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REPORTS

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Highlander Environmental Corp.

Midland, Texas

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December 21, 2005

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Oil Conservation Division
Environmental Bureau

Mr. Glenn von Gonten
New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87504

Re: 2005 Annual Report and Comprehensive Subsurface Investigation Report for the Pogo Producing Company, E.C. Hill "A, B and C" Tank Battery, Located in Section 27, Township 23 South, Range 37 East, Lea County, New Mexico.

Dear Mr. Gonten:

Highlander Environmental Corp. (Highlander) was contacted in 2003, to investigate spills at the E.C. Hill "A, B and C" Tank Battery in Lea County, (Site) located in Section 27, Township 23 South, Range 37 East. The Site is shown on Figure 1. This report summarizes all work performed at this site to date and includes the subsurface soil investigations, capping of the impacted soil and continuing investigation of the groundwater. This report also serves as the 2005 Annual Report for this site.

PREVIOUS CORRESPONDENCE

Highlander has submitted various work plans to the NMOCD for the activities performed at the Site. The dates of the correspondence are shown in the Chronology Section attached to this report.

FACILITY BACKGROUND

This facility is an old battery, which has had numerous spills from previous operators. Prior to Pogo Producing Company (Pogo), the facility was operated by Chevron and Mid-Continent. Since Pogo began operation of this facility, several documented spills have occurred over older spills at the facility. The former tanks, vessels and equipment associated with the tank battery are shown on Figure 2. The majority of the spills have occurred around production equipment and active underground lines. Several attempts were made define the extents of the impact using a stainless steel bucket-type hand auger. A shallow, dense, caliche layer was encountered from 6" to 1.0' below surface, which caused auger refusal. These spill areas were not accessible for equipment, such as a backhoe or drilling rig.

Initially, Pogo Producing Company had proposed to defer all inaccessible assessment and major cleanup activities until abandonment of the tank battery. Once inactive, Pogo had proposed to remove all production equipment and lines, perform an environmental assessment to vertically define the extents, and properly address the impacted soil at the facility.

In November 2003, Pogo decided to shut down all production to the tank battery and removed all tanks, vessels, equipment and lines in order to make the former tank battery location accessible to perform further assessment. Once the facility was dismantled, the impacted soils were excavated in the areas of the tanks, vessels and lines.

HYDROLOGY AND GROUNDWATER SEARCH

Hydrology

Groundwater in the Teague Paddock Field study area, southern Lea County, is obtained almost entirely from the Ogallala formation with some wells in the Quaternary alluvium. Sediments of Quaternary age can be observed in southern Lea County in the form of alluvial deposits, probably of both Pleistocene and Recent age, and dune sands of Recent age. The Quaternary alluvium has been deposited in topographically low areas where the older Ogallala formation had been stripped away.

The primary aquifer, the Ogallala formation, consists of inter-fingering bodies of fine to coarse sand, gravel, silt, and clay-material. In places, the upper part of the formation contains several hard, erosionally resistant beds of caliche. The thickness of the Ogallala formation is primarily controlled by the morphology of the eroded pre-Ogallala surface. To the east of the study area, in the San Simon Ridge area, the Ogallala has been stripped. To the west of the study area, in the Rattlesnake Ridge area, the base of the Ogallala is above the elevation of the water table.

Water in the Ogallala formation is unconfined and is contained in the pore spaces of unconsolidated or partly consolidated sediments. The saturated thickness of the Ogallala in the study area varies between 60 and 80 feet. The altitude of the water table in the area is approximately 3,225 feet above mean sea level (MSL) and the average depth to groundwater in the area is about 80 to 120 feet below ground surface. Groundwater flow in the general area of the Teague Paddock Field is south-southeast.

The quality of groundwater in the area is generally fresh with a total dissolved solids being typically less than 1,000 ppm. Water from the Quaternary alluvium generally is high in silica (65 to 82 ppm), moderately high in calcium plus magnesium, low in sodium plus potassium, moderately low in sulfate and chloride. Uncontaminated water from the Ogallala formation is high in silica (49 to 73 ppm), contains moderate concentrations of calcium and magnesium. The water is generally hard.

The hydrogeologic data presented in this section was derived from Ground Water Report 6, "Geology and Ground Water Conditions in Southern Lea County, New Mexico," published by New Mexico Institute of Mining & Technology (1961).

Groundwater Search

According to the New Mexico State Engineer Office W.A.T.E.R.S. database, Average Depth to Water Report, water wells are located in Section 9, 16 and 32, Township 23 South, Range 37 East, with an average depth to water of 100', 115' and 106', respectively. Based on a recent monitor wells installed at the Site the depth to groundwater at the Site is approximately 88.0' below surface.

SUBSURFACE SOIL ASSESSMENT

Backhoe Test Trench Installation

In February 2004, impacted soils were excavated to a depth of approximately 5.0' below surface to the top of a dense caliche formation. The excavation dimensions are shown on Figure 3. A total of 4,640 cubic yards of material was transported and disposed of at Sundance Services Inc, located in Eunice, New Mexico.

On February 20, 2004, Highlander supervised the installation of fifteen (15) test trenches using a backhoe. Prior to the installation of the test trenches, the bottom of the excavation was segregated into fifteen (15) areas for sampling. The segregated areas and the trench locations are shown on Figure 3. The trench sample results are summarized in Table 1.

Referring to Table 1, several areas in the bottom of the excavation did not exhibit any soil impact. However, the areas of 3, 6, 10 and 13 were not vertically defined and showed hydrocarbon impact to a depth of 9.0 below excavation bottom. Area 1 did not show any detectable hydrocarbon impact, however, it did exhibit chloride concentrations of 2,280 mg/kg at 0-1' to 1,040 mg/kg at 9.0' below the excavation bottom. Areas 4, 5 and 7 were vertically defined with TPH concentrations decreasing with depth below 1,000 mg/kg at depths of 3.0' and 5.0' below excavation bottom.

Based on the results, Highlander recommended the installation of boreholes in Areas 1, 3, 6, 10 and 13 to define the vertical extents of the hydrocarbon impact in the bottom of the excavation.

Borehole Installation

Excavation Bottom

On May 13, 2004, Highlander supervised the installation of boreholes (BH-1 through BH-5) using an air-rotary type drilling rig to define the vertical extents of the hydrocarbon impact in Areas 3, 6, 10 and 13 and to define the chloride extents in Area 1. The borehole locations are shown in Figure 4.

Based on the borehole data, the hydrocarbon impact had migrated deep into the subsurface soils and appeared to be a threat to groundwater. Boreholes (BH-1, BH-2, BH-3 and BH-4), installed in the bottom of the excavation, did not vertically define the hydrocarbon impact at the Site. On some of the boreholes, deeper soil samples could not be collected due to the sandy formation, which did not allow the boreholes to remain open. Referring to Table 2, the OVM readings and TPH levels were both elevated with some of the BTEX levels above the RRAL. At Area 1, the chloride impact in BH-5 did decrease with depth to 304 mg/kg at 30.0' below excavation bottom.

Perimeter Boreholes

On May 13, 2004, boreholes (BH-6, BH-7 and BH-8) were installed northwest of the excavation to further delineate the horizontal extent of hydrocarbon impact. These boreholes were only installed to a depth of 30' below surface to confirm if subsurface soils were impacted in this area. In September 2005, borehole (BH-9) was installed in the bottom of the excavation to define the east extents. On September 2004, boreholes (BH-10 and BH-11) were installed south of the excavation. The borehole locations are shown in Figure 4.

Northwest of the excavation, BH-8 exhibited no hydrocarbon impact in the subsurface soils, however, boreholes (BH-6 and BH-7) did exhibit impact to subsurface soils to a depth of 30' below surface. In boreholes BH-9, BH-10 and BH-11, no hydrocarbon impact was encountered. Based on the data, the horizontal extents appeared to be defined.

At the request of the NMOCD, on May 24, 2005 and August 31, 2005, boreholes (BH-12 and BH-13) were installed for additional delineation and to confirm the impact was fully delineated in all directions. BH-12 and BH-13 were installed at the northwest corner and on the north-northeast edge of the excavation, respectively. In BH-12, no TPH concentrations at or above laboratory reporting limits were detected, with the exception of the 10'-12' sample, which had a TPH concentration of 18.4 mg/kg. In addition, BH-13 did not exhibit any TPH concentrations at or above reporting limits. BTEX was not at or above reporting limits for either borehole.

It is evident from the boreholes and excavation performed at this site that there was very little lateral migration of hydrocarbons in subsurface soils and the impact is confined to the excavation. Based upon the data, and utilizing existing borehole data, iso-concentration maps were generated to show the approximate boundary of the 1,000 mg/kg TPH impacted soil and elevated BTEX in the subsurface soils. The maps are included as Figure 4 and Figure 5.

CAPPING

Referring to Figures 4 and 5, a 40 mil thickness plastic liner (cap) was proposed to properly isolate the remaining soil with elevated BTEX and TPH concentrations. The total area proposed to be capped measured approximately 100' x 180'. NMOCD gave verbal approval for the capping on October 18, 2005. To prepare the Site, soils in the vicinity of BH-6 and BH-7 were excavated to a depth of 3.5' below surface. This impacted soil was placed into the bottom of the excavation to be isolated under the cap. A sand layer 4" to 6" (bedding) was placed in the bottom of the excavation to protect the liner from puncture. Prior to capping, the dimensions of the excavation were approximately 100' x 200' x 3.5' to 4.0'deep. On December 13, 2005, the 40 mil liner was installed at the Site. The liner was supplied and installed by Big D Lining System Company located in Midland, Texas. Once the liner was installed, a 6" sand layer was placed on top of the liner for additional protection. The remaining open excavation was backfilled and crowned with clean material to grade.

GROUNDWATER INVESTIGATION

Monitor Well Installation and Sampling

On September 17, 2004, Highlander supervised the installation of one (1) groundwater

monitoring well (MW-1). According to published data, the depth to groundwater was reportedly 100' below surface. MW-1 was installed immediately south of the excavation. Due to the perceived depth to groundwater the well was installed to a total depth of 115' below ground surface (bgs). The monitor well location is shown on Figure 7.

On September 17, 2004 and October 12, 2004, Highlander purged three casing volumes from MW-1 using a submersible pump. During these sampling events, no PSH was encountered. The depth to groundwater was measured at 88.46', top of casing. The samples were analyzed for BTEX and chloride. Referring to Table 3, the two samples collected from MW-1 showed benzene levels of 0.0385 mg/l and 0.111 mg/l, exceeding the New Mexico Water Quality Control Commission (WQCC) standard of 0.01 mg/l. The remaining constituents of toluene, ethyl-benzene and xylenes exhibited trace amounts all below the WQCC standards of 0.75 mg/l, 0.75 mg/l and 0.62 mg/l, respectively. The chloride concentrations of 195 mg/l and 133 mg/l are below the WQCC standard of 250 mg/l. To establish the groundwater gradient, Highlander proposed two (2) additional wells.

On May 24-25, 2005, Highlander supervised the installation of MW-2 and MW-3, north of the excavation, in order to assess and establish a Site gradient. The monitor well locations are shown on Figure 7.

On June 17, 2005 Highlander gauged all three monitor wells. Monitor well (MW-1) had a trace of phase-separated hydrocarbon (PSH), which measured 0.03'. Due to the PSH, MW-1 was not purged or sampled. On June 24, 2004, MW-2 and MW-3 were purged and sampled for BTEX and chloride. The groundwater analyses are shown in Table 3. The water level measurements were used to generate a water table map, included as Figure 8. As shown on Figure 8, the gradient appears to be in a southeasterly direction.

Referring to Table 3, no BTEX was detected in MW-2 at or above the reporting limits. Traces of BTEX were found in MW-3, however, the concentrations were all well below the New Mexico Water Quality Control Commission (WQCC) standards. Chloride concentrations were 102 mg/l in MW-2 and 420 mg/l in MW-3.

