

## Bratcher, Mike, EMNRD

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**From:** Ben J. Arguijo <bjarguijo@basinenv.com>  
**Sent:** Thursday, August 09, 2012 10:11 AM  
**To:** Bratcher, Mike, EMNRD  
**Subject:** RE: PLU 78 SWD - Corrected Data Table  
**Attachments:** PLU 78 SWD\_Soil Chemistry Table.pdf

Mike,

Third time's the charm. Please ignore the file I sent you yesterday.

Please keep in mind that this is a work-in-progress and (most likely) not the version of the table that will be included in the closure request.

Thanks.

Ben

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**From:** Ben J. Arguijo [<mailto:bjarguijo@basinenv.com>]  
**Sent:** Wednesday, August 08, 2012 6:53 PM  
**To:** 'Savoie, Tony A.'; 'Bratcher, Mike, EMNRD'  
**Subject:** PLU 78 SWD - Corrected Data Table

Mike/Tony,

Per our meeting this morning, attached please find a corrected version of the analytical data table for the Poker Lake Unit #78 SWD site. The table includes the following changes:

- For the sake of clarity, soil samples *East PA* (collected 7/26/12) and *SB #2 Surface/EP. A 8'* (collected 8/3/12) have been renamed to *East Pooling Area* and *SB #2 Surface/East Pooling Area 8'*, respectively.
- The "Soil Status" for soil samples *East Pooling Area* (see above), *Manifold Floor 6'*, and *Manifold Floor 8'* (the latter 2 having been collected on 7/31/12) have been changed to "Excavated".
- The depths listed in the "Sample Depth (BGS)" column for soil borings SB-1 through SB-4 now reflect that the boreholes were drilled in the floor of the excavation. The depths for the samples from SB-5 were not changed, as the boring was drilled on the surface of the pad.

If you have any questions or problems, please let me know.

Thank you.

Ben

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TABLE 1

## CONCENTRATIONS OF BENZENE, BTEX, TPH &amp; CHLORIDE IN SOIL

BOPCO, LP  
 POKER LAKE UNIT #78 SWD  
 EDDY COUNTY, NEW MEXICO  
 NMOCD REFERENCE NO: 2RP-1190

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TOTAL	E 300
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	ORO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)	TPH C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	CHLORIDE (mg/Kg)
Sample #1 @ 1'	1'	5/31/2012	In-Situ	-	-	-	-	-	2,800	10,600	1,370	14,770	11,600
Sample #1 @ 5'	5'	5/31/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	336
Sample #2 @ 1'	1'	5/31/2012	In-Situ	-	-	-	-	-	<10.0	29.3	14.1	43.4	2,720
Sample #2 @ 5'	5'	5/31/2012	In-Situ	-	-	-	-	-	<10.0	13.5	26.4	39.9	160
Sample #3 @ 1'	1'	5/31/2012	In-Situ	-	-	-	-	-	<10.0	73.8	22.6	96.4	11,900
Sample #3 @ 5'	5'	5/31/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	5,600
Sample #3 @ 10'	10'	5/31/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	2,480
Sample #4 @ 1'	1'	5/31/2012	In-Situ	-	-	-	-	-	<10.0	327	85.7	413	30,000
Sample #4 @ 5'	5'	5/31/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	320
Sample #1	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	13	18.7	31.7	400
Sample #2	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	192
Sample #3	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	256
Sample #4	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	144
Sample #5	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	656
Sample #6	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	544
Sample #7	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	384
Sample #8	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	144
Sample #9	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	608
Sample #10	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	416
Sample #11	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	288
Sample #13	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	432
Sample #14	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	304
Sample #15	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	656
Sample #16	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	528
Sample #17	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	48.0
Sample #18	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	176
Sample #19	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	160
Sample #20	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
Sample #21	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	16.5	<10.0	16.5	128
Sample #22	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
Sample #23	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
Sample #24	4'	7/26/2012	In-Situ	-	-	-	-	-	28.3	82.1	<10.0	110	<16.0
Sample #25	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	592
Sample #26	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	8,660
Sample #29	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	21.1	<10.0	21.1	256
Sample #30	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	22.5	<10.0	22.5	1,680
Sample #31	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	11.9	<10.0	11.9	160
Sample #32	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	9,330
Sample #33	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	96.0
Sample #34	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	80.0
Sample #35	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	128

