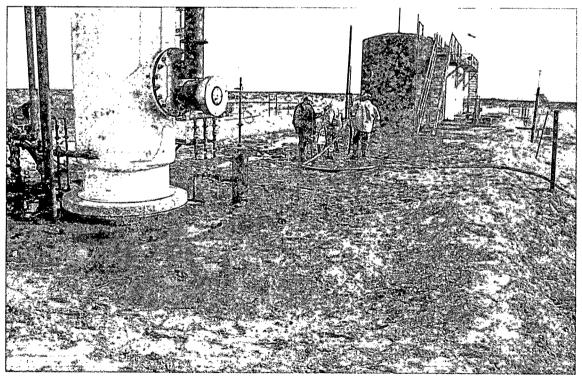
Bass 3 Federal Battery #1 - January 4, 2012, Release



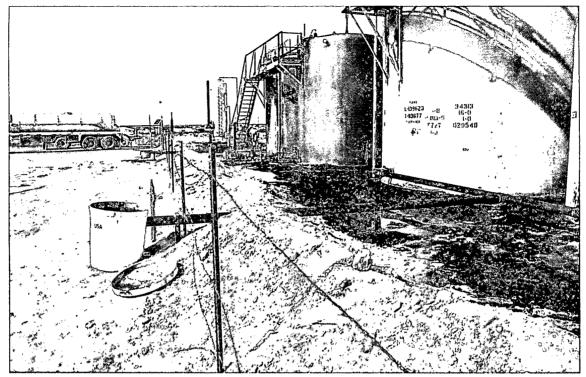
Bass 3 Federal Battery #1 - January 4, 2012, Release



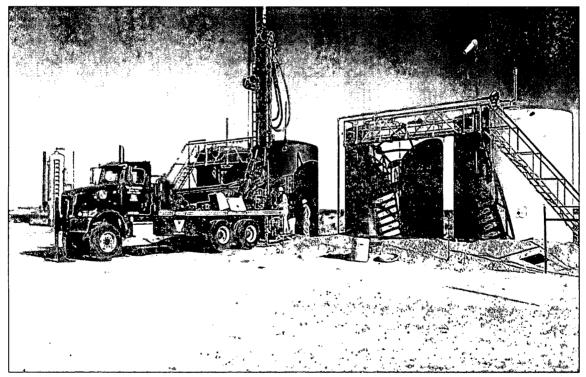
Bass 3 Federal Battery #1 - January 11, 2012, Release



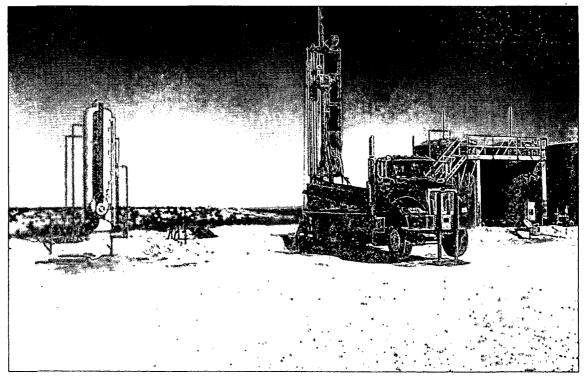
Bass 3 Federal Battery #1 - January 11, 2012, Release



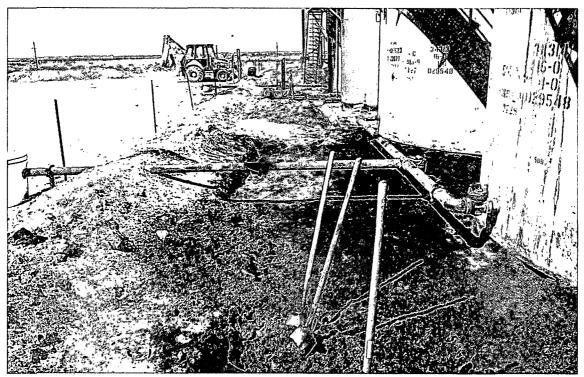
Bass 3 Federal Battery #1 - January 11, 2012, Release



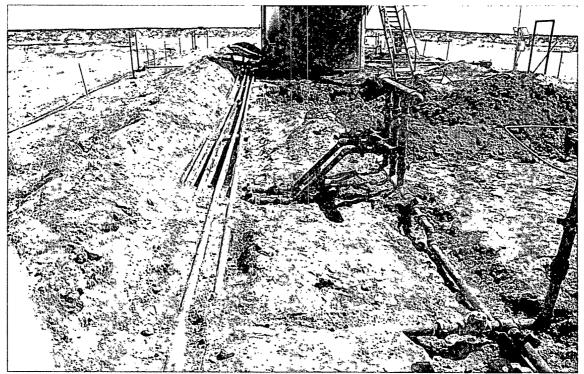
Bass 3 Federal Battery #1 - Advancement of Soil Boring SB-2



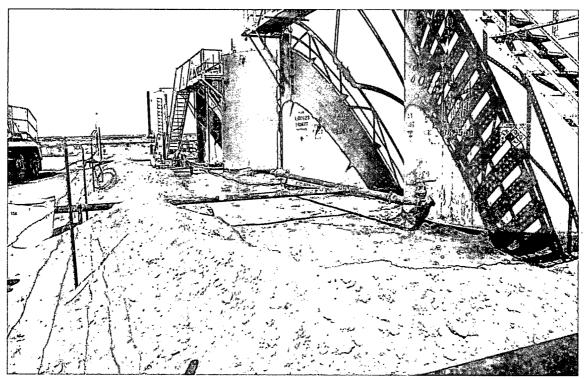
Bass 3 Federal Battery #1 - Advancement of Soil Boring SB-3



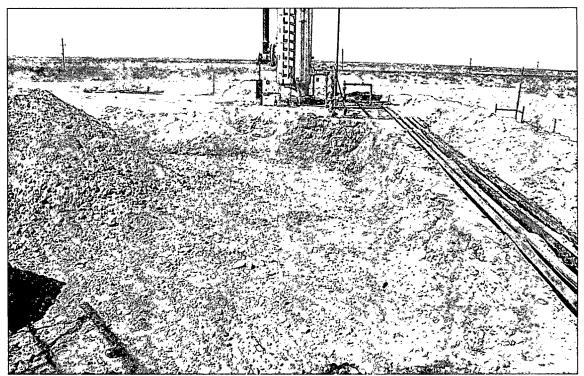
Bass 3 Federal Battery #1 - Excavation #1



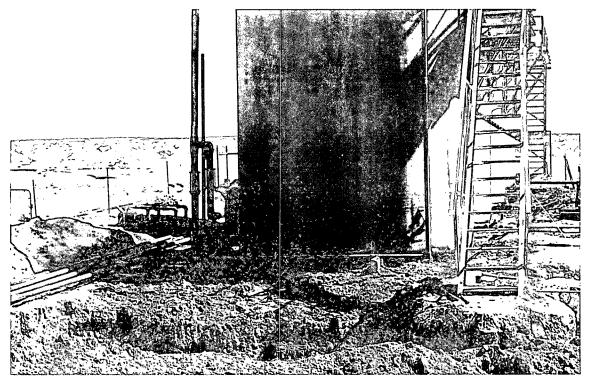
Bass 3 Federal Battery #1 - Excavation #1



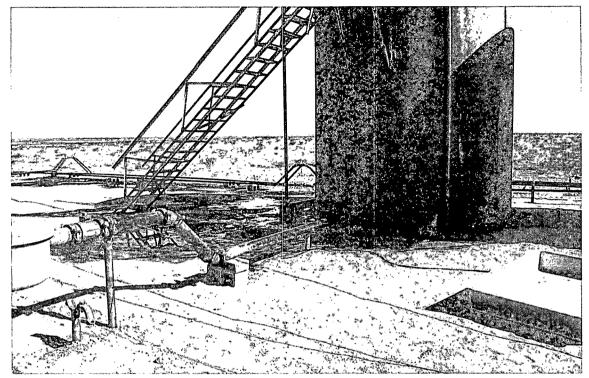
Bass 3 Federal Battery #1 - Excavation #1



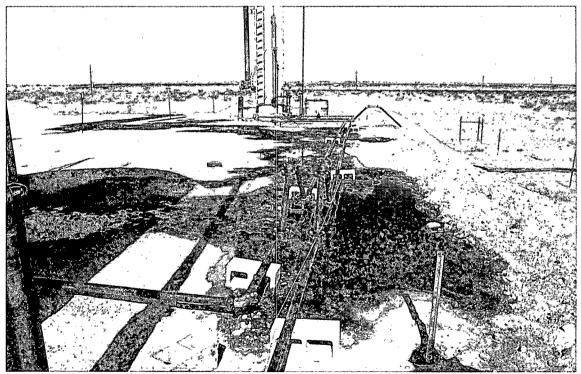
Bass 3 Federal Battery #1 - Excavation #1



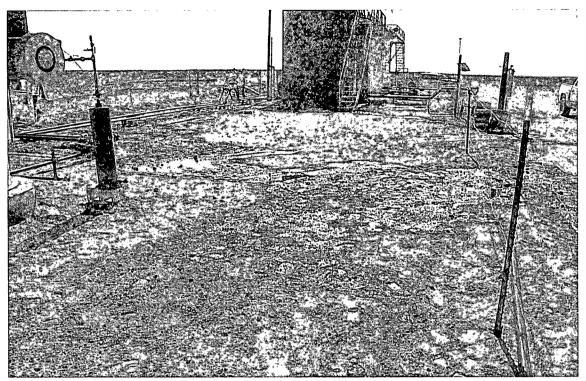
Bass 3 Federal Battery #1 - Excavation #1



