



Highlander Environmental Corp.

Midland, Texas

October 10, 2002

Mr. Larry Johnson
Environmental Bureau
New Mexico Oil Conservation Division
1625 N. French Drive
P.O. Box 1980
Hobbs, New Mexico 88240

RE: Assessment and Work Plan for the Concho Oil & Gas Corp. - Candy Corn #1 Battery, Unit Letter N, Section 5, Township 11 South, Range 33 East, Lea County, New Mexico

Dear Mr. Johnson,

Highlander Environmental Corp. (Highlander) was contacted by Concho Oil & Gas Corp. (Concho) to assess a spill area located at the Candy Corn #1 Battery, Unit letter N, Section 5, Township 11 South, Range 33 East, Lea County, New Mexico, 33° 23' 20" North, 103° 38' 20" West (Site). The State of New Mexico C-141 for the leak on September 2001 is enclosed in Appendix A. The Site location is shown in Figure 1.

Background

On or about July 19, 2001, a release of fluids occurred at the Candy Corn #1 Battery, due to a lightening strike to one of the oil tanks on the location. Concho personnel indicated that the tank, at the time, was empty. The New Mexico Oil Conservation Division (NMOCD) originally contacted Concho by letter dated August 10, 2001 about a release that had occurred at the location, due to a lightening strike to an oil tank.

In the month of September 2001, approximately 70 barrels fluid release occurred at the same location due to overflow of the remaining tank on the location. No fluids were recovered from the tank overflow. On September 20, 2001, NMOCD personnel inspected and stated in a letter, dated October 10, 2001, that corrective action and clean-up activities were in progress on the location without NMOCD approval. All clean-up activities were discontinued pending a site assessment in accordance with NMOCD guidelines.

Groundwater and Regulatory

Published data, obtained from the New Mexico State Engineer Office, indicated one water well located in Section 5, Township 11 South, Range 33 East, with a reported depth to groundwater of 40 feet below surface. The New Mexico Office of the State Engineer well report is included in Appendix B.

A risk-based evaluation was performed for the Site in accordance with the NMOCD Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remediation action levels

Concho- 193407
Facility- NPAC0603752465
1910 N. Big Spring
Incident- NPAC0603752631
apple -

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(RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene and xylene). Based on the regional groundwater data, the proposed recommended remedial action level (RRAL) for TPH is 100 mg/kg.

Previous Assessment

On October 31, 2001, Highlander performed the subsurface investigation of the spill area. The assessment consisted of the collection of soil samples from the spill area in order to attempt to delineate the horizontal and vertical extents of the impact. Mr. Paul Sheeley and Mr. Mike Johnson with the NMOCD were present during the sampling. Highlander prepared and submitted to the NMOCD the report "Assessment and Work Plan for the Candy Corn #1, Lea County, New Mexico, Operated by Concho Oil and Gas Corp." dated December 13, 2001. As discussed in the report, the vertical extent of the impact was not vertically defined. Due to the dense caliche layer, boreholes were proposed to define the extents of the impact. Highlander later modified its recommendations. As approved by NMOCD, Highlander proposed to supervise the installation of backhoe trenches instead of drilling boreholes. If vertical delineation is not achieved using the backhoe, boreholes would then be installed.

Assessment

According to the initial inspection on October 31, 2001, the spill appeared to impact soils on the tank pad to the north and east of the tank and continued east an additional 120 feet. Concho had initiated clean up activities to the affected soils by excavating the area east of the tank in a 120' x 30' area to a depth of 8 inches. Soils removed from this area were stockpiled on location, adjacent to the spill area. Figure 2 shows the approximate aerial extent of the stained areas.

On September 10, 2002, Highlander personnel collected soil samples from the spill area. A total of (6) six backhoe trenches were installed to vertically define the extent of the impact. Three trenches (#1, #2 and #3) were installed in the 30' x 120' excavated area. The remaining trenches (#4, #5 and #6) were installed east and north of the pad. The trench locations are shown in Figure 2. The samples were analyzed for TPH by method 8015 M and chloride by method 9253. The results of the sampling are summarized in Table 1. The laboratory reports are shown in Appendix C.

Referring to Table 1, the TPH levels in trench (#1, #2 and #3) were all below the method detection limit at 1.0' below surface. The subsurface soil in this area consisted of unconsolidated caliche rock from surface to 6" and consolidated, dense caliche from 6" to 1.0'. Softer and friable caliche was encountered at a depth of 1.0' to 2.0' below surface.