TABLE 1

## CONCENTRATIONS OF BENZENE, BTEX, TPH &amp; CHLORIDE IN SOIL

BOPCO, LP  
 POKER LAKE UNIT #78 SWD  
 EDDY COUNTY, NEW MEXICO  
 NMOCD REFERENCE NO: 2RP-1190

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TOTAL TPH C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	E 300 CHLORIDE (mg/Kg)
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	ORO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)		
Sample #36	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	80.0
Sample #37	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	50,400
Sample #38	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	58,400
Sample #39	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	448
East Pooling Area	4'	7/26/2012	Excavated	-	-	-	-	-	1,220	5,740	805	7,765	48.0
Manifold Floor 6'	6'	7/31/2012	Excavated	-	-	-	-	-	4,720	13,800	2,050	20,570	176
Manifold Floor 8'	8'	7/31/2012	Excavated	-	-	-	-	-	15,500	28,100	4,440	48,040	176
SB-1 @ 5' *	10'	8/1/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	256
SB-1 @ 10' *	15'	8/1/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	10.5	<10.0	10.5	1,300
SB-1 @ 15' *	20'	8/1/2012	In-Situ	-	-	-	-	-	-	-	-	-	48.0
SB-1 @ 20' *	25'	8/1/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	32.0
SB-2 @ 5' *	10'	8/1/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	864
SB-2 @ 10' *	15'	8/1/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	2,200
SB-2 @ 15' *	20'	8/1/2012	In-Situ	-	-	-	-	-	-	-	-	-	3,560
SB-2 @ 20' *	25'	8/1/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	1,040
SB-3 @ 5' *	10'	8/1/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	1,060
SB-3 @ 10' *	15'	8/1/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	1,470
SB-3 @ 15' *	20'	8/1/2012	In-Situ	-	-	-	-	-	-	-	-	-	1,250
SB-3 @ 20' *	25'	8/1/2012	In-Situ	-	-	-	-	-	-	-	-	-	576
SB-3 @ 25' *	30'	8/1/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	189	407	596	128
SB-4 @ 5' *	10'	8/1/2012	In-Situ	-	-	-	-	-	<10.0	32.8	86.3	119	1,360
SB-4 @ 10' *	15'	8/1/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	11.1	23.9	35.0	384
SB-4 @ 15' *	20'	8/1/2012	In-Situ	-	-	-	-	-	-	-	-	-	240
SB-4 @ 20' *	25'	8/1/2012	In-Situ	-	-	-	-	-	-	-	-	-	240
SB-4 @ 25' *	30'	8/1/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	10.3	10.3	112
SB-5 @ 5'	5'	8/1/2012	In-Situ	-	-	-	-	-	<10.0	19.4	18.1	37.5	1,340
SB-5 @ 10'	10'	8/1/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	2,520
SB-5 @ 15'	15'	8/1/2012	In-Situ	-	-	-	-	-	-	-	-	-	1,630
SB-5 @ 20'	20'	8/1/2012	In-Situ	-	-	-	-	-	-	-	-	-	208
SB-5 @ 25'	25'	8/1/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	176
Sample #12	4'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	7,280
Sample #40	4'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	480
Sample #41	4'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	688
Sample #42	4'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	1,220
Sample #43	4'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	944

