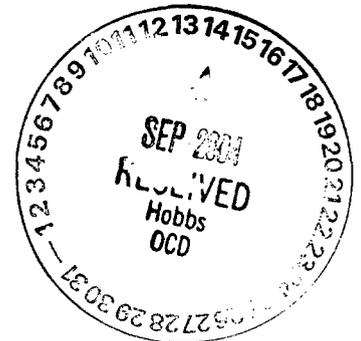


**PRELIMINARY SITE INVESTIGATION REPORT  
and  
GENERAL REMEDIATION PLAN**

**PLAINS MARKETING L.P.  
SAUNDERS 8" # 1 & 3  
Lea County, New Mexico  
UNIT L, Section 24, Township 14S, Range 33E**

Prepared For:

Plains Marketing, L.P.  
333 Clay Street  
Suite 1600  
Houston, Texas 77002  
EMS No. 2004-00142



Prepared By:

Basin Environmental Service Technologies, LLC  
P. O. Box 301  
Lovington, New Mexico 88260

**08 September 2004**

  
Ken Dutton

Basin Environmental Service Technologies, LLC

incident - nPAC0601950066  
application - pPAC0601950439  
RP# 341

## **INTRODUCTION**

Allstate Environmental Services, LLC (AES) responded to a pipeline release for Plains Marketing L.P., located on the Saunders 8" Pipeline on 30 July 2004. The Saunders 8" Pipeline was clamped and the impacted soils was excavated and stockpiled on a poly liner. Basin Environmental Service Technologies, LLC (BES), will perform subsequent remediation of the site.

This site is located in Unit L, Section 24, Township 14 South, Range 33 East, in Lea County, New Mexico (topographic Site Location Map is attached as Figure 1). The Latitude and Longitude is 33°, 05', 14.9" North, 103°, 34', 31.2" West. The site is characterized by a right of way for the pipeline in a pasture utilized for cattle grazing. The stained area includes the release point and progresses south following an unimproved road covering an area approximately 160 feet by 54 feet. The stained area following the unimproved road is approximately 1200 feet by 8 feet. Approximately 60 barrels of crude oil were released from the Plains Pipeline and approximately 23 barrels were recovered. An additional release (Saunders #3) occurred on 9 August 2004 at the original release point, which resulted in approximately 20 barrels of crude oil released and approximately 14 barrels recovered. The second release was contained in the excavation resulting from the initial release.

An Emergency One-Call was initiated 30 July 2004 and all affected companies either cleared or marked their respective lines. Subsequent renewals of the one-call have been accomplished as required.

Mr. Leon Anderson and Ms. Myra Meyers, New Mexico State Land Office, Hobbs Office, were notified 2 August 2004. A Right of Entry (ROE) permit was verbally approved (2 August 2004) by Mr. Cody Morrow, New Mexico State Land Office, Santa Fe, with appropriate protocols adhered to in obtaining a written ROE, which was obtained. Mr. Paul Sheeley, New Mexico Oil Conservation Division, Hobbs District 1 was verbally notified of the release on 30 July 2004.

The lessee, Mr. Norman Hahn, has been out of state for an extended period of time, however; the ranch foreman, Mr. Kenneth Augustine is aware of the release and subsequent remedial actions taken. Further attempts to contact Mr. Hahn will be pursued until contact has been accomplished.

On 16 August 2004, Plains Pipeline initiated the replacement of approximately 1300 feet of the existing 8" steel pipeline with a 6" poly line completing the replacement on 17 August 2004. The 8" steel pipeline was purged of fluid and removed from the existing Plains right-of-way. After removal from the Plains right-of-way the steel pipeline was cut into 30-foot joints and transported to the Plains Pipeline Lovington, New Mexico yard. The 6" poly line will be placed in the existing Plains right-of-way upon completion of remediation of the impacted soil.

