AP - 41

STAGE 1 & 2 WORKPLANS

DATE: March 3, 2009

PLAINS
PIPELINE, L.P.

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March 3, 2009

Mr. Edward Hansen
New Mexico Oil Conservation Division
Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: Plains Pipeline, L.P. Hugh Gathering – East Site
NMOCD Reference # AP-041
Unit Letter M of Section 12, Township 21 South, Range 37 East
Lea County, New Mexico

Dear Mr. Hansen:

Plains Pipeline, L.P. is pleased to submit the attached Groundwater Investigation and Delineation Work Plan, dated February 23, 2009, for the Hugh Gathering – East Site. This site is located in Section 12 of Township 21 South, and Range 37 East of Lea County, New Mexico. This document details the proposed installation of two (2) additional groundwater monitor wells at the site.

Should you have any questions or comments, please contact me at (575) 441-1099.

Sincerely,

Jason Henry

Jason Henry
Remediation Coordinator
Plains All American

CC: Larry Johnson, NMOCD, Hobbs Office

Enclosure

PREMIER
ENVIRONMENTAL SERVICES, INC

4800 Sugar Grove Blvd., Suite 420
Stafford, TX 77477

Phone 281.240.5200
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www.premiercorp-usa.com

February 23, 2009

Mr. Jeff Dann, P.G.
Plains Marketing, L.P.
333 Clay Street, Suite 1600
Houston, Texas 77002

RE: Hugh Gathering – East Site
Plains SRS No.: 2002-10235
Lea County, New Mexico
Groundwater Investigation and Delineation Work Plan
Premier Project No. 207032
AP-041

Dear Jeff,

Premier Environmental Services, Inc. (Premier) is pleased to present this proposal for a Groundwater Investigation and Delineation Work Plan for dissolved phase hydrocarbon impact at the Plains Marketing, L.P. (Plains) Hugh Gathering East site in Lea County, New Mexico (Figure 1).

SITE BACKGROUND

Assessment of the crude oil release site was initiated in 2002 by completing soil borings in and around the visually impacted areas. Additional borings were completed in 2006. This assessment and data collection was conducted by Environmental Plus, Inc (EPI). In May 2005, EPI prepared and submitted a Stage 1 and 2 Abatement Plan that was approved by New Mexico Oil Conservation Division (NMOCD) in November 2005. In May 2008, a modified work plan to address the affected soils was submitted by Premier on behalf of Plains and approved by NMOCD. During October 2008, the plan was implemented and affected soils were removed to a maximum depth of 19 feet below ground surface (bgs). Soils below 19 feet were treated in place using Micro Blaze. During these removal activities a single monitor well was installed to evaluate if groundwater was impacted by hydrocarbons. The analytical data showed a benzene concentration of 1.51 mg/L. Based on confirmation of this data during the 4th quarter sampling event, Premier recommends the installation of additional monitoring wells to evaluate the extent of hydrocarbons in groundwater at the site and for use to treat/remediate groundwater(if required). Figure 2 presents the general location of the soil borings/wells previously completed at the site and Figure 3 presents the historical groundwater flow direction for the area based on data collected from Hugh Gathering West Site.

OBJECTIVE

The primary objective of this investigation is to delineate dissolved phase hydrocarbon impact to groundwater using groundwater monitor wells. Specific elements of the investigation are as follows:

- Installation of 2 groundwater monitor wells; and sampling and analysis of groundwater from the 2 wells to evaluate the extent of groundwater impact and hydrocarbon plume migration at the site.
- Preparation of report summarizing the investigation findings.

This work plan details the groundwater investigation scope of work and provides an estimated schedule.

TECHNICAL APPROACH

The NMOCD-approved remediation strategy for this site mandates the delineation of the extent of groundwater impacted from the release, and subsequent abatement of detected contaminants to below the NMOCD specified Groundwater Remediation Criteria.

REMEDIATION CRITERIA

Remediation Criteria for groundwater specified in by NMOCD are as follows:

- Benzene – 0.01 mg/L
- Toluene - 0.75 mg/L
- Ethylbenzene - 0.75 mg/L
- Total Xylenes - 0.62 mg/L

To meet the requirements of the approved abatement plan, the following scope of work is proposed.