TABLE 1

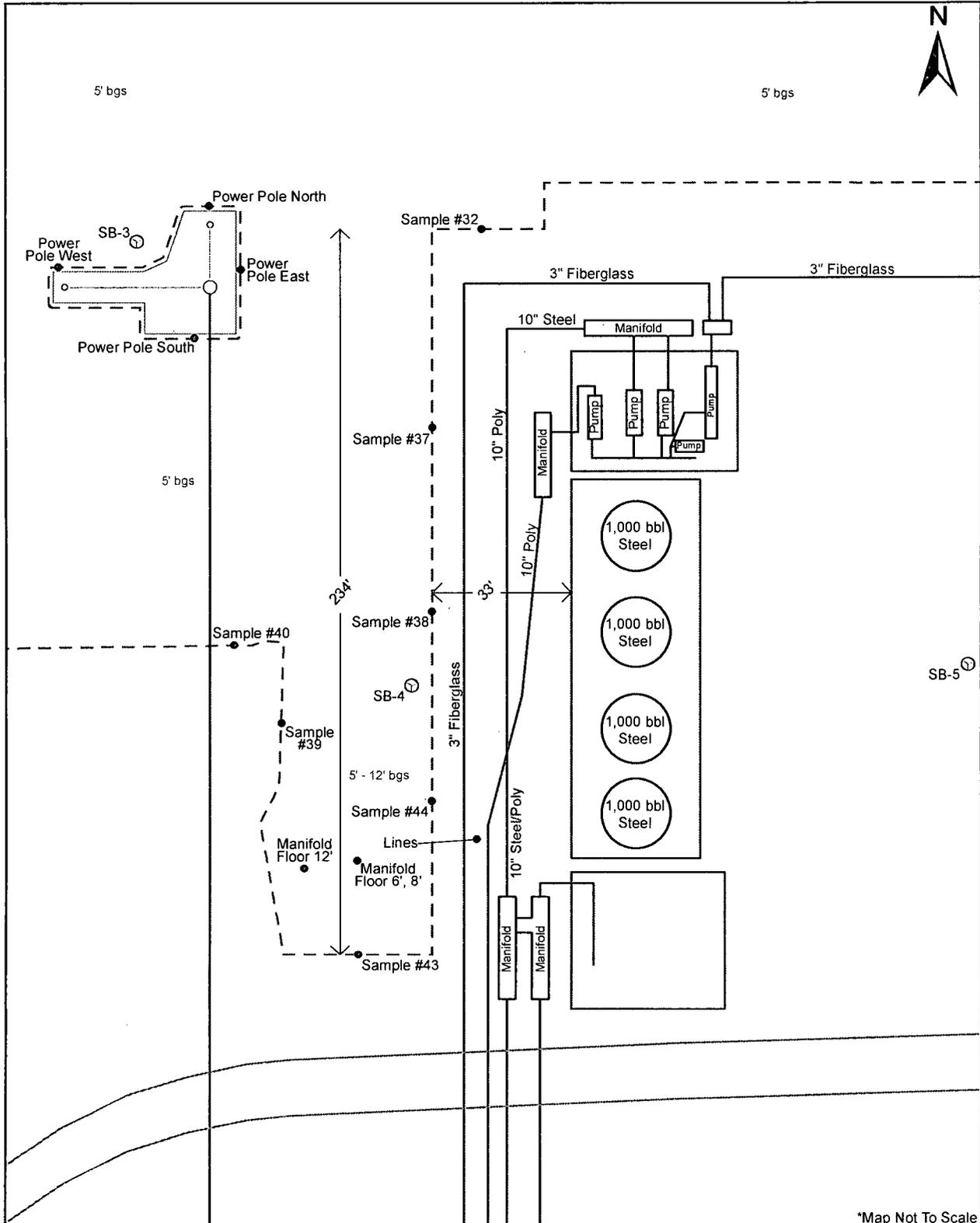
## CONCENTRATIONS OF BENZENE, BTEX, TPH &amp; CHLORIDE IN SOIL

BOPCO, LP  
 POKER LAKE UNIT #78 SWD  
 EDDY COUNTY, NEW MEXICO  
 NMOCD REFERENCE NO: 2RP-1190

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TOTAL TPH C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	E 300 CHLORIDE (mg/Kg)
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	ORO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)		
Sample #44	4'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	25,200
Manifold Floor 12'	12'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	429	98.5	528	96.0
SB #1 Surface **	5'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	703	176	879	36,000
SB #2 Surface/East Pooling Area 8' **	8'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	337	126	463	1,560
SB #3 Surface **	5'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	153	82.7	236	61,600
SB #4 Surface **	5'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	1,310	320	1,630	20,000
Power Pole North	4'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	15.2	42.7	57.9	40,000
Power Pole South	4'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	18.2	18.2	37,600
Power Pole East	4'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	10.0	10.0	48,000
Power Pole West	4'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	43,200
Lines	0.5'	8/3/2012	In-Situ	-	-	-	-	-	52.4	14,900	3,980	18,880	10,100
<b>NMOCD Regulatory Standard</b>				<b>10</b>				<b>50</b>				<b>5,000</b>	<b>1,000</b>

## Notes:

- Not analyzed.
- \* Indicates drilling depth. Soil borings were advanced in the floor of the excavation, approximately five feet (5') below ground surface (bgs).
- \*\* Due to the presence of a layer of pad sand in the floor of the excavation on the drilling date (August 1, 2012), soil samples could not be collected from the drilling surface (i.e., the floor of the excavation). On August 3, 2012, heavy equipment was utilized to remove the layer of pad sand in order to collect a sample of native, in-situ soil from the floor of the excavation.



