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REPORTS

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GPM GAS SERVICES COMPANY
A DIVISION OF PHILLIPS PETROLEUM COMPANY

4044 PENBROOK
ODESSA, TX 79762

February 23, 1995

RECEIVED
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Environmental Bureau
Oil Conservation Division

Mr. William C. Olson - Hydrogeologist
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division - Environmental Bureau
2040 South Pacheco
Santa Fe, New Mexico 87502

RE: Subsurface Investigation Workplan for the Linam Ranch Plant (Formerly ENRON Hobbs Plant) and the Monument Booster Station (Formerly ENRON Hobbs Gas Compressor Station #2, Lea County, New Mexico

Dear Mr. Olson:

The following is a workplan for a subsurface soil and groundwater investigation related to the Linam Ranch Plant (formerly the ENRON Hobbs Gas Plant) and the Monument Booster Station (formerly ENRON Hobbs Compressor Station #2) located in Lea County, New Mexico. Previously, these facilities were owned and operated by Enron Oil and Gas Company (ENRON) however, GPM Gas Corporation (GPM) aquired ownership of the facilities in December 1994. The subsurface investigation workplan described herein specifically addresses item numbers 5 and 6 in your letter to ENRON dated October 7, 1994. Item number 1 requests a copy of the report which describes previous work performed by Geoscience Consultants, Ltd. (GCL) at these facilities. A copy of the GCL report entitled *Evaluation of Technologies to Address Groundwater Contamination at the Hobbs Gas Plant and Hobbs Compressor Station No. 2* (dated March 9, 1994) is included with this workplan. The purpose of the subsurface soil and groundwater investigation described herein is to define the horizontal and vertical extent of hydrocarbon-impacted groundwater conditions at the facilities referenced above to the extent necessary for the development of a suitable remedial response (eg. no action, monitoring, air sparging, etc.). We will install a permanent groundwater monitoring well network at the Linam Ranch Plant as requested by the NMOCD.

Linam Ranch Plant

Based on groundwater analytical data from one temporary drive point well (DP-1) conducted by GCL in February 1994 and the results of a limited subsurface investigation conducted by Daniel B. Stevens (DBS&A) in May 1994 which included seven temporary drive point wells (EOTT-1 through EOTT-5, EOTT-7, and EOTT-8) and one permanent monitor well (MW-9, EOTT-6) the hydrocarbon-impacted water in the area of the EOTT tanks appears to be fully delineated horizontally however, the installation of five monitor wells is necessary to provide a permanent monitoring well network. The existing monitor well (MW-9) adequately defines the downgradient extent of BTEX impact.

As indicated on the attached site map, two permanent monitor wells (MW-10 and MW-10D) located in the vicinity of EOTT-5 shall be installed to determine the magnitude and vertical extent of hydrocarbon-impact to the on-site groundwater conditions in relation to the EOTT tanks. Two soil borings, SB-1 and SB-2, will be performed adjacent to the south and west sides of the EOTT tanks to better determine the magnitude of soil impact from the suspected source area. Based on the results of these soil borings, it may be more appropriate to place MW-10 and MW-10D at one of these locations since the intent is to place this well within the center of mass of the hydrocarbon-impacted groundwater. Monitor well MW-10D will be completed deeper with the well screening installed approximately 15 to 20 feet below the water table. Monitor well MW-10D shall be constructed of 2-inch diameter well casing and screen to maximize its potential use as an air sparging well if such corrective action is deemed appropriate. The additional proposed monitor wells shall be constructed of 4-inch diameter PVC to minimize potential completion and groundwater sampling difficulties. One on-site monitor well (MW-13) placed approximately 150 to 200 feet in the apparent upgradient direction (northwest) of the EOTT tanks should define the upgradient extent of hydrocarbon impact. Two monitor wells, MW-12 and MW-13, should be placed approximately 200 feet southeast and 250 northeast of the EOTT tanks, respectively, to define the cross-gradient extent of hydrocarbon impact to groundwater conditions and to provide the necessary lateral monitoring points such that the actual groundwater gradient direction on-site can be determined. Additional monitor wells may be required at this site, depending on the groundwater chemistry results obtained from the proposed wells.

