1R - 420

WORKPLANS

DATE:

April, 2009

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ALTERNATIVE ENERGY PRODUCT RECOVERY WORK PLAN

TEXACO SKELLY 'F'
SW ¼, NW ¼, SECTION 21, TOWNSHIP 20 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO
PLAINS SRS NUMBER: 2002-11229
NMOCD Reference 1R-0420

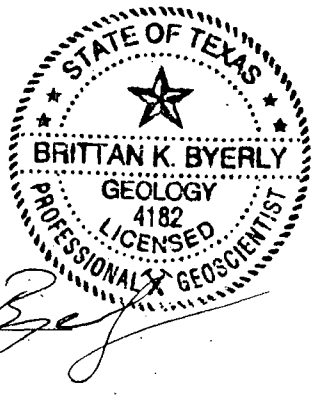
Prepared for:

Plains Marketing, L.P.
333 Clay Street, Suite 1600
Houston, Texas 77002

Prepared by:

NOVA Safety and Environmental
2057 Commerce Drive
Midland, Texas 79703

April 2009



Ronald K. Rounsaville
Project Manager

Brittan K. Byerly, P.G.
President

Hansen, Edward J., EMNRD

From: Ron Rounsaville [rrounsaville@novatraining.cc]
Sent: Tuesday, April 14, 2009 2:11 PM
To: Hansen, Edward J., EMNRD
Cc: Jason Henry
Subject: Emailing: Solar Rec SystemWP 04-06-09
Attachments: Solar Rec SystemWP 04-06-09.pdf

Mr. Hansen,
Attached is the Groundwater Remediation Workplan submitted for your review for the Plains Texaco Skelly 'F' Site (NMOCD Reference 1R-420) in Lea County, New Mexico as per your e-mail correspondence to Mr. Jason Henry of Plains Marketing, L.P. date March 12, 2009.

Should you have any questions regarding this information, please contact me at 432-520-7720 or Jason Henry at 575-441-1099.

Thank You,

Ronald Rounsaville

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FIGURES

1.0 INTRODUCTION AND PURPOSE

On behalf of Plains Marketing, L.P. (Plains), NOVA Safety and Environmental (NOVA) has prepared this Alternative Energy Product Recovery Work Plan to address groundwater impacted with Phase Separated Hydrocarbons (PSH) at the site known as Texaco Skelly "F" (SRS # 2002-11229) in response to the NMOCD correspondence dated March 12, 2009. The site is located in the SW ¼ of the NW ¼ of Section 21, Township 20 South, Range 37 East in Lea County, New Mexico. A site location map is provided as Figure 1. The purpose of this work plan is to describe recent efforts in reducing the measurable thickness of PSH at the site and to implement an additional product recovery system utilizing solar and wind generated energy to maximize recovery of PSH while minimizing groundwater extraction.

Nine monitor wells (MW-1 through MW-9) and two recovery wells (RW-1 and RW-2) have been installed to delineate and remediate the hydrocarbon plume. A Site Map with the existing well locations is included as Figure 2. Currently, monitor well MW-8 and recovery wells RW-1 and RW-2 exhibit PSH thicknesses ranging from a sheen in monitor well MW-8 to 0.1 feet in recovery well RW-2. Manual PSH recovery has been performed on a weekly basis at the site since 2006. The total volume of PSH recovered from the site since 2004 has been approximately 1,150 gallons or 27.5 bbls. Product thicknesses within monitor well MW-8 and recovery wells RW-1 and RW-2 have diminished by approximately 78% over the past two years due to aggressive hand bailing and over pumping of the wells.

2.0 SCOPE OF WORK

A mobile solar and wind powered pumping unit consisting of a 12 volt mini-monsoon pump powered by two 12 volt solar panels and a 12 volt wind turbine is proposed to enhance recovery of PSH on an everyday basis. The monsoon pump will be placed in the well exhibiting the greater PSH thickness and will operate on a cycle of approximately 1 hour per day at a pumping rate of an average of two gallons per minute. A pump rate of two gallons per minute (gpm) is estimated to produce approximately 120 gallons (2.75 barrels (bbls) per day from the well being produced. Recovered PSH will be temporarily stored in an on-site 525 gallon poly tank and will be periodically re-introduced into the Plains transportation system. High level cutoff switches will be installed to prevent overfilling of the tank. A System Layout Diagram is presented as Figure 3. The system will be checked weekly for performance and maintenance needs.