**Legend:**

--- Excavation Extent	● Sample Location
— Pipeline	⊕ Soil Boring
— Road	
— Steel Berm	
— Soil Island	
— Power Line	
--- Guy-Wire	

**Figure 2**  
**Site & Sample Location Map**  
**BOPCO, LP**  
**Poker Lake Unit #78 SWD**  
**Eddy County, New Mexico**  
**NMOCD Ref.#: 2RP-1190**

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

Drawn By: BJA	Checked By: BRB
August 7, 2012	

## Bratcher, Mike, EMNRD

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**From:** Ben J. Arguijo <bjarguijo@basinenv.com>  
**Sent:** Thursday, August 16, 2012 2:47 PM  
**To:** Bratcher, Mike, EMNRD  
**Cc:** 'Savoie, Tony A.'  
**Subject:** PLU #78 SWD - Grid sampling  
**Attachments:** PLU 78 SWD\_Grid Field Test Results.pdf; PLU 78 SWD\_Grid Map\_HandDrawn.pdf; PLU 78 SWD\_Soil Chemistry Table.pdf

Mr. Bratcher,

Per our meeting on 8/8/2012, attached please find a spreadsheet listing chloride field-test results from the grid sampling event that we (Basin Environmental) conducted at the Poker Lake Unit #78 SWD release site earlier this week. I have attached a field sketch showing the locations of the delineation trenches and the soil borings that were drilled on 8/1/2012.

As you will see from the sketch, the excavation (excluding the area directly to the northeast of the tank battery, which, per our discussion, was outside the area of interest) was divided into eight (8) grids, with a minimum of two (2) delineation trenches per grid. In areas where only two (2) delineation trenches were excavated, representative soil samples had previously been collected from soil borings during the 8/1/2012 drilling event. The brown areas on the map indicate soil islands that are either clean or have been remediated to the extent practicable.

The delineation trenches were advanced in the floor of the excavation at approximately 5' bgs and along approximately 50' north-to-south horizontal intervals. East-to-west horizontal intervals and the orientation/number of trenches varied from grid to grid and were determined by previous field-screen results, flow path direction, and/or other factors.

The delineation trenches measured approximately 20' x 6', on average, and were advanced to a minimum of 10' bgs (with a maximum depth of 25' bgs in Grid 6 – Trench 3). Composite soil samples were initially collected from the floors of the trenches at both 7' and 10' bgs and field-screened. The delineation trenches were then advanced incrementally to 12', 15', 20', and 25' bgs until field-screens indicated chloride concentrations were at or below the NMOCD-approved level of 3,500 – 5,000 mg/Kg.

Twenty-two (22) of the composite soil samples were submitted to Xenco Laboratories (Hobbs) for confirmation chloride analyses. These samples are indicated with an "\*" in the attached field test data table.

Tony Savoie and I would like to speak with you to determine the next course of action for this site. When would be a good time for a conference call?

I have also attached an updated soil chemistry analytical data table for your convenience.

Thank you for your consideration.

Ben J. Arguijo

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## Bratcher, Mike, EMNRD

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**From:** Bratcher, Mike, EMNRD  
**Sent:** Thursday, August 16, 2012 4:49 PM  
**To:** 'bjarguijo@basinenv.com'  
**Cc:** 'Savoie, Tony A.'  
**Subject:** RE: PLU #78 SWD - Grid sampling

Ben,

I will be out of the office until Tuesday (8/21). If you would, touch base with me then and we can set something up. I will need to review the project some before discussing.

Thanks,

Mike Bratcher  
NMOCD District 2  
811 S. First Street  
Artesia, NM 88210  
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C: 575-626-0857  
F: 575-748-9720

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**From:** Ben J. Arguijo [<mailto:bjarguijo@basinenv.com>]  
**Sent:** Thursday, August 16, 2012 2:47 PM  
**To:** Bratcher, Mike, EMNRD  
**Cc:** 'Savoie, Tony A.'  
**Subject:** PLU #78 SWD - Grid sampling

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As you will see from the sketch, the excavation (excluding the area directly to the northeast of the tank battery, which, per our discussion, was outside the area of interest) was divided into eight (8) grids, with a minimum of two (2) delineation trenches per grid. In areas where only two (2) delineation trenches were excavated, representative soil samples had previously been collected from soil borings during the 8/1/2012 drilling event. The brown areas on the map indicate soil islands that are either clean or have been remediated to the extent practicable.

The delineation trenches were advanced in the floor of the excavation at approximately 5' bgs and along approximately 50' north-to-south horizontal intervals. East-to-west horizontal intervals and the orientation/number of trenches varied from grid to grid and were determined by previous field-screen results, flow path direction, and/or other factors.

The delineation trenches measured approximately 20' x 6', on average, and were advanced to a minimum of 10' bgs (with a maximum depth of 25' bgs in Grid 6 – Trench 3). Composite soil samples were initially collected from the floors of the trenches at both 7' and 10' bgs and field-screened. The delineation trenches were then advanced incrementally to

12', 15', 20', and 25' bgs until field-screens indicated chloride concentrations were at or below the NMOCD-approved level of 3,500 – 5,000 mg/Kg.