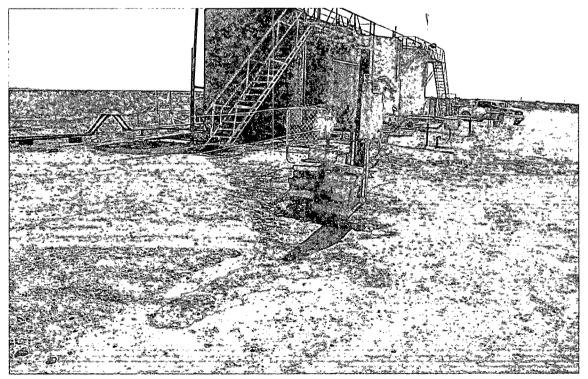
Bass 3 Federal Battery #1 - March 27, 2012, Release



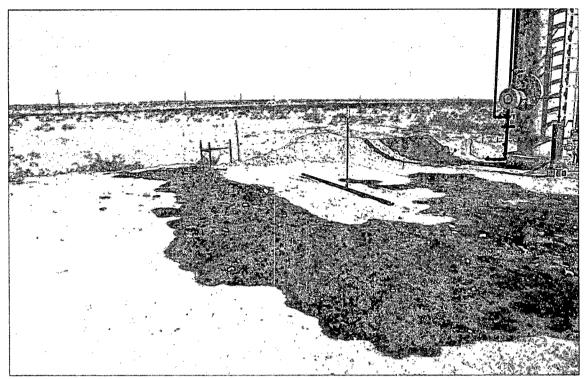
Bass 3 Federal Battery #1 - March 27, 2012, Release



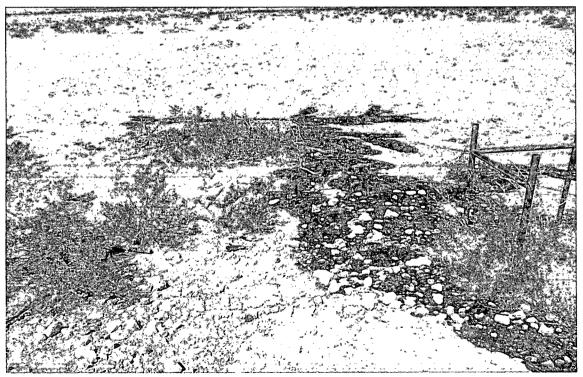
Bass 3 Federal Battery #1 - March 27, 2012, Release



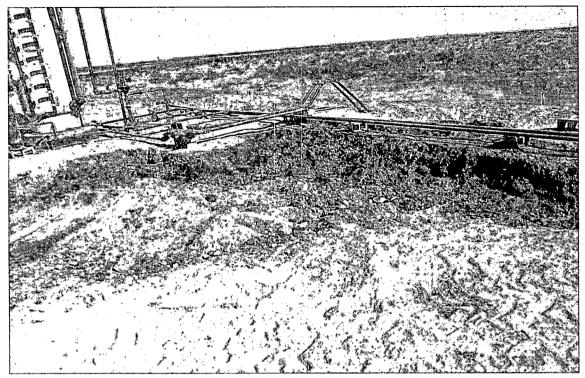
Bass 3 Federal Battery #1 - March 27, 2012, Release



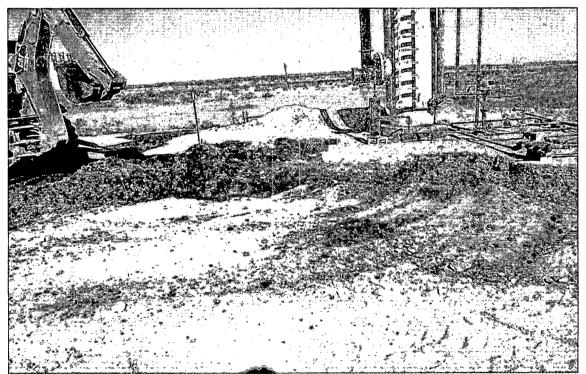
Bass 3 Federal Battery #1 - March 27, 2012, Release



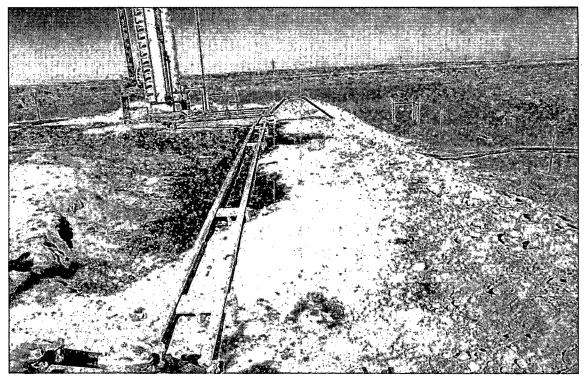
Bass 3 Federal Battery #1 - March 27, 2012, Release



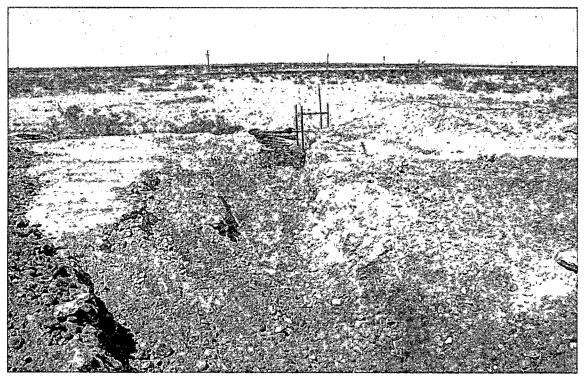
Bass 3 Federal Battery #1 - Excavation #2



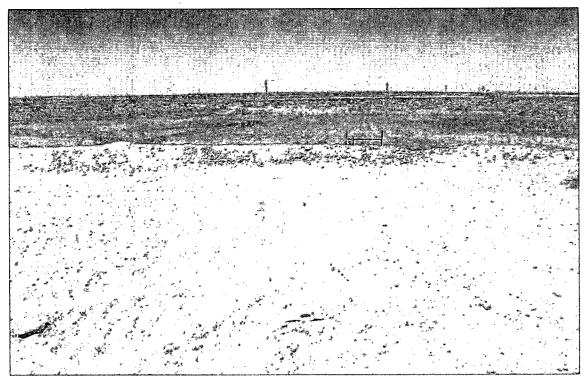
Bass 3 Federal Battery #1 - Excavation #2



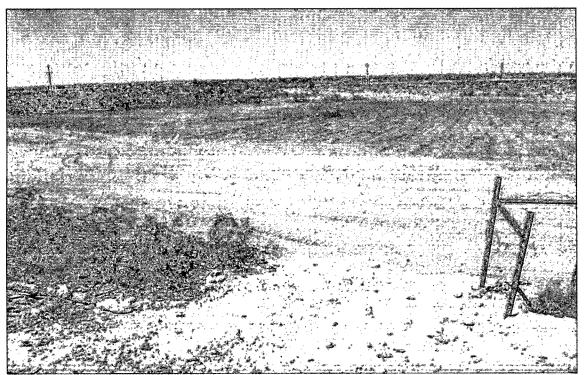
Bass 3 Federal Battery #1 - Excavation #2



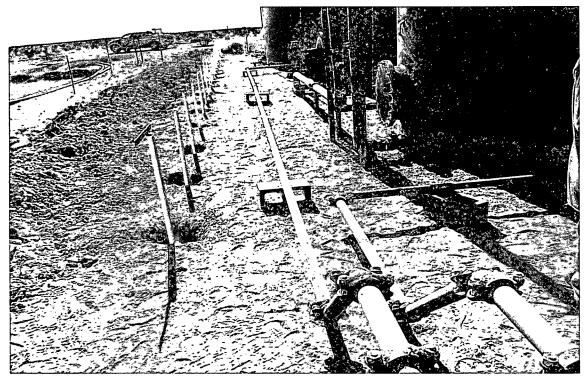
Bass 3 Federal Battery #1 - Excavation #2



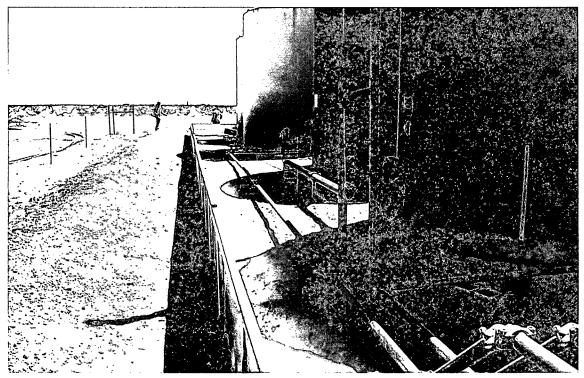
Bass 3 Federal Battery #1 - Excavation #2 (Following Backfill)



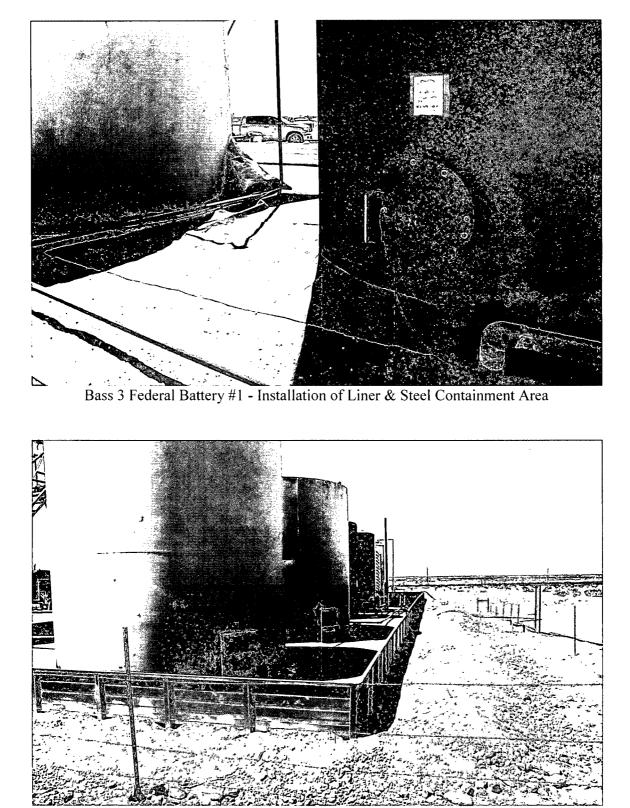
Bass 3 Federal Battery #1 - Excavation #2 (Following Backfill)