## **SUMMARY OF FIELD ACTIVITIES**

On 30 July 2004, AES employee Bobby Blackwood arrived at the Saunders 8" Pipeline release to repair and contain the crude oil pipeline release. After the release had been contained utilizing a pipeline repair clamp excavation of the impacted soil was initiated. The impacted soil was placed on a poly liner adjacent to the release.

On 2 September 2004, AES employee Ken Dutton began extended excavation of the impacted area. The release point was excavated to approximately 160 feet long by 54 feet wide and 14 feet below ground surface (bgs). The unimproved road area was excavated to approximately 1200 feet long by 8 feet wide and 2 feet bgs. All excavated soil was placed on a poly liner for future remedial action.

A search of the New Mexico State Engineers database revealed no water depth information for that section; however the adjoining sections had water depth information, which was 100 to 125 feet bgs. There are no surface water bodies or water wells within 1000 feet of the release site. Based on this data, the site has an NMOCD Ranking Score of 10 – 19, which sets the remediation levels at:

Benzene:	10 ppm
BTEX:	50 ppm
TPH:	1000 ppm

### **Distribution of Hydrocarbons in the Unsaturated Zone**

The release point area has been excavated to a depth of approximately 14 feet bgs and evidence of crude oil impact still exist on the floor of the excavation. Photoionization Detector (PID) readings reflect elevated concentrations of Volatile Organic Compounds (VOC) remain. Further horizontal and vertical delineation of the release point is required.

### **RECOMMENDATIONS FOR REMEDIATION**

Approximately 6000 cubic yards of impacted soil has been excavated and stockpiled on-site. PID readings indicate that further remedial actions be evaluated. Remediation options for the site include one or more of the following:

- Excavate and dispose of the impacted soil at an approved New Mexico landfarm.
- Excavate, screen, and utilize the rock as partial backfill. Dispose of the screened soil at an approved New Mexico landfarm.

- Excavate, screen, and utilize the rock as partial backfill. Treat the screened soil to New Mexico Oil Conservation Department (NMOCD) standards and utilize as backfill.
- Excavate, screen, and landfarm the screened soil on-site. Utilize the rock as backfill. Upon reaching NMOCD standards utilize the soil as backfill.
- Rake the existing stockpiled impacted soil and utilize the rock as partial backfill. Landfarm the existing impacted soil to meet NMOCD standards.
- Delineate vertical and horizontal contamination utilizing a drill rig. Excavate to an acceptable level and install a clay cap or 40 ml liner as part of a risk-based closure due to the depth to water.

