AP - 37

STAGE 1 & 2 WORKPLANS

DATE:

4/3/2006

Martin, Ed, EMNRD

From: Iain Olness [iolness@envplus.net]
Sent: Monday, April 03, 2006 9:22 AM
To: Martin, Ed, EMNRD
Cc: Camille Reynolds (Plains); Jeff Dann (Plains)
Subject: FW: Plains Pipeline Lovington Deep 6" (Ref. # 2002-10312)
Attachments: FIELD SCREENING PROCEDURE.pdf; Stockpile Samples.pdf; Stockpile Sample Map.pdf

Dear Mr. Martin:

Per the requirements in the *Stage 1 and Stage 2 Abatement Plan-Revision #1 – Lovington Deep 6"*, the soil stockpiled on site was spread out in a 5.5 foot lift and sampled. To collect samples from each 1,000 cubic yards, the soil was divided into three sections and five test trenches were excavated in each section. Soil samples were collected at 1, 2, 3, 4 and 5 feet in each test trench and analyzed in the field utilizing the polyethylene bag headspace method (description attached) and a photoionozation detector equipped with a 10.2 electron volt (eV) lamp.

Field analyses of the soil samples indicated organic vapor concentrations ranged from 0.0 to 36.7 parts per million (ppm). As all samples were below the 100 pm threshold as stipulated in the *Stage 1 and Stage 2 Abatement Plan-Revision #1 – Lovington Deep 6"*, no samples were collected for submission to an independent laboratory for quantification of total petroleum hydrocarbons (TPH) or benzene, toluene, ethylbenzene and total xylenes (BTEX).

Mr. Darr Angell approved the use of a synthetic liner to be placed in the floor of the excavation on March 30, 2006. Prior to installing the liner, six inches of sand will be placed on the excavation floor to prevent the liner from rupturing. After installing the liner, six inches of sand will be placed on top of the liner to prevent the liner from rupturing. Upon your approval, EPI on behalf of Plains Pipeline will initiate backfilling activities at the site.

Should you have any questions or concerns, please feel free to contact me at (505) 394-3481 or via e-mail at iolness@envplus.net.

Sincerely,

ENVIRONMENTAL PLUS, INC.

Iain A. Olness, P.G.
Technical Manager

I. FIELD SCREENING PROCEDURE

Use the polyethylene bag headspace method described below to characterize soil contamination at release sites. The collapse of the polyethylene bag during analysis allows uniform flow of contaminant vapors into the field instrument, giving accurate readings.

1. Use photoionization detectors (PIDs) with a 10.2 eV (+/-) or greater lamp source, Perform PID instrument calibration on site and at least daily to yield "total organic vapors" in volume parts per million (ppm) of a benzene equivalent. Follow the manufacturer's instructions for operation, maintenance, and calibration of the instrument. Record calibration records on the Field Measurement/Observation Log.

2. Use a self-sealing quart-size polyethylene freezer bag. Half-fill the bag with sample (the volume ratio of soil to air is equal), then immediately seal it. Manually break up the soil clumps within the bag. Note: Immediately after collecting the sample, transfer soil to field screening bags. Collect soil samples from excavations or soil piles from freshly exposed surfaces.

3. Allow headspace development for at least 10 minutes at approximate room temperature. Vigorously shake bags for 15 seconds at the beginning and end of the headspace development period. Headspace development decreases with temperature. When temperatures are below the operating range of the instrument, perform headspace development and analysis in a heated vehicle or building. Record the ambient temperature during headspace screening. Complete headspace analysis within approximately 20 minutes of sample collection.

4. After headspace development, introduce the instrument sampling probe through a small opening in the bag to a point about one-half of the headspace depth. Keep the probe free of water droplets and soil particles.

5. Record the highest meter response on the Field Measurement/Observation Log. Maximum response usually occurs within about two seconds. Erratic meter response may occur if high organic vapor concentrations or moisture is present. Note any erratic headspace data in the sampling form. **DO NOT** collect analytical samples from the polyethylene bag.