Quarterly Monitoring Program

A Quarterly monitoring program was initiated at this site. On November 14, 2005, all three monitor wells were gauged, purged and sampled for BTEX and chloride. During this monitoring event, no PSH was encountered in MW-2 and MW-3. However, MW-1 did exhibit a PSH thickness of 0.12'. The groundwater analyses are shown in Table 3. The November 14, 2005, water table map is included as Figure 9.

Referring to Table 3, MW-1 had a benzene concentration of 0.495 mg/l. The remaining constituents of toluene, ethyl-benzene and xylenes were all below the WQCC standards. No BTEX concentrations at or above the reporting limit were reported for MW-2. Traces of benzene, ethyl-benzene and xylene, below the WQCC standards, were detected in MW-3. Chloride concentrations were 178 mg/l in MW-1, 61.9 mg/l in MW-2 and 310 mg/l in MW-3.

Quality Assurance/Quality Control

Groundwater samples were collected as soon as possible after the groundwater returned to its static level. Each well was inspected for the presence of phase-separated hydrocarbons (PSH). Groundwater samples were collected using clean disposable polyethylene bailers and disposable line. The samples were transferred into labeled and preserved containers provided by the laboratory. All of the samples were delivered under proper chain-of-custody control to Environmental Labs of Texas, Inc., Odessa, Texas. The groundwater samples were analyzed for chloride by method 300.0, and Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) by method EPA 8021B. Copies of the quarterly laboratory analyses are enclosed in Appendix A.

Monitor Well Completions

The monitor wells were drilled using air/water rotary drilling techniques, and constructed according to EPA and NMOCD standards. The monitor wells were constructed using two (2) inch diameter schedule 40 PVC threaded casing and factory slotted screen. Assuming the depth to groundwater was 100' below surface, one monitor well (MW-1) was drilled to a depth of 115' below surface. To ensure proper screening above the groundwater, a total of forty (40) feet of screen was placed in the well. Monitor wells (MW-2 and MW-3) were drilled to depths of 102' and 101' below surface, with approximately 15 feet of screen below the water table and 5 feet above.

The well screen was surrounded with a graded silica sand to a depth approximately 3 feet above the screen. A layer of bentonite pellets, approximately 3 feet thick was placed in the borehole above the sand. The remainder of the borehole was filled with cement and bentonite grout to about one (1) foot below ground. MW-1 and MW-2 were completed with steel manholes and MW-3 was secured with locking steel protectors. All well locations contained a concrete pad measuring approximately 3 feet by 3 feet. The monitor well completion details are shown in Appendix B.

Following installation, the wells were developed by hand bailing using a dedicated hand bailer to remove fine grained sediment, disturbed during drilling, and to ensure collection of representative groundwater samples. Water removed from the well was placed in a 55-gallon drum. Copies of well completion logs are included in Appendix B.

PROPOSED WORK PLAN FOR GROUNDWATER

Groundwater Assessment

A water well inventory will be performed to encompass a ½ mile radius around the facility. The inventory will include a review of water well records on the New Mexico Office of the State Engineer W.A.T.E.R.S. database and United States Geologic Survey (USGS) website. Any water wells denoted on the USGS 7.5 minute topographic quadrangle map within the search radius will be inspected.

To delineate the groundwater plume, Pogo Producing Company proposes the installation of two (2) additional monitor wells down-gradient of MW-1. The proposed locations are shown on Figure10. During the drilling operations, soil samples will be collected at ten (10) foot intervals and field screened with a photoionization detector (PID). Selected samples will be submitted to a

laboratory for TPH, BTEX and chloride analysis.

The wells will be drilled using air/water rotary drilling techniques, and constructed according to EPA and NMOCD standards, using two (2) inch diameter schedule 40 PVC threaded casing and factory slotted screen. The monitor wells will be installed to a total depth of approximately 100' below surface. To ensure proper screening above the groundwater, a total of twenty (20) feet of screen will be placed in each well. This will allow approximately 15 feet of screen below the water table and 5 feet above.

The well screen will be surrounded with a graded silica sand to a depth approximately 3 feet above the screen. A layer of bentonite pellets, approximately 3 feet thick will be placed in the borehole above the sand. The remainder of the borehole will be filled with cement and bentonite grout to about one (1) foot below ground. The wells will either be completed with steel manholes or with locking steel protectors. All well locations contained a concrete pad measuring approximately 3 feet by 3 feet.

Following installation, the wells will be developed by hand bailing using a dedicated hand bailer to remove fine grained sediment, disturbed during drilling, and to ensure collection of representative groundwater samples. Water removed from the wells will be placed in a 55-gallon drum and retained at the Site until disposal can be arranged.

The well will be inspected for the presence of phase-separated hydrocarbons (PSH) and, if present, a sample will be collected and analyzed by gas chromatography (GC) to determine composition and origin. Once inspected, the well will be properly purged and sampled with a clean, dedicated, polyethelene bailers and disposable line. The groundwater sample will be submitted to a laboratory for analysis of Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) by method EPA 8021B, and chloride by method 300.0. The additional wells will be incorporated into the current quarterly sampling program.

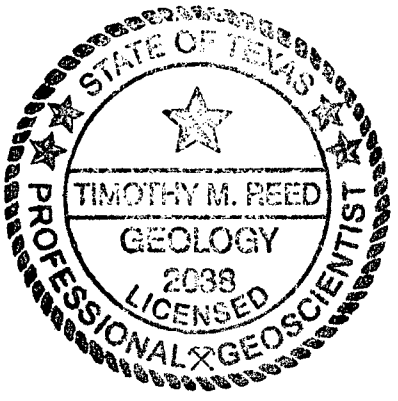
Soil and Groundwater Remediation System

Once the new monitor well data has been obtained and evaluated, a workplan will be prepared and submitted to the NMOCD to address, both impacted groundwater and residual BTEX impact to soils in the lower vadose zone. It is anticipated that a dual-phase type remediation system will be proposed to include PSH recovery, if practicable, as well as a soil vapor extraction system to mitigate residual volatile organics in the vadose zone. The sizing of the system will be dependent upon the extent of groundwater impact encountered.

Annual Reporting

An annual summary report will be prepared and submitted to the NMOCD, during the first quarter of each year, covering the previous year's activities. The report will summarize all activities conducted at the site, during that year. Additionally, the report will include conclusions and recommendations, if necessary, for system modifications, ongoing remediation and additional investigation, if deemed necessary.

If you have any question or comments concerning the assessment or the activities performed at the Site, please call me at (432) 682-4559.



Respectfully submitted,
Highlander Environmental Corp.

Timothy M. Reed, P.G.
Vice President

cc: Pat Ellis –Pogo
Don Riggs – Pogo
Larry Johnson – NMOCD, Hobbs, NM.

Chronology of Events

CHRONOLOGY OF EVENTS

POGO PRODUCING COMPANY
E.C. HILL "A, B AND C" TANK BATTERY
SECTION 27, TOWNSHIP 23 SOUTH, RANGE 37 EAST, LEA COUNTY
NEW MEXICO.

August 14, 2003	The NMOCD approved the work plan, dated July 23, 2003, to defer the assessment work until the facility was inactive.
August 29, 2003	Highlander submitted a revised work plan, dated August 29, 2003. Pogo Producing proposed to perform soil assessment once the tank battery was dismantled. The work plan consisted of the installation of boreholes.
November 2003	Pogo shut down the production to the tank battery and started to dismantle the tanks, vessel and piping.
February 2004	Impacted soils at the former tank battery were excavated to a depth of 5.0' below surface. A total of 4,640 cubic yards of impacted soil was excavated and properly disposed. The excavation measured approximately 100' x 120' and 50' x 120'.
February 20, 2004	Highlander supervised the installation of fifteen (15) test trenches in the bottom of the excavation, using a backhoe. Several areas inside the excavation were not vertically defined and boreholes were recommended for delineation.
May 13, 2004	Highlander supervised the installation of eight (8) boreholes (BH-1 through BH-8) to define the vertical extent of the soil impact. Five (5) boreholes were installed inside the excavation and three (3) boreholes were installed north of the excavation for horizontal extents.
June, 2004	Highlander submitted a work plan, dated June 28, 2004. Pogo Producing proposed to install a monitor well to evaluate the groundwater qualities at the Site.

September 8, 2004	Highlander supervised the installation of the monitor well (MW-1). Additional boreholes (BH-9, BH-10 and BH-11) were installed to define the horizontal extents of the soil impact in the excavation. The impact area in the excavation measured approximately 100' x 180'.
September 17, 2004	Highlander purged and sampled monitor well (MW-1). The depth groundwater was measured at 88.46 TOC.
October 12, 2004	Highlander purged and re-sampled monitor well (MW-1).
February 2005	Highlander prepared a work plan, dated February 8, 2005. Work plan consisted of capping the impacted soils and installation of additional monitor wells (MW-2 and MW-3).
May 24 & 25, 2005	Highlander installed two (2) additional monitor wells (MW-2 and MW-3).
June 17, 2005	Monitor wells MW-1, MW-2 and MW-3 were gauged.
June 24, 2005	Highlander purged and sampled monitor wells (MW-2 and MW-3). MW-1 contained a trace of PSH of 0.03' and was not sampled.
July 2005	Highlander submitted a work plan, dated July 11, 2005, to installed additional boreholes (BH-12 and BH-13) to delineate the area to be capped.
August 31, 2005	Highlander installed BH-13 for additional delineation northeast of the excavation.
August 2005	Highlander submitted an interim report dated August 29, 2005. The report detailed the installation of the MW-2 and MW-3.
September 2005	Highlander submitted Report, dated September 19, 2005, on the additional borehole data for the delineate area to be capped.
November 14, 2005	Highlander purged and samples MW-1, MW-2 and MW-3. MW-3 contained PSH of 0.12'.

Tables

Table 1
Pogo Producing Company
E.C. Hill A & B TANK BATTERY
Trench Installation
Lea County, New Mexico

O&G/1746/Table 1

Sample ID	Sample Date	Sample Depth (ft)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg	Xylene (mg/kg)	Chloride (mg/kg)
			C6-C-12	C12-C35	Total					
T-1	2/20/2004	0-1'	<10.0	19.9	19.9	-	-	-	-	2280
		3.0'	-	-	-	-	-	-	-	2550
		7.0'	-	-	-	-	-	-	-	2020
		9.0'	-	-	-	-	-	-	-	1040
T-2	2/20/2004	0-1'	<10.0	17.1	17.1	-	-	-	-	71
T-3	2/20/2004	0'-1'	356	1,730	**2,090**	-	-	-	-	142
		3.0'	2,570	7,470	**10,000**	-	-	-	-	-
		5.0'	1,500	4,090	**5,600**	-	-	-	-	-
		7.0'	1,540	3,770	**5,310**	-	-	-	-	-
		9.0'	1,520	3,970	**5,490**	-	-	-	-	-
T-4	2/20/2004	0-1'	201	3480	**3860**	-	-	-	-	142
		3.0'	<10.0	80.9	80.9	-	-	-	-	-
T-5	2/20/2004	0-1'	249	2,010	**2,260**	-	-	-	-	298
		3.0'	<10.0	10.4	10.4	-	-	-	-	-
T-6	2/20/2004	0-1'	1,540	8,410	**9,950**	0.569	0.271	1.91	6.27	404
		3.0'	1,430	8,150	**9,580**	-	-	-	-	-
		5.0'	1,800	8,830	**10,600**	-	-	-	-	-
		7.0'	916	4,070	**4,980**	-	-	-	-	-
		9.0'	1,350	6,000	**7,350**	-	-	-	-	-
T-7	2/20/2004	0-1'	148	4,430	**4,580**	-	-	-	-	383
		3.0'	85.2	3,860	**3,950**	-	-	-	-	-
		5.0'	<10.0	779	779	-	-	-	-	-
T-8	2/20/2004	0-1'	<10.0	16.8	16.8	-	-	-	-	99