Twenty-two (22) of the composite soil samples were submitted to Xenco Laboratories (Hobbs) for confirmation chloride analyses. These samples are indicated with an "\*" in the attached field test data table.

Tony Savoie and I would like to speak with you to determine the next course of action for this site. When would be a good time for a conference call?

I have also attached an updated soil chemistry analytical data table for your convenience.

Thank you for your consideration.

Ben J. Arguijo

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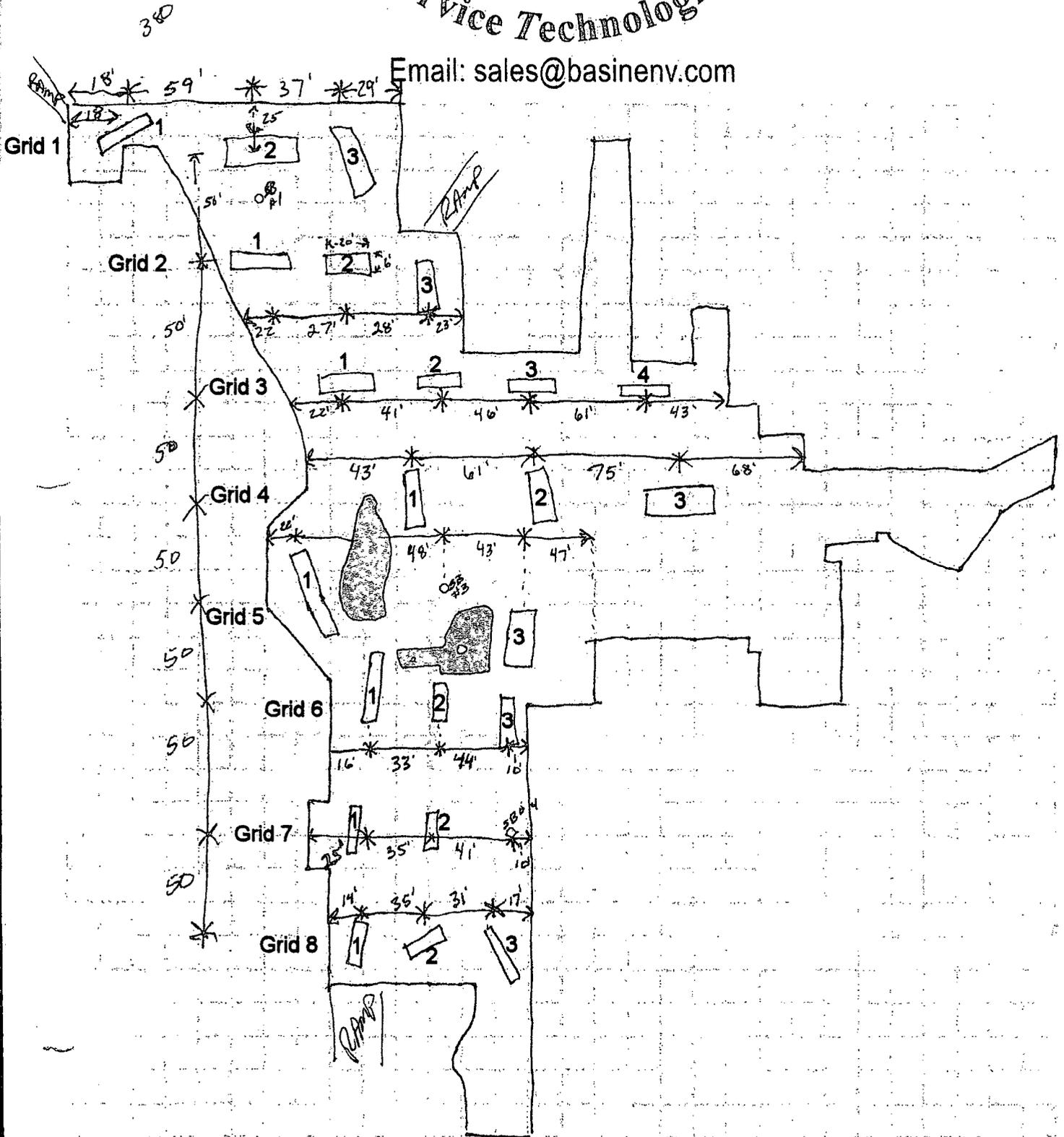