TABLE 2

Summary of Stockpile Field Analyses

Lovington Deep 6-Inch - Ref #2002-10312

Sample Point	Sample Date	Sampling Interval (ft bgs)	PID Readings (ppm)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	TPH (as gasoline) (mg/Kg)	TPH (as diesel) (mg/Kg)	Total TPH (mg/Kg)
SP-1-1	28-Mar-06	1	1.5	--	--	--	--	--	--	--	--
		2	24.5	--	--	--	--	--	--	--	--
		3	18.9	--	--	--	--	--	--	--	--
		4	11.6	--	--	--	--	--	--	--	--
		5	0.9	--	--	--	--	--	--	--	--
SP-1-2	28-Mar-06	1	0.0	--	--	--	--	--	--	--	--
		2	0.0	--	--	--	--	--	--	--	--
		3	0.0	--	--	--	--	--	--	--	--
		4	1.4	--	--	--	--	--	--	--	--
		5	0.2	--	--	--	--	--	--	--	--
SP-1-3	28-Mar-06	1	15.3	--	--	--	--	--	--	--	--
		2	9.0	--	--	--	--	--	--	--	--
		3	6.4	--	--	--	--	--	--	--	--
		4	10.9	--	--	--	--	--	--	--	--
		5	1.3	--	--	--	--	--	--	--	--
SP-1-4	28-Mar-06	1	7.9	--	--	--	--	--	--	--	--
		2	0.9	--	--	--	--	--	--	--	--
		3	0.6	--	--	--	--	--	--	--	--
		4	0.5	--	--	--	--	--	--	--	--
		5	0.3	--	--	--	--	--	--	--	--
SP-1-5	28-Mar-06	1	14.3	--	--	--	--	--	--	--	--
		2	11.3	--	--	--	--	--	--	--	--
		3	4.0	--	--	--	--	--	--	--	--
		4	2.3	--	--	--	--	--	--	--	--
		5	0.8	--	--	--	--	--	--	--	--
SP-2-1	28-Mar-06	1	1.8	--	--	--	--	--	--	--	--
		2	0.8	--	--	--	--	--	--	--	--
		3	0.6	--	--	--	--	--	--	--	--
		4	0.5	--	--	--	--	--	--	--	--
		5	2.7	--	--	--	--	--	--	--	--
SP-2-2	28-Mar-06	1	33.8	--	--	--	--	--	--	--	--
		2	17.1	--	--	--	--	--	--	--	--
		3	2.7	--	--	--	--	--	--	--	--
		4	2.1	--	--	--	--	--	--	--	--
		5	0.8	--	--	--	--	--	--	--	--

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SP-2-3	28-Mar-06	1	13.2	--	--	--	--	--	--	--	--
		2	2.2	--	--	--	--	--	--	--	--
		3	1.5	--	--	--	--	--	--	--	--
		4	0.6	--	--	--	--	--	--	--	--
		5	0.4	--	--	--	--	--	--	--	--
SP-2-4	28-Mar-06	1	12.6	--	--	--	--	--	--	--	--
		2	12.4	--	--	--	--	--	--	--	--
		3	7.3	--	--	--	--	--	--	--	--
		4	13.5	--	--	--	--	--	--	--	--
		5	3.0	--	--	--	--	--	--	--	--
SP-2-5	28-Mar-06	1	36.7	--	--	--	--	--	--	--	--
		2	19.0	--	--	--	--	--	--	--	--
		3	14.0	--	--	--	--	--	--	--	--
		4	21.8	--	--	--	--	--	--	--	--
		5	2.4	--	--	--	--	--	--	--	--
SP-3-1	28-Mar-06	1	21.4	--	--	--	--	--	--	--	--
		2	2.3	--	--	--	--	--	--	--	--
		3	0.8	--	--	--	--	--	--	--	--
		4	0.5	--	--	--	--	--	--	--	--
		5	0.5	--	--	--	--	--	--	--	--
SP-3-2	28-Mar-06	1	12.0	--	--	--	--	--	--	--	--
		2	2.2	--	--	--	--	--	--	--	--
		3	3.7	--	--	--	--	--	--	--	--
		4	1.3	--	--	--	--	--	--	--	--
		5	0.6	--	--	--	--	--	--	--	--
SP-3-3	28-Mar-06	1	6.0	--	--	--	--	--	--	--	--
		2	11.2	--	--	--	--	--	--	--	--
		3	6.5	--	--	--	--	--	--	--	--
		4	3.3	--	--	--	--	--	--	--	--
		5	1.6	--	--	--	--	--	--	--	--
SP-3-4	28-Mar-06	1	5.2	--	--	--	--	--	--	--	--
		2	1.1	--	--	--	--	--	--	--	--
		3	2.9	--	--	--	--	--	--	--	--
		4	0.3	--	--	--	--	--	--	--	--
		5	0.5	--	--	--	--	--	--	--	--

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SP-3-5	28-Mar-06	1	13.3	--	--	--	--	--	--	--	--
		2	7.4	--	--	--	--	--	--	--	--
		3	4.6	--	--	--	--	--	--	--	--
		4	8.1	--	--	--	--	--	--	--	--
		5	9.4	--	--	--	--	--	--	--	--
NMOCD Remedial Thresholds			**100**	**10**				**50**			**100**