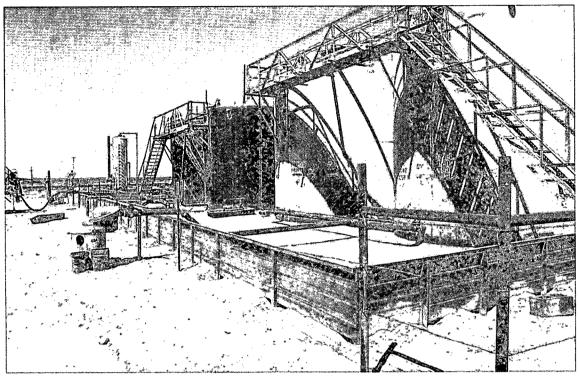
Bass 3 Federal Battery #1 - Installation of Steel Containment Area



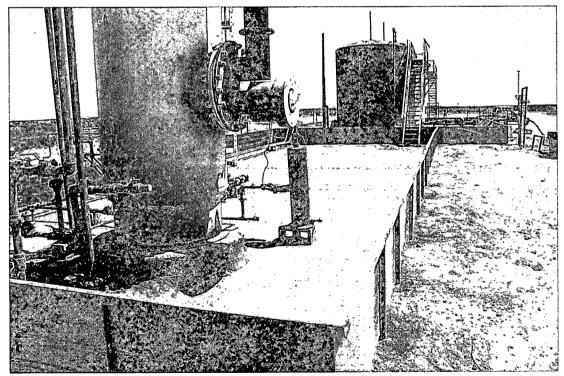
Bass 3 Federal Battery #1 - Installation of Steel Containment Area



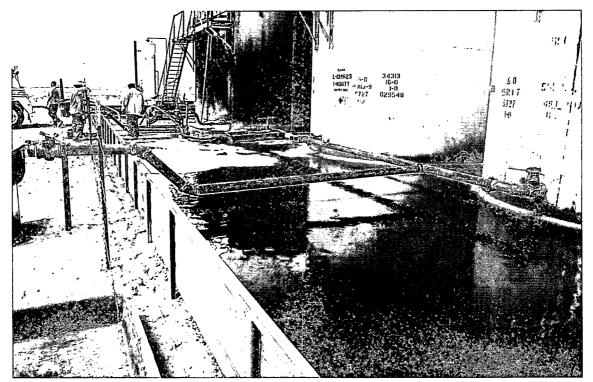
Bass 3 Federal Battery #1 - Steel Containment Area



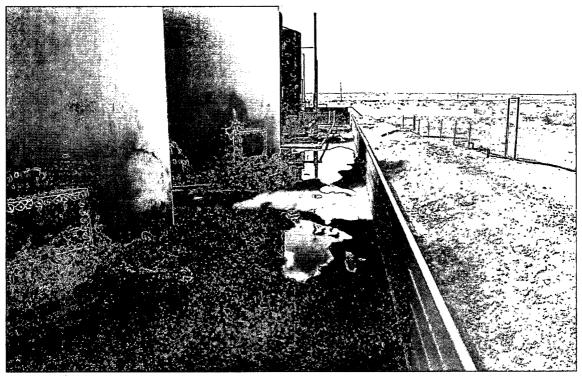
Bass 3 Federal Battery #1 - Steel Containment Area



Bass 3 Federal Battery #1 - Steel Containment Area



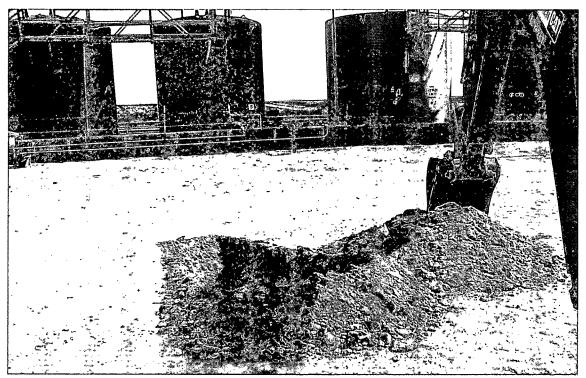
Bass 3 Federal Battery #1 - April 3, 2012, Release



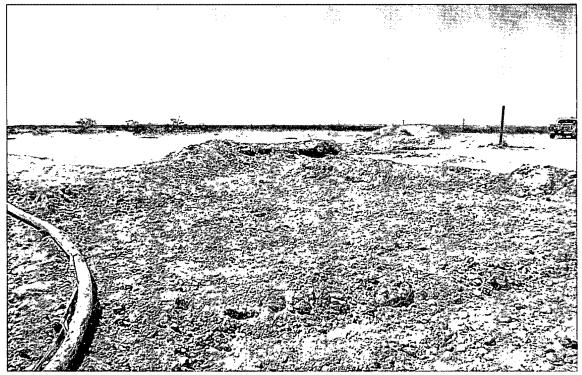
Bass 3 Federal Battery #1 - April 3, 2012, Release



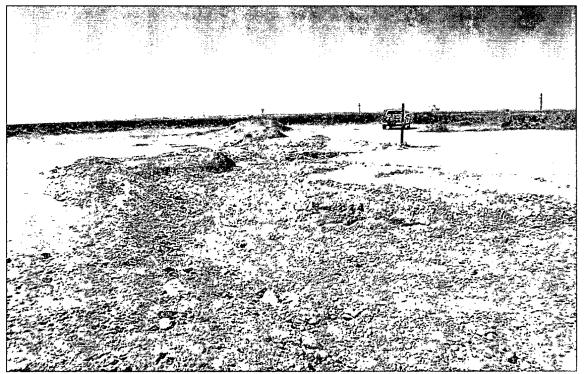
Bass 3 Federal Battery #1 - April 3, 2012, Release



Bass 3 Federal Battery #1 - Excavation #3



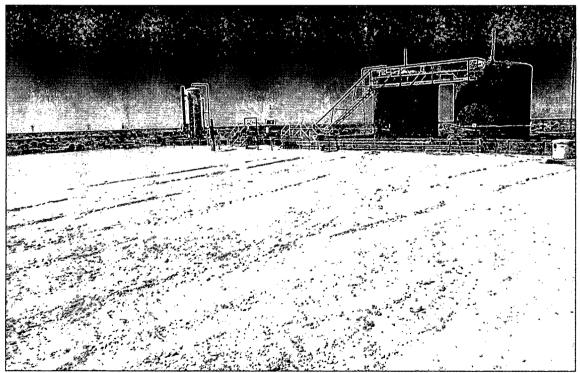
Bass 3 Federal Battery #1 - Excavation #3



Bass 3 Federal Battery #1 - Excavation #3



Bass 3 Federal Battery #1 - Excavation #3 (Following Backfill)



Bass 3 Federal Battery #1 - Excavation #3 (Following Backfill)

# Appendix C Soil Boring Logs

# Soil Boring SB-1

								<u> </u>			
E C		Soil <u>Column</u>	Chloride Field <u>Test</u> 1,960	PID <u>Reading</u> 1,396	Petroleum <u>Odor</u> Heavy	Petroleum <u>Stain</u> Heavy	Soil Des	cription		Borir	<u>g SB-1</u>
	Ê		1,900	1,390	-					Drilled	January 16, 2012 eal60 Ft
					Heavy	None	0' - 16' - Tan fi	ne sand - caliche - sandsto	Dept	h of Exploratory Bori	ng 60 Ft bgs
	- 10 -				Heavy	None			Grou	ind Water Elevation_	
	- - 15 -				Heavy	None			y T	on	_
	20		1,028	1,168	Heavy	None	16' - 21' - Red	fine sand - sandstone	0	measured on	selected for
	25				Heavy	None	21' - 24' - Red	silty sand sand - silty clay	PID	Head-space readi with a photo-ioniz	ng in ppm obtained
	30		544	274	Heavy	None					
	35				Heavy	None					
	- 15 - 15 - 20 - 22 - 25 		536	874	Heavy	None	24' - 60' - Red	very fine sand - sandstone	•		
	45				Heavy	None					
	50				Heavy	None					
	- 55		<120		None	None					
	- 55 - 55 - 60		< <u>120</u>	0.0	None	None					
										Compl	etion Notes
										using air rota	g was advanced on date ry drilling techniques. ween material types shown
										on the profile	log represent approximate Actual transitions may be
					OPCO, LP			Basin Environmente	Basin E	nvironmental Sen 3100 Plair Lovington, N	
Soil Boring	g SB-	•1 в			y #1 Remea Inty, New M		etro-Fit	Effective Solutions	Prep By:	BJA	Checked By: BRB
								Te Vechnow.	May 11.	2012	L