Monument Booster Station

We understand that two underground storage tanks (USTs) containing waste oil were excavated and removed from this facility and one above-ground storage tank (AST) containing natural gas/pipeline liquids (condensate) was removed. Hydrocarbon-impacted soil associated with the USTs and from possible AST overflows were excavated in July 1992. Based on groundwater analytical data from two existing monitor wells (MW-1 and MW-2) installed by GCL in February 1994 and the results of a limited subsurface investigation conducted by Daniel B. Stevens (DBS&A) in May 1994 which included six temporary drive point wells, the installation of four additional monitor wells is proposed to define the horizontal and vertical extent of the hydrocarbon-impacted groundwater conditions. Monitor well MW-1 appears to define the magnitude of BTEX observed in the on-site groundwater whereas monitor well MW-2 defines the upgradient extent of BTEX impact.

As indicated on the attached site map, an additional deeper monitor well (MW-1D) located adjacent to MW-1 that is screened approximately 15 to 20 feet below the water table should define the vertical extent of hydrocarbon conditions in the on-site groundwater. This well shall be constructed of 2-inch diameter well casing/screen to maximize its potential use as an air sparging well if such corrective action is deemed appropriate. The three additional proposed monitor wells shall be constructed of 4-inch diameter PVC to minimize potential completion and groundwater sampling difficulties. If off-site access can be secured from the current landowner, one off-site monitor well (MW-5) will be placed approximately 500 feet in the apparent downgradient direction (southeast) of monitor well MW-1. If this well indicates low BTEX concentrations, it should be sufficient to define the downgradient extent of hydrocarbon impact. Two monitor wells, MW-3 (on-site) and MW-4 (off-site) shall be placed approximately 200 feet southwest and 300 east-northeast of MW-1, respectively, to define the cross-gradient extent of hydrocarbon impact to

groundwater conditions and to provide the necessary lateral monitoring points such that the actual groundwater gradient direction on-site can be determined. Again, off-site access must be secured from the current landowner, for the second off-site monitor well. Additional monitor wells may be required at this site, depending on the groundwater chemistry results obtained from the proposed wells.

Sampling and Analysis Procedures

During the performance of advancing soil borings at the above-proposed monitor well locations soil samples will be obtained at 5-foot intervals and screened with a photoionization detector (PID) capable of measuring relative concentrations of volatile organic vapors. For each soil boring and monitor well, the soil sample with the highest PID reading and the sample immediately above the saturated zone shall be submitted for laboratory analysis.

Soil and groundwater samples from the existing and proposed monitor wells will be analyzed for total dissolved BTEX, total petroleum hydrocarbons (TPH), and polynuclear aromatic hydrocarbons (PAH) using EPA Methods 8020, 8015, and 8310, respectively. Field measurements of depth to water, specific conductance, dissolved oxygen, pH and temperature will also be obtained. GCL personnel shall use EPA-approved methods to construct the monitor wells and obtain representative soil and groundwater samples.