The goal of this recovery system will be to increase product recovery in the center mass of the product plume and advance the site toward regulatory clean-up targets. The removal of PSH from the site will stop or reduce additional contribution of dissolved phase contaminants while accelerating natural attenuation of the current dissolved phase concentrations. This solar recovery system is anticipated to inhibit the movement of PSH and is anticipated to take approximately 12 months to accomplish PSH removal from the site. The recovery system will be moved from well to well to maximize the efficiency of the system, with concurrent manual bailing of any other well or wells indicating measurable thicknesses of PSH on a weekly schedule. Upon removal of PSH to the maximum extent possible, other means of completion of the groundwater cleanup will be evaluated and proposed to the NMOCD. The recovery unit will then be transferred to alternate Plains sites.

3.0 REPORTING

NOVA will submit a System Installation Report, summarizing installation and operational parameters of the total fluids recovery system 30 days after the end of startup activities. This report will include as-built drawings, operational data and pumping rates, a gradient map prior to and after startup activities and product distribution and thickness maps prior to and after startup.

Quarterly Status Reports will be prepared and submitted to Plains summarizing the effectiveness and progress of the PSH recovery from the groundwater. Data including product thickness, recovery volumes, disposal quantities and system adjustments will be summarized and transmitted, along with updated gradient maps, product thickness and distribution maps and any pertinent system as-built changes.

4.0 DISTRIBUTION

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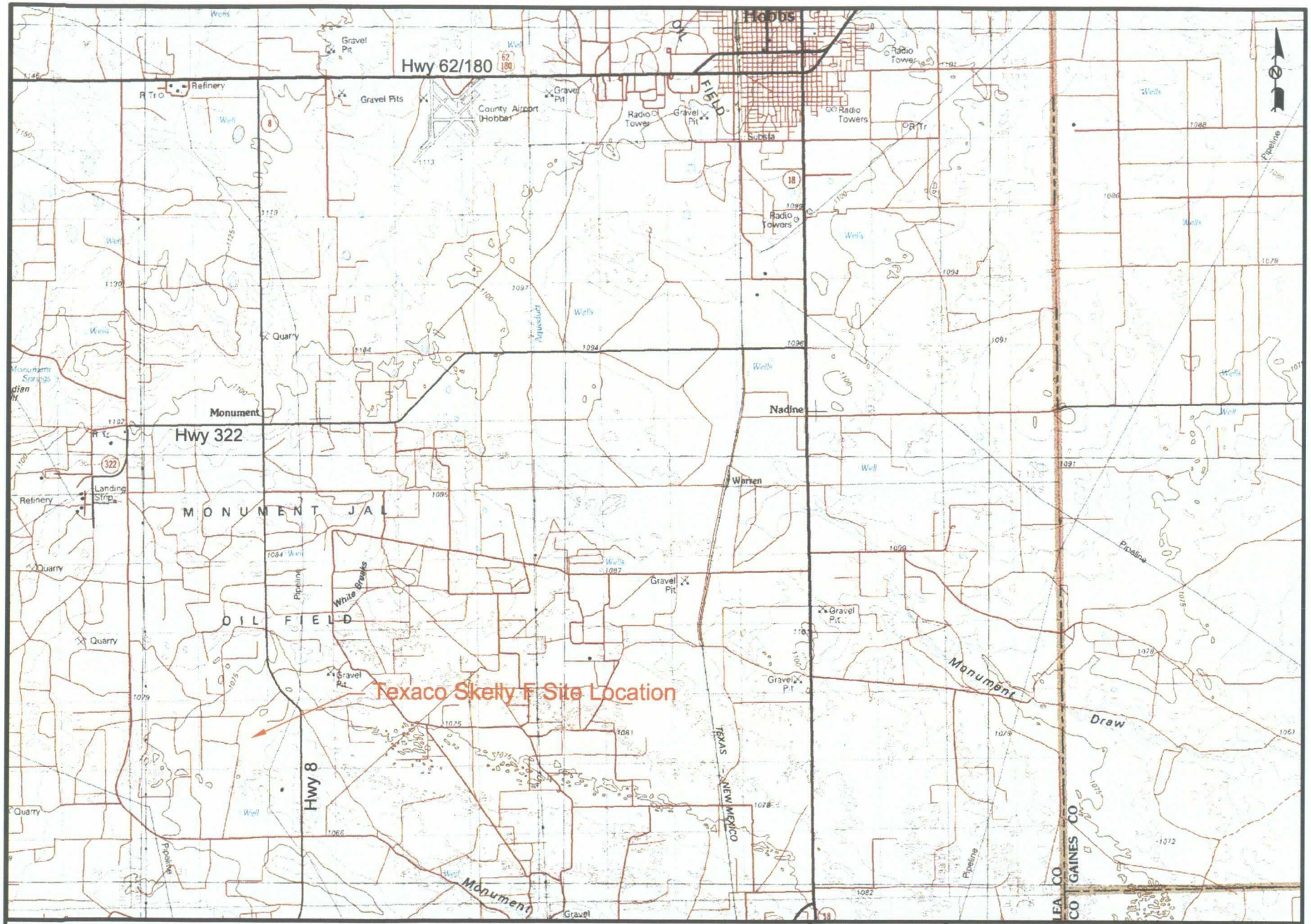


