

# *Basin Environmental Service Technologies, LLC*

P. O. Box 301  
Lovington, New Mexico 88260  
**kdutton@basinenv.com**  
Office: (505) 396-2378 Fax: (505) 396-1429



---

11 January 2007

Mr. Ben Stone  
New Mexico Energy, Minerals and Natural Resources Department  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Re: Closure Request, Saunders 8" # 4 (231735)  
Plains Marketing, L. P. Preliminary Site Investigation Report and  
Remediation/Closure Plan, dated 19 July 2005  
Unit F (SE ¼, NW ¼) Section 35, Township 13 South, Range 33 East  
Lea County, New Mexico  
Plains EMS Number: 2004-00184  
NMOCD File Number: 1R-0453

Dear Mr. Stone:

Basin Environmental Service Technologies, LLC (Basin), on behalf of Plains Marketing, L. P. (Plains), is submitting this request for closure of the Saunders 8" # 4 remediation site at the above referenced location. Soil remediation activities were successfully accomplished as proposed in the New Mexico Oil Conservation Division (NMOCD) approved Revised Preliminary Site Investigation Report and Remediation/Closure Plan, dated 19 July 2006.

Allstate Environmental Services, LLC (AES) responded and clamped the pipeline release on 12 August 2004, located on the Saunders 8" # 4 Pipeline. Basin, at the request of Plains, assumed remedial responsibility at the Saunders 8" # 4 release site in September 2004. The Saunders 8" # 4 pipeline was subsequently cold cut and capped by Basin under the direction of Plains operations personnel. The impacted soils were excavated and stockpiled by AES and Basin, on a 6-mil poly-liner adjacent to the site. As reported on the C-141, dated 17 August 2004, approximately 15 barrels of crude oil were released and 0 barrels recovered. The NMOCD ranking criteria for the Saunders 8" # 4 release site was initially reported as 10-19; however, analytical results from soil boring (SB-3), installed 04 May 2005, indicated that crude oil contaminants exist to the saturated zone (87 feet below ground surface (bgs)) resulting in a ranking of <19, which sets the soil remediation levels for benzene, toluene, ethylbenzene, and xylenes (BTEX), and total

petroleum hydrocarbons – gasoline range organics/diesel range organics (TPH-GRO/DRO) at 50 mg/kg for total BTEX and 100 mg/kg for TPH-GRO/DRO.

The following NMOCD approved remedial activities were accomplished at the Saunders 8" # 4 pipeline release site:

- In August 2004, AES conducted excavation activities at the release point and flow path. The excavation was approximately 128 feet long by 89 feet wide and ranged from approximately 3 to 4 feet bgs. A delineation trench was excavated to approximately 15 feet bgs at the release point. Field screening with a Photoionization Detector (PID) indicated elevated concentrations of Volatile Organic Compounds (VOCs) were present at the release point. The impacted soils were placed on a 6-mil poly-liner adjacent to the excavation for future remedial activities. Approximately 1400 cubic yards of impacted soil was excavated and stockpiled on-site. See attached Figure 2, Excavation Site Map and Soil Boring Locations, 15 November 2004.
- On 15 September 2004, Basin installed two (2) delineation soil borings utilizing an air rotary drill rig operated by Straub Corporation, Stanton, Texas, to evaluate the extent of vertical and horizontal crude oil impact at the release point and cross gradient position of the excavation. The two (2) soil borings ranged in depth from 10 feet to 44 feet bgs. Subsurface soil samples were collected at 5 foot intervals and field screened with a PID. A total of six (6) subsurface soil samples were selected from the two (2) delineation soil borings and analyzed for constituent concentrations of BTEX and TPH-GRO/DRO. Laboratory results indicated that constituent concentrations of BTEX were either below NMOCD regulatory standards or not detected above laboratory method detection limits for the six (6) soil boring soil samples. Laboratory results for the six (6) soil boring soil samples indicated constituent concentrations of TPH-GRO/DRO were either below NMOCD regulatory standards or not detected above laboratory method detection limits with the exception of Soil Boring (SB-1) soil samples at 5 and 15 feet bgs, which exceeded NMOCD regulatory standards. See Figure 2, Excavation Site Map and Soil Boring Locations (15 November 2004) and Table 1, Soil Chemistry.
- On 04 November 2004, six (6) confirmation soil samples were collected from the release point, walls and floor of the excavation at a depth of approximately 2 to 4 feet bgs and analyzed for constituent concentrations of BTEX and TPH-GRO/DRO. Laboratory results indicated constituent concentrations of BTEX were either below NMOCD regulatory standards or not detected above laboratory method detection limits. Laboratory results indicated constituent concentrations of TPH-GRO/DRO were below NMOCD regulatory standards for one (1) soil sample and exceeded NMOCD regulatory standards for the remaining five (5) soil samples.

- A Preliminary Site Investigation Report and Remediation Plan (PSIR R/P), dated 15 November 2004, was submitted to NMOCD Hobbs District I and subsequently approved (see attached NMOCD letter, dated 29 November 2004). The 15 November 2004, PSIR R/P was based on the initial NMOCD ranking score of 10-19 which set the remediation level for BTEX at 50 mg/kg and TPH-GRO/DRO at 1000 mg/kg. The approved plan proposed to excavate the release point and north wall to approximately 25 feet bgs and collect confirmation soil samples from the two areas of concern. The analytical data indicated the remaining confirmation soil samples were below NMOCD regulatory standards (1000 mg/kg) for concentrations of BTEX and TPH-GRO/DRO. The approved plan included mechanically screening the excavated materials to separate the caliche rock and soil, utilizing the screened caliche rock as partial backfill, placing the screened soil in bio-mounds of approximately 250 cubic yards, adding nutrients during the screening process to enhance the remediation process and backfilling with the screened soil in one-foot thick lifts while sampling for constituent concentrations of BTEX and TPH-GRO/DRO. Once a lift was deemed acceptable, a subsequent layer of soil would be placed on top and remediated in a similar manner. Upon completion of the backfilling activities, a 10-inch to 1-foot layer of topsoil would be acquired from the landowner and the site would be contoured and reseeded.
- In January 2005, excavation of the release point and north wall area was initiated and continued through April 2005. The final dimensions of the excavated area were approximately 198 feet long by 194 feet wide and approximately 22 feet bgs. Due to the expansion of the excavation, stockpiled material was transported away from the excavation, which resulted in blending the hydrocarbon-impacted soil with clean overburden. A professional engineer was consulted to ensure the OSHA Shoring and Benching requirements were being met. Approximately 15,500 cubic yards of hydrocarbon-impacted soil and clean overburden were stockpiled on-site.
- In May 2005, Basin installed six (6) additional soil borings, utilizing Straub Corporation, of Stanton, Texas, collecting soil samples every 5 feet in order to delineate the horizontal and vertical nature and extent of crude oil impacted soil at the pipeline release (see Figure 3, Site Map & Soil Boring Locations). The soil borings were installed at the release point and floor of the excavation (22 feet bgs), the second tier benched area (12 feet bgs) and continued north and south adjacent to the excavated Plains pipeline right-of-way. The soil borings ranged in depth from approximately 50 feet bgs to 87 feet bgs. Each soil sample was field screened with a PID and the selected soil samples were analyzed for BTEX and TPH-GRO/DRO. A total of 31 soil samples were selected for analysis resulting from the delineation activities. Laboratory results indicated that constituent concentrations of BTEX were either below NMOCD regulatory standards or not detected above laboratory method detection limits for the 31 soil samples. Laboratory results indicated that constituent concentrations of TPH-GRO/DRO exceeded NMOCD regulatory standards for thirteen (13) soil samples and the