# Soil Boring SB-2

						J				
	Depth		<b>.</b>							
	Below		Chloride		Detroloum	Detroloum				
	Ground Surface	Soil Column	Field Test	PID Reading	Petroleum Odor	Stain	Soil Des	scription	Borin	g SB-2
<u>-</u>	<u>دهم</u> ۲		1001	1,542	Heavy	Heavy	-	nish tan fine sand - sandsto		
	- - - -			0.2	None	None		ne sand - sandstone - calici	Date Drilled Thickness of Bentonite Se Ie Depth of Exploratory Bori	
	Ē	ið í			Nono	Mana			Depth to Groundwater Ground Water Elevation	
	10			(2.7)	None	None				
	- 10 - 15 - 15			9.7	None	None	9' - 16' - Brow	vn fine sand - sandstone	Indicates the PSH on Indicates the grou	_
	- 20 -		1,696	0.0	None	None			Indicates samples Laboratory Analys PID Head-space readi	selected for is, ng in ppm obtained
	25				Slight	None			with a photo-ioniza	alion detector.
	- 				Slight	None				
	35				None	None	16' - 57' - Red	d fine sand - sandstone		
	40		2,256		None	None				
	145 1				None	None				
	50		2,428		None	None				
	- 55				None	None				
	- 60 -				None	None				
	- 65 -				None	None	57' - 75' - Rei	d fine sand with clay		
	70				None	None				
	- 75		(1,188)		None	None	75' - 82' - Re	d silty sand - silty clay		
	- 80		644		None None	None None				:
	- 85 - - - 90		044		None	None	82' - 100' - R	od fino ogod		
	- 30 		<120		None	None	82 - 100 - Ki			
	L 100		(120)		None	None				
									Compl	etion Notes
									using air rota 2.) The lines bet	g was advanced on date ry drilling techniques. ween material types shown
_									on the profile boundaries. gradual.	log represent approximate Actual transitions may be
Soil Boring	n SR-	2 R	ass 3 Fede		OPCO, LP y #1 Remed	liation & Re	etro-Fit	Basin Environmente Effective Scientions	Basin Environmental Serv 3100 Plair Lovington, N	ns Hwy. M 88260
2011 201110	,,				nty, New M			Strice Technolopic	Prep By: BJA	Checked By: BRB
								"ce Vechnov"	May 11, 2012	

# Soil Boring SB-3

Depth Below Ground <u>Surface</u>	Soil Column	Chloride Field <u>Test</u>	PID <u>Reading</u> 681 0.7 0.1	Petroleum F Odor Heavy None None	Petroleum <u>Stain</u> Heavy None None	Soil Description 1' - 11' - Tan fine sand - sandstone - caliche	Depth Depth	Boring SB-3 DrilledJanuary 17, 2012_ ress of Bentonite Seal45 FL of Exploratory Boring45 FLbgs to Groundwater d Water Elevasion
- 15			0.0	None	None		<b>x</b>	Indicates the PSH level measured
- - 20 			0.0	None	None		<b>⊥</b> ○	Indicates the groundwater level measured on Indicates samples selected for Laboratory Analysis.
25			0.0	Slight	None	11' - 40' - Red very fine sand - sandstone	PID	Head-space reading in ppm obtained with a photo-ionization detector.
- 30 E				Slight	None			
- - 35				None	None			
		232	)	None	None	40' - 45' - Red fine sand - sandy clay		
45		<120	)	None	None			

Comp	letion	Notes

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

Basin Environmental Service Technologies, LLC 3100 Plains Hwy. Lovington, NM 88260 Basin Environmente Effective Solutions BOPCO, LP Soil Boring SB-3 Bass 3 Federal Battery #1 Remediation & Retro-Fit Eddy County, New Mexico Checked By: BRB Prep By: BJA May 11, 2012

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# Appendix D Laboratory Analytical Reports

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January 24, 2012

BEN J. ARGUIJO Basin Environmental Service P.O. Box 301 Lovington, NM 88260

RE: BASS 3 FEDERAL BATTERY #1 REMEDIATION & RETRO-FIT

Enclosed are the results of analyses for samples received by the laboratory on 01/19/12 11:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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/ga/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,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	01/19/2012	Sampling Date:	01/16/2012
Reported:	01/24/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL BATTERY #1 REMEDIA	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

#### Sample ID: SB - 1 @ 5' (H200132-01)

TPH 8015M	mg/kg		Analyzed By: MS				·· <u>··</u> ····		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	394	10.0	01/24/2012	ND	192	95.9	200	9.99	
DRO >C10-C28	2300	10.0	01/24/2012	ND	206	103	200	8.99	
EXT DRO >C28-C35	314	10.0	01/24/2012	ND					
Surrogate: 1-Chlorooctane	99.5 %	6 55.5-15	4	·		· · · · · · ·			
Surrogate: 1-Chlorooctadecane	91.7 %	6 57.6-15	8						

#### Sample ID: SB - 1 @ 10' (H200132-02)

TPH 8015M	mg/i	(g	Analyze	d By: MS					·
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/24/2012	ND	192	95.9	200	9.99	
DRO >C10-C28	79.5	10.0	01/24/2012	ND	206	103	200	8.99	
EXT DRO >C28-C35	33.8	10.0	01/24/2012	ND					
Surrogate: 1-Chlorooctane	93.9 %	55.5-15	4						
Surrogate: 1-Chlorooctadecane	101 %	57.6-15	8						

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

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Celeg Di Kune

Celey D. Keene, Lab Director/Quality Manager



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

Received:	01/19/2012	Sampling Date:	01/16/2012
Reported:	01/24/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL BATTERY #1 REMEDIA	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

#### Sample ID: SB - 1 @ 20' (H200132-03)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1540	16.0	01/20/2012	ND	448	112	400	7.41	
TPH 8015M	mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	207	10.0	01/24/2012	ND	192	95.9	200	9.99	
DRO >C10-C28	1660	10.0	01/24/2012	ND	206	103	200	8.99	
EXT DRO >C28-C35	275	10.0	01/24/2012	ND					
Surrogate: 1-Chlorooctane	104	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	87.5	% 57.6-15	8						

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\*=Accredited Analyte

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	01/19/2012	Sampling Date:	01/16/2012
Reported:	01/24/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL BATTERY #1 REMEDIA	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

### Sample ID: SB - 1 @ 30' (H200132-04)

BTEX 8021B	mg/kg		Analyze	Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/23/2012	ND	1.97	98.7	2.00	1.10	
Toluene*	<0.050	0.050	01/23/2012	ND	2.12	106	2.00	0.0184	
Ethylbenzene*	<0.050	0.050	01/23/2012	ND	2.13	107	2.00	0.824	
Total Xylenes*	<0.150	0.150	01/23/2012	ND	6.59	110	6.00	0.938	
Surrogate: 4-Bromofluorobenzene (PIL	109 %	6 64.4-13	4				- <u></u>		
трн 8015м	mg/l	kg	Analyze	Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/24/2012	ND	192	95.9	200	9.99	
DR0 >C10-C28	105	10.0	01/24/2012	ND	206	103	200	8.99	
EXT DRO >C28-C35	24.1	10.0	01/24/2012	ND					
Surrogate: 1-Chlorooctane	93.8%	6 55.5-154	4				<u> </u>		
Surrogate: 1-Chlorooctadecane	116%	5 57.6-150	8						

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Celey Di Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	01/19/2012	Sampling Date:	01/16/2012
Reported:	01/24/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL BATTERY #1 REMEDIA	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

# Sample ID: SB - 1 @ 40' (H200132-05)

mg/l	cg	Analyze	a By: AP					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
400	16.0	01/20/2012	ND	448	112	400	7.41	
mg/kg		Analyzed By: MS						
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
55.5	10.0	01/24/2012	ND	192	95.9	200	9.99	
721	10.0	01/24/2012	ND	206	103	200	8.99	
109	10.0	01/24/2012	ND					
87.3 %	6 55.5-15	4						
73.7%	6 57.6-15	8						
-	Result 400 mg/l Result 55.5 721 109 <i>87.3 %</i>	Result     Reporting Limit       400     16.0       mg/kg     mg/kg       Result     Reporting Limit       55.5     10.0       721     10.0       109     10.0       87.3 %     55.5-15	Result         Reporting Limit         Analyzed           400         16.0         01/20/2012           mg/kg         Analyzed           Result         Reporting Limit         Analyzed           55.5         10.0         01/24/2012           721         10.0         01/24/2012           109         10.0         01/24/2012           87.3 %         55.5-154	Result         Reporting Limit         Analyzed         Method Blank           400         16.0         01/20/2012         ND           mg/kg         Analyzed By: MS         Method Blank           Result         Reporting Limit         Analyzed         Method Blank           55.5         10.0         01/24/2012         ND           721         10.0         01/24/2012         ND           109         10.0         01/24/2012         ND           87.3 %         55.5-154         55.5-154         55.5	Result         Reporting Limit         Analyzed         Method Blank         BS           400         16.0         01/20/2012         ND         448           mg/kg         Analyzed By: MS         Method Blank         BS           Result         Reporting Limit         Analyzed         Method Blank         BS           55.5         10.0         01/24/2012         ND         192           721         10.0         01/24/2012         ND         206           109         10.0         01/24/2012         ND         206           87.3 %         55.5-154         55.5-154         55.5-154         55.5-154         55.5-154	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery           400         16.0         01/20/2012         ND         448         112           mg/kg         Analyzed By: MS         Method Blank         BS         % Recovery           55.5         10.0         01/24/2012         ND         192         95.9           721         10.0         01/24/2012         ND         206         103           109         10.0         01/24/2012         ND         206         103           87.3 %         55.5-154	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC           400         16.0         01/20/2012         ND         448         112         400           mg/kg         Analyzed By: MS         Method Blank         BS         % Recovery         True Value QC           55.5         10.0         01/24/2012         ND         192         95.9         200           721         10.0         01/24/2012         ND         206         103         200           109         10.0         01/24/2012         ND         206         103         200           87.3 %         55.5-154	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC         RPD           400         16.0         01/20/2012         ND         448         112         400         7.41           mg/kg         Analyzed By: MS         Method Blank         BS         % Recovery         True Value QC         RPD           Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC         RPD           55.5         10.0         01/24/2012         ND         192         95.9         200         9.99           721         10.0         01/24/2012         ND         206         103         200         8.99           109         10.0         01/24/2012         ND         206         103         200         8.99           87.3 %         55.5-154         55