Table 1
Pogo Producing Company
E.C. Hill A & B TANK BATTERY
Trench Installation
Lea County, New Mexico

O&G/1746/Table 1

Sample ID	Sample Date	Sample Depth (ft)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg	Xylene (mg/kg)	Chloride (mg/kg)
			C6-C-12	C12-C35	Total					
T-9	2/20/2004	0-1'	<10.0	<10.0	<10.0	-	-	-	-	234
T-10	2/20/2004	0-1'	1,180	3,500	**4,680**	0.173	0.635	2.28	7.39	276
		3.0'	1,390	4,060	**5,450**	-	-	-	-	-
		5.0'	2,150	6,880	**9,030**	-	-	-	-	-
		7.0'	943	3,410	**4,350**	-	-	-	-	-
		9.0'	795	3,080	**3,880**	-	-	-	-	-
T-11	2/20/2004	0-1'	<10.0	<10.0	<10.0	-	-	-	-	142
T-12	2/20/2004	0-1'	<10.0	11.1	11.1	-	-	-	-	99
T-13	2/20/2004	0-1'	1,170	5,520	**6,690**	0.285	0.607	1.35	3.28	213
		3.0'	1,320	5,030	**6,350**	-	-	-	-	-
		5.0'	1,850	6,290	**8,140**	-	-	-	-	-
		7.0'	1,410	4,440	**5,850**	-	-	-	-	-
		9.0'	1,740	4,880	**6,620**	-	-	-	-	-
T-14	2/20/2004	0-1'	<10.0	84.3	84.3	-	-	-	-	596
T-15	2/20/2004	0-1'	<10.0	36.8	36.8	-	-	-	-	574

(-) = Not Analyzed
T = Trench (Installed with backhoe)
Sample Depths = 5 feet below excavation bottom

Table 2
Pogo Producing Company
E. C. Hill A&B Tank Battery
Borehole Installation
Lea County, New Mexico

Sample ID	Date Sampled	Depth (ft)	OVM (ppm)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
				C6-C12	C12-C35	Total					
BH-1 (T-13)	5/13/2004	5-6	270	-	-	-	-	-	-	-	-
		10-11	439	-	-	-	-	-	-	-	-
		15-16	606	1,100	3,490	4,590	-	-	-	-	-
		20-21	658	-	-	-	-	-	-	-	-
		25-26	613	-	-	-	-	-	-	-	-
		30-31	902	872	3,420	4,290	-	-	-	-	-
		35-36	897	-	-	-	-	-	-	-	-
		40-41	942	-	-	-	-	-	-	-	-
		45-46	728	-	-	-	-	-	-	-	-
		50-51	925	7,730	14,100	21,800	5.1	20.8	15.7	48.1	
BH-2 (T-10)	5/13/2004	5-6	142	-	-	-	-	-	-	-	-
		10-11	167	-	-	-	-	-	-	-	-
		15-16	320	432	2,230	2,660	-	-	-	-	-
		20-21	447	-	-	-	-	-	-	-	-
		30-31	618	516	1,560	2,080	-	-	-	-	-
		40-41	847	-	-	-	-	-	-	-	-
		50-51	861	779	2,440	3,220	-	-	-	-	-
		60-61	147	-	-	-	-	-	-	-	-
		70-71	725	-	-	-	-	-	-	-	-
		80-81	405	1,670	4,770	6,440	<0.025	0.157	0.227	1.307	-

Table 2
Pogo Producing Company
E. C. Hill A&B Tank Battery
Borehole Installation
Lea County, New Mexico

Sample ID	Date Sampled	Depth (ft)	OVM (ppm)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
				C6-C12	C12-C35	Total					
BH-3 (T-6)	5/14/2004	5-6	260	-	-	-	-	-	-	-	-
		10-11	541	-	-	-	-	-	-	-	-
		15-16	720	2,020	7,250	9,270	-	-	-	-	-
		20-21	836	-	-	-	-	-	-	-	-
		30-31	561	623	3,140	3,760	-	-	-	-	-
		40-41	1022	-	-	-	-	-	-	-	-
		50-51	450	1,010	5,290	6,300	-	-	-	-	-
		60-61	567	-	-	-	-	-	-	-	-
		70-71	554	1,280	5,500	6,780	0.110	1.05	1.54	6.77	-
BH-4 (T-3)	5/14/2004	5-6	1800	-	-	-	-	-	-	-	-
		10-11	1811	-	-	-	-	-	-	-	-
		15-16	2100	2,710	5,460	8,170	1.94	22.50	23.20	62.80	-
		20-21	1941	-	-	-	-	-	-	-	-
		30-31	2131	1,490	3,340	4,830	-	-	-	-	-
		50-51	1395	-	-	-	-	-	-	-	-
		70-71	960	1,090	4,390	5,480	-	-	-	-	-
BH-5 (T-1)	5/14/2004	10-11	400	644	2,800	3,440	-	-	-	-	2,760
		15-16	200	586	3,020	3,610	<0.025	0.0616	0.0705	0.4776	744
		20-21	340	-	-	-	-	-	-	-	723
		30-31	39	36.8	386	423	-	-	-	-	304

(-) Not Analyzed

Table 2
Pogo Producing Company
E. C. Hill A&B Tank Battery
Borehole Installation
Lea County, New Mexico

Sample ID	Date Sampled	Depth (ft)	OVM (ppm)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
				C6-C12	C12-C35	Total					
BH-6	5/14/2004	5-6	500	1,610	4,420	6,030	-	-	-	-	-
		10-11	962	1,870	3,490	5,360	-	-	-	-	-
		20-21	1081	-	-	-	-	-	-	-	-
		30-31	1131	3,220	6,770	9,990	0.0386	5.09	5.32	20.6	-
BH-7	5/17/2004	5-6	5	<10.0	2,070	2,070	-	-	-	-	-
		10-11	390	521	1,760	2,280	-	-	-	-	-
		20-21	659	-	-	-	-	-	-	-	-
		30-31	556	843	2,530	3,370	<0.025	0.194	0.116	3.33	-
BH-8	5/17/2004	5-6	2	<10.0	42.5	42.5	-	-	-	-	-
		10-11	2	<10.0	<10.0	<10.0	-	-	-	-	-
		20-21	1	-	-	-	-	-	-	-	-
		30-31	1	-	-	-	-	-	-	-	-
BH-9	9/9/2004	10-11	1	<10.0	<10.0	<10.0	-	-	-	-	-
		20-21	0	<10.0	<10.0	<10.0	-	-	-	-	-
		30-31	0	<10.0	<10.0	<10.0	-	-	-	-	-
BH-10	9/9/2004	10-11	0	<10.0	<10.0	<10.0	-	-	-	-	-
		20-21	0	<10.0	<10.0	<10.0	-	-	-	-	-
		30-31	1	<10.0	<10.0	<10.0	-	-	-	-	-
BH-11	9/8/2004	40-41	1	<10.0	<10.0	<10.0	-	-	-	-	-
		60-61	3	<10.0	<10.0	<10.0	-	-	-	-	-

(-) Not Analyzed

Table 2
Pogo Producing Company
E. C. Hill A&B Tank Battery
Borehole Installation
Lea County, New Mexico

Sample ID	Sampled	Depth (ft)	OVM (ppm)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
				C6-C12	C12-C35	Total					
BH-12	5/24/2005	5-6	1	-	-	-	-	-	-	-	-
		10-11	0	<10.0	18.4	18.4	<0.025	<0.025	<0.025	<0.025	-
		15-16	0	-	-	-	-	-	-	-	-
		20-21	1	<10.0	<10.0	<10.0	<0.025	<0.025	<0.025	<0.025	-
		25-26	0	-	-	-	-	-	-	-	-
		30-31	0	-	-	-	-	-	-	-	-
		35-36	1	<10.0	<10.0	<10.0	<0.025	<0.025	<0.025	<0.025	-
BH-13	8/31/2005	5-6	0	<10.0	<10.0	<10.0	<0.025	<0.025	<0.025	<0.025	-
		10-11	0	-	-	-	-	-	-	-	-
		15-16	1	<10.0	<10.0	<10.0	<0.025	<0.025	<0.025	<0.025	-
		20-21	0	-	-	-	-	-	-	-	-
		25-26	1	<10.0	<10.0	<10.0	<0.025	<0.025	<0.025	<0.025	-
		30-31	1	-	-	-	-	-	-	-	-
		35-36	0	-	-	-	-	-	-	-	-
		40-41	1	<10.0	<10.0	<10.0	<0.025	<0.025	<0.025	<0.025	-

(-) Not Analyzed

Table 3
Pogo Producing Company
E.C. Hill A and B Tank Battery
Summary of Groundwater Elevations and PSH Thickness

Well/ Borehole ID	Date Measurement	Well Total Depth (ft)	Product (ft) (TOC)	Water level (ft) (TOC)	PSH Thickness (ft)	Top of Casing Elevation, feet AMSL	Groundwater Elevation (ft)
MW-1	9/17/2004	115	-	88.46	0	3274.52	3186.06
MW-1	6/17/2005	115	86.01	86.04	0.03	3274.52	*3188.48
MW-2	6/17/2005	102	-	86.04	0	3274.99	3188.95
MW-3	6/17/2005	101	-	88.01	0	3276.46	3188.45
MW-1	11/14/2005	115	85.82	85.94	0.12	3274.52	*3188.49
MW-2	11/14/2005	102	-	85.9	0	3274.99	3189.09
MW-3	11/14/2005	101	-	87.96	0	3276.46	3188.50

(-) No data (TOC) Top of casing
(*) Groundwater elevation corrected using 0.75 specific gravity

Table 3
Pogo Producing Company
E.C. Hill A, B Tank Battery
Summary of Analysis of Groundwater Samples

Sample ID	Sample Date	PSH Thickness (ft)	Benzene (mg/l)	Toluene (mg/l)	Ethyl-benzene (mg/l)	Xylene (mg/l)	Chloride (mg/l)
MW-1	9/17/2004	0	0.0385	0.0146	0.00694	0.0341	195
MW-1	10/12/2004	0	0.111	0.0197	0.0166	0.0699	133
MW-1	6/24/2005	0.03	-	-	-	-	-
MW-2	6/24/2005	0	<0.001	<0.001	<0.001	<0.001	102
MW-3	6/24/2005	0	0.00166	0.0026	0.00143	0.0137	420
MW-1	11/14/2005	0.12	0.495	0.0809	0.137	0.253	178
MW-2	11/14/2005	0	<0.001	<0.001	<0.001	<0.001	61.9
MW-3	11/14/2005	0	0.0037	<0.001	0.00132	0.006	310