remaining eighteen (18) soil samples were either below NMOCD regulatory standards or not detected above laboratory method detection limits.

- On 15 June 2005, ten (10) confirmation soil samples were collected from the walls and floor of the excavation, field screened with a PID and analyzed for constituent concentrations of BTEX and TPH-GRO/DRO. Laboratory results indicated that constituent concentrations of BTEX were either below NMOCD regulatory standards or not detected above laboratory method detection limits for the ten (10) soil samples (see Figure 4, Soil Sampling Locations). Laboratory results indicated that constituent concentrations of TPH-GRO/DRO were not detected above laboratory method detection limits for seven (7) soil samples and exceeded NMOCD regulatory standards for three (3) soil samples.
- In July 2005, Plains and Basin representatives met with a NMOCD regulator from the Santa Fe Office, and discussed the remedial actions taken to date and proposed remediation activities to effectively and efficiently close the site. A revised PSIR and Remediation Plan, dated 19 July 2005, was submitted and approved by NMOCD Santa Fe (see attached NMOCD letter, 06 September 2005). The revised plan proposed to complete the following:
  1. Install a 20-mil poly liner at the floor of the excavation (22 feet bgs) with six inches of mechanically screened material above and below the liner. Soil samples to be collected from the screened material, delivered to a certified laboratory and be at or below 1000 mg/kg, TPH-GRO/DRO.
  2. Backfill the excavation to 12 feet bgs with stockpiled material with TPH-GRO/DRO concentrations of less than 1000 mg/kg. Soil samples to be collected at approximately 500 cubic yard intervals to insure TPH-GRO/DRO standards are met.
  3. Install a 20-mil poly liner at the resulting 12 feet bgs level with six inches of mechanically screened material above and below the liner. The liner at this level will extend beyond the lateral extent of the contamination. Excavation will then be backfilled to ground surface using stockpiled material with less than 1000 mg/kg TPH-GRO/DRO concentrations.
  4. Install three (3) groundwater monitoring wells, one up gradient and two down gradient from the release area. Conduct quarterly groundwater sampling and report the results in the annual report to NMOCD.
- In September and October 2005, Basin installed three (3) groundwater monitoring wells, one (1) up gradient and two (2) down gradient from the release area utilizing Straub Corporation. Subsurface soil samples were collected at 5 feet intervals; field screened with a PID and selected soil samples were analyzed for constituent concentrations of BTEX and TPH-GRO/DRO. A total of 27 soil samples were selected for analysis. Laboratory results indicated that constituent concentrations of BTEX and TPH-GRO/DRO were not detected above laboratory method detection limits for the 27 soil samples.

- In May 2006, as approved by NMOCD, the stockpiled material was sampled at approximately 500 cubic yard intervals, resulting in 32 soil samples being collected. The soil samples were analyzed for constituent concentrations of TPH-GRO/DRO. Laboratory results indicated detectable constituent concentrations of TPH-GRO/DRO for the 32 soil samples; however, 29 soil samples were below NMOCD regulatory standards with the remaining three (3) soil samples exceeding NMOCD regulatory standards (see Table 2, Grid Cell Soil Chemistry).
- In August and September 2006, the three cell grids that exceeded NMOCD regulatory standards for constituent concentrations of TPH-GRO/DRO were mechanically screened. The caliche rock and screened soil were segregated and three (3) soil samples were collected and analyzed for concentrations of TPH-DRO/GRO. Laboratory results indicated that constituent concentrations of TPH-GRO/DRO were detected; however, the three (3) soil samples were below the 1000 mg/kg NMOCD directed standards. The mechanically screened soils from the three (3) grids were utilized as backfill.
- In October 2006, the 20-mil poly-liner was installed at approximately 21.5 feet bgs with a six (6) inch sand cushion above and beneath the poly liner. Backfilling of the Saunders 8" # 4 excavation site was initiated with the blended soil (<1000 mg/kg) and continued to approximately 12 feet bgs. Backfilling was temporarily halted and a 20-mil poly-liner was installed with a six (6) inch sand cushion above and beneath the liner extending beyond the lateral extent of the crude oil contamination. Backfilling activities resumed after successful installation of the 20-mil poly-liner to surface level with blended backfill material (<1000 mg/kg). Backfilling activities were completed with the site contoured to the surrounding pastureland. The landowner requested reseeding of the release site be postponed until the spring of 2007.
- On 24 October 2005, 24 March 2006, 09 June 2006, 14 September 2006 and 27 December 2006 quarterly groundwater sampling events were conducted. The three (3) groundwater monitoring wells were gauged and purged in accordance with Environmental Protection Agency (EPA) guidelines. Laboratory results indicated that constituent concentrations of BTEX were not detected above laboratory method detection limits for the five (5) quarterly groundwater monitoring events (see Table 3, Groundwater Chemistry). Based on the laboratory results of the five (5) quarterly sampling events, Basin on behalf of Plains, recommends the three (3) groundwater monitoring wells be plugged and abandoned.