TABLE 1

## CONCENTRATIONS OF BENZENE, BTEX, TPH &amp; CHLORIDE IN SOIL

BOPCO, LP  
 POKER LAKE UNIT #78 SWD  
 EDDY COUNTY, NEW MEXICO  
 NMOCD REFERENCE NO: 2RP-1190

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TOTAL TPH C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	E 300 CHLORIDE (mg/Kg)
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	ORO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)		
Sample #1 @ 1'	1'	5/31/2012	In-Situ	-	-	-	-	-	2,800	10,600	1,370	14,770	11,600
Sample #1 @ 5'	5'	5/31/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	336
Sample #2 @ 1'	1'	5/31/2012	In-Situ	-	-	-	-	-	<10.0	29.3	14.1	43.4	2,720
Sample #2 @ 5'	5'	5/31/2012	In-Situ	-	-	-	-	-	<10.0	13.5	26.4	39.9	160
Sample #3 @ 1'	1'	5/31/2012	In-Situ	-	-	-	-	-	<10.0	73.8	22.6	96.4	11,900
Sample #3 @ 5'	5'	5/31/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	5,600
Sample #3 @ 10'	10'	5/31/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	2,480
Sample #4 @ 1'	1'	5/31/2012	In-Situ	-	-	-	-	-	<10.0	327	85.7	413	30,000
Sample #4 @ 5'	5'	5/31/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	320
Sample #1	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	13	18.7	31.7	400
Sample #2	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	192
Sample #3	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	256
Sample #4	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	144
Sample #5	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	656
Sample #6	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	544
Sample #7	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	384
Sample #8	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	144
Sample #9	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	608
Sample #10	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	416
Sample #11	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	288
Sample #13	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	432
Sample #14	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	304
Sample #15	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	656
Sample #16	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	528
Sample #17	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	48.0
Sample #18	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	176
Sample #19	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	160
Sample #20	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
Sample #21	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	16.5	<10.0	16.5	128
Sample #22	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
Sample #23	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	<16.0
Sample #24	4'	7/26/2012	In-Situ	-	-	-	-	-	28.3	82.1	<10.0	110	<16.0
Sample #25	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	592
Sample #26	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	8,660
Sample #29	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	21.1	<10.0	21.1	256
Sample #30	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	22.5	<10.0	22.5	1,680
Sample #31	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	11.9	<10.0	11.9	160
Sample #32	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	9,330
Sample #33	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	96.0
Sample #34	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	80.0
Sample #35	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	128

TABLE 1

## CONCENTRATIONS OF BENZENE, BTEX, TPH &amp; CHLORIDE IN SOIL

BOPCO, LP  
 POKER LAKE UNIT #78 SWD  
 EDDY COUNTY, NEW MEXICO  
 NMOCD REFERENCE NO: 2RP-1190

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TOTAL TPH	E 300
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	ORO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)	C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	CHLORIDE (mg/Kg)
Sample #36	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	80.0
Sample #37	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	50,400
Sample #38	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	58,400
Sample #39	4'	7/26/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	448
East Pooling Area	4'	7/26/2012	Excavated	-	-	-	-	-	1,220	5,740	805	7,765	48.0
Manifold Floor 6'	6'	7/31/2012	Excavated	-	-	-	-	-	4,720	13,800	2,050	20,570	176
Manifold Floor 8'	8'	7/31/2012	Excavated	-	-	-	-	-	15,500	28,100	4,440	48,040	176
SB-1 @ 5' *	10'	8/1/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	256
SB-1 @ 10' *	15'	8/1/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	10.5	<10.0	10.5	1,300
SB-1 @ 15' *	20'	8/1/2012	In-Situ	-	-	-	-	-	-	-	-	-	48.0
SB-1 @ 20' *	25'	8/1/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	32.0
SB-2 @ 5' *	10'	8/1/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	864
SB-2 @ 10' *	15'	8/1/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	2,200
SB-2 @ 15' *	20'	8/1/2012	In-Situ	-	-	-	-	-	-	-	-	-	3,560
SB-2 @ 20' *	25'	8/1/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	1,040
SB-3 @ 5' *	10'	8/1/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	1,060
SB-3 @ 10' *	15'	8/1/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	1,470
SB-3 @ 15' *	20'	8/1/2012	In-Situ	-	-	-	-	-	-	-	-	-	1,250
SB-3 @ 20' *	25'	8/1/2012	In-Situ	-	-	-	-	-	-	-	-	-	576
SB-3 @ 25' *	30'	8/1/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	189	407	596	128
SB-4 @ 5' *	10'	8/1/2012	In-Situ	-	-	-	-	-	<10.0	32.8	86.3	119	1,360
SB-4 @ 10' *	15'	8/1/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	11.1	23.9	35.0	384
SB-4 @ 15' *	20'	8/1/2012	In-Situ	-	-	-	-	-	-	-	-	-	240
SB-4 @ 20' *	25'	8/1/2012	In-Situ	-	-	-	-	-	-	-	-	-	240
SB-4 @ 25' *	30'	8/1/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	10.3	10.3	112
SB-5 @ 5'	5'	8/1/2012	In-Situ	-	-	-	-	-	<10.0	19.4	18.1	37.5	1,340
SB-5 @ 10'	10'	8/1/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	2,520
SB-5 @ 15'	15'	8/1/2012	In-Situ	-	-	-	-	-	-	-	-	-	1,630
SB-5 @ 20'	20'	8/1/2012	In-Situ	-	-	-	-	-	-	-	-	-	208
SB-5 @ 25'	25'	8/1/2012	In-Situ	<0.050	<0.050	<0.050	<0.150	<0.150	<10.0	<10.0	<10.0	<10.0	176
Sample #12	4'	8/3/2012	Excavated	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	7,280
Sample #40	4'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	480
Sample #41	4'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	688
Sample #42	4'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	1,220
Sample #43	4'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	944