SW1/4 NW1/4 Section 21, T20S, R37E

6 3 0 3 6

Distance in Miles

NMOCD Reference # 1R-0420

Figure 1
Site Location Map
Plains Marketing, L.P.
Texaco Skelly F
Lea County, NM

NOVA Safety and Environmental

February 15, 2005	Scale: 1" = 6 Miles	Prep By: DPM
		Checked By: MRE

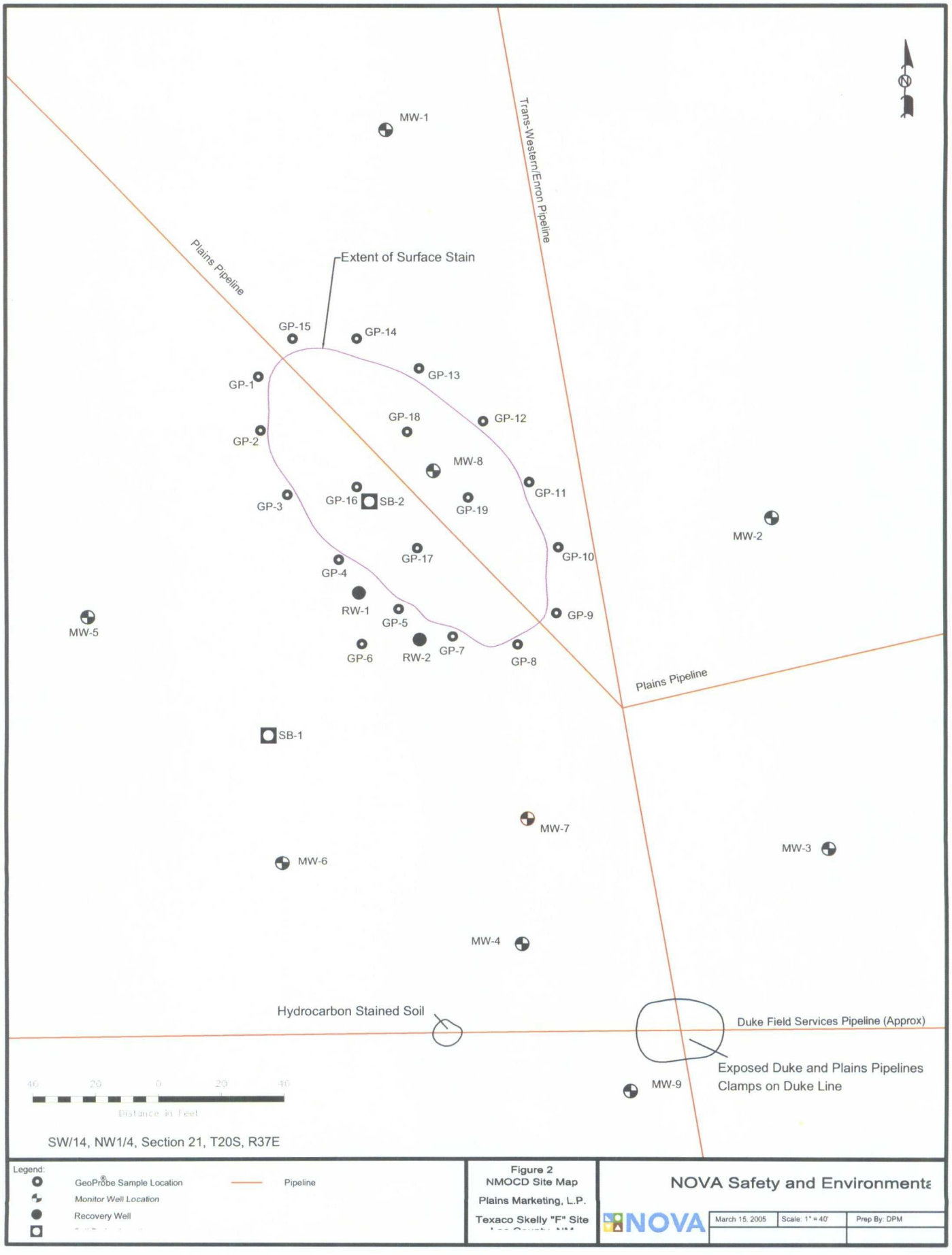
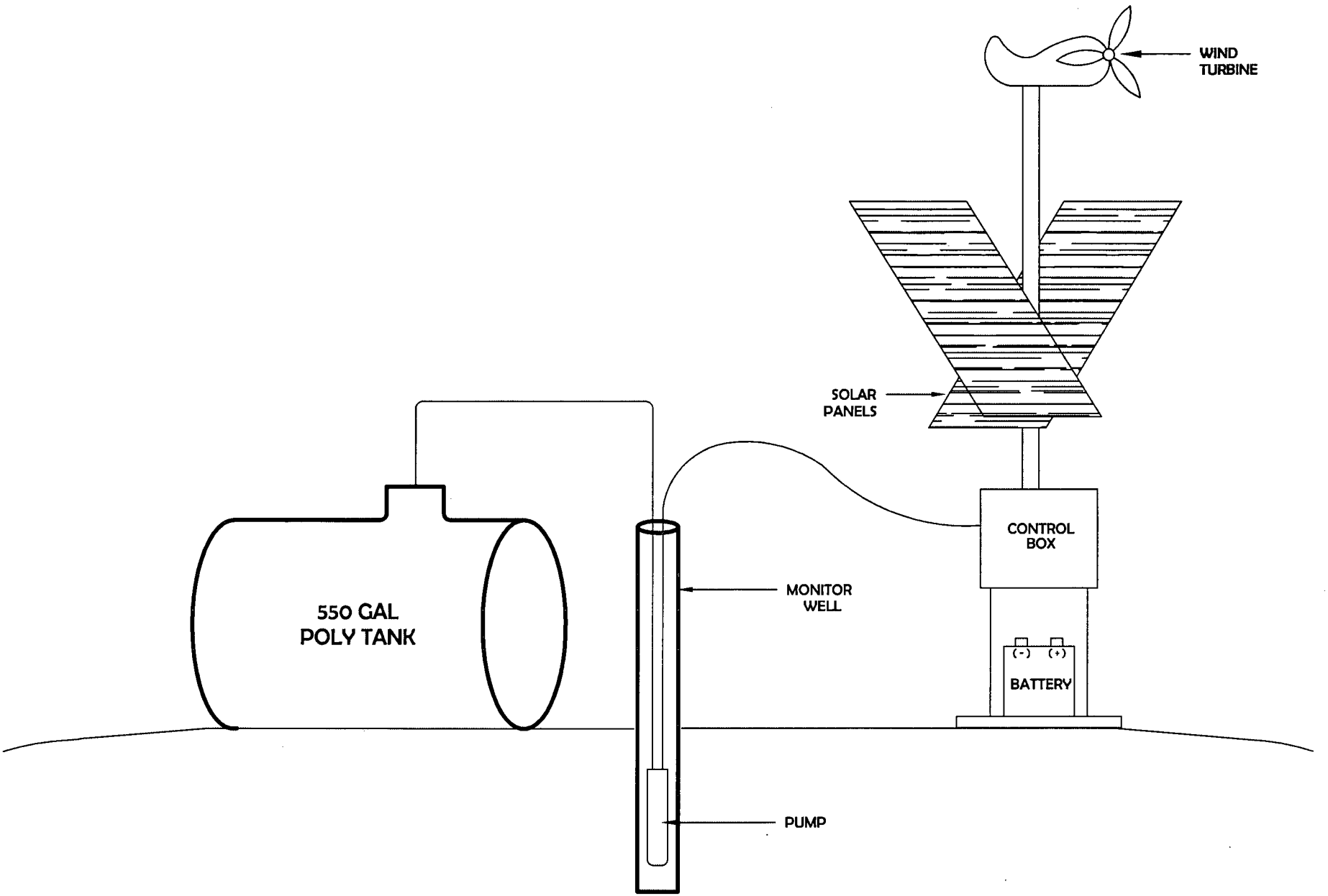


Figure 2
NMOCD Site Map
Plains Marketing, L.P.
Texaco Skelly "F" Site

NOVA Safety and Environmenta

March 15, 2005	Scale: 1" = 40'	Prep By: DPM



Legend:

Figure 3
Alternative Energy Product Recovery System Layout Diagram
Plains Pipeline, L.P.
Texaco Skelly "F"
Lea, New Mexico

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Scale: NTS	Drawn By: SAT	Checked By: RKR
April 09, 2009		