(-) Not Analyzed

Figures

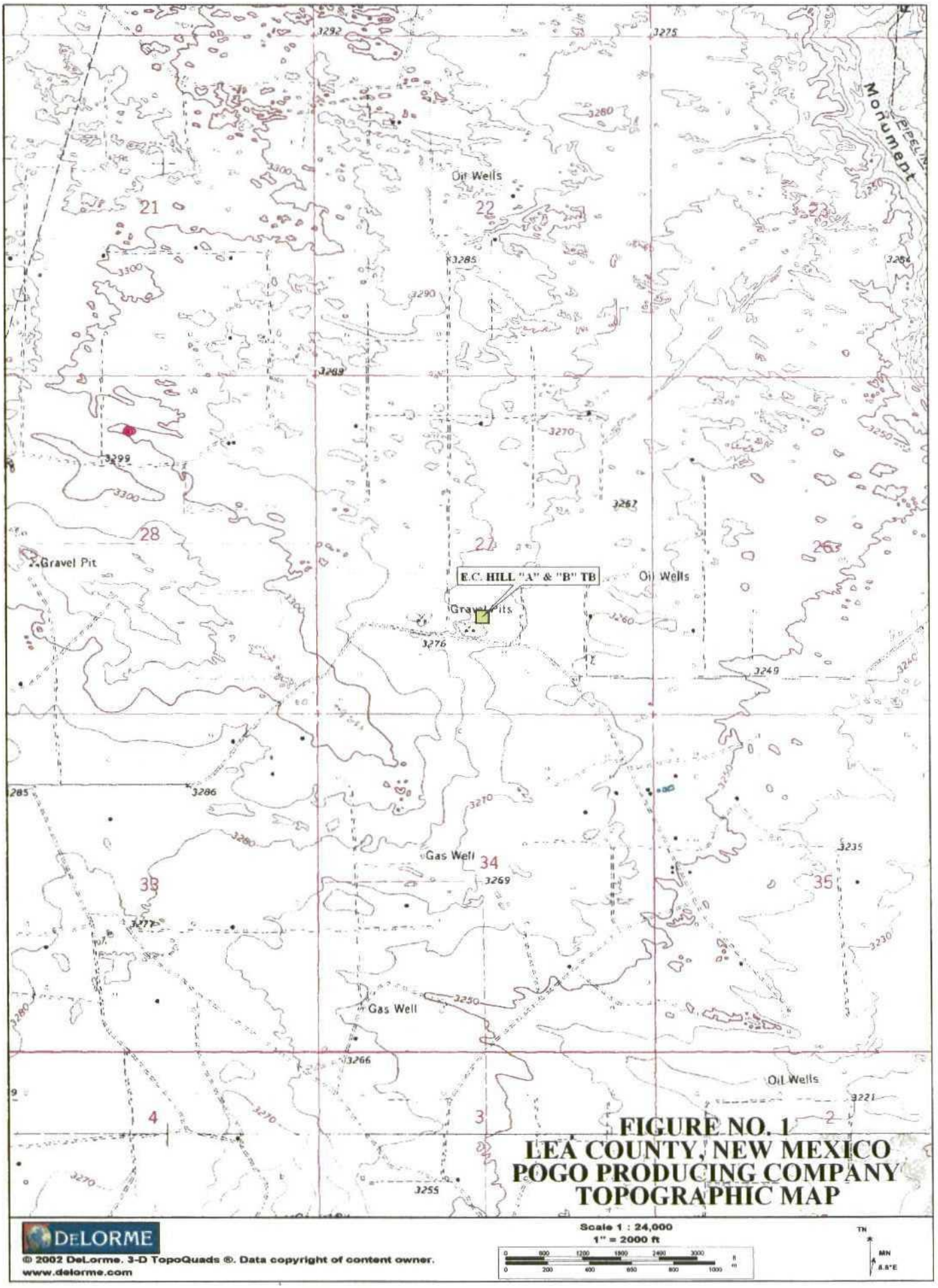


FIGURE NO. 1
LEA COUNTY, NEW MEXICO
POGO PRODUCING COMPANY
TOPOGRAPHIC MAP

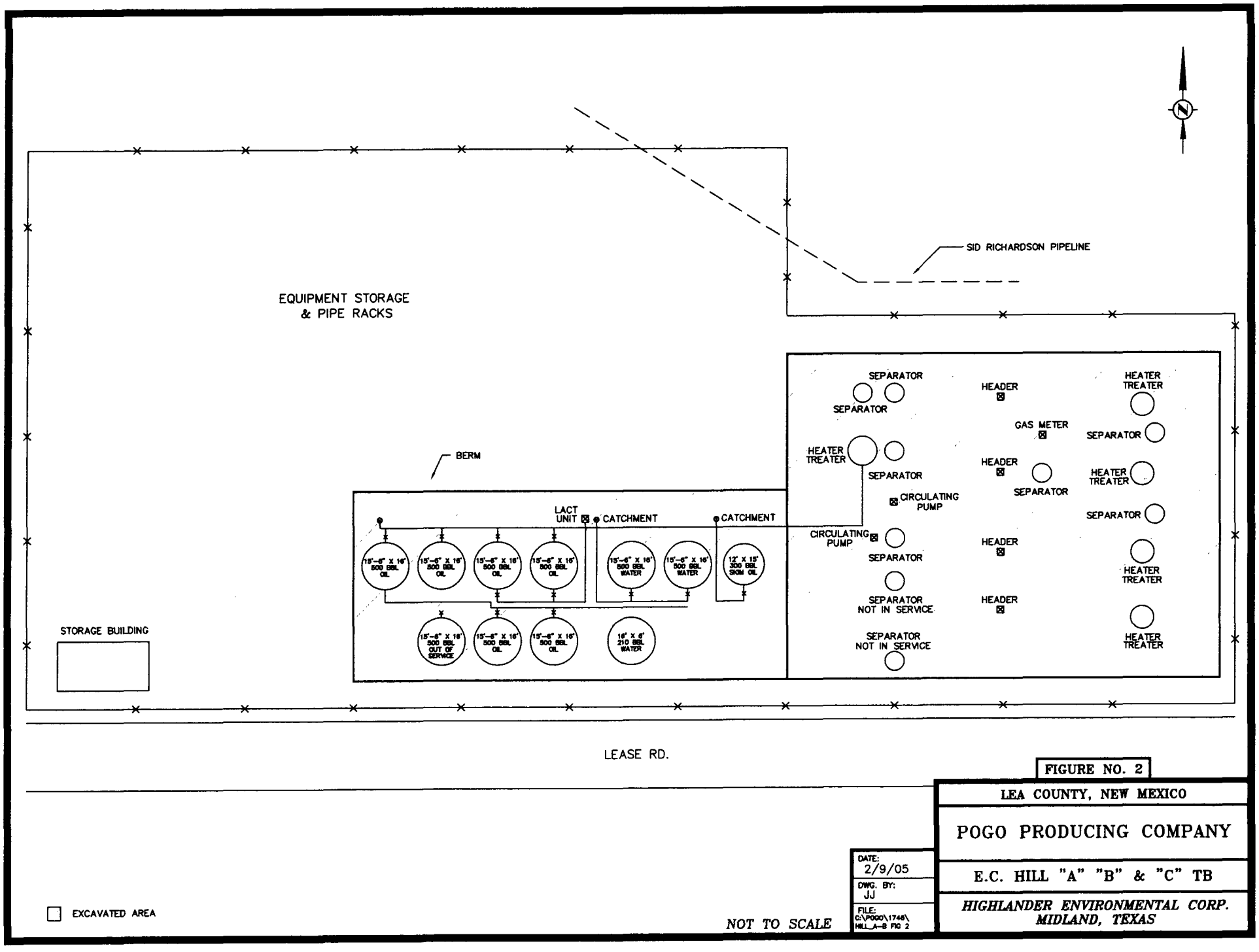


FIGURE NO. 2

LEA COUNTY, NEW MEXICO

POGO PRODUCING COMPANY

E.C. HILL "A" "B" & "C" TB

DATE: 2/9/05

DWG. BY: JJ

FILE: C:\POGO\1746\HILL_A-B FIG 2

HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS

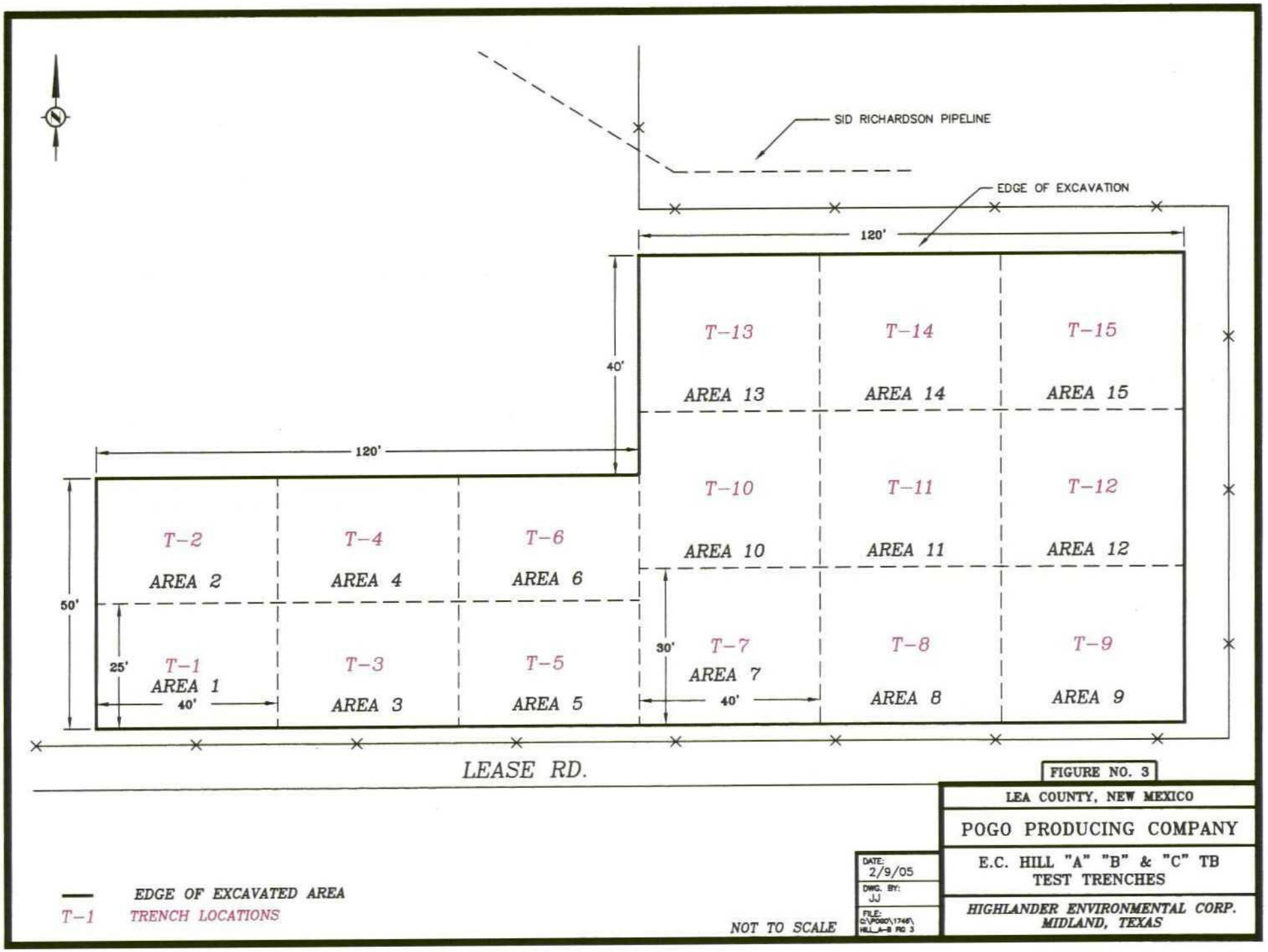


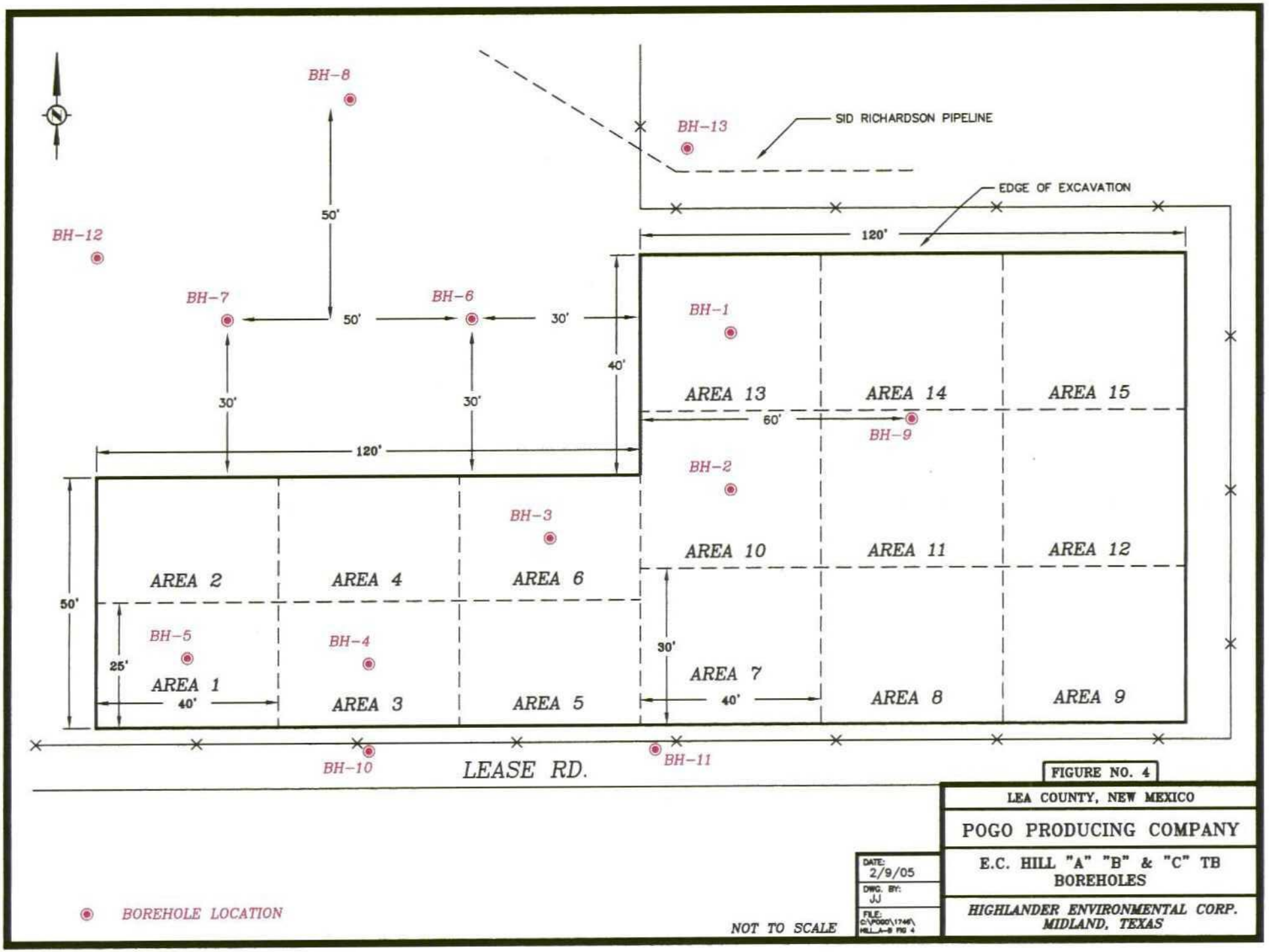
FIGURE NO. 3

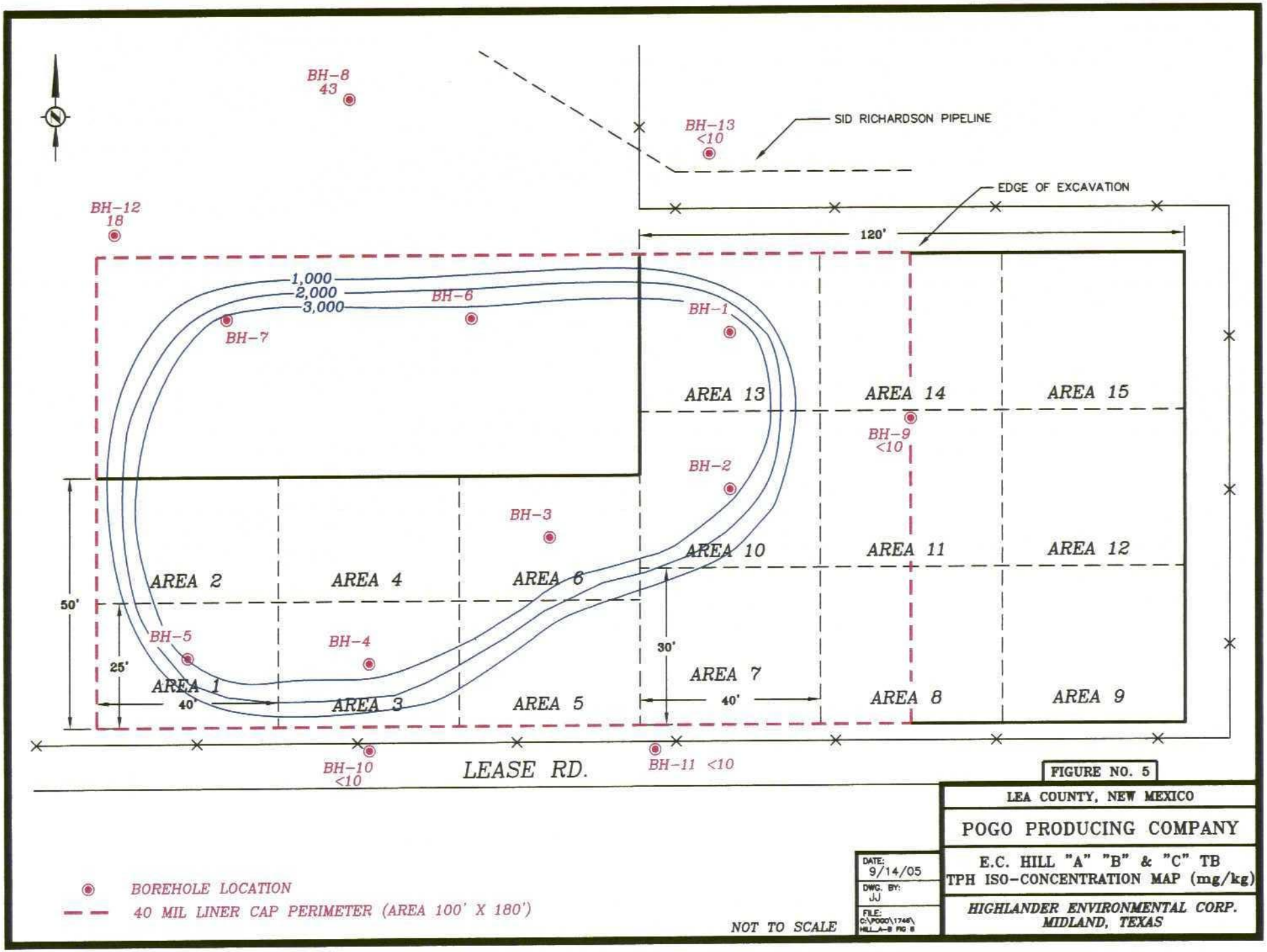
LEA COUNTY, NEW MEXICO

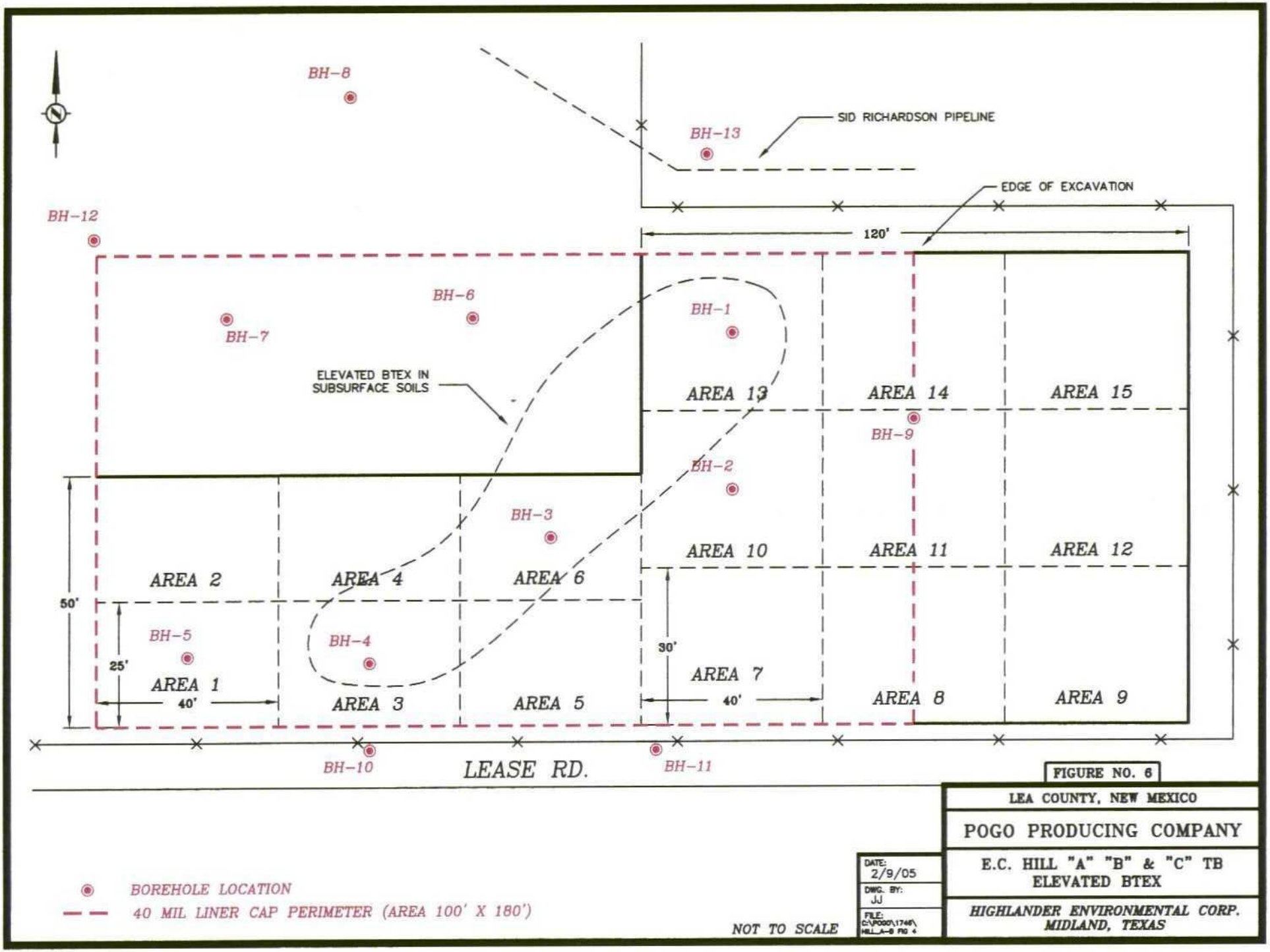
POGO PRODUCING COMPANY

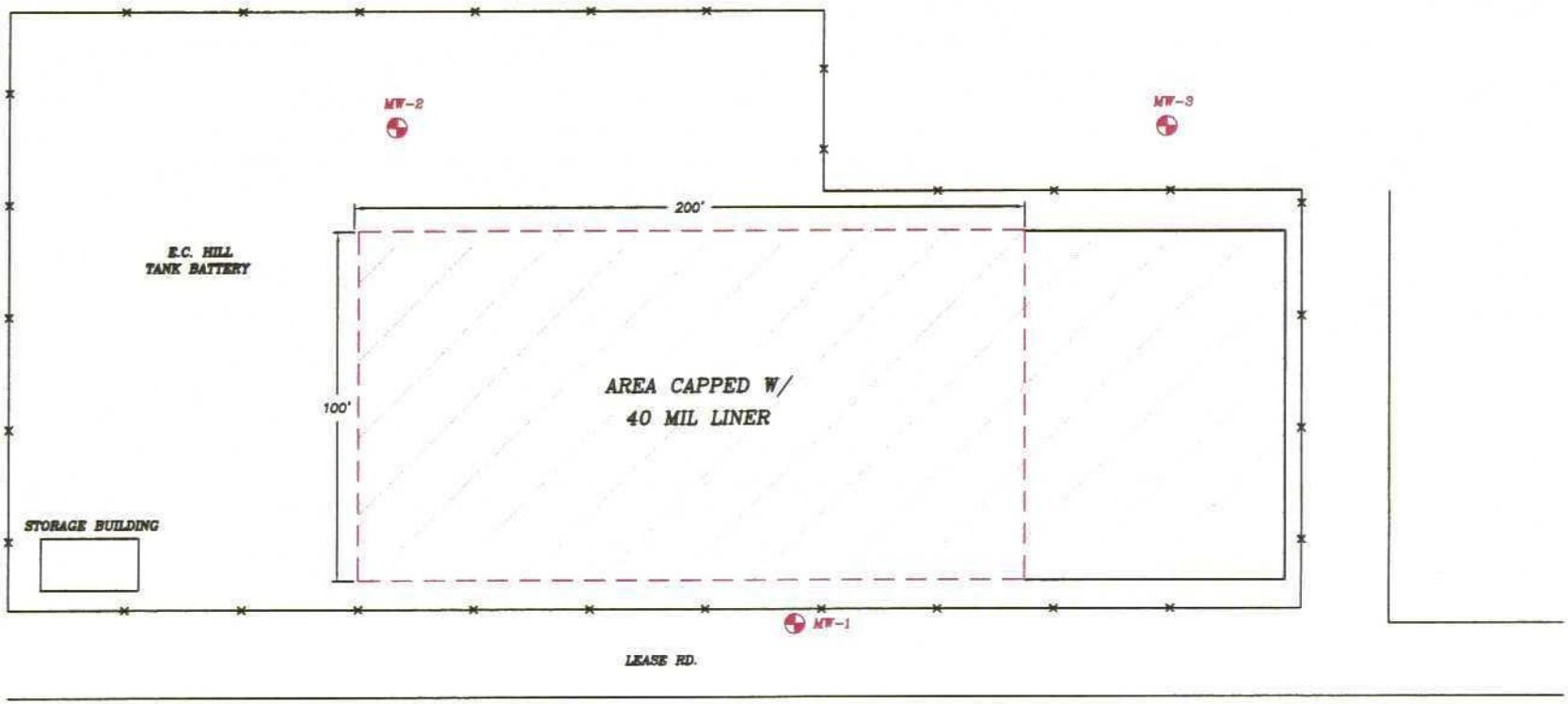
E.C. HILL "A" "B" & "C" TB
TEST TRENCHES

HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS


BH-8
BH-13
SID RICHARDSON PIPELINE
EDGE OF EXCAVATION
BH-12
50'
120'
BH-7
BH-6
50'
30'
BH-1
40'
30'
30'
AREA 13
AREA 14
AREA 15
60'
BH-9
120'
BH-2
BH-3
AREA 10
AREA 11
AREA 12
AREA 2
AREA 4
AREA 6
50'
BH-5
BH-4
30'
25'
AREA 7
AREA 1
40'
AREA 3
AREA 5
40'
AREA 8
AREA 9
BH-10
BH-11
LEASE RD.