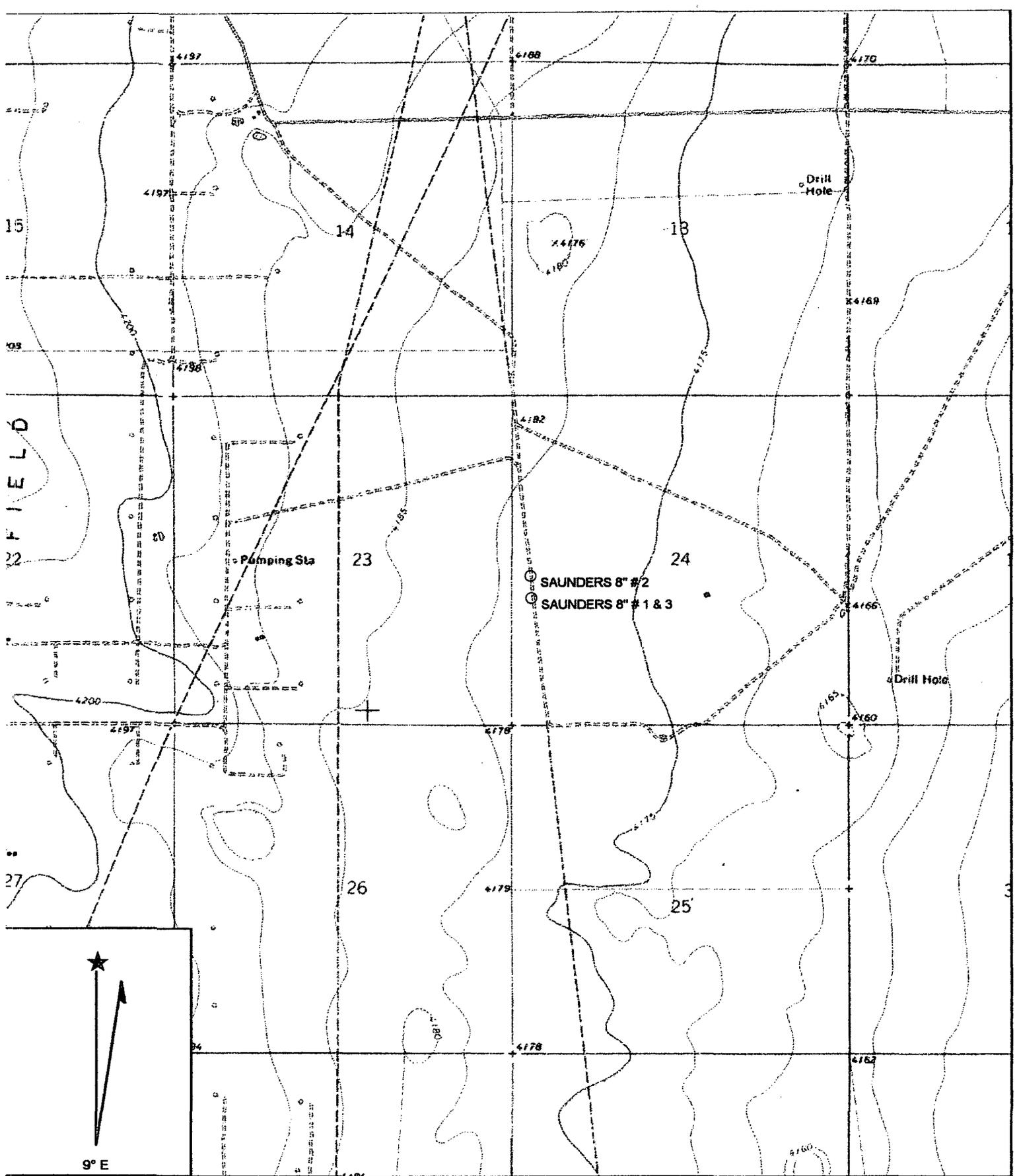
## **LIMITATIONS**

Basin Environmental Service Technologies, LLC has prepared this Preliminary Investigation Report and General Remediation Plan to the best of its ability. No other warranty, expressed or implied, is made or intended.

Basin Environmental Service Technologies, LLC has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Basin Environmental Service Technologies, LLC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. Basin Environmental Service Technologies, LLC has prepared this report in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Basin Environmental Service Technologies, LLC also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Plains Marketing, L.P. The information contained in this report including all exhibits and attachments, may not be used by any other party without the express consent of Basin Environmental Service Technologies, LLC, and Plains Marketing, L.P.