SCOPE OF WORK

Implementation of this scope of work (specified below) should delineate the dissolved phase hydrocarbon impact in groundwater at Plains Hugh Gathering East site. This will be accomplished by the installation of two monitoring wells. Figure 4 illustrates the proposed well locations for further delineation of dissolved phase impact. Actual locations will be based on field findings with placement as close as practical to the locations shown on Figure 4.

Subsurface Groundwater Investigation

The proposed field investigation includes a total of two (2) proposed monitor wells (PMW), to a total depth of seventy (70) feet below ground surface (See Figure 4).

Soil Investigation

Soil samples will be collected by advancing borings using a drilling rig by a licensed New Mexico Water Well Driller. Lithology will be determined by logging cores on 5-foot intervals.

Retrieved soil samples will be observed and lithologically described. Intact samples will be collected for chemical analysis using a decontaminated split core barrel sampler from the interval of interest. Retrieved soils will be screened for the presence of volatile organic compounds with a photo ionization detector (PID).

Two (2) soil samples will be collected at each of the soil boring locations. One (1) soil sample will be selected from each boring based on highest PID readings and submitted for laboratory analysis. The second sample will be collected immediately above the groundwater interface. Samples collected for chemical analysis will be transferred directly from the collection device to the appropriate laboratory supplied sample container. Soil samples selected for analysis will be placed in appropriate containers and cooled to 4 degrees centigrade. All selected soil samples will be analyzed by EPA method 8015, for total petroleum hydrocarbon – gasoline range organics (TPH-GRO) and TPH – Diesel Range Organics (TPH-DRO), and benzene, toluene, ethylbenzene, and xylenes (BTEX – EPA method 8021B/5030). Samples will be packaged, documented and shipped in accordance with EPA chain of custody procedures. Analysis will be conducted in accordance with EPA methods and procedures for BETX and TPH. PVC well screen and riser will be installed in each boring, and will be completed as a groundwater monitor well.

Groundwater Investigation

Monitor wells will be installed, constructed and developed in accordance with EPA guidelines. Wells will be installed by a licensed New Mexico Water Well Driller. The wells proposed in this work plan will be set in the first water zone at approximately 60 feet bgs.

Field observations and analytical data may indicate that other additional borings/wells are required. If additional wells are required, they will be installed during a separate phase of the groundwater investigation after receipt of approval from all parties concerned.

At each location, monitor wells will be completed using 2-inch diameter new PVC screen and riser pipe. A maximum screen length of 20' will be used to screen the zone of interest. The screen will be factory slotted to 0.010 inch slot size. Screen and riser pipe will be flush threaded. No glues or adhesives will be used. Each well will have an above ground completion with a protective shroud and four bollards.

Groundwater Sampling

After monitor and recovery wells are installed and allowed to cure for 24 hours, each well will be developed and sampled in accordance with the NMOCD requirements and EPA guidelines. Each collected groundwater sample will be analyzed for the presence of list of chemicals and compounds specified below in accordance with NMOCD requirements and EPA methods and procedures.

<u>General Chemistry</u>

Calcium	Bicarbonate Alkalinity
Magnesium	Carbonate Alkalinity
Potassium	Nitrate

Sodium	Phosphate
Chloride	Fluoride
Sulfate	

Resource Conservation and Recovery Act (RCRA) Metals

Arsenic	Lead
Barium	Mercury
Cadmium	Selenium
Chromium	Silver

Additional Water Quality Control Commission (WQCC) Metals

Copper	Boron
Iron	Cobalt
Manganese	Molybdenum
Zinc	Nickel
Aluminum	

All compounds listed in U.S. Environmental Protection Agency (EPA) SW-846 Methods: 8260 Volatile Organic Compounds (VOCs) & 8270 Semi Volatile Organic Compounds (SVOCs)

Groundwater Flow Determination

The location of each well will be surveyed to a minimum area accuracy of 1 foot and to a minimum elevation accuracy of 0.1 foot. The elevation will be surveyed to a fixed and designated point on the PVC casing. Water levels will be determined and the data will be used to determine hydraulic gradient and groundwater flow direction.