The soil remediation activities were completed in accordance with the NMOCD approved Plains Marketing, L. P., Revised Preliminary Site Investigation Report and Remediation Plan, dated 19 July 2005. Based on the results of the NMOCD approved remediation activities conducted at the Saunders 8" # 4 release site, Basin, on behalf of Plains, requests that NMOCD consider this site eligible for closure under the *New Mexico Oil*

*Conservation Division Guidelines for Remediation of Leaks, Spills and Releases (1993)*  
and that the three (3) groundwater monitoring wells be plugged and abandoned.

Should you have any questions or comments, please contact me at (505) 441-2124.

Sincerely,



Ken Dutton

Basin Environmental Services

Attachments: NMOCD Approval Letter, 29 November 2004  
NMOCD Approval Letter, 06 September 2005  
Table 1, Soil Chemistry  
Table 2, Grid Cell Soil Chemistry  
Table 3, Ground Water Chemistry  
Figure 2, Excavation Site Map (15 November 2004)  
Figure 3, Excavation Site Map (October 2005)  
Figure 4, Soil Sampling Locations (October 2005)  
Digital Photos  
NMOCD C-141 (Initial)  
NMOCD C-141 (Final)



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Mark E. Fesmire, P.E.**

Director

**Oil Conservation Division**

November 29, 2004

Ms. Camille Reynolds      [cireynolds@paalp.com](mailto:cireynolds@paalp.com)  
Plains All American Pipeline

Re:    Plan Approval, Saunders 8" #4  
      Site Reference UL-F Sec-35 T-13S R-33E  
      Initial C-144 Dated: 8-12-04  
      Request Plan Dated: 11-15-04

Dear Ms. Reynolds,

The Remediation Work Plan Proposal submitted to the New Mexico Oil Conservation Division (OCD) by Basin Environmental for Plains All American Pipeline (PAAP) is **hereby approved for 120 days** with the following considerations:

- Immediate notification if additional contamination is discovered during excavation (any contamination undetected by borehole delineation)
- 48 hour notification to OCD prior to final sampling
- Progress reports of lift installations
- Disturbed areas to be seeded for re-vegetation of native grasses and other plants must demonstrate growth within a reasonable time after site remediation operations cease

Please be advised that OCD approval of this plan does not relieve PAAP of responsibility should their operations fail to adequately investigate and remediate contaminants that threaten ground water, surface water, human health or the environment. Additionally, OCD approval does not relieve PAAP of responsibility for compliance with any other federal, state, or local laws and/or regulations.

If you have any questions or need assistance please call (505) 393-6161, x111 or e-mail [lwjohnson@state.nm.us](mailto:lwjohnson@state.nm.us)

Sincerely,

Larry Johnson - Environmental Engineer

Cc:

Chris Williams - District I Supervisor  
Ed Martin - Environmental Engineer  
Paul Sheeley - Environmental Engineer  
Ken Dutton – Basin Environmental Project Consultant    [kdutton@basinenv.com](mailto:kdutton@basinenv.com)



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Mark E. Fesmire, P.E.**

Director

**Oil Conservation Division**

September 6, 2005

Ms. Camille Reynolds  
Plains Pipeline  
3112 West Highway 82  
Lovington, NM 88260

Re: Revised Preliminary Site Investigation Report and Remediation Plan  
For the Plains Marketing, L.P. Saunders 8" #4 (EMS No. 2004-00184)  
Unit Letter F, Section 35, Township 13 South, Range 33 East  
Lea County, New Mexico  
NMOCD Ref: 1R-0453

Dear Ms. Reynolds:

The New Mexico Oil Conservation Division (NMOCD) has received and reviewed the report shown above, prepared on behalf of Plains Pipeline (Plains) by Basin Environmental Service Technologies, LLC (Basin), dated July 19, 2005. The remediation plan is approved with the following understandings and conditions:

1. Plains will install a 20-mil poly liner at the floor of the excavation (22 feet bgs) with six inches of mechanically screened material above and below the liner. Soil samples will be collected from the mechanically screened material and delivered to a certified laboratory. The mechanically screened material to be used as padding will be at or below 1000 ppm TPH.
2. Plains will backfill the excavation to 12 feet bgs with stockpiled material with TPH concentrations of less than 1000 ppm. Soil samples will be collected at approximately 500 cubic yard intervals to insure TPH concentration standards are met.
3. Plains will install a 20-mil poly liner at the resulting 12 feet bgs level with six inches of mechanically screened material above and below the liner. The liner at this level will extend beyond the lateral extent of the contamination. Excavation will then be backfilled to ground surface using stockpiled material with TPH concentrations of less than 1000 ppm.
4. Plains will install three groundwater-monitoring wells, one up gradient and two down gradient from the release area. Such monitoring wells will be sampled quarterly and the results of this monitoring will be included in annual reports to be submitted on the activities at this site. These annual reports will be submitted to the NMOCD Santa Fe office no later than March 31 of each year.

5. Plains will prepare a separate report to be submitted to the NMOCD Santa Fe office that describes the activities in items numbered 1-3 above and reports the laboratory analyses for the samples gathered during these activities.

NMOCD approval of this plan does not relieve Plains of responsibility should its activities at this site prove to have been harmful to public health or the environment. Nor does it relieve Plains of its responsibility to comply with the rules and regulations of any other local, state, or federal governmental agency.

If you have any questions, contact me at (505) 476-3492 or [ed.martin@state.nm.us](mailto:ed.martin@state.nm.us)

NEW MEXICO OIL CONSERVATION DIVISION

A handwritten signature in black ink that reads "Ed Martin". The signature is written in a cursive style and is positioned above a horizontal line.