Trench #4 and #5 samples at 0-1' showed TPH levels of 38.1 mg/kg and 59.2 mg/kg, respectively. These levels were both below the RRAL of 100 mg/kg. The deeper samples at 2.0' were below the method detection limit. Trench #6, installed north of the pad, showed a TPH of 1,041 mg/kg at 0-1', which decreased below the method detection limit, at 2.0' below surface. The chloride levels detected are not an environmental concern. In addition, composite samples were collected from the stockpiles and showed TPH levels above the RRAL of 100 mg/kg.



Conclusions

1. On or about July 19, 2001, a release of fluids occurred at the Candy Corn #1 Battery, due to a lightening strike to one of the oil tanks on the location. On or about September 20, 2001, an approximately 70 barrel fluid release occurred at the same location, due to overflow of the remaining tank on the location. No fluids were recovered from the tank overflow.
2. Published data, obtained from the New Mexico Office of the State Engineer, indicated one water well located in Section 5, Township 11 South, Range 33 East, with a reported depth to groundwater of 40 feet below surface.
3. The New Mexico Oil Conservation Division (NMOCD) Remediation of Leaks, Spills and Releases guidelines require a risk-based evaluation of the site to determine recommended remediation action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene and xylene). Based on the regional groundwater data, the proposed recommended remedial action level (RRAL) for TPH is 100 mg/kg.
4. Based on the previous investigation performed on October 31, 2001, none of the benzene or total BTEX levels exceeded the determined RRAL levels. On September 10, 2002, the samples collected from trench locations (#1, #2, #3, #4 and #5) were all below the TPH RRAL of 100 mg/kg. Trench #6 showed a TPH level of 1,040 mg/kg at 0-1' below surface, which dropped below the method detection limit at 2.0' below surface. The chloride levels detected are not an environmental concern. The soil stockpiles were all above the RRAL.

Work Plan

Concho Oil and Gas proposes to excavate the area of trench # 6 to a depth of 1.0' to 2.0' below surface. The excavation soil and the stockpiles will be transported to an approved disposal facility. The excavated area, east of the tank pad, will be backfilled with clean fill material. Once the activities are completed, Highlander will prepare a final closure letter for the Site.

If you require any additional information or have any questions or comments concerning the assessment report, please call.