Schedule

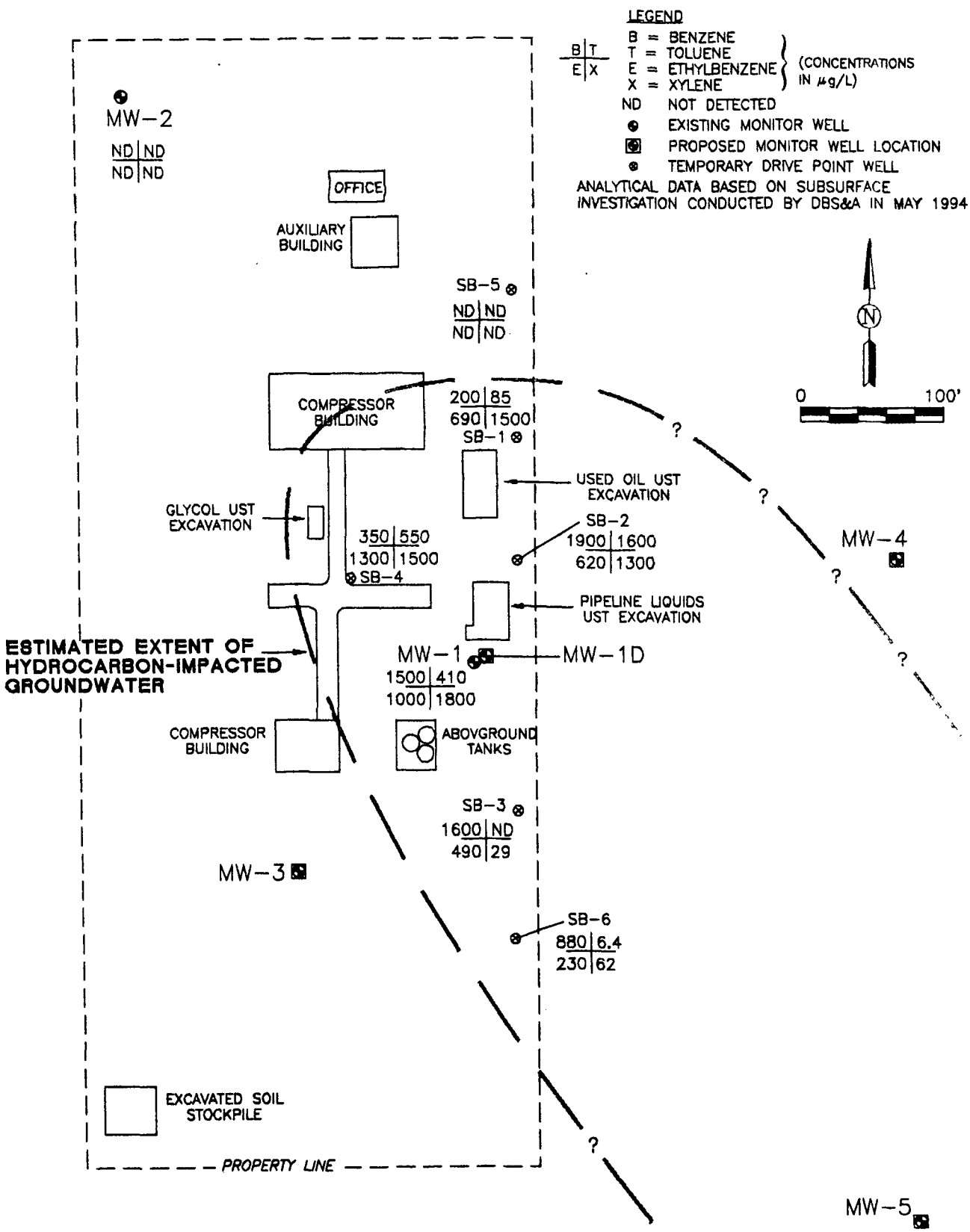
We will pursue implementation of the scope of work described above within 30 days of your approval of this workplan. If you have any questions or concerns with our proposal, please advise. I can be reached at (915) 368-1085.