Quality Assurance/Quality Control Procedures

Specific procedures for the collection and analysis of samples, as well as quality assurance and quality control (QA/QC) to be followed during this soil and groundwater investigation are outlined in this work plan. Investigation activities will be performed under EPA chain-of-custody procedures and all drilling and well installation, soil and groundwater sampling, sample packaging and shipment will be performed in accordance with EPA guidelines. Groundwater QA/QC of the sampling and analytical effort will be provided by the collection and analysis of blind duplicates, equipment rinsates, and trip blanks.

Decontamination

Drilling and sampling equipment will be decontaminated following EPA guidelines before and between use each boring or sample.

Waste Handling

Investigation generated wastes (i.e., drill cuttings, well development water, decontamination water, used expendable personnel protection equipment, etc.) will be containerized in appropriate containers at a location on-site prior to disposal. Waste generated by this investigation will be disposed of following appropriate regulations and guidelines.

Health and Safety

Premier will use the existing health and safety plan (HASP) for this Site that reflect the activities and hazards that may be encountered. All work will be performed in accordance with the HASP. At this time, it is anticipated that the investigation activities will be completed in Level D protection consisting of at least hard hats, safety glasses, steel-toed boots, coveralls and chemical resistant gloves. Monitoring, using a photo ionization detector (PID) will also be performed during all investigation activities. If the PID reading exceeds level D, which will be established in the HASP, personnel protection may be upgraded.

In accordance with Premier policy, all project personnel and subcontractors performing work at the Plains sites will be formally trained in accordance with SARA 126(e) and the OSHA 29 CFR 1910.120, which became effective March 6, 1990. This training shall include the required 40 hours of initial instruction and 3 days of field experience under the direction of a trained supervisor, for those individuals that may be exposed to hazardous materials. Project personnel shall also be participants in a medical surveillance program in accordance with the requirements set forth in 29 CFR 1910.120.

72 hours prior to commencing work on the site, a call must be placed to New Mexico One Call for utility location. The drilling contractor must locate borings a minimum of 10 feet from all marked utilities.

REPORTING

Data Evaluation and Report Preparation

Upon completion of the investigation activities Premier will prepare a detailed report regarding investigation activities and findings. Soil and groundwater investigations will be presented in separate report sections.

The soil investigation section of the report will include but is not limited to:

- a tabulated summary of soil data from the current investigation results;
- detailed logs of each boring which will show materials encountered;
- laboratory reports of all analysis performed on the soils; and
- Recommendations for further actions, which may include additional investigation, or corrective actions based upon the findings.

The groundwater investigation section of the report will include but is not limited to:

- a tabulated summary of groundwater data from the current investigation results;
- a summary of the field data obtained;
- detailed logs of each boring which will show materials encountered and monitor well construction details of each converted boring;
- copies of the Well Reports prepared by the well installation contractor;
- drawings showing the physical and topographic features of the site and the locations of groundwater sampling wells;
- copies of the original laboratory reports of all analysis performed on the groundwater samples; and

- Recommendations for further actions to be taken, which may include additional investigation, or preliminary corrective actions based on investigation findings.

SCHEDULE

This Site Groundwater Investigation and Delineation Work Plan for dissolved phase hydrocarbon impact can be accomplished within the following schedule pending prompt approval and authorization by Plains, the landowner, and the NMOCD and no unforeseen conditions beyond Premier's control (i.e., weather, driller availability, etc.).

Soil and Groundwater Investigation	Initiated within two weeks from receipt of NMOCD approval
Reporting	25 Days from receipt of final groundwater analytical reports

Upon your review of this work plan and detailed scope of work, should you have any questions concerning the information presented, please contact us at (281) 240-5200 extension 2703.