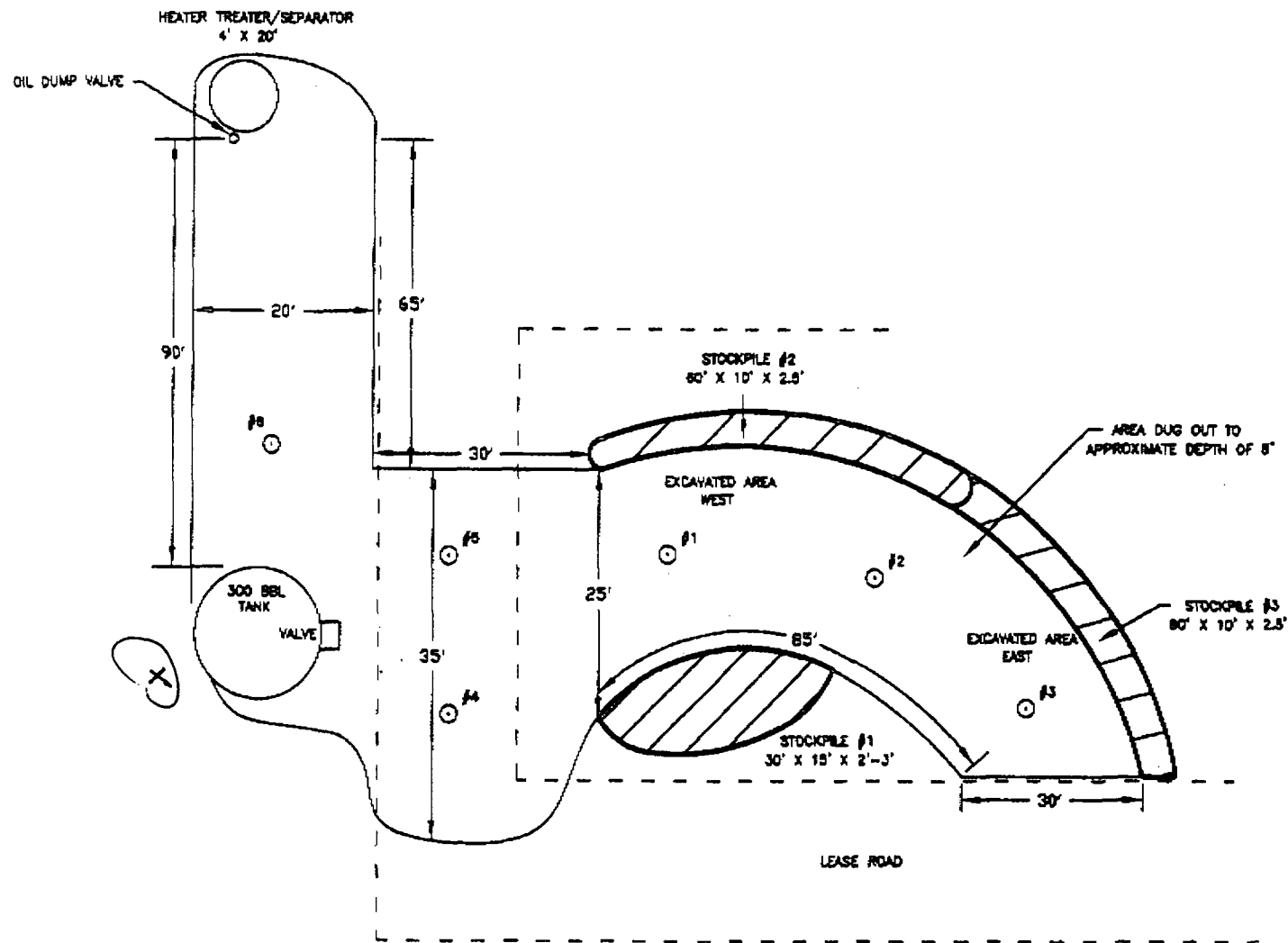
HIGHLANDER ENVIRONMENTAL CORP,


Ike Tavarez

Project Manager/Geologist

cc: Eddie Everett – Concho Oil and Gas Corp.



**LEGEND**

⊙ TRENCH



STOCKPILE MATERIAL

NOT TO SCALE

FIGURE NO. 8

CONCHO OIL & GAS CORP.

DATE
8/27/02
DRAWN BY
JDA
FILE
CONCHO
CANDY-CORP-1

CANDY CORP #1 TS
SITE DRAWING
LEA COUNTY, NEW MEXICO

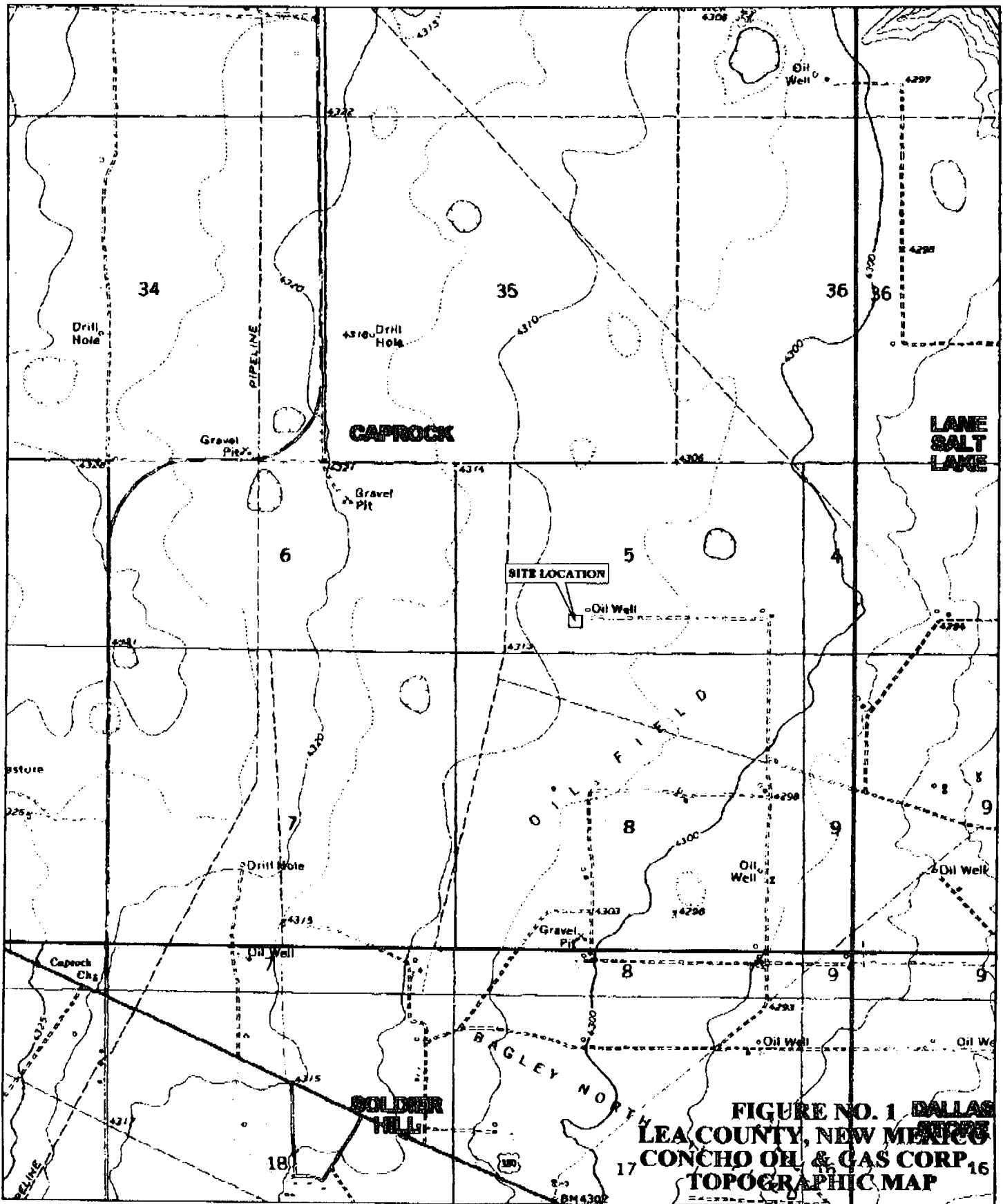
HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS

Table 1
Concho Oil and Gas Corp. - Candy Com #1 Battery
Trench Soil Sample Results
Lea County, New Mexico

Sample ID	Date Sampled	Depth (ft)	TPH (mg/kg)			Chloride (mg/kg)
			GRD (C6-C12)	DRD (C12-C35)	Total GRD & DRD	
#1	9/10/02	1.0	<10.0	<10.0	<10.0	70.9
#2	9/10/02	1.0	<10.0	<10.0	<10.0	-
	9/10/02	2.0	-	-	-	70.9
#3	9/10/02	1.0	<10.0	<10.0	<10.0	-
	9/10/02	2.0	-	-	-	<20
#4	9/10/02	0-1	<10.0	38.1	38.1	-
	9/10/02	2.0	<10.0	<10.0	<10.0	-
	9/10/02	3.0	-	-	-	213
#5	9/10/02	0-1	<10.0	59.2	59.2	-
	9/10/02	2.0	<10.0	<10.0	<10.0	-
	9/10/02	3.0	-	-	-	106
#6	9/10/02	0-1	10.7	1,030	1,041	-
	9/10/02	2.0	<10.0	<10.0	<10.0	53.2
Stockpile #1	9/10/02	Composite	301	2,120	2,421	-
Stockpile #2	9/10/02	Composite	72.9	903	976	-
Stockpile #3	9/10/02	Composite	14.1	875	889	-

(-) Not Analyzed





Highlander Environmental Corp.

Midland, Texas

FAX

DATE: 2-7-03
TO: Larry Johnson
WITH: NMOCD
FAX : 1-(505) 393-0720

FROM: Ike Tavaréz

WITH: Highlander Environmental Corp.
Midland, Texas

PAGES: 7
(including Fax cover)

Description:

Please review the Assessment and Work Plan (dated October 10, 2002) for the Concho Oil and Gas Corp. – Candy Com. #1 Tank Battery located in Lea County, New Mexico, which was submitted for review. Please call me if you have any question, thanks.

HIGHLANDER ENVIRONMENTAL CORP.
1910 N. BIG SPRING
MIDLAND, TEXAS 79705
(915) 682-4559
e-mail: itavarez@hec-enviro.com

If fax is not legible please call Ike Tavaréz at (915) 682-4559

2/7/03 2:30 PM
TALK w/ IKE - ADVISE HIM OGD
RECOMMENDS DEMONSTRATION MW & ADD2
SOURCES Sd E OF TANK - HE WAST
TO MEET NEXT WED. - REQUEST
HE CALL NOW.