#### Sample ID: SB - 1 @ 55' (H200132-06)

Chloride, SM4500Cl-B	oride, SM4500Cl-B mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	01/20/2012	ND	448	112	400	7.41	

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	01/19/2012	Sampling Date:	01/16/2012
Reported:	01/24/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL BATTERY #1 REMEDIA	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

#### Sample ID: SB - 1 @ 60' (H200132-07)

BTEX 8021B	mg/	kg	Analyza	ed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/23/2012	ND	1.97	98.7	2.00	1.10	
Toluene*	<0.050	0.050	01/23/2012	ND	2.12	106	2.00	0.0184	
Ethylbenzene*	<0.050	0.050	01/23/2012	ND	2.13	107	2.00	0.824	
Total Xylenes*	<0.150	0.150	01/23/2012	ND	6.59	110	6.00	0.938	
Surrogate: 4-Bromofluorobenzene (PIL	109 %	64.4-13	4			<u>10</u>			
Chloride, SM4500Cl-B	mg/	kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	01/20/2012	ND	448	112	400	7.41	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/24/2012	ND	192	95.9	200	9.99	
DRO >C10-C28	16.2	10.0	01/24/2012	ND	206	103	200	8.99	
EXT DRO >C28-C35	19.2	10.0	01/24/2012	ND					,
Surrogate: 1-Chlorooctane	93.7 %	6 55.5-15-	4						
Surrogate: 1-Chlorooctadecane	110 %	57.6-158	8						

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#### \*=Accredited Analyte

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Celeg Di Kune

Celey D. Keene, Lab Director/Quality Manager



#### **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 SM4500CI-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

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Celeg D. Kune

Celey D. Keene, Lab Director/Quality Manager



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

	Basin Environmental Service '		nol	.ogies,	LLC	Т		BI	14 70						ANAL	YSIS	RE	QUES	ST			
Project Manager:	Ben J. Arguijo					P	P.O. #:				T						_					
Address: P.O.						С	Company: EOPCO, LP								}		Í					
ity: Lovington State: NM Zip: 88260			A	ttn:	Толу	Savoie								1								
Phone #: (575)	396-2378 Fax #:(575)3	96-1	425	,		A	ddre	ss: 52	2 W. Mer	mod		1					ł					
Project #:	Project Owne	Project Owner: BOPCO, LP			c	ity:	Carls	Dad														
Project Name: Ba	ass 3 Federal Battery #1 Remed	liat	ion	& Ret	ro-Fi	t S	itate:	NM	Zip: 8822	U												
Project Location	: Eddy Co., NM					P	hone	#: (43	2)556-87	30			1									
Sampler Name:	Ben J. Argnijo						ax #:					BISM										1
FOR LAB USE ONLY		Γ		N	ATRIX		PR	ESERV	SAMPL	ING		18										
Lab I.D. H200132	Sample I.D.	(G)RAB OR (C)OM	# CONTAINERS	GROUNDWATER WASTEWATER	SOIL	SLUDGE	OTHER : ACID/BASE:	ICE / COOL OTHER :	DATE	TIME	16/05-2	CHAL	BTEX									
	58-185	6	$\mathbf{L}$		x		Ŀ	K	1/16/12	1400		K										
2	5B. 1 Q 10'	Ц	Ш							1405		K	ļ	ļ								
3	56.1 8 20'	Щ.	11							1415	X	_	<u> </u>	ļ					ļ	ļ		
4	58. 2 30'	#	Ц.		1				<b> </b>	1425	I	K	K					<b></b>		<b> </b>		
5	3B-1 & 40'		44						<b></b>	1435	X	( X	ļ		<b> </b>			· .	ļ	<b> </b>		
6	58-10 55'		4		- ]				<b> </b>	1505	X			ļ				Ļ	ļ		ļ	
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			╋	$\mathbf{I}$	-+-	$\left  - \right $		$\left  - \right $	┣───					<b>{</b>		<b> </b>	<u> </u>		<u> </u>		<b> </b>	<u> </u>
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PLEASE NOTE: Librier and Camages. Caldina's indexy and ment's and/usive removy for any claim analog which er based in contract or ton, shall be limited to the amount pare by the client for the eregises. At dams, including those for regrigence and any other cause whatsoever sharbe deemed waived unusa made in writing and received by Cardinai within 30 days after companies of the applicable

service in no event shall Cardinal be listle for incorental or consequenced damages, including without limitation, publicles interruptions, loss of use, or loss of police incurred by event, os sous clanes,

whitten of eucoentom anning our all or related to the performance of	of services herminder by Caldmal regardless of whether such days is based upon any of the above stated i	reasons of our whe
Relinquished By:	Date: / / Received By:	Phone Result: 🛛 Yes 🖾 No 🛛 Add'l Phone #:
11/	1/19/12	Fax Result: 🛛 Yes 🗆 No 🛛 Add'I Fax #:
	Time: 0645 Dyturnh will	REMARKS:
Relinguished By: DUG4+45+10411	Pate of 17 Received By: Time 1. 456 (Class Henden	
Delivered By: (Circle One)	() Sample Condition CHECKED BY: Cool_Intact (Initials)	& TAsavoie#BassPet.com
Sampler - UPS - Bus - Other:	Ves Pres City	

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



January 24, 2012

BEN J. ARGUIJO Basin Environmental Service P.O. Box 301 Lovington, NM 88260

RE: BASS 3 FEDERAL BATTERY #1 REMEDIATION & RETRO-FIT

Enclosed are the results of analyses for samples received by the laboratory on 01/19/12 11:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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 <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited 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. Kune

Celey D. Keene Lab Director/Quality Manager



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

Received:	01/19/2012	Sampling Date:	01/17/2012
Reported:	01/24/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL BATTERY #1 REMEDIA	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

#### Sample ID: SB - 2 @ 5' (H200131-01)

трн 8015м	mg/l	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRÓ C6-C10	<10.0	10.0	01/24/2012	ND	192	95.9	200	9.99	
DRO >C10-C28	<10.0	10.0	01/24/2012	ND	206	103	200	8.99	
EXT DRO >C28-C35	<10.0	10.0	01/24/2012	ND					
Surrogate: 1-Chlorooctane	85.0 %	6 55.5-15	4						
Surrogate: 1-Chlorooctadecane	101 %	57.6-15	8						

#### Sample ID: SB - 2 @ 10' (H200131-02)

TPH 8015M	mg/l	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/24/2012	ND	192	95.9	200	9.99	
DRO >C10-C28	<10.0	10.0	01/24/2012	ND	206	103	200	8.99	
EXT DRO >C28-C35	<10.0	10.0	01/24/2012	ND					
Surrogate: 1-Chlorooctane	90.5 %	6 55.5-15-	4	·					
Surrogate: 1-Chlorooctadecane	98.9 %	<i>57.6-15</i>	8						

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

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Celeg Di Kune

Celey D. Keene, Lab Director/Quality Manager



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

Received:	01/19/2012	Sampling Date:	01/17/2012
Reported:	01/24/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL BATTERY #1 REMEDIA	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

#### Sample ID: SB - 2 @ 20' (H200131-03)

Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	718	16.0	01/20/2012	ND	448	112	400	7.41	
TPH 8015M	mg/	/kg	Analyze	d By: MS					·
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/24/2012	ND	192	95.9	200	9.99	
DRO >C10-C28	<10.0	10.0	01/24/2012	ND	206	103	200	8.99	
EXT DRO >C28-C35	<10.0	10.0	01/24/2012	ND					
Surrogate: 1-Chlorooctane	90.7	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	114 9	% 57.6-15	8						

#### Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager



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

Received:	01/19/2012	Sampling Date:	01/17/2012
Reported:	01/24/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL BATTERY #1 REMEDIA	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

#### Sample ID: SB - 2 @ 50' (H200131-04)

BTEX 8021B	mg/	kg	Analyze	ed By: AP					··
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/23/2012	ND	1.97	98.7	2.00	1.10	
Toluene*	<0.050	0.050	01/23/2012	ND	2.12	106	2.00	0.0184	
Ethylbenzene*	<0.050	0.050	01/23/2012	ND	2.13	107	2.00	0.824	
Total Xylenes*	<0.150	0.150	01/23/2012	ND	6.59	110	6.00	0.938	
Surrogate: 4-Bromofluorobenzene (PIL	109 %	64.4-134	1						
Chloride, SM4500Cl-B	mg/k	(g	Analyze	d By: AP			<u> </u>		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2360	16.0	01/20/2012	ND	448	112	400	7.41	
TPH 8015M	mg/k	g	Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/24/2012	ND	192	95.9	200	9.99	
DRO >C10-C28	<10.0	10.0	01/24/2012	ND	206	103	200	8.99	
EXT DRO >C28-C35	<10.0	10.0	01/24/2012	ND					
Surrogate: 1-Chlorooctane	86.7 %	55.5-154	u						
Surrogate: 1-Chlorooctadecane	110 %	57.6-158							

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#### \*=Accredited Analyte

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Celeg Di Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	01/19/2012	Sampling Date:	01/17/2012
Reported:	01/24/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL BATTERY #1 REMEDIA	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