## **SITE LOCATION MAP**

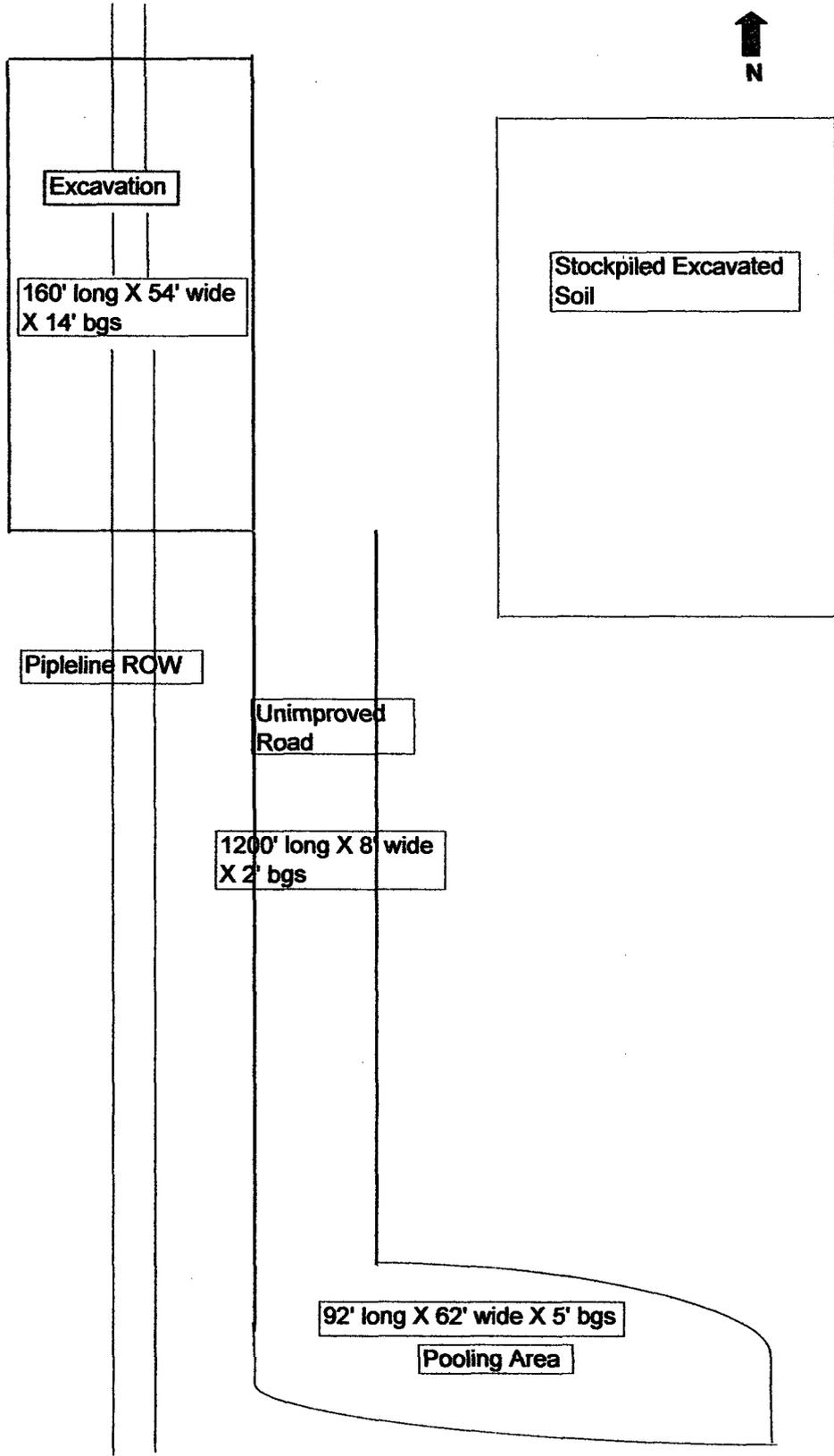


Name: FORT RANCH  
 Date: 9/10/2004  
 Scale: 1 inch equals 2000 feet

Location: 033° 05' 17.95" N 103° 34' 34.17" W

## **SITE MAP**

Saunders 8" # 1 & 3  
NTS



**NMOCD FORM 141**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Form C-141  
Revised October 10, 2003

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company Plains Marketing, LP	Contact Camille Reynolds
Address 5805 East Hwy. 80, Midland, TX 79706	Telephone No. 505-441-0965
Facility Name Saunders 8" #1	Facility Type 8" Steel Pipeline

Surface Owner State Of New Mexico	Mineral Owner	Lease No.
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**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	24	14S	33E					Lea

Latitude 33°05'14.9" Longitude 103°34'31.2"