TABLE 1

## CONCENTRATIONS OF BENZENE, BTEX, TPH &amp; CHLORIDE IN SOIL

BOPCO, LP  
 POKER LAKE UNIT #78 SWD  
 EDDY COUNTY, NEW MEXICO  
 NMOCD REFERENCE NO: 2RP-1190

SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M			TOTAL	E 300
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C <sub>6</sub> -C <sub>12</sub> (mg/Kg)	DRO C <sub>12</sub> -C <sub>28</sub> (mg/Kg)	ORO C <sub>28</sub> -C <sub>35</sub> (mg/Kg)	TPH C <sub>6</sub> -C <sub>35</sub> (mg/Kg)	CHLORIDE (mg/Kg)
Sample #44	4'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	25,200
Manifold Floor 12'	12'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	429	98.5	528	96.0
SB #1 Surface **	5'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	703	176	879	36,000
SB #2 Surface/East Pooling Area 8' **	8'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	337	126	463	1,560
SB #3 Surface **	5'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	153	82.7	236	61,600
SB #4 Surface **	5'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	1,310	320	1,630	20,000
Power Pole North	4'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	15.2	42.7	57.9	40,000
Power Pole South	4'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	18.2	18.2	37,600
Power Pole East	4'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	10.0	10.0	48,000
Power Pole West	4'	8/3/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	43,200
Lines	0.5'	8/3/2012	In-Situ	-	-	-	-	-	52.4	14,900	3,980	18,880	10,100
Sample #12A	4"	8/8/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	32.0
Sample #27	4"	8/8/2012	In-Situ	-	-	-	-	-	<10.0	1,010	206	1,216	8,130
Sample #28	4"	8/8/2012	In-Situ	-	-	-	-	-	<10.0	493	143	636	22,000
Sample #44	4"	8/8/2012	In-Situ	-	-	-	-	-	<10.0	<10.0	<10.0	<10.0	288
Sample #45	4"	8/8/2012	In-Situ	-	-	-	-	-	<10.0	13.1	26.6	39.7	48.0
Sample #46	4"	8/8/2012	In-Situ	-	-	-	-	-	<10.0	43.1	12.6	55.7	320
<b>NMOCD Regulatory Standard</b>				<b>10</b>				<b>50</b>				<b>5,000</b>	<b>1,000</b>

## Notes:

- Not analyzed.

\* - Indicates drilling depth. Soil borings were advanced in the floor of the excavation, approximately five feet (5') below ground surface (bgs).

\*\* Due to the presence of a layer of pad sand in the floor of the excavation on the drilling date (August 1, 2012), soil samples could not be collected from the drilling surface (i.e., the floor of the excavation). On August 3, 2012, heavy equipment was utilized to remove the layer of pad sand in order to collect a sample of native, in-situ soil from the floor of the excavation.