#### Sample ID: SB - 2 @ 75' (H200131-05)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1390	16.0	01/20/2012	ND	448	112	400	7.41	
TPH 8015M	mg,	/kg	Analyzed By: MS						<u>-</u>
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/24/2012	ND	192	95.9	200	9.99	
DRO >C10-C28	<10.0	10.0	01/24/2012	ND	206	103	200	8.99	
EXT DRO >C28-C35	<10.0	10.0	01/24/2012	ND					
. Surrogate: 1-Chlorooctane	85.3	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	95.7	% 57.6-15	8						

#### Sample ID: SB - 2 @ 95' (H200131-06)

Chloride, SM4500CI-B	mg/kg		Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	01/20/2012	ND	448	112	400	7.41	

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	01/19/2012	Sampling Date:	01/17/2012
Reported:	01/24/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL BATTERY #1 REMEDIA	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: SB - 2 @ 100' (H200131-07)

BTEX 8021B	mg/	kg	Analyz	ed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/23/2012	ND	1.97	98.7	2.00	1.10	
Toluene*	<0.050	0.050	01/23/2012	ND	2.12	106	2.00	0.0184	
Ethylbenzene*	<0.050	0.050	01/23/2012	ND	2.13	107	2.00	0.824	
Total Xylenes*	<0.150	0.150	01/23/2012	ND	6.59	110	6.00	0.938	
Surrogate: 4-Bromofluorobenzene (PIL	109 9	64.4-13	4						
Chloride, SM4500CI-B	mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	01/20/2012	ND	448	112	400	7.41	
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	01/24/2012	ND	192	95.9	200	9.99	
DRO >C10-C28	11.9	10.0	01/24/2012	ND	206	103	200	8.99	
EXT DRO >C28-C35	<10.0	10.0	01/24/2012	ND					
Surrogate: 1-Chlorooctane	87.8 %	6 55.5-154	1					<u>_</u> .	
Surrogate: 1-Chlorooctadecane	102 %	57.6-158	}						

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

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Celeg Di Keine

Celey D. Keene, Lab Director/Quality Manager



#### **Notes and Definitions**

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

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Celey D. Kune

Celey D. Keene, Lab Director/Quality Manager



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	Basin Environmental Service :	fech	nol	ogies. LLC		BIL	1 70					A	NALY	SIS	REC	QUES	т			
Project Manager	Ben J. Arquijo				Ρ.(	O. #:				T	·			T	÷		Ţ			
Address: F.O.					Co	mpany: B	0700, Li	Ş												
City: Lavingto	n State: NM	Zip	: 88	260	At	in: Tony	Savoie													
Phone #: (575)	396-3378 <b>Fax #:</b> (575)35	5-1	429		Ad	dress: 52	i W. Mer	nc.d												
Project #: Project Owner: 30PC0, LP				, LP	Ci	ty: Carlst	ad							ļ	ł	1				
Project Name: Ba	ass 3 Federal Battery 41 Remed	iat	ion	& Retro-Fit	sı	ate: NM	Zip: 3822	0									Į			
Project Location	: Eddy Co., NM				Ph	ione #: (43	2)556-8	730												
Sampler Name:	Ben J. Arguijo				Fa	x #:				18						1				
FOR LAB USE ONLY				MATRIX		PRESERV	SAMPL	ING									1		1	
Lab I.D. H20(33)	Sample I.D.	(G)RAB OR (C)OMF	# CONTAINERS	GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER	ACID/BASE ICE / COOL OTHER	DATE	TIME	(bloc. b	TOH (ROKN)	1 1.7									
1	513-2 B 5'	6	$\mathbf{L}$	<u> </u>		X	1/17/12	0800		X										
2	<u>SB-2 @ 10'</u>	11	$\square$		1			0805		K										
3	513-2 8 20'	11	11		<u> </u>			0820	X	K	<u> </u>									
4	58-2 8 50'				-			0900	X	K	X						<u>;</u>			
<u> </u>	<u> 5B-2 8 75'</u>	4	11		_			0930	X	X										
	58-28 95'	Ц.	4					0955	X							· .				
	53-28 100'	₩	V		<u> </u>			1005	X	K	X									
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PLEASE NOTE: Detroit, and Damague: Cardinal a rately and cherca exclusive remark, rol any dam activity infeating takes in compact or tent and the lamed to the amount paid by the creditor the analysis. Al chains including those for negligence and any other cause whetherers and the deamed whited unless mode in whing and received and any Chronal Anter 20 days after completion or the subfrates

		and use heridation, desine so internationes, tops of use, of lass of profile ( and "se highla resist - notifier such da mile based soon any of the door		
Relinquished By:	Date: 120/	Received By:	Phone Result: 🖾 Yes 🖾 No 🛛 Add'l Phone #:	
51	Time		Fax Result:	
1/107	Time: 06 45	Dykuton walk	REWARNS.	
Relinquished By:	Date 9/12	Received By:		
Dulein Jul	Tion 9: 1: -15	TUNCH HENSON	Please email results to pm9basinenv.com	
Delivered By: (Circle One)		Sample Condition CHECKED	1 1.1445VD10444855960 COM	
Sampler - UPS - Bus - Other:		y Cool Intact (InfitIals Gres Gres CN		

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

January 23, 2012

BEN J. ARGUIJO Basin Environmental Service P.O. Box 301 Lovington, NM 88260

RE: BASS 3 FEDERAL BATTERY #1 REMEDIATION & RETRO-FIT

Enclosed are the results of analyses for samples received by the laboratory on 01/19/12 11:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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 <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited analytes and matrices visit the TCEQ website at <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> 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,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	01/19/2012	Sampling Date:	01/17/2012
Reported:	01/23/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL BATTERY #1 REMEDIA	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

#### Sample ID: SB - 3 @ 5' (H200129-01)

TPH 8015M	mg/l	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GR/) C6-C10	<10.0	10.0	01/20/2012	ND	193	96.3	200	9.45	
DR0 >C10-C28	40.9	10.0	01/20/2012	ND	179	89.6	200	5.71	
EXT DRO >C28-C35	<10.0	10.0	01/20/2012	ND					
Surrogate: 1-Chlorooctane	85.0 %	6 55.5-15	4						
Surrogate: 1-Chlorooctadecane	101 %	57.6-15	8						

# Sample ID: SB - 3 @ 10' (H200129-02)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1840	16.0	01/20/2012	ND	448	112	400	3.64	
трн 8015м	15M mg/kg		Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/20/2012	ND	193	96.3	200	9.45	
DRO >C10-C28	<10.0	10.0	01/20/2012	ND	179	89.6	200	5.71	
EXT DRO >C28-C35	<10.0	10.0	01/20/2012	ND					
Surrogate: 1-Chlorooctane	82.7	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	93.6	% 57.6-15	8						

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#### \*=Accredited Analyte

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Celeg Di Keine

Celey D. Keene, Lab Director/Quality Manager



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

Received:	01/19/2012	Sampling Date:	01/17/2012
Reported:	01/23/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL BATTERY #1 REMEDIA	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

### Sample ID: SB - 3 @ 25' (H200129-03)

BTEX 8021B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/23/2012	ND	1.97	98.7	2.00	1.10	
Toluene*	<0.050	0.050	01/23/2012	ND	2,12	106	2.00	0.0184	
Ethylbenzene*	<0.050	0.050	01/23/2012	ND	2.13	107	2.00	0.824	
Total Xylenes*	<0.150	0.150	01/23/2012	ND	6.59	110	6.00	0.938	
Surrogate: 4-Bromofluorobenzene (PIL	107 9	% 64.4-13	4						
Chloride, SM4500Cl-B	mg/	′kg	Analyze	d By: AP					··
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	01/20/2012	ND	448	112	400	3.64	

Chioride	192	10.0	01/20/2012	ND	440	112	400	5.04	
TPH 8015M	mg/kg		Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/20/2012	ND	193	96.3	200	9.45	
DRO >C10-C28	<10.0	10.0	01/20/2012	ND	179	89.6	200	5.71	
EXT DRO >C28-C35	<10.0	10.0	01/20/2012	ND					
Surrogate: 1-Chlorooctane	94.7	% 55.5-15	14						
Surrogate: 1-Chlorooctadecane	107	% 57.6-15	58						

#### Sample ID: SB - 3 @ 40' (H200129-04)

Chloride, SM4500CI-B     mg/kg       Analyte     Result     Reporting Limit       Chloride     224     16.0	/kg	Analyze	d By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	01/20/2012	ND	448	112	400	7.41	

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Celeg D. Kune

Celey D. Keene, Lab Director/Quality Manager



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

Received:	01/19/2012	Sampling Date:	01/17/2012
Reported:	01/23/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL BATTERY #1 REMEDIA	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

#### Sample ID: SB - 3 @ 45' (H200129-05)

ØTEX 8021B	mg/	kg	Analyze	ed By: AP		<u> </u>	<u> </u>		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/23/2012	ND	1.97	98.7	2.00	1.10	
Toluene*	<0.050	0.050	01/23/2012	ND	2.12	106	2.00	0.0184	
Ethylbenzene*	<0.050	0.050	01/23/2012	ND	2.13	107	2.00	0.824	
Total Xylenes*	<0.150	0.150	01/23/2012	ND	6.59	110	6.00	0.938	
Surrogate: 4-Bromofluorobenzene (PIL	110 %	64.4-13	4						
Chloride, SM4500Cl-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Anatyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	01/20/2012	ND	448	112	400	7.41	
TPH 8015M	mg/	kg	Analyze	d By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/20/2012	ND	193	96.3	200	9.45	
DRO >C10-C28	<10.0	10.0	01/20/2012	ND	179	89.6	200	5.71	
EXT DRO >C28-C35	<10.0	10.0	01/20/2012	ND					
Surrogate: 1-Chlorooctane	89.6 %	6 55.5-154	1						
Surrogate: 1-Chlorooctadecane	102 %	57.6-158	3						