Edwin E. Martin  
Environmental Bureau

cc: NMOCD, Hobbs

TABLE 1

SOIL CHEMISTRY

PLAINS MARKETING L.P.  
 SAUNDERS 8" #4  
 LEA COUNTY, NEW MEXICO  
 EMS: 2004-00184

SAMPLE LOCATION	SAMPLE DEPTH (Below Normal Surface Grade)	SAMPLE DATE	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M		TOTAL TPH (mg/kg)
			BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	M,P-XYLENES (mg/kg)	O-XYLENE (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	
SB-1 5'	9'	09/15/04	0.604	9.36	3.75	18.8	7.5	1730	3900	5630
SB-1 15'	19'	09/15/04	0.216	3.96	2.57	14.3	5.34	1800	4210	6010
SB-1 30'	34'	09/15/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10	26.7	26.7
SB-1 40'	44'	09/15/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10	<10	<10
SB-2	5'	09/15/04	<0.025	<0.025	<0.025	0.050	<0.025	<10	<10	<10
SB-2	10'	09/15/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10	<10	<10
Exc Floor-RP	4' bgs	11/04/04	<0.025	0.895	0.074	0.506	0.264	103	1030	1130
Exc Floor Pooling	4' bgs	11/04/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	226	226
West Wall-Exc	2' bgs	11/04/04	<0.025	0.096	0.042	0.281	0.141	77.4	695	772
East Wall-Exc	2' bgs	11/04/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	81.8	81.8
North Wall-Exc	2' bgs	11/04/04	<0.025	<0.025	<0.025	0.052	<0.025	44.7	1150	1200
South Wall-Exc	2' bgs	11/04/04	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	307	307
SB-3 5'	27' bgs	05/04/05	<0.025	0.302	0.522	4.34	1.79	829	1070	1900
SB-3 10'	32' bgs	05/04/05	<0.025	0.546	0.460	3.31	1.25	625	1010	1640
SB-3 20'	42' bgs	05/04/05	<0.025	<0.025	0.039	0.307	0.134	292	834	1130
SB-3 30'	52' bgs	05/04/05	<0.025	<0.025	0.034	0.249	0.124	312	988	1300
SB-3 50'	72' bgs	05/04/05	<0.025	0.104	0.211	1.37	0.687	598	1620	2210
SB-3 65'	87' bgs	05/04/05	<0.025	0.046	0.061	0.387	0.162	242	859	1100

TABLE 1 (continued)

## SOIL CHEMISTRY

PLAINS MARKETING L.P.  
 SAUNDERS 8" #4  
 LEA COUNTY, NEW MEXICO  
 EMS: 2004-00184

SAMPLE LOCATION	SAMPLE DEPTH (Below Normal Surface Grade)	SAMPLE DATE	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M		TOTAL TPH (mg/kg)
			BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	M,P-XYLENES (mg/kg)	O-XYLENE (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	
SB-4 5'	17' bgs	05/04/05	<0.025	0.328	0.785	5.71	2.21	811	1410	2220
SB-4 10'	22' bgs	05/04/05	<0.025	0.833	0.837	5.84	2.11	943	1840	2780
SB-4 20'	32' bgs	05/04/05	<0.025	0.137	0.250	1.62	0.655	750	2020	2770
SB-4 30'	42' bgs	05/04/05	<0.025	0.032	0.093	0.601	0.272	580	2030	2610
SB-4 40'	52' bgs	05/04/05	<0.025	<0.025	<0.025	<0.025	<0.025	19.2	126	145
SB-4 50'	62' bgs	05/04/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	62.0	62.0
SB-4 60'	72' bgs	05/04/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	52.5	52.5
SB-5 10'	22' bgs	05/04/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
SB-5 20'	32' bgs	05/04/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
SB-5 30'	42' bgs	05/04/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
SB-5 50'	62' bgs	05/04/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
SB-6 5'	17' bgs	05/04/05	0.141	5.67	2.670	14.8	4.94	1000	1840	2840
SB-6 10'	22' bgs	05/04/05	<0.025	0.075	0.114	0.661	0.257	258	1000	1260
SB-6 20'	32' bgs	05/04/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	24.5	24.5
SB-6 30'	42' bgs	05/04/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	18.6	18.6
SB-6 50'	62' bgs	05/04/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
SB-7 10'	22' bgs	05/04/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
SB-7 20'	42' bgs	05/04/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0

TABLE 1 (continued)

SOIL CHEMISTRY

PLAINS MARKETING L.P.  
 SAUNDERS 8" #4  
 LEA COUNTY, NEW MEXICO  
 EMS: 2004-00184

SAMPLE LOCATION	SAMPLE DEPTH (Below Normal Surface Grade)	SAMPLE DATE	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M		TOTAL TPH (mg/kg)
			BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	M,P-XYLENES (mg/kg)	O-XYLENE (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	
SB-7 30'	52' bgs	05/04/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
SB-7 50'	72' bgs	05/04/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
SB-7 65'	87' bgs	05/04/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
SB-8 10'	10' bgs	05/04/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
SB-8 20'	20' bgs	05/04/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
SB-8 30'	30' bgs	05/04/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
SB-8 60'	60' bgs	05/04/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
Btm Excav N/SW	16' bgs	06/15/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
Btm Excav W/SW	16' bgs	06/15/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
Btm Excav S/SW	16' bgs	06/15/05	0.030	0.670	0.271	1.47	0.540	240	6040	6280
Btm Excav E/SW	16' bgs	06/15/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
Bnch N/SW	6' bgs	06/15/05	<0.025	<0.025	<0.025	<0.025	<0.025	11.8	426	438
Bnch W/SW	6' bgs	06/15/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
Bnch S/SW	6' bgs	06/15/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
Bnch E/SW	6' bgs	06/15/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
Bnch N/4	6' bgs	06/15/05	<0.025	<0.025	<0.025	<0.025	<0.025	19.1	547	566
Bnch S/6	6' bgs	06/15/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0

TABLE 1 (continued)

SOIL CHEMISTRY

PLAINS MARKETING L.P.  
 SAUNDERS 8" #4  
 LEA COUNTY, NEW MEXICO  
 EMS: 2004-00184

SAMPLE LOCATION	SAMPLE DEPTH (Below Normal Surface Grade)	SAMPLE DATE	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M		TOTAL TPH (mg/kg)
			BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	M,P-XYLENES (mg/kg)	O-XYLENE (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	
MW-1 5'	5' bgs	09/22/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
MW-1 15'	15' bgs	09/22/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
MW-1 25'	25' bgs	09/22/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
MW-1 35'	35' bgs	09/22/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
MW-1 45'	45' bgs	09/22/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
MW-1 55'	55' bgs	09/22/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
MW-1 65'	65' bgs	09/22/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
MW-1 75'	75' bgs	09/22/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
MW-1 85'	85' bgs	09/22/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
MW-2 5'	5' bgs	09/30/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
MW-2 15'	15' bgs	09/30/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
MW-2 25'	25' bgs	09/30/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
MW-2 35'	35' bgs	09/30/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
MW-2 45'	45' bgs	09/30/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
MW-2 55'	55' bgs	09/30/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
MW-2 65'	65' bgs	09/30/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
MW-2 75'	75' bgs	09/30/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0
MW-2 85'	85' bgs	09/30/05	<0.025	<0.025	<0.025	<0.025	<0.025	<10.0	<10.0	<10.0