Yours very truly,

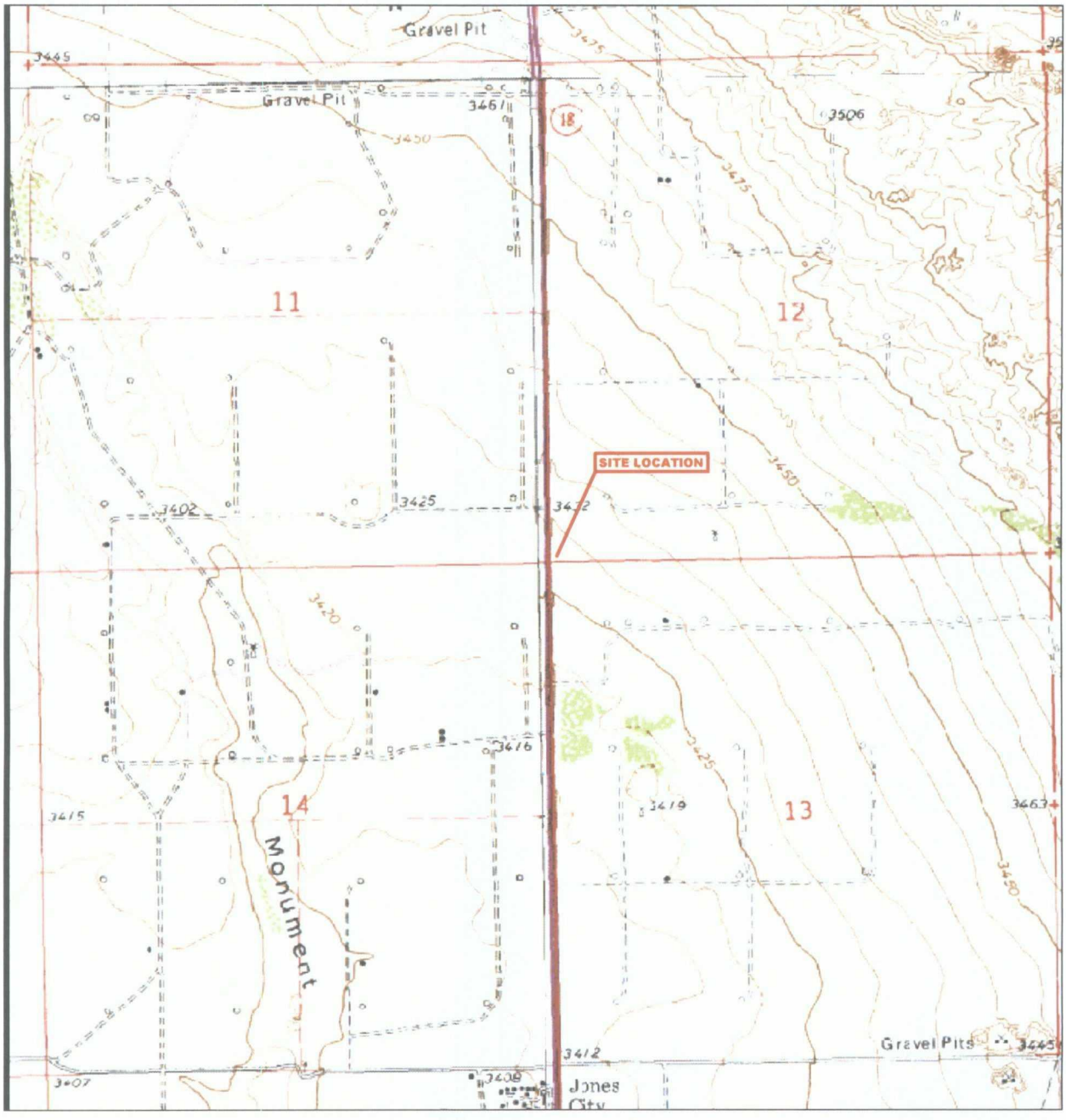
Chan Patel
Senior Project Manager

Ben Latham
Senior Geologist

Attachments
Figures

Attachments

Figures 1 through 4



Eunice NE Quadrangle
32°29'11"N Latitude & 103°07'31"W Longitude

0 1/2 mile 1 mile
Distance in Miles

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Figure 1
Site Location Map
Hugh Gathering
Plains Marketing, L.P.
SRS. #: 2002-10235
Lea County, New Mexico