Sincerely,

Vince Bernard
Safety & Environmental Director
New Mexico Region

VBB:mdp
Attachments

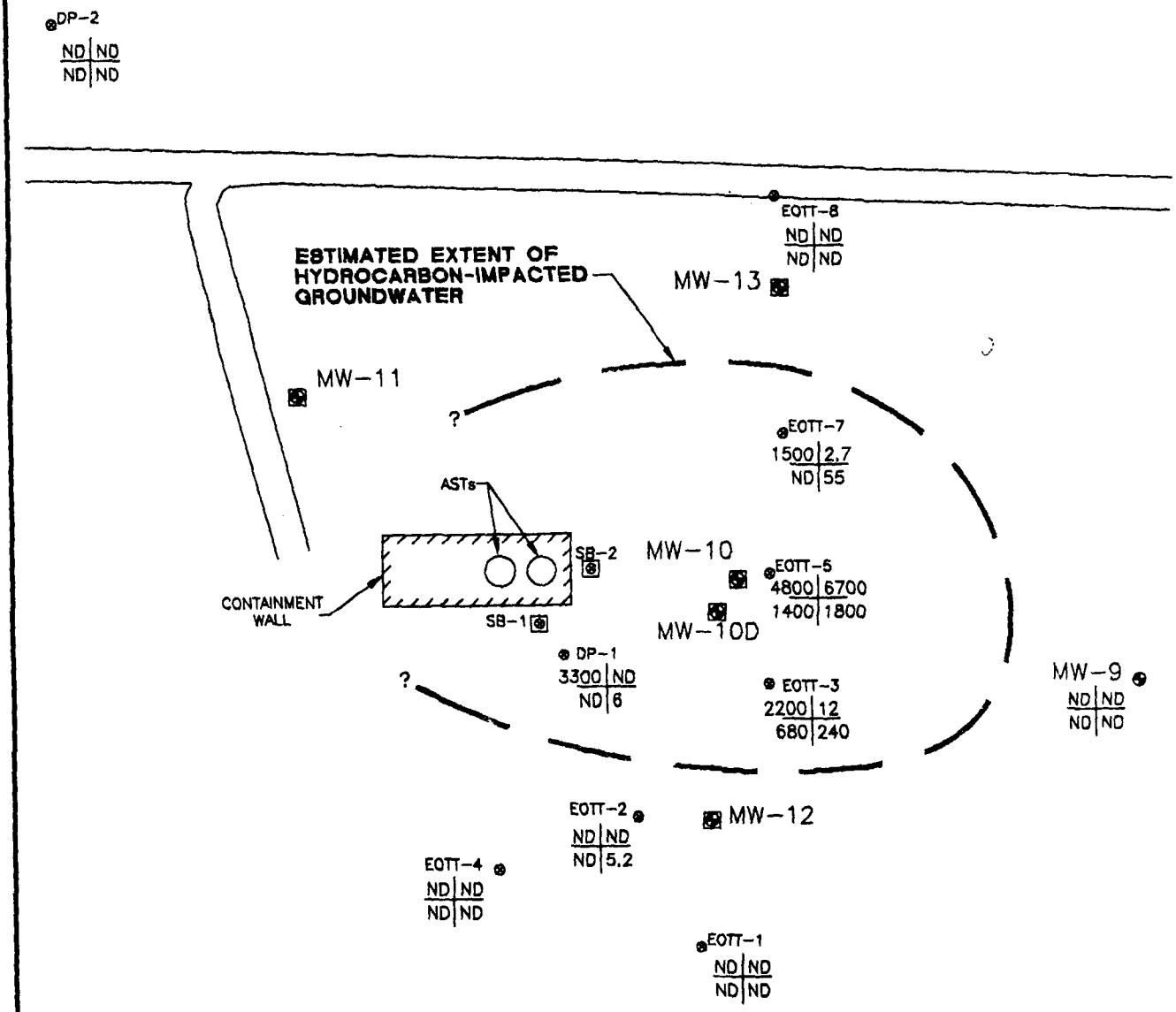
cc: Scott Seeby, GPM
Randall T. Hicks, GCL
Gilbert J. Van Deventer, GCL
Maureen Gannon, GCL



GCL

CLIENT: GPM GAS CORPORATION	
DATE: 1/26/95	REV. NO.: 0
AUTHOR: G.J.V.	DRAWN BY: M.P.
CK'D BY: R.T.H.	FILE: MONUMNT.

FIGURE 1
MONUMENT BOOSTER STATION SITE MAP



LEGEND

B | T / E | X	B = BENZENE, T = TOLUENE, E = ETHYLBENZENE, X = XYLENE (CONCENTRATIONS IN µg/L)
ND	NOT DETECTED
⊕	EXISTING MONITOR WELL LOCATION
•	TEMPORARY DRIVE POINT WELL (GCL 1994)
▣	PROPOSED SOIL BORING LOCATION
▣	PROPOSED MONITOR WELL LOCATION

N

0 100'

ANALYTICAL DATA BASED ON SUBSURFACE INVESTIGATION CONDUCTED BY DBS&A IN MAY 1994

GCL

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DATE: 1/26/95	REV. NO.: 0
AUTHOR: G.J.V.	DRAWN BY: M.P.
CK'D BY: R.T.H.	FILE: LNMRNCH

FIGURE 1
LINAM RANCH PLANT
SITE MAP