TABLE 2

## GRID CELL SOIL CHEMISTRY

PLAINS MARKETING L.P.  
 SAUNDERS 8" #4  
 LEA COUNTY, NEW MEXICO  
 EMS: 2004-00184

SAMPLE LOCATION	SAMPLE DEPTH (Below Normal Surface Grade)	SAMPLE DATE	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M		TOTAL TPH (mg/kg)
			BENZENE	TOLUENE	ETHYL-BENZENE	M,P-XYLENES	O-XYLENE	GRO	DRO	
			(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
G 1	N/A	05/09/06						15.4	163	178
G 2	N/A	05/09/06						<10.0	92.9	92.9
G 3	N/A	05/09/06						40.5	306	346
G 4	N/A	05/09/06						26.4	340	367
G 5	N/A	05/09/06						13.1	211	224
G 6	N/A	05/09/06						16.7	234	252
G 7	N/A	05/09/06						18.1	259	277
G 8	N/A	05/09/06						51.2	253	304
G 9	N/A	05/09/06						63.9	374	438
G 10	N/A	05/09/06						29.9	399	430
G 11	N/A	05/09/06						90.7	548	639
G 12	N/A	05/09/06						48.6	489	538
G 13	N/A	05/09/06						13.5	436	450
G 14	N/A	05/09/06						36.7	327	364
G 15	N/A	05/09/06						23.3	203	226
G 16	N/A	05/09/06						39.4	431	470
G 17	N/A	05/09/06						<10.0	41.1	41.1
G 18	N/A	05/09/06						<10.0	197	197
G 19	N/A	05/09/06						12.5	148	161
G 20	N/A	05/09/06						<10.0	117	117

TABLE 2 (continued)

SOIL CHEMISTRY

PLAINS MARKETING L.P.  
 SAUNDERS 8" #4  
 LEA COUNTY, NEW MEXICO  
 EMS: 2004-00184

SAMPLE LOCATION	SAMPLE DEPTH (Below Normal Surface Grade)	SAMPLE DATE	METHOD: EPA SW 846-8021B, 5030					METHOD: 8015M		TOTAL TPH (mg/kg)
			BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	M,P-XYLENES (mg/kg)	O-XYLENE (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	
G 21	N/A	05/09/06						105	343	448
G 22	N/A	05/09/06						96.7	616	713
G 23	N/A	05/09/06						253	1120	1370
G 24	N/A	05/09/06						30.9	466	497
G 25	N/A	05/09/06						33.9	455	489
G 26	N/A	05/09/06						105	631	736
G 27	N/A	05/09/06						583	1192	1780
G 28	N/A	05/09/06						520	1270	1790
G 29	N/A	05/09/06						<10.0	64	64
G 30	N/A	05/09/06						28.1	261	290
G 31	N/A	05/09/06						74.7	280	355
G 32	N/A	05/09/06						16.7	171	188
# 1 (G 23)	N/A	10/04/06						22.3	332.9	355
# 2 (G 27)	N/A	10/04/06						14.3	196.8	212
# 3 (G 28)	N/A	10/04/06						<10.0	158	158
<b>NMOCD CRITERIA</b>										<b>1000</b>

GROUNDWATER CHEMISTRY

PLAINS MARKETING, L.P.