PROJ. NO: 207032.00	CK:	DATE: 1/09

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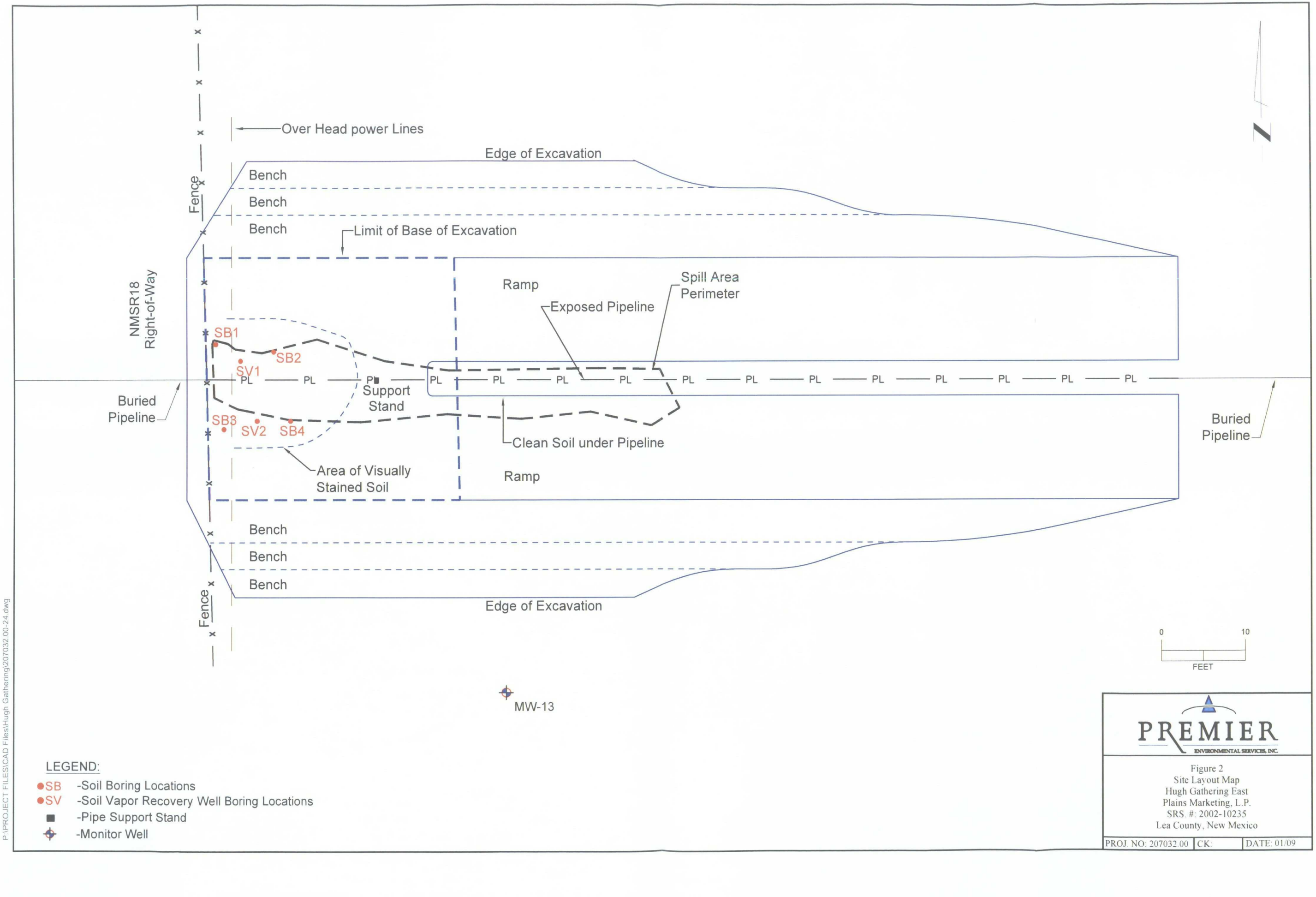
Over Head power Lines
Edge of Excavation
Bench
Bench
Bench
Fence
Limit of Base of Excavation
NMSR18
Right-of-Way
Ramp
Spill Area
Perimeter
Exposed Pipeline
SB1
SB2
SV1
PL
Support
Stand
Buried
Pipeline
SB3
SV2
SB4
Clean Soil under Pipeline
Area of Visually
Stained Soil
Ramp
Buried
Pipeline
Bench
Bench
Bench
Fence