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Celeg Di Kuna

Celey D. Keene, Lab Director/Quality Manager



#### 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 $6^{\circ}\text{C}$
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celez D. Keine

Celey D. Keene, Lab Director/Quality Manager



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name:	Basin Environmental Service	Tec:	nol	ogies, LLC		£//	1 70					/	NAL	YSIS	RE	QUES	ST			
Project Manager	Ben J. Arguijo				P.(	O. #:				T			Ī							
Address: P.O.					Co	mpany: B	OPCO, LI	5	1	1				1						
City: Lovingto	r. State: NM	Zip	: 88	3260	Att	tn: Fony	Savoie		1											1
Phone #: (575)					Ad	Idress: 52	2 W. Mer	mod	1											
Project #:	Project Own	er: BC	PCO	, LP	Cit	ty: Carlsh	ad		1											
	ass 3 Federal Battery #1 Reme					£	Zip: 3823	20	1											
	: Eddy Co., NM				_	ione #: (43			1											
	Ben J. Arguijo					ix #:				5										
FOR LAB USE ONLY		T		MATRIX		PRESERV	SAMPL	ING	1	1 2										
Lab I.D. H200126	Sample I.D.	(G)RAE OR (C)OMP	# CONTAINERS	GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER	ACID/BASE: ICE / COOL OTHER	DATE	TIME	1×105-10	TON FOR FAR	BTEK									
	<u> 48-305'</u>	6	11	X		K	1/17/12	1030		X										
2	5B-3B 10'	$\square$						1035	Х	X								<u> </u>		
3	58-38 25'							1055	K	X	X	<u> </u>						L		
4	<u>56-3840'</u>							1110	X									<u> </u>	L	
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PLEASE NOTE: LIAD XI and Damages. Calculate LIAD XI and plant's estimate remedy for any stam an and writter based a corologi of bot, shall be investigated and by the Sara by the Analysis. All claims induce in walking and received by Calcular within 30 days after completion of the applicable.

Service in the event shall Catchial between Drivers and the contraction of the contractio

Relinquished By:	Date:	Received By:	Phone Result:	C Yes	O No	Add'l Phone #:
111-	1/19/12		Fax Result:	2 Yes	D No	Add'l Fax #:
and the second s	Time: 0.945	Dykoton ward	REMARKS:			
Relinquished By:	Date: 9/12.	Received By:	-			
DUKIHAN 4-911	Time : 45	GALL MENDON	• Plea	se email	l resul	ts to pm@basinenv.com
Delivered By: (Circle One)		U Sample Condition   CHECKED BY:	A TAsavole@BassPet.com			
Sampler - UPS - Bus - Other:		Cool intact (Illihuals)				

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

#26



March 12, 2012

BEN J. ARGUIJO Basin Environmental Service P.O. Box 301 Lovington, NM 88260

RE: BASS 3 FEDERAL BATTERY #1 REMEDIATION & RETRO-FIT

Enclosed are the results of analyses for samples received by the laboratory on 03/06/12 9:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	03/06/2012	Sampling Date:	03/05/2012
Reported:	03/12/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL BATTERY #1 REMEDIA	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		
····	- •		

## Sample ID: SAMPLE #1 (H200576-01)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>2440</b> 16.0		03/07/2012	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS					S-06
Analyte	lyte Result		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1100	100	03/09/2012	ND	250	125	200	2.40	
DRO >C10-C28	7180	100	03/09/2012	ND	199	99.7	200	0.875	
EXT DRO >C28-C35	1140	100	03/09/2012	ND					
Surrogate: 1-Chlorooctane	172 5	% 55.5-15	4				·		
Surrogate: 1-Chlorooctadecane	140 9	57.6-15	8						

## Sample ID: SAMPLE #2 (H200576-02)

Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>2680</b> 16.0 mg/kg		03/07/2012 ND 416			104	400	0.00	
TPH 8015M			Analyze	d By: MS					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	8S	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	3920	100	03/09/2012	ND	250	125	200	2.40	
DRO >C10-C28	11000	100	03/09/2012	ND	199	99.7	200	0.875	
EXT DRO >C28-C35	<b>1820</b> 100		03/09/2012	ND					
Surrogate: 1-Chlorooctane	237 %	6 55.5-15	4						
Surrogate: 1-Chlorooctadecane	222 %	6 57.6-15	8						

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Celeg Di Kune

Celey D. Keene, Lab Director/Quality Manager



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

Received:	03/06/2012	Sampling Date:	03/05/2012
Reported:	03/12/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL BATTERY #1 REMEDIA	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: SAMPLE #3 (H200576-03)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					<u> </u>
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride 4240		16.0	03/07/2012	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	5360	100	03/09/2012	ND	250	125	200	2.40	۰,
DRO >C10-C28	18300	100	03/09/2012	ND	199	99.7	200	0.875	
EXT DRO >C28-C35	2470	100	03/09/2012	ND					
Surrogate: 1-Chlorooctane	435	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	333	% 57.6-15	8						

## Sample ID: SAMPLE #4 (H200576-04)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AP					
Anaiyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	hloride <b>4160</b> 16.0		03/07/2012	ND	416	104	400	0.00	
TPH 8015M	mg,	/kg	Analyze	d By: MS			212° m		
Analyte	Result Reporting Limit		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/10/2012	ND	250	125	200	2.40	
DRO >C10-C28	116	10.0	03/10/2012	ND	199	99.7	200	0.875	
EXT DRO >C28-C35	41.5	10.0	03/10/2012	ND					
Surrogate: 1-Chlorooctane	89.9	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	80.6 % 57.6-158		8						

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#### \*=Accredited Analyte

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Celeg D.Kune

Celey D. Keene, Lab Director/Quality Manager



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

Received:	03/06/2012	Sampling Date:	03/05/2012
Reported:	03/12/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL BATTERY #1 REMEDIA	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

### Sample ID: SAMPLE #5 (H200576-05)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AP			<del>_</del>			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	ride 5440 16.0		03/07/2012 ND 41			104	400	0.00		
TPH 8015M	mg,	/kg	Analyze	d By: MS		· · · · · · · · · · · · · · · · · · ·			S-06	
Analyte	Result Reporting Li		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	2530	100	03/09/2012	ND	250	125	200	2.40		
DRO >C10-C28	17700	100	03/09/2012	ND	199	99.7	200	0.875		
EXT DRO >C28-C35	1910	100	03/09/2012	ND						
Surrogate: 1-Chlorooctane	304 9	% 55.5-15	4							
Surrogate: 1-Chlorooctadecane	277 9	% 57.6-15	8							

### Sample ID: SAMPLE #6 (H200576-06)

Chloride, SM4500Cl-B	mg/	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride 11100</b> 16.0		16.0	.0 03/07/2012 ND			104	400	0.00	
TPH 8015M	mg/	kg	Analyze	d By: MS					S-06
Analyte	Result Reporting Lie		Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	644	100	03/09/2012	ND	250	125	200	2.40	
DRO >C10-C28	12500	100	03/09/2012	ND	199	99.7	200	0.875	
EXT DRO >C28-C35	1900	100	03/09/2012	ND					
Surrogate: 1-Chlorooctane	193 %	6 55.5-15	4	- ,,,,,,,					
Surrogate: 1-Chlorooctadecane	273 %	6 57.6-15	8						

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#### \*=Accredited Analyte

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Celey Di Keine

Celey D. Keene, Lab Director/Quality Manager



## **Notes and Definitions**

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
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 SM4500CI-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

	Basin Environmental Service "		nol	oqies, LLC	<u> </u>	8/	LTO					Δ	NAL	YSIS	REC	QUES	T		البديد مستغلاته	
Project Manager	<sup>2</sup> Ben J. Arguijo				Ρ.(	D. #:								T	I			T		
Address: E.O.					Co	Company: BOPCO, LP									[					
City: Lovingto	Lovington State: NM Zip: 38260			Au	in: Tony	Savoie							ł				1			
Phone #: (575)		-6-1	429	·····	Ad	dress: 522	w. Mern	od						1		1				
Project #:	Project Owner	: EC	PCO	, LP	Cit	y: Carlsb	adi							[	[					
Project Name: B	roject #: Project Owner: BOPCO, LF BATTERY#J roject Name: BASS 3 FEDERAL & REINEDIATION + RETRO- FIT			Ste	ate: NM	Zip: 88223	)							1	.	ł				
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PLEASE NOTE: Upbacy and Damages Cardinal's labelity and cent's excusive remedy for any diam ansing whether based in contract or con-shall be Invited to the amount paid by the client for the analysiss. As solims, accounts and any other backs whatsbever singlible ocented varies and an wreng and received by Caronal white 30 days after competition of the applicable service. In no event shell Cardinal be liable for montenial or consequence, damages restanding without cancetion, buy mess interruptions, ities all use, or loss of politic ecurred by stem. As sub-politice

annality is recomposed arrived call of to redeted to the performance of services nervices relation for Op onal reparative of dealing your comerce barred when any of the above wated reasons or cinerars Relinquished By: Date Received By: Phone Result: Yes No Add'l Phone #: Yes No Add'I Fax #: 5/10 2 Fax Result: Time: 753 REMARKS: Relinquished By-Received By: Date;, -6/12 Time + 74. • \* . ..... Please email results to powbasinenv.com Delivered By: (Circle One) Sample Condition CHECKED BY: & TAsavoielEassPet.com Cool intact (ditials) 20 Ves Ves Sampler - UPS - Bus - Other:

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+ Cardinal cannot accept verbal changes. Please tax written changes to 505-393-2476 1 10 1