BOREHOLE LOCATION
NOT TO SCALE
FIGURE NO. 4
LEA COUNTY, NEW MEXICO
POGO PRODUCING COMPANY
E.C. HILL "A" "B" & "C" TB
BOREHOLES
HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS
DATE: 2/9/05
DWG. BY: JJ
FILE: C:\POGO\1746\HILL_A-B FIG 4


BH-8
43
BH-13
<10
SID RICHARDSON PIPELINE
EDGE OF EXCAVATION
BH-12
18
120'
1,000
2,000
3,000
BH-6
BH-7
BH-1
AREA 13
AREA 14
AREA 15
BH-9
<10
BH-2
BH-3
AREA 10
AREA 11
AREA 12
AREA 2
AREA 4
AREA 6
50'
BH-5
BH-4
25'
30'
AREA 7
AREA 1
40'
AREA 3
AREA 5
40'
AREA 8
AREA 9
BH-10
<10
LEASE RD.
BH-11 <10
BOREHOLE LOCATION
40 MIL LINER CAP PERIMETER (AREA 100' X 180')
NOT TO SCALE
FIGURE NO. 5
LEA COUNTY, NEW MEXICO
POGO PRODUCING COMPANY
E.C. HILL "A" "B" & "C" TB
TPH ISO-CONCENTRATION MAP (mg/kg)
DATE: 9/14/05
DWG. BY: JJ
FILE: C:\POGO\1746\HILL_A-B FIG 5
HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS


BH-8
BH-13
SID RICHARDSON PIPELINE
EDGE OF EXCAVATION
BH-12
120'
BH-6
BH-7
BH-1
ELEVATED BTEX IN SUBSURFACE SOILS
AREA 13
AREA 14
AREA 15
BH-9
BH-2
BH-3
AREA 10
AREA 11
AREA 12
AREA 2
AREA 4
AREA 6
50'
BH-5
BH-4