-- : Not Analyzed

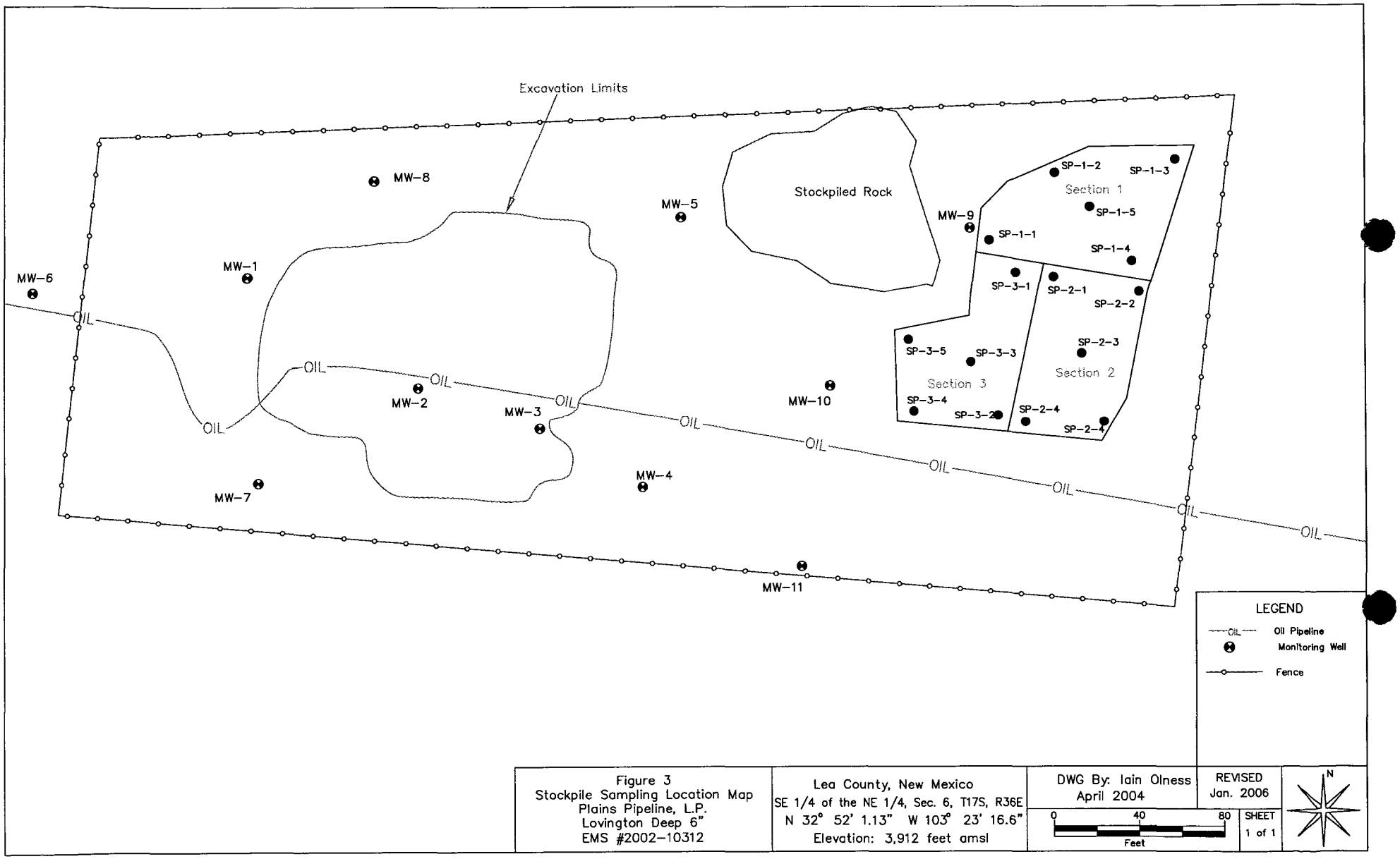

Figure 3 Stockpile Sampling Location Map Plains Pipeline, L.P. Lovington Deep 6" EMS #2002-10312	Lea County, New Mexico SE 1/4 of the NE 1/4, Sec. 6, T17S, R36E N 32° 52' 1.13" W 103° 23' 16.6" Elevation: 3,912 feet amsl	DWG By: Iain Olness April 2004	REVISED Jan. 2006	SHEET 1 of 1