Edge of Excavation
MW-13
0
10
FEET
LEGEND:
SB -Soil Boring Locations
SV -Soil Vapor Recovery Well Boring Locations
-Pipe Support Stand
-Monitor Well
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Figure 2
Site Layout Map
Hugh Gathering East
Plains Marketing, L.P.
SRS. #: 2002-10235
Lea County, New Mexico
PROJ. NO: 207032.00
CK:
DATE: 01/09
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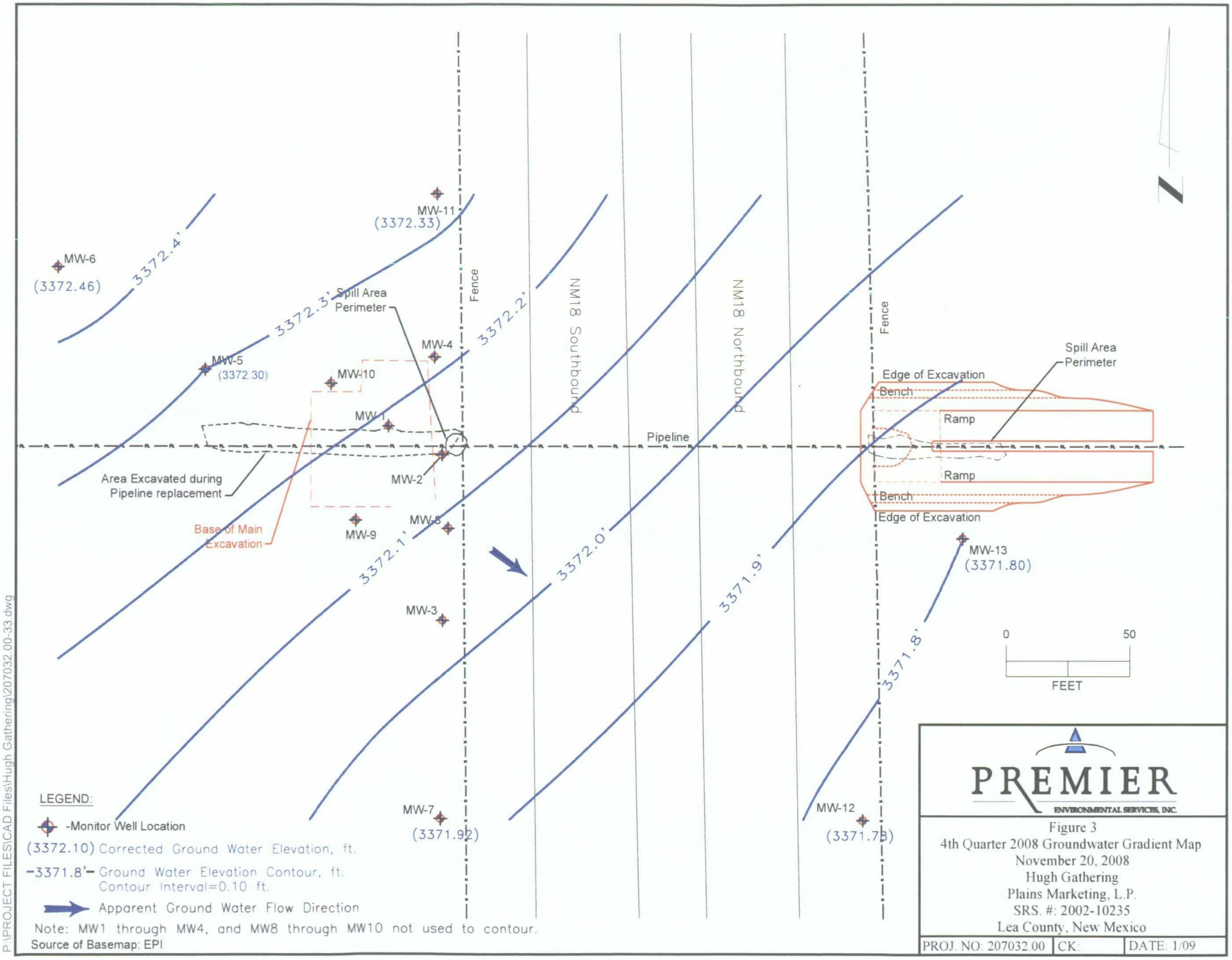