25'
30'
AREA 1
AREA 7
40'
AREA 3
AREA 5
40'
AREA 8
AREA 9
BH-10
LEASE RD.
BH-11
BOREHOLE LOCATION
40 MIL LINER CAP PERIMETER (AREA 100' X 180')
NOT TO SCALE
FIGURE NO. 6
LEA COUNTY, NEW MEXICO
POGO PRODUCING COMPANY
E.C. HILL "A" "B" & "C" TB
ELEVATED BTEX
DATE: 2/9/05
DWG. BY: JJ
FILE: C:\POGO\1746\HILL_A-B FIG 4
HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS



WELL NO.	NORTHING (Y)	EASTING (X)	ELEVATION TOC
MW-1	464,731.6	865,589.3	3,274.52
MW-2	464,875.8	865,461.9	3,274.99
MW-3	464,872.2	865,687.1	3,276.48

--- 40 MIL LINER CAP PERIMETER (AREA 100' X 180')

MONITOR WELL LOCATIONS

EXCAVATED AREA

NOT TO SCALE

FIGURE NO. 7

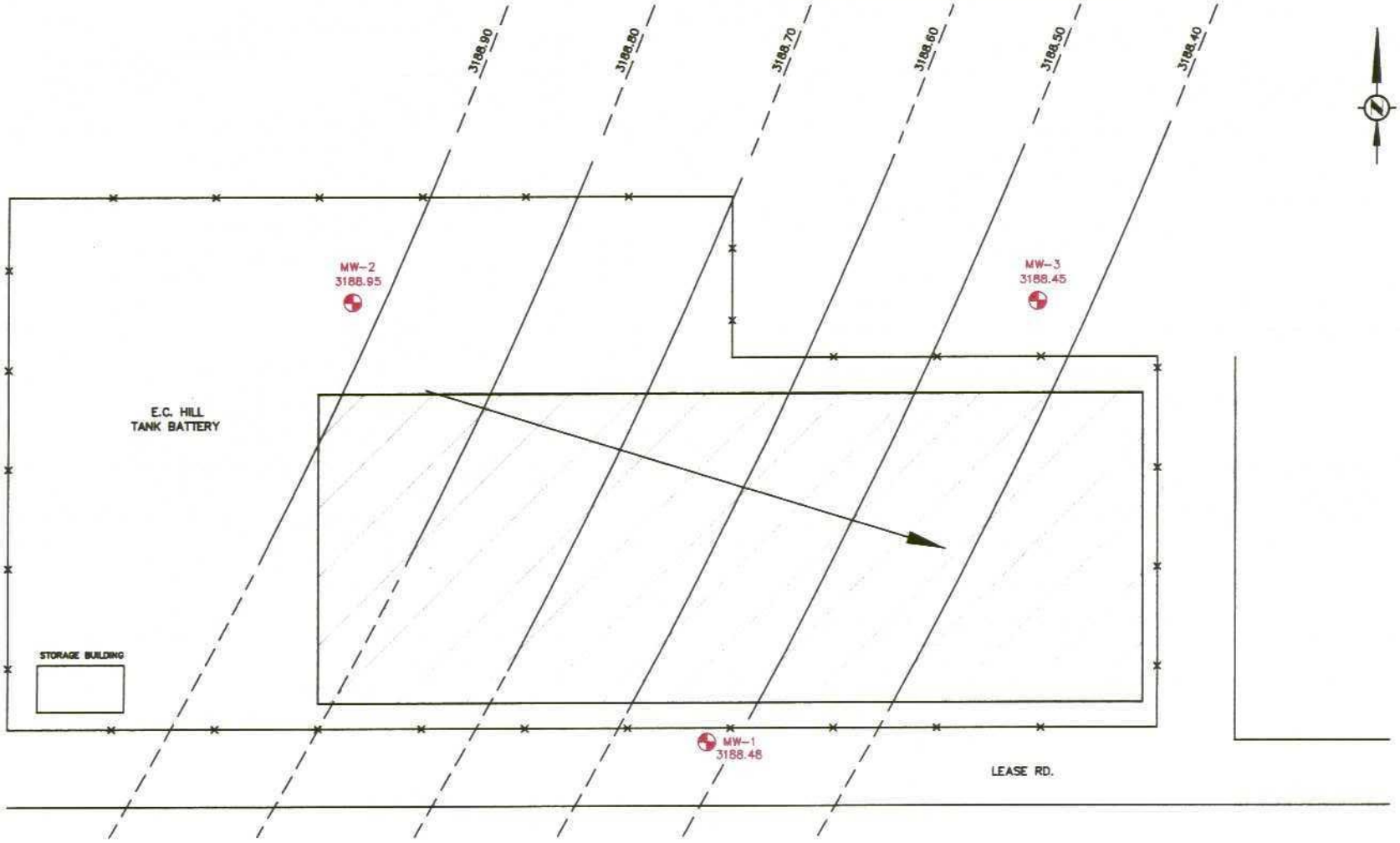
LEA COUNTY, NEW MEXICO

POGO PRODUCING COMPANY

E.C. HILL "A" "B" & "C" TB
MONITOR WELL & CAPPED AREA

DATE: 8/30/05
DWG. BY: JJ
FILE: C:\POGO\1746\HILL_A-B FIG 2

HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS



WELL NO.	NORTHING (Y)	EASTING (X)	ELEVATION TOC
MW-1	464,731.6	865,589.3	3,274.52
MW-2	464,875.8	865,461.9	3,274.99
MW-3	464,872.2	865,687.1	3,276.48