SAUNDERS 8" # 4

LEA COUNTY, NEW MEXICO

PLAINS EMS NO. 2004-00184

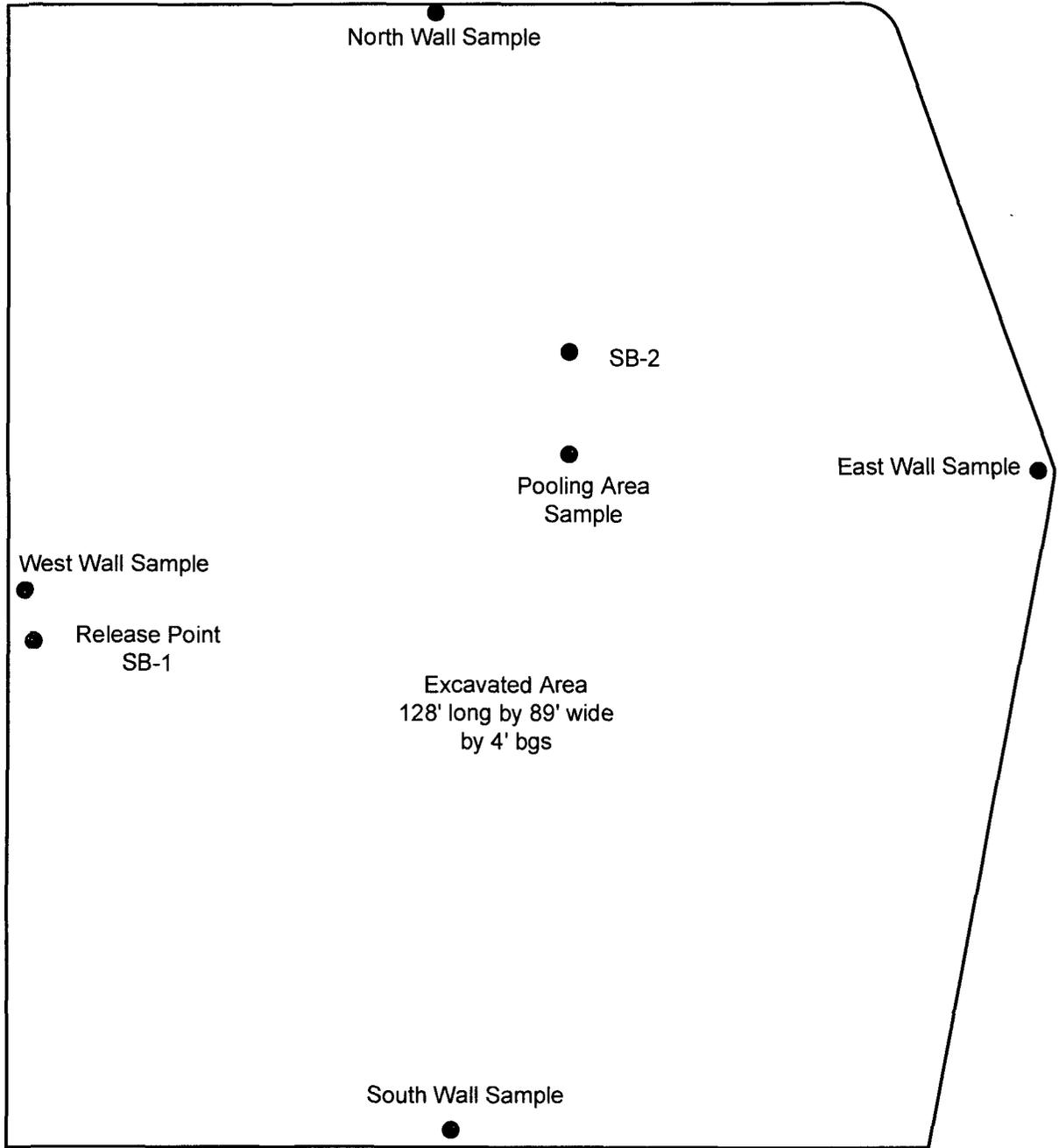
TABLE 3

SAMPLE LOCATION	DATE	METHODS: EPA SW 846-8021B, 5030			
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL- BENZENE (mg/L)	M,P- XYLENES (mg/L)
MW-1	10/24/05	<0.001	<0.001	<0.001	<0.001
	03/24/06	<0.001	<0.001	<0.001	<0.001
	06/09/06	<0.001	<0.001	<0.001	<0.001
	09/14/06	<0.001	<0.001	<0.001	<0.001
	12/27/06	<0.001	<0.001	<0.001	<0.001
MW-2	10/24/05	<0.001	<0.001	<0.001	<0.001
	03/24/06	<0.001	<0.001	<0.001	<0.001
	06/09/06	<0.001	<0.001	<0.001	<0.001
	09/14/06	<0.001	<0.001	<0.001	<0.001
	12/27/06	<0.001	<0.001	<0.001	<0.001
MW-3	10/24/05	<0.001	<0.001	<0.001	<0.001
	03/25/06	<0.001	<0.001	<0.001	<0.001
	06/09/06	<0.001	<0.001	<0.001	<0.001
	09/14/06	<0.001	<0.001	<0.001	<0.001
	12/27/06	<0.001	<0.001	<0.001	<0.001
NMCD CRITERIA		0.01	0.75	0.75	TOTAL XYLENES 0.62

Plains Pipeline



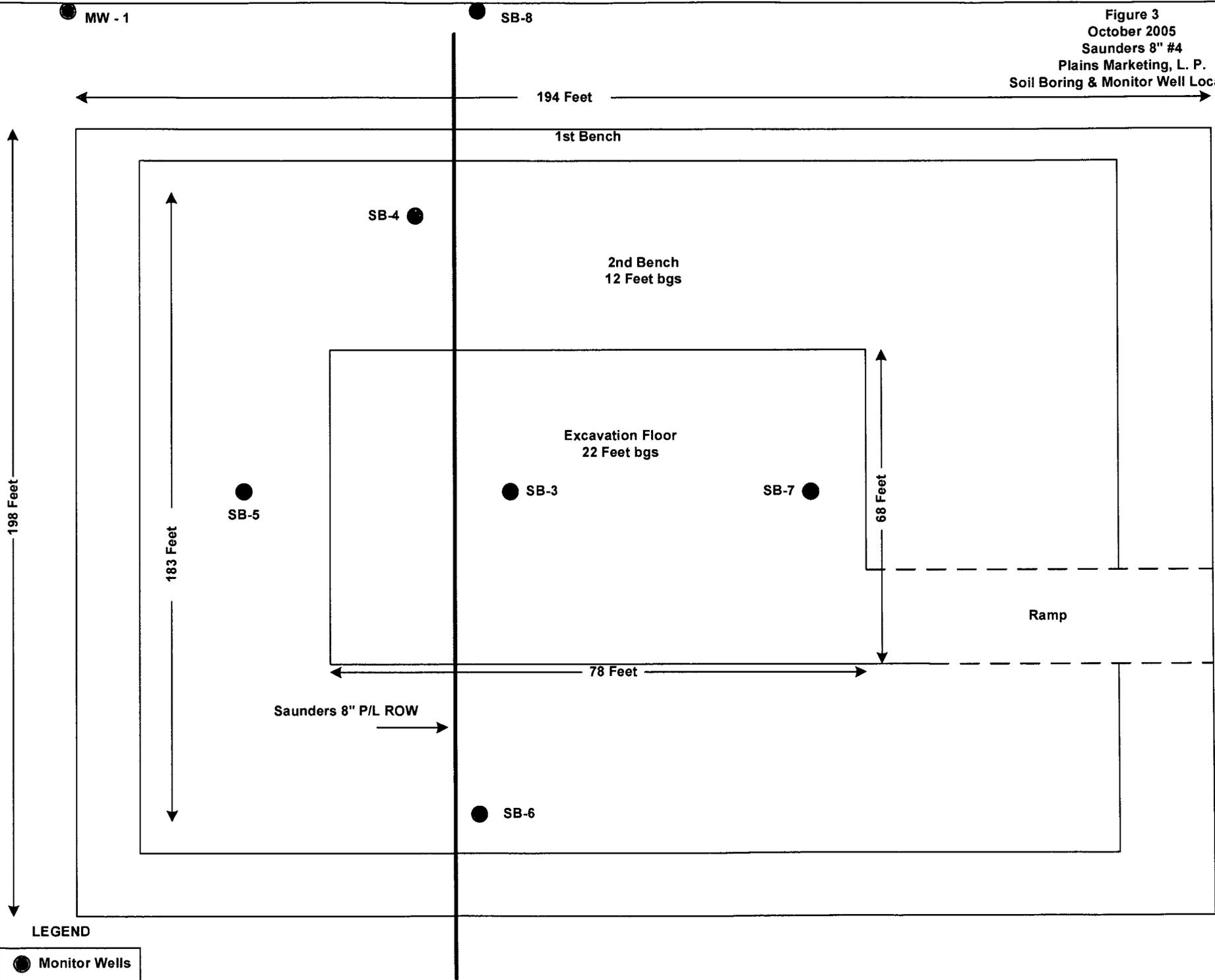
Stockpiled Material



Excavation configuration and soil sampling points as of 15 November 2004

TITLE	DRAWN BY	Date
Figure 2, Site Map Saunders 8" # 4	Basin Environmental Services KAD	15 November 2004