Field data using  
chloride strips

Table 2

FIELD TEST RESULTS

BOPCO, LP  
POKER LAKE UNIT #78 SWD  
EDDY COUNTY, NEW MEXICO  
NMCD REFERENCE NO: 2RP-1190

SAMPLE LOCATION	SAMPLE DEPTH** (Below Ground Surface)	SAMPLE DATE	Field Test
			CHLORIDE (mg/Kg)
Grid 1 - Trench 1	7'	8/13/2012	8,540
"	10'	8/13/2012	1,876
Grid 1 - Trench 2	7'	8/13/2012	18,060*
"	10'	8/13/2012	14,720
"	12'	8/13/2012	10,152*
"	15'	8/13/2012	248*
Grid 1 - Trench 3	7'	8/13/2012	11,096
"	10'	8/13/2012	6,656
"	12'	8/13/2012	1,372
Grid 2 - Trench 1	7'	8/13/2012	16,272
"	10'	8/13/2012	11,096
"	12'	8/13/2012	8,540
"	15'	8/13/2012	352
Grid 2 - Trench 2	7'	8/13/2012	14,720
"	10'	8/13/2012	14,720*
"	12'	8/13/2012	9,304*
"	15'	8/13/2012	472*
Grid 2 - Trench 3	7'	8/13/2012	13,360
"	10'	8/13/2012	12,160
"	12'	8/13/2012	3,780
"	15'	8/13/2012	188
Grid 3 - Trench 1	7'	8/13/2012	>25,444
"	10'	8/13/2012	8,540
"	12'	8/13/2012	112
Grid 3 - Trench 2	7'	8/13/2012	22,568*
"	10'	8/13/2012	14,720*
"	12'	8/13/2012	1,532*
Grid 3 - Trench 3	7'	8/13/2012	4,100
"	10'	8/13/2012	3,204
Grid 3 - Trench 4	7'	8/13/2012	13,360
"	10'	8/13/2012	6,656
"	12'	8/13/2012	1,532
Grid 4 - Trench 1	7'	8/13/2012	20,136
"	10'	8/13/2012	8,540
"	12'	8/13/2012	6,656
"	15'	8/13/2012	188
Grid 4 - Trench 2	7'	8/13/2012	>25,444*
"	10'	8/13/2012	11,096*
"	12'	8/13/2012	3,484*
Grid 4 - Trench 3	7'	8/13/2012	3,780
"	10'	8/13/2012	1,044

Table 2

## FIELD TEST RESULTS

BOPCO, LP  
 POKER LAKE UNIT #78 SWD  
 EDDY COUNTY, NEW MEXICO  
 NMOC D REFERENCE NO: 2RP-1190

SAMPLE LOCATION	SAMPLE DEPTH** (Below Ground Surface)	SAMPLE DATE	Field Test
			CHLORIDE (mg/Kg)
Grid 5 - Trench 1	7'	8/15/2012	>25,444
"	10'	8/15/2012	10,152
"	12'	8/15/2012	8,948
"	15'	8/15/2012	3,484
Grid 5 - Trench 2 <sup>a</sup>	N/A	N/A	N/A
Grid 5 - Trench 3	7'	8/15/2012	>25,444
"	10'	8/15/2012	14,720*
"	12'	8/15/2012	93.04
"	15'	8/15/2012	1,220*
Grid 6 - Trench 1	7'	8/15/2012	11,096
"	10'	8/15/2012	4,816
Grid 6 - Trench 2	7'	8/15/2012	18,060
"	10'	8/15/2012	8,948
"	12'	8/15/2012	5,220
"	15'	8/15/2012	2,948
Grid 6 - Trench 3	7'	8/15/2012	>25,444
"	10'	8/15/2012	14,428*
"	12'	8/15/2012	6,656
"	15'	8/15/2012	5,220*
"	20'	8/15/2012	3,780*
"	25'	8/15/2012	3,484
Grid 7 - Trench 1	7'	8/15/2012	6,656
"	10'	8/15/2012	4,816
Grid 7 - Trench 2	7'	8/16/2012	5,220*
"	10'	8/16/2012	3,484*
Grid 7 - Trench 3 <sup>b</sup>	N/A	N/A	N/A
Grid 8 - Trench 1	7'	8/16/2012	2,476
"	10'	8/16/2012	1,220
Grid 8 - Trench 2	7'	8/16/2012	20,136*
"	10'	8/16/2012	7,852
"	12'	8/16/2012	7,852*
"	15'	8/16/2012	612*
Grid 8 - Trench 3	7'	8/16/2012	11,096
"	10'	8/16/2012	7,852
"	12'	8/16/2012	6,656
"	15'	8/16/2012	5,220
"	20'	8/16/2012	776

## Notes:

\* Submitted for laboratory analysis of chloride concentrations.

\*\* Delineation trenches were advanced in the floor of the excavation, approximately five feet (5') below ground surface (bgs).

<sup>a</sup> Soil boring SB-3 is representative of soil in this area. Trench was not excavated.

<sup>b</sup> Soil boring SB-4 is representative of soil in this area. Trench was not excavated.