MONITOR WELL LOCATIONS

EXCAVATED AREA

NOT TO SCALE

FIGURE NO. 8

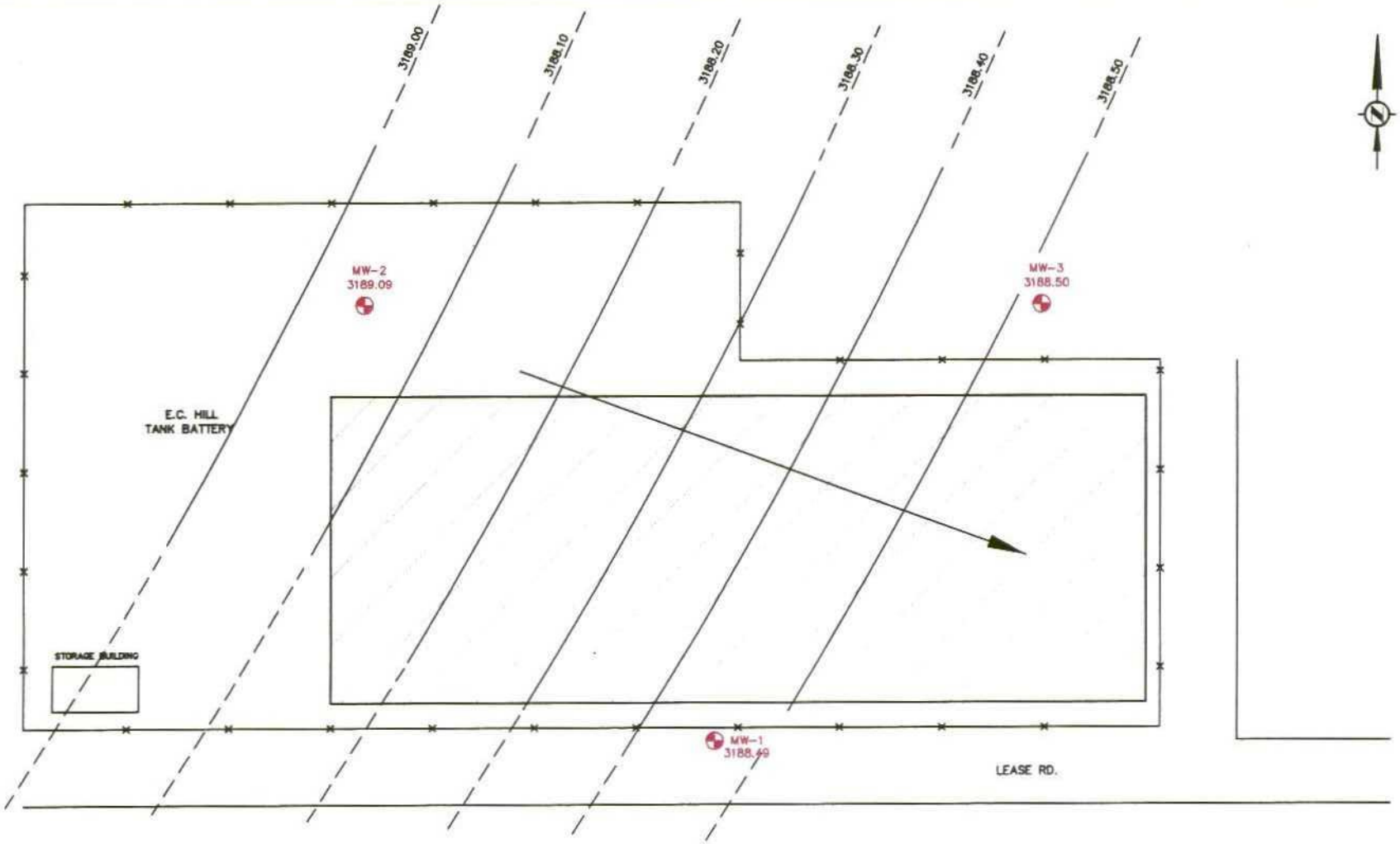
LEA COUNTY, NEW MEXICO

POGO PRODUCING COMPANY

E.C. HILL "A" "B" & "C" TB
WATER TABLE MAP 6/7/05

DATE: 8/30/05
DWG. BY: JJ
FILE: C:\POGO\1746\HILL_A-B GW

HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS



WELL NO.	NORTHING (Y)	EASTING (X)	ELEVATION TOC
MW-1	464,731.6	865,589.3	3,274.52
MW-2	464,875.8	865,461.9	3,274.99
MW-3	464,872.2	865,687.1	3,276.48

MONITOR WELL LOCATIONS

EXCAVATED AREA

NOT TO SCALE

FIGURE NO. 9

LEA COUNTY, NEW MEXICO

POGO PRODUCING COMPANY

E.C. HILL "A" "B" & "C" TB
WATER TABLE MAP 11/14/05

DATE: 8/30/05
DWG. BY: JJ
FILE: C:\POGO\1746\HILL_A-B GW

HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS

Laboratory Analysis

November 14, 2005 Sampling

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Ike Tavarez

Highlander Environmental Corp.

1910 N. Big Spring St.

Midland, TX 79705

Project: Pogo/ E.C. Hill TB

Project Number: 1746

Location: Lea Co., NM

Lab Order Number: 5K16002

Report Date: 11/21/05

Highlander Environmental Corp.	Project: Pogo/ E.C. Hill TB	Fax: (432) 682-3946
1910 N. Big Spring St.	Project Number: 1746	**Reported:**
Midland TX, 79705	Project Manager: Ike Tavarez	11/21/05 08:40

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1	5K16002-01	Water	11/14/05 15:45	11/15/05 17:20
MW-2	5K16002-02	Water	11/14/05 15:15	11/15/05 17:20
MW-3	5K16002-03	Water	11/14/05 15:30	11/15/05 17:20

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (5K16002-01) Water									
Benzene	**0.495**	0.00500	mg/L	5	EK51705	11/17/05	11/18/05	EPA 8021B	
Toluene	**0.0809**	0.00500	"	"	"	"	"	"	
Ethylbenzene	**0.137**	0.00500	"	"	"	"	"	"	
Xylene (p/m)	**0.140**	0.00500	"	"	"	"	"	"	
Xylene (o)	**0.113**	0.00500	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*143 %*	*80-120*		"	"	"	"	*S-04*
Surrogate: 4-Bromofluorobenzene		*111 %*	*80-120*		"	"	"	"	
MW-2 (5K16002-02) Water									
Benzene	ND	0.00100	mg/L	1	EK51705	11/17/05	11/17/05	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*106 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*87.5 %*	*80-120*		"	"	"	"	
MW-3 (5K16002-03) Water									
Benzene	**0.00377**	0.00100	mg/L	1	EK51705	11/17/05	11/17/05	EPA 8021B	
Toluene	**J [0.000710]**	0.00100	"	"	"	"	"	"	
Ethylbenzene	**0.00132**	0.00100	"	"	"	"	"	"	
Xylene (p/m)	**0.00309**	0.00100	"	"	"	"	"	"	
Xylene (o)	**0.00298**	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*99.8 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*88.5 %*	*80-120*		"	"	"	"	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Highlander Environmental Corp.	Project: Pogo/ E.C. Hill TB	Fax: (432) 682-3946
1910 N. Big Spring St.	Project Number: 1746	**Reported:**
Midland TX, 79705	Project Manager: Ike Tavarez	11/21/05 08:40

General Chemistry Parameters by EPA / Standard Methods

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (5K16002-01) Water									
Chloride	**178**	5.00	mg/L	10	EK51810	11/17/05	11/18/05	EPA 300.0	
MW-2 (5K16002-02) Water									
Chloride	**61.9**	5.00	mg/L	10	EK51810	11/17/05	11/18/05	EPA 300.0	
MW-3 (5K16002-03) Water									
Chloride	**310**	10.0	mg/L	20	EK51810	11/17/05	11/18/05	EPA 300.0	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK51705 - EPA 5030C (GC)										
Blank (EK51705-BLK1)				Prepared & Analyzed: 11/17/05						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*0.0453*		"	*0.0400*		*113*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0331*		"	*0.0400*		*82.8*	*80-120*			
LCS (EK51705-BS1)				Prepared & Analyzed: 11/17/05						
Benzene	0.0568	0.00100	mg/L	0.0500		114	80-120			
Toluene	0.0597	0.00100	"	0.0500		119	80-120			
Ethylbenzene	0.0587	0.00100	"	0.0500		117	80-120			
Xylene (p/m)	0.110	0.00100	"	0.100		110	80-120			
Xylene (o)	0.0597	0.00100	"	0.0500		119	80-120			
Surrogate: a,a,a-Trifluorotoluene	*0.0439*		"	*0.0400*		*110*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0445*		"	*0.0400*		*111*	*80-120*			
Calibration Check (EK51705-CCV1)				Prepared & Analyzed: 11/17/05						
Benzene	55.8		ug/l	50.0		112	80-120			
Toluene	59.4		"	50.0		119	80-120			
Ethylbenzene	58.4		"	50.0		117	80-120			
Xylene (p/m)	106		"	100		106	80-120			
Xylene (o)	59.0		"	50.0		118	80-120			
Surrogate: a,a,a-Trifluorotoluene	*0.0442*		*mg/L*	*0.0400*		*110*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0413*		"	*0.0400*		*103*	*80-120*			
Matrix Spike (EK51705-MS1)	**Source: 5K16003-04**			Prepared & Analyzed: 11/17/05						
Benzene	0.0520	0.00100	mg/L	0.0500	ND	104	80-120			
Toluene	0.0542	0.00100	"	0.0500	ND	108	80-120			
Ethylbenzene	0.0512	0.00100	"	0.0500	ND	102	80-120			
Xylene (p/m)	0.0918	0.00100	"	0.100	ND	91.8	80-120			
Xylene (o)	0.0517	0.00100	"	0.0500	ND	103	80-120			
Surrogate: a,a,a-Trifluorotoluene	*0.0395*		"	*0.0400*		*98.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0340*		"	*0.0400*		*85.0*	*80-120*			

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Highlander Environmental Corp.	Project: Pogo/ E.C. Hill TB	Fax: (432) 682-3946
1910 N. Big Spring St.	Project Number: 1746	**Reported:**
Midland TX, 79705	Project Manager: Ike Tavarez	11/21/05 08:40

Organics by GC - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK51705 - EPA 5030C (GC)										
Matrix Spike Dup (EK51705-MSD1)	**Source: 5K16003-04**			Prepared & Analyzed: 11/17/05						
Benzene	0.0558	0.00100	mg/L	0.0500	ND	112	80-120	7.41	20	
Toluene	0.0579	0.00100	"	0.0500	ND	116	80-120	7.14	20	
Ethylbenzene	0.0551	0.00100	"	0.0500	ND	110	80-120	7.55	20	
Xylene (p/m)	0.0986	0.00100	"	0.100	ND	98.6	80-120	7.14	20	
Xylene (o)	0.0556	0.00100	"	0.0500	ND	111	80-120	7.48	20	
Surrogate: a,a,a-Trifluorotoluene	*0.0398*		"	*0.0400*		*99.5*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*0.0332*		"	*0.0400*		*83.0*	*80-120*			

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

General Chemistry Parameters by EPA / Standard Methods - Quality Control

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EK51810 - General Preparation (WetChem)										
Blank (EK51810-BLK1)				Prepared: 11/17/05 Analyzed: 11/18/05						
Chloride	ND	0.500	mg/L							
LCS (EK51810-BS1)				Prepared: 11/17/05 Analyzed: 11/18/05						
Chloride	8.13		mg/L	10.0		81.3	80-120			
Calibration Check (EK51810-CCV1)				Prepared: 11/17/05 Analyzed: 11/18/05						
Chloride	8.44		mg/L	10.0		84.4	80-120			
Duplicate (EK51810-DUP1)	**Source: 5K15008-01**			Prepared: 11/17/05 Analyzed: 11/18/05						
Chloride	101	5.00	mg/L		101			0.00	20	

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Highlander Environmental Corp.	Project: Pogo/ E.C. Hill TB	Fax: (432) 682-3946
1910 N. Big Spring St.	Project Number: 1746	**Reported:**
Midland TX, 79705	Project Manager: Ike Tavarez	11/21/05 08:40

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 11/21/2005

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

PAGE: 1 OF: 1

CLIENT NAME: Pogo Producing Co. SITE MANAGER: IKE Tavarez

PROJECT NO.: 1744 PROJECT NAME: Pogo / E.C. Hill #8 Lea Co. NM.

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE
5K11002-01	11/14/05	3:45	W		X	MW-1	3		X		X	X
-02	11/14/05	3:15	W		X	MW-2	3		X		X	X
-03	11/14/05	3:30	W		X	MW-3	3		X		X	X

ANALYSIS REQUEST (Circle or Specify Method No.)

8021B/5030 or 8260/8240	MTBE 8020/8021B	TPH 418.1 8015 MOD. TX1005	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	SPLP	GC/MS Vol. 8240/8260/624	GC/MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 608/8081	BOD, TSS, pH, TDS, Chloride	Cameron Spec.	Alpha Beta (Air)	PLM (Asbestos)
X													X			
X													X			
X													X			

RELINQUISHED BY: (Signature) Date: 11/15/05 Time: 5:00 PM — RECEIVED BY: (Signature) Date: Time:

RELINQUISHED BY: (Signature) Date: Time: — RECEIVED BY: (Signature) Date: Time:

RELINQUISHED BY: (Signature) Date: Time: — RECEIVED BY: (Signature) Date: Time:

SAMPLED BY: (Print & Sign) IKE Tavarez / Ray Tolen Date: Time:

SAMPLE SHIPPED BY: (Circle) FEDEX BUS AIRBILL #: HAND DELIVERED UPS OTHER:

RECEIVING LABORATORY: ELOT ADDRESS: CITY: STATE: ZIP: CONTACT: PHONE:

RECEIVED BY: (Signature) DATE: 11-15-05 TIME: 1726

HIGHLANDER CONTACT PERSON: IKE Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED: Rec 3.0°C.