**NATURE OF RELEASE**

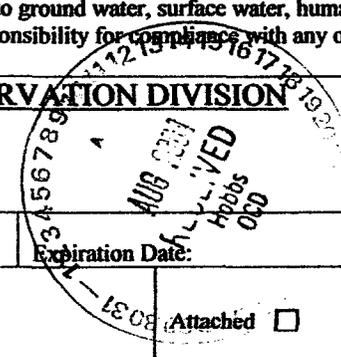
Type of Release Crude Oil	Volume of Release 60 barrels	Volume Recovered 23 barrels
Source of Release 8" Steel Pipeline	Date and Hour of Occurrence 7-30-04 @ 06:30	Date and Hour of Discovery 7-30-04 @ 09:15
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Paul Sheeley	
By Whom? Camille Reynolds	Date and Hour 7-30-04 @ 3:30	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* External corrosion of the 8" steel pipeline. A line clamp was installed to mitigate the release. The line is an 8 inch steel transmission pipeline that produces approximately 1,400 barrels of crude oil per day. The pressure on the line varies from 25-30 psi and the gravity of the sweet crude oil is 38-42. The sweet crude oil has an H<sub>2</sub>S content of less than 10 ppm.

Describe Area Affected and Cleanup Action Taken.\* The impacted soil was excavated and stockpiled on plastic. Aerial extent of surface impact was 11,854 ft<sup>2</sup>.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

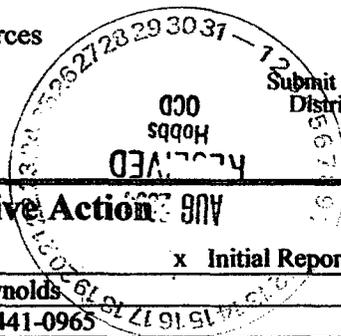
Signature: <i>Camille Reynolds</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Camille Reynolds	Approved by District Supervisor:	
Title: Remediation Coordinator	Approval Date:	
E-mail Address: cjreynolds@paalp.com	Conditions of Approval:	Expiration Date:
Date: 8/1/04	Phone: 505-441-0965	Attached <input type="checkbox"/>

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
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Santa Fe, NM 87505



Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company Plains Marketing, LP	Contact Camille Reynolds
Address 5805 East Hwy. 80, Midland, TX 79706	Telephone No. 505-441-0965
Facility Name Saunders 8" #3	Facility Type 8" Steel Pipeline

Surface Owner State Of New Mexico	Mineral Owner	Lease No.
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**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
L	24	14S	33E					Lea

Latitude 33°05'14.9" Longitude 103°34'31.2"

**NATURE OF RELEASE**

Type of Release Crude Oil	Volume of Release 20 barrels	Volume Recovered 14 barrels
Source of Release 8" Steel Pipeline	Date and Hour of Occurrence 8-9-04 @ 06:00	Date and Hour of Discovery 8-9-04 @ 08:00
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Larry Johnson	
By Whom? Camille Reynolds	Date and Hour 8-9-04 @ 13:15	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\* External corrosion of the 8" steel pipeline. A line clamp was installed to mitigate the release. The line is an 8 inch steel transmission pipeline that produces approximately 1,400 barrels of crude per day. The pressure on the line varies from 25 to 30 psi and the gravity of the sweet crude oil is 38-42. The sweet crude has an H<sub>2</sub>S content of less than 10 ppm

Describe Area Affected and Cleanup Action Taken.\* The impacted soil was excavated and stockpiled on plastic. Aerial extent of surface impact was 2,500 ft<sup>2</sup>.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: <i>Camille Reynolds</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Camille Reynolds	Approved by District Supervisor:	
Title: Remediation Coordinator	Approval Date:	Expiration Date:
E-mail Address: cjreynolds@paalp.com	Conditions of Approval:	
Date: 8-16-04	Phone: 505-441-0965	Attached <input type="checkbox"/>

\* Attach Additional Sheets If Necessary