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Figure 3
4th Quarter 2008 Groundwater Gradient Map
November 20, 2008
Hugh Gathering
Plains Marketing, L.P.
SRS. #: 2002-10235
Lea County, New Mexico

PROJ. NO: 207032.00	CK:	DATE: 1/09

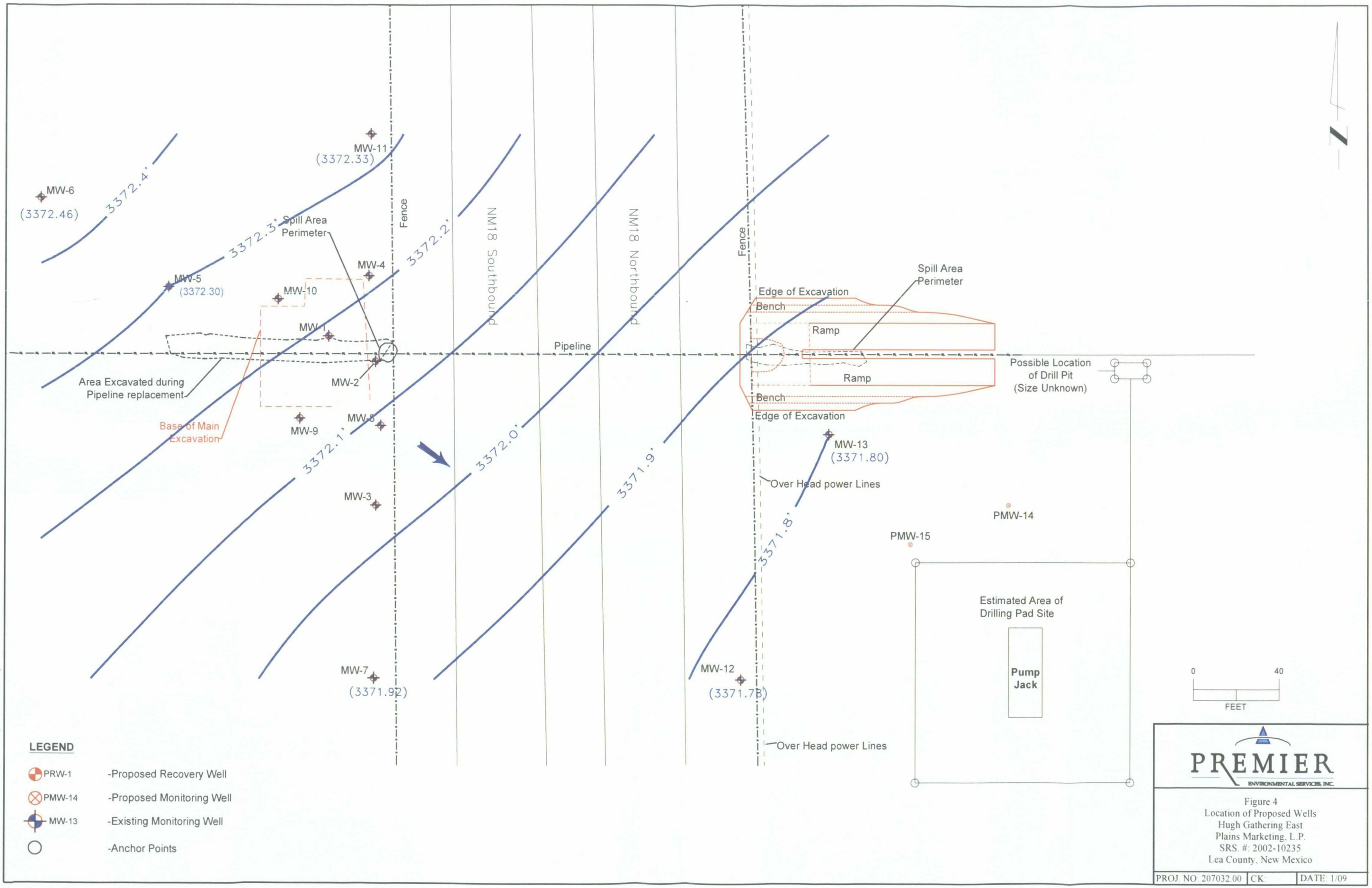

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Figure 4
Location of Proposed Wells
Hugh Gathering East
Plains Marketing, L.P.
SRS. #: 2002-10235
Lea County, New Mexico

PROJ. NO: 207032.00	CK:	DATE: 1/09