MATRIX: W-Water S-Soil A-Air SL-Sludge SD-Solid O-Other

REMARKS: VOA x 2 1L-amb

Please Fill out all copies - Laboratory retains yellow copy - Return original copy to Highlander Environmental Corp. - Project Manager retains pink copy - Accounting receives Gold copy.

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: Highlander

Date/Time: 11/15/05 17:20

Order #: 5K16002

Initials: CK

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	3.0 C
Shipping container/cooler in good condition?	Yes	No	
Custody Seals intact on shipping container/cooler?	Yes	No	Not present
Custody Seals intact on sample bottles?	Yes	No	Not present
Chain of custody present?	Yes	No	
Sample Instructions complete on Chain of Custody?	Yes	No	
Chain of Custody signed when relinquished and received?	Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	
Container labels legible and intact?	Yes	No	
Sample Matrix and properties same as on chain of custody?	Yes	No	
Samples in proper container/bottle?	Yes	No	
Samples properly preserved?	Yes	No	
Sample bottles intact?	Yes	No	
Preservations documented on Chain of Custody?	Yes	No	
Containers documented on Chain of Custody?	Yes	No	
Sufficient sample amount for indicated test?	Yes	No	
All samples received within sufficient hold time?	Yes	No	
VOC samples have zero headspace?	Yes	No	Not Applicable

Other observations:

_____

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Variance Documentation:

Contact Person: _____ Date/Time: _____ Contacted by: _____

Regarding:

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Corrective Action Taken:

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Laboratory Analysis

June 24, 2005 Sampling

ENVIRONMENTAL LAB OF

12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Ike Tavarez

Highlander Environmental Corp.

1910 N. Big Spring St.

Midland, TX 79705

Project: Pogo/ E.C. Hill T.B.

Project Number: None Given

Location: None Given

Lab Order Number: 5F29002

Report Date: 07/06/05

Highlander Environmental Corp.	Project: Pogo/ E.C. Hill T.B.	Fax: (432) 682-3946
1910 N. Big Spring St.	Project Number: None Given	**Reported:**
Midland TX, 79705	Project Manager: Ike Tavarez	07/06/05 09:14

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-2	5F29002-01	Water	06/24/05 11:50	06/28/05 16:50
MW-3	5F29002-02	Water	06/24/05 13:20	06/28/05 16:50

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Organics by GC

Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (5F29002-01) Water									
Benzene	ND	0.00100	mg/L	1	EF53021	06/30/05	06/30/05	EPA 8021B	
Toluene	ND	0.00100	"	"	"	"	"	"	
Ethylbenzene	ND	0.00100	"	"	"	"	"	"	
Xylene (p/m)	ND	0.00100	"	"	"	"	"	"	
Xylene (o)	ND	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*92.9 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*	*80-120*		"	"	"	"	
MW-3 (5F29002-02) Water									
Benzene	**0.00166**	0.00100	mg/L	1	EF53021	06/30/05	06/30/05	EPA 8021B	
Toluene	**0.00226**	0.00100	"	"	"	"	"	"	
Ethylbenzene	**0.00143**	0.00100	"	"	"	"	"	"	
Xylene (p/m)	**0.00497**	0.00100	"	"	"	"	"	"	
Xylene (o)	**0.00878**	0.00100	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*94.3 %*	*80-120*		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*118 %*	*80-120*		"	"	"	"	

Highlander Environmental Corp.	Project: Pogo/ E.C. Hill T.B.	Fax: (432) 682-3946
1910 N. Big Spring St.	Project Number: None Given	**Reported:**
Midland TX, 79705	Project Manager: Ike Tavarez	07/06/05 09:14

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2 (5F29002-01) Water									
Chloride	**102**	5.00	mg/L	10	EF53026	06/30/05	06/30/05	EPA 300.0	
MW-3 (5F29002-02) Water									
Chloride	**420**	12.5	mg/L	25	EF53026	06/30/05	06/30/05	EPA 300.0	

12600 West I-20 East - Odessa, Texas 79705 - (432) 563-1800 - Fax (432) 563-1713

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF53021 - EPA 5030C (GC)										
Blank (EF53021-BLK1)				Prepared & Analyzed: 06/30/05						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: a,a,a-Trifluorotoluene	*87.4*		*ug/l*	*100*		*87.4*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*82.8*		*"*	*100*		*82.8*	*80-120*			
LCS (EF53021-BS1)				Prepared & Analyzed: 06/30/05						
Benzene	117		ug/l	100		117	80-120			
Toluene	108		"	100		108	80-120			
Ethylbenzene	106		"	100		106	80-120			
Xylene (p/m)	185		"	200		92.5	80-120			
Xylene (o)	91.0		"	100		91.0	80-120			
Surrogate: a,a,a-Trifluorotoluene	*113*		*"*	*100*		*113*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*119*		*"*	*100*		*119*	*80-120*			
Calibration Check (EF53021-CCV1)				Prepared: 06/30/05 Analyzed: 07/01/05						
Benzene	92.5		ug/l	100		92.5	80-120			
Toluene	85.4		"	100		85.4	80-120			
Ethylbenzene	91.2		"	100		91.2	80-120			
Xylene (p/m)	163		"	200		81.5	80-120			
Xylene (o)	84.4		"	100		84.4	80-120			
Surrogate: a,a,a-Trifluorotoluene	*91.8*		*"*	*100*		*91.8*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*109*		*"*	*100*		*109*	*80-120*			
Matrix Spike (EF53021-MS1)	**Source: 5F29004-02**			Prepared & Analyzed: 06/30/05						
Benzene	99.6		ug/l	100	ND	99.6	80-120			
Toluene	91.8		"	100	ND	91.8	80-120			
Ethylbenzene	95.1		"	100	ND	95.1	80-120			
Xylene (p/m)	165		"	200	ND	82.5	80-120			
Xylene (o)	86.7		"	100	ND	86.7	80-120			
Surrogate: a,a,a-Trifluorotoluene	*98.2*		*"*	*100*		*98.2*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*119*		*"*	*100*		*119*	*80-120*			

Organics by GC - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF53021 - EPA 5030C (GC)										
Matrix Spike Dup (EF53021-MSD1)	**Source: 5F29004-02**		Prepared & Analyzed: 06/30/05							
Benzene	103		ug/l	100	ND	103	80-120	3.36	20	
Toluene	96.3		"	100	ND	96.3	80-120	4.78	20	
Ethylbenzene	101		"	100	ND	101	80-120	6.02	20	
Xylene (p/m)	176		"	200	ND	88.0	80-120	6.45	20	
Xylene (o)	92.2		"	100	ND	92.2	80-120	6.15	20	
Surrogate: a,a,a-Trifluorotoluene	*102*		"	*100*		*102*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*117*		"	*100*		*117*	*80-120*			

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch EF53026 - General Preparation (WetChem)										
Blank (EF53026-BLK1)				Prepared & Analyzed: 06/30/05						
Chloride	ND	0.500	mg/L							
LCS (EF53026-BS1)				Prepared & Analyzed: 06/30/05						
Chloride	11.5		mg/L	10.0		115	80-120			
Calibration Check (EF53026-CCV1)				Prepared & Analyzed: 06/30/05						
Chloride	11.5		mg/L	10.0		115	80-120			
Duplicate (EF53026-DUP1)		**Source: 5F29013-01**		Prepared & Analyzed: 06/30/05						
Chloride	87.8	2.50	mg/L		85.3			2.89	20	

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K Tuttle Date: 7-07-05

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer
Jeanne Mc Murrey, Inorg. Tech Director
LaTasha Cornish, Chemist
Sandra Sanchez, Lab Tech.

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: Highlander

Date/Time: 6/29/05 8:00

Order #: 5F29002

Initials: CK

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	25 C
Shipping container/cooler in good condition?	Yes	No	
Custody Seals intact on shipping container/cooler?	Yes	No	Not present
Custody Seals intact on sample bottles?	Yes	No	Not present
Chain of custody present?	Yes	No	
Sample Instructions complete on Chain of Custody?	Yes	No	
Chain of Custody signed when relinquished and received?	Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	
Container labels legible and intact?	Yes	No	
Sample Matrix and properties same as on chain of custody?	Yes	No	
Samples in proper container/bottle?	Yes	No	
Samples properly preserved?	Yes	No	
Sample bottles intact?	Yes	No	
Preservations documented on Chain of Custody?	Yes	No	
Containers documented on Chain of Custody?	Yes	No	
Sufficient sample amount for indicated test?	Yes	No	
All samples received within sufficient hold time?	Yes	No	
VOC samples have zero headspace?	Yes	No	Not Applicable

Other observations:

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Variance Documentation:

Contact Person: _____ Date/Time: _____ Contacted by: _____

Regarding:

_____

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Corrective Action Taken:

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Analysis Request and Chain of Custody Record

HIGHLANDER ENVIRONMENTAL CORP.

1910 N. Big Spring St.
Midland, Texas 79705

(432) 682-4559 Fax (432) 682-3946

PAGE: 1 OF: 1

CLIENT NAME: Toso Prod. SITE MANAGER: Ike Tavarez

PROJECT NO.: PROJECT NAME: EC Hill T.B.

SF 29002

LAB I.D. NUMBER	DATE	TIME	MATRIX	COMP.	GRAB	SAMPLE IDENTIFICATION	NUMBER OF CONTAINERS	FILTERED (Y/N)	PRESERVATIVE METHOD: HCL	HNO3	ICE	NONE	BTEX 8020/602	MTBE 8020/602	TPH 418.1 8015 MOD. TX1005	PAH 8270	RCRA Metals Ag As Ba Cd Cr Pb Hg Se	TCLP Metals Ag As Ba Cd Cr Pd Hg Se	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC.MS Vol. 8240/8260/624	GC.MS Semi. Vol. 8270/625	PCB's 8080/608	Pest. 608/808	BOD, TSS, pH, TDS, Chloride	Gamma Spec.	Alpha Beta (Air)	PLM (Asbestos)
-01	6-24-05	11:50	W		V	MW-2	3	Y			✓		X													X			
-02	6-24-05	11:20	W		V	MW-3	3	Y					X													X			

RELINQUISHED BY: (Signature) Date: 6-25-05 Time: 8:30 — RECEIVED BY: (Signature) Date: Time:

RELINQUISHED BY: (Signature) Date: Time: — RECEIVED BY: (Signature) Date: Time:

RELINQUISHED BY: (Signature) Date: Time: — RECEIVED BY: (Signature) Date: Time:

SAMPLED BY: (Print & Sign) Date: 6-24-05 Time: 1:20

SAMPLE SHIPPED BY: (Circle)
FEDEX BUS AIRBILL #:
HAND DELIVERED UPS OTHER:

RECEIVING LABORATORY: ECT
ADDRESS:
CITY: STATE: ZIP:
CONTACT: PHONE:

RECEIVED BY: (Signature) Carrie Kelley
DATE: 6/28/05 TIME: 4:50

HIGHLANDER CONTACT PERSON: Ike Tavarez

Results by:

RUSH Charges Authorized: Yes No

SAMPLE CONDITION WHEN RECEIVED:

MATRIX: W-Water A-Air SD-Solid S-Soil SL-Sludge O-Other

REMARKS: seals/labels 1L-pH 4-VOA 2.5°C

ANALYSIS REQUEST (Circle or Specify Method No.)

Please Fill out all copies – Laboratory retains yellow copy – Return original copy to Highlander Enviromental Corp. – Project Manager retains pink copy – Accounting receives Gold copy.