Figure 3  
October 2005  
Saunders 8" #4  
Plains Marketing, L. P.  
Soil Boring & Monitor Well Locations



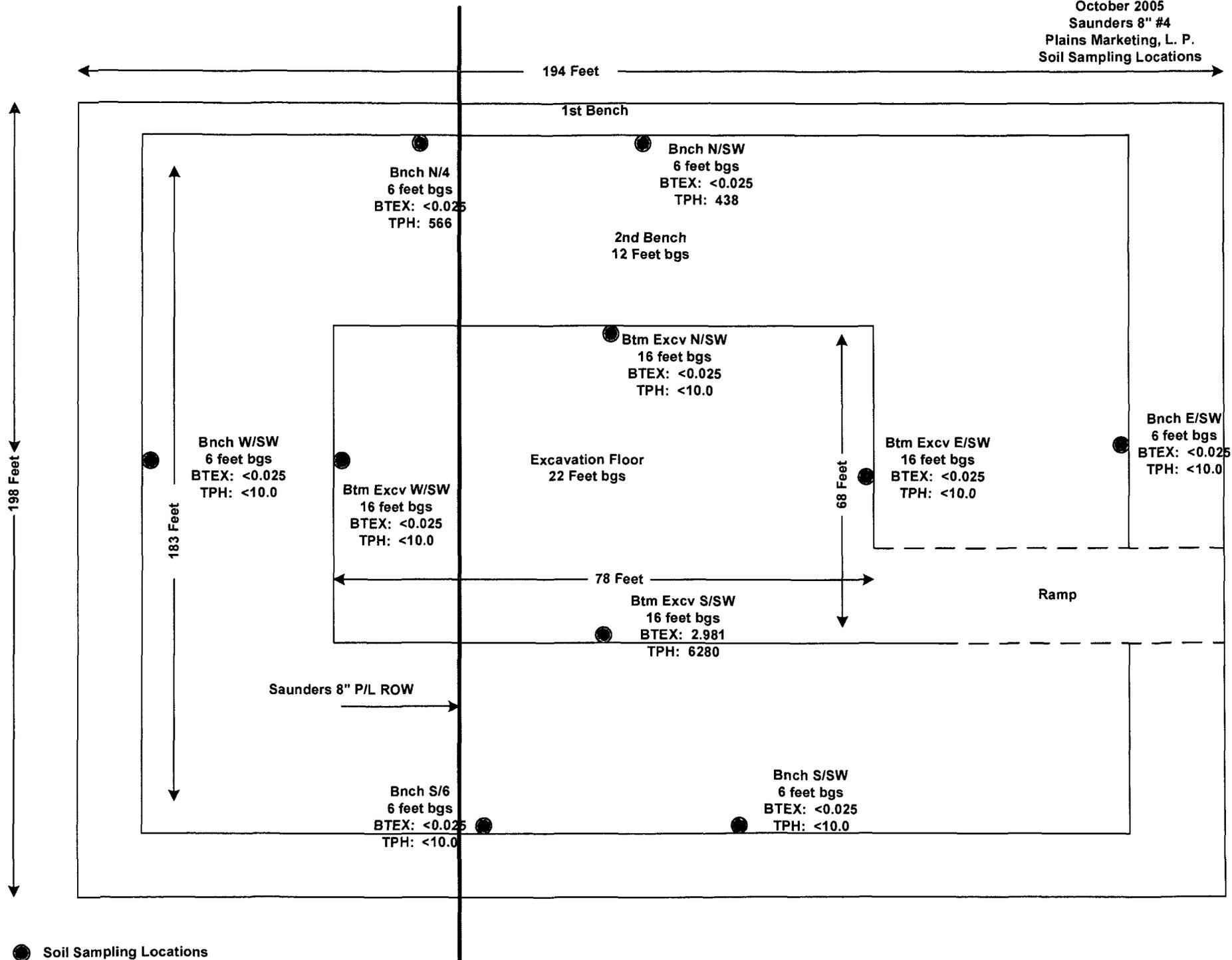
LEGEND

- Monitor Wells
- Soil Borings

● MW - 3

● MW - 2

Figure 4  
October 2005  
Saunders 8" #4  
Plains Marketing, L. P.  
Soil Sampling Locations

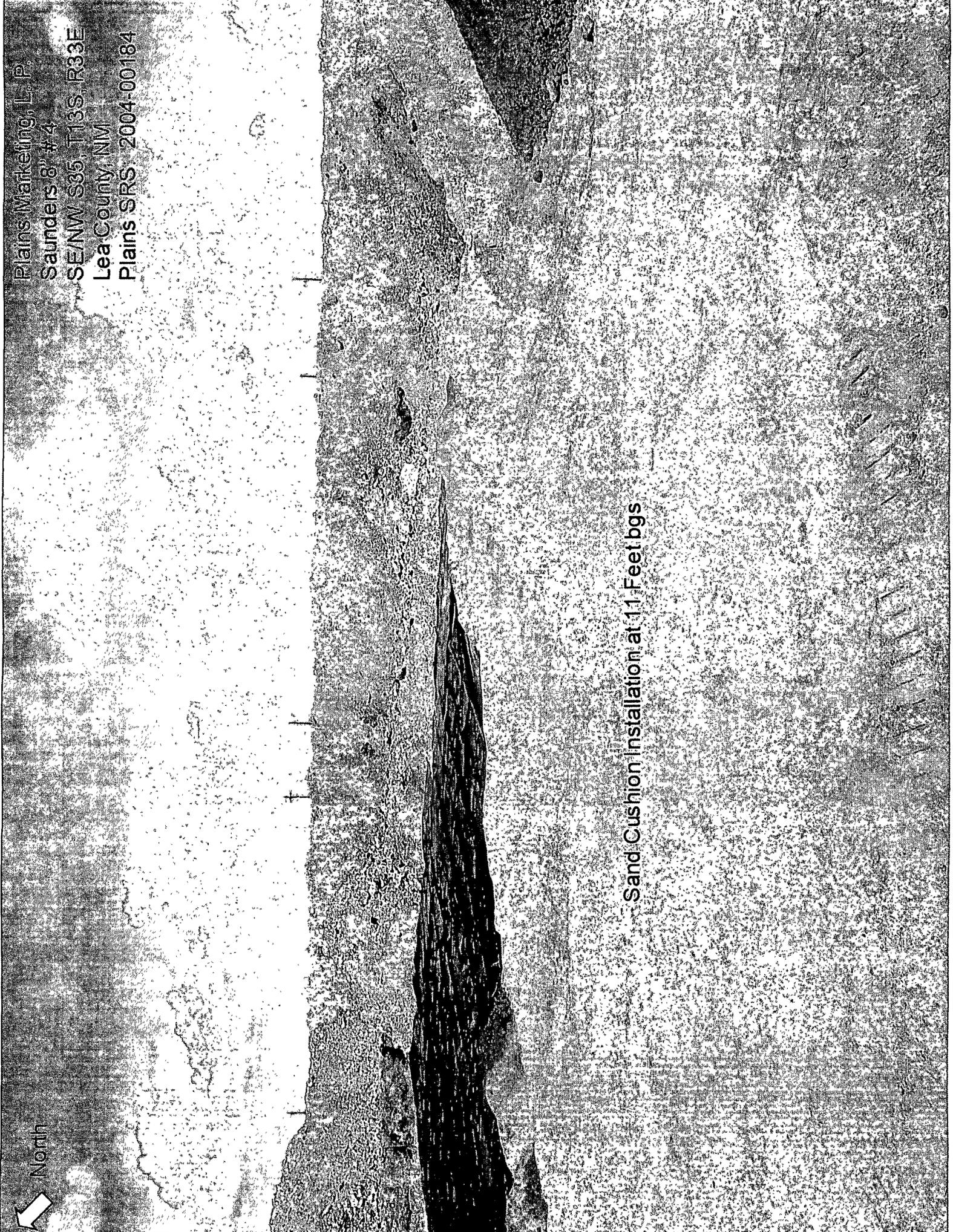




North

Plains Marketing, L.P.  
Saunders 8" #4  
SE/NW S35, T13S, R33E  
Lea County, NM  
Plains SRS 2004-00184

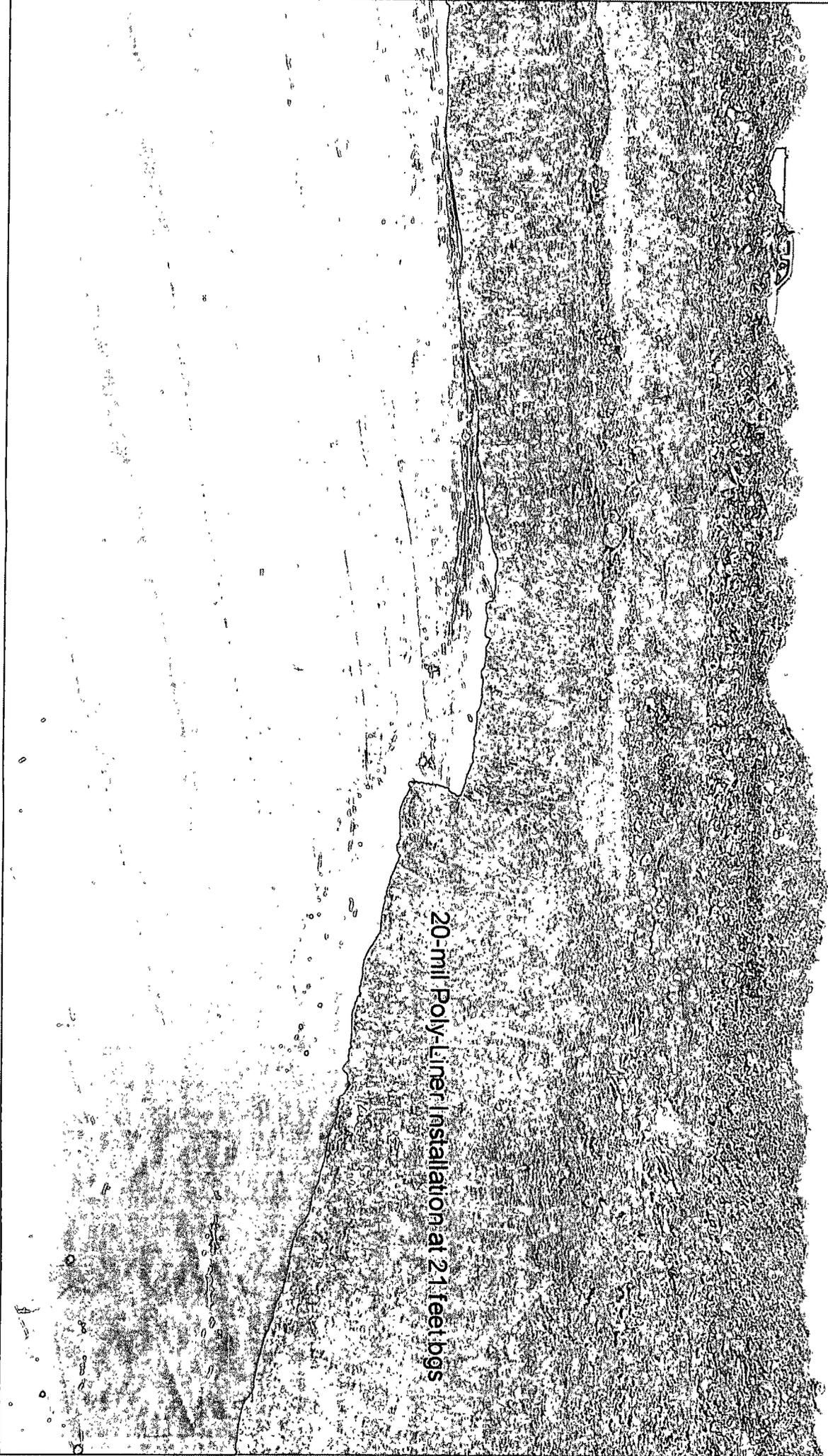
Sand Cushion Installation at 11 Feet bgs



Plains Marketing, L. P.  
Saunders 8" # 4  
SE/NW S35, T13S, R33E  
Lea County, NM  
Plains SRS: 2004-00184



20-mil Poly-Liner Installation at 21 feet bgs



Plains Marketing, L. P.  
Saunders 8" # 4  
SE/NW S35, T13S, R33E  
Lea County, NM  
Plains SRS: 2004-00184

North 

Excavation Floor Sand Cushion at 22 feet bgs



District I  
1625 K. 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" #4	Facility Type 8" Steel Pipeline	
Surface Owner Norman Hahn	Mineral Owner	Lease No.

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	35	13S	33E					Lea

Latitude 33°08'55.6