April 02, 2012

BEN J. ARGUIJO Basin Environmental Service P.O. Box 301 Lovington, NM 88260

RE: BASS 3 FEDERAL BATTERY #1 REMEDIATION & RETRO-FIT

Enclosed are the results of analyses for samples received by the laboratory on 03/29/12 16:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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 <a href="https://www.tceq.texas.gov/field/qa/lab">www.tceq.texas.gov/field/qa/lab</a> accredited 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,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	03/29/2012	Sampling Date:	03/29/2012
Reported:	04/02/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL BATTERY #1 REMEDIA	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

### Sample ID: SAMPLE #1 (H200753-01)

mg/	kg	Analyze	d By: MS/					
Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
106	10.0	03/30/2012	ND	183	91.7	200	6.89	
470	10.0	03/30/2012	ND	178	88.8	200	8.58	
44.8	10.0	03/30/2012	ND					
135 %	6 55.5-15	4	<u> </u>					
116 %	6 57.6-15	8						
	Result 106 470 44.8	105         10.0           470         10.0           44.8         10.0           /35 %         55.5-15	Result         Reporting Limit         Analyzed           106         10.0         03/30/2012           470         10.0         03/30/2012           44.8         10.0         03/30/2012           135 %         55.5-154	Result         Reporting Limit         Analyzed         Method Blank           106         10.0         03/30/2012         ND           470         10.0         03/30/2012         ND           44.8         10.0         03/30/2012         ND           135 %         55.5-154         55.5-154	Result         Reporting Limit         Analyzed         Method Blank         BS           106         10.0         03/30/2012         ND         183           470         10.0         03/30/2012         ND         178           44.8         10.0         03/30/2012         ND         178           135 %         55.5-154         55.5-154         55.5-154         10.0         10.0	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery           106         10.0         03/30/2012         ND         183         91.7           470         10.0         03/30/2012         ND         178         88.8           44.8         10.0         03/30/2012         ND         178         88.8           135 %         55.5-154         55.5-154         55.5-154         55.5-154         55.5-154	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC           106         10.0         03/30/2012         ND         183         91.7         200           470         10.0         03/30/2012         ND         178         88.8         200           44.8         10.0         03/30/2012         ND         178         81.8         200           135 %         55.5-154         55.5-154         55.5-154         55.5-154         55.5-154         55.5-154	Result         Reporting Limit         Analyzed         Method Blank         BS         % Recovery         True Value QC         RPD           106         10.0         03/30/2012         ND         183         91.7         200         6.89           470         10.0         03/30/2012         ND         178         88.8         200         8.58           44.8         10.0         03/30/2012         ND         178         88.8         200         8.58           135 %         55.5-154<

## Sample ID: SAMPLE #2 (H200753-02)

TPH 8015M	mg/l	kg	Analyze	d By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/30/2012	ND	183	91.7	200	6.89	
DRO >C10-C28	5 <b>8.9</b>	10.0	03/30/2012	ND	178	88.8	200	8.58	
EXT DRO >C28-C35	15.7	10.0	03/30/2012	ND					
Surrogate: 1-Chlorooctane	126 %	55.5-15	4						
Surrogate: 1-Chlorooctadecane	120%	57.6-15	8						

#### · Cardinal Laboratories

### \*=Accredited Analyte

PLEASE NOTE: Lability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whistoewer shall be deemed walved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidential or consequential duringes, including, without limitation, business interruptions, loss of use, or loss of profits incidential by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This reproduced except in full with written approval of Cardinal Jaboratories.

Celeg Di Kune

Celey D. Keene, Lab Director/Quality Manager



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

Received:	03/29/2012	Sampling Date:	03/29/2012
Reported:	04/02/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL BATTERY #1 REMEDIA	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO., NM		

## Sample ID: SAMPLE #3 (H200753-03)

TPH 8015M	mg/l	<g< th=""><th>Analyze</th><th>d By: MS/</th><th></th><th></th><th></th><th></th><th></th></g<>	Analyze	d By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	03/30/2012	ND	183	91.7	200	6.89	
DRO >C10-C28	201	10.0	03/30/2012	ND	178	88.8	200	8.58	
EXT DRO >C28-C35	64.3	10.0	03/30/2012	ND					
Surrogate: 1-Chlorooctane	114%	55.5-15	4						
Surrogate: 1-Chlorooctadecane	96.4 %	6 57.6-15	8						

### Sample ID: SAMPLE #4 (H200753-04)

TPH 8015M	mg/l	kg	Analyze	d By: MS/					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	61.8	10.0	03/30/2012	ND	183	91.7	200	6.89	
DRO >C10-C28	460	10.0	03/30/2012	ND	178	88.8	200	8.58	
EXT DRO >C28-C35	37.5	10.0	03/30/2012	ND					
Surrogate: 1-Chlorooctane	118 %	6 55.5-15	4						
Surrogate: 1-Chlorooctadecane	110%	6 57.6-15	8						

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#### \*=Accredited Analyte

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



### **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 SM4500CI-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

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Celeg Di Kune

Celey D. Keene, Lab Director/Quality Manager



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name	<sup>21</sup> Easin Environmental Service 1	'ech	noi	.ogies, 1	LLC	C BILL TO ANALYSIS REQUEST														
Project Manager: Ben J. Arguijo				P.O.	. #:			]					200000000000							
Address: P.O. Box 301				Соп	ipany: B	OPCO, LP			1											
Cily: Lovingt	or: State: NM	<b>Z</b> ip:	: .85	260		Attn	: Tony	Savoie												
Phone #: (575						Add	ress: 522	2 w. Her	Tad											1
Project#:	Project Owner	: EO	PCO	, LP		City	: Carlsb	ad												
	ASS 3 FEDERAL #1 Bottery Remediat	·on	+ İ	Zetiof +		Stat	e: NM	Zip: 3822	0											
	n: EDDY NM							2)556-87												
	Jody uklters					Fax #:														
FOR LABUSE CHLY			Π	MA	TRIX	F	RESERV	SAMPL	ING	1										
Lab I.D. H2 <u>(0</u> 7153	Sample I.D.	(G)RAB OR (C)OMF	# CONTAINERS	GROUNDWATER WASTEWATER Soil		OTHER-	ACIU/HASE: ICE / COOL OTHER	DATE	TIME	BOISM										
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Delivered By: (Circle One)		Sample Condition CHECKED BY:	& TAsavoieWEassPet.com
Sampler - UPS - Bus - Other:			

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



April 20, 2012

BEN J. ARGUIJO Basin Environmental Service P.O. Box 301 Lovington, NM 88260

RE: BASS 3 FEDERAL BATTERY #1

Enclosed are the results of analyses for samples received by the laboratory on 04/18/12 8:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. 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,

Celeg D. Keine

Celey D. Keene Lab Director/Quality Manager



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

Received:	04/18/2012	Sampling Date:	04/17/2012
Reported:	04/20/2012	Sampling Type:	Soil
Project Name:	BASS 3 FEDERAL BATTERY #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY CO. NM		

### Sample ID: SAMPLE #1 (H200891-01)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	656	16.0	04/19/2012	ND	432	108	400	0.00	

## Sample ID: SAMPLE #2 (H200891-02)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	04/19/2012	ND	432	108	400	0.00	

### Sample ID: SAMPLE #3 (H200891-03)

Chloride, SM4500Cl-B	SM4500Cl-B mg/kg								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	rpd	Qualifier
Chloride	576	16.0	04/19/2012	ND	432	108	400	0.00	

### Sample ID: SAMPLE #4 (H200891-04)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	04/19/2012	ND	432	108	400	0.00	

#### **Cardinal Laboratories**

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Celeg Z: Keine

Celey D. Keene, Lab Director/Quality Manager



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

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## Sample ID: SAMPLE #5 (H200891-05)

Chloride, SM4500CI-B	mg,	/kg	Analyze	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	288	16.0	04/19/2012	ND	432	108	400	0.00		

### **Cardinal Laboratories**

### \*=Accredited Analyte

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Celey Di Keine

Celey D. Keene, Lab Director/Quality Manager



### **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 SM4500CI-B does not require samples be received at or below $6^{\circ}C$
	Samples reported on an as received basis (wet) unless otherwise noted on report

#### **Cardinal Laboratories**

#### \*=Accredited Analyte

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Celeg Di Kune

Celey D. Keene, Lab Director/Quality Manager

Page 4 of 5



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

	<sup>1</sup> Basin Environmental Service		nno)	ocies. LLC	T	BI	LL TO			1768-17-4800-14	t in the second second second second second second second second second second second second second second seco	 ANAL	YSIS	S RE	QUE	ST		
Project Manage	<sup>f:</sup> Ben J. Arguirjo				P.(	D. #:	*****		Ĩ				CTAR & THE RANGE	anto antaiso				
Address: P.O.					Co	mpany: 5	OPCO, LP		1							ĺ		
City: Lovingto	on State: MM	Zip	. g	8260	1	n: Tony			1									
Phone #: (575)		manual constraints	**********			dress: 522		sod										
Project #:	Project Owner		)PCC	), LP	Cit	y: Carlsb	ad											
Project Name:	BASS 3 FEDERAL Battery #1				Sta	ite: NN	Zip: 3822	)	-							l		
•	1: EDDY, NM.	******	Accimites and a		Ph	one #: (43:	2]556-87	30	1									
	Jody Walters				Fa	x.#:			1									
FOR LAB USE ONLY			Τ	MATRIX		PRESERV.	SAMPLI	NG	] .									
Lab I.D. H200897/	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER WASTEWATER SOIL OIL SLUDGE	OTHER:	ACID/BASE: ICE / COOL OTHER :	DATE	TIME	Chloride									
	SAMPLE AI	<u>G</u>	L	<u> </u>		X	4-17-12		X									
2	Sample #2	C		X :	<u> </u>	<u>y</u>	4-17-12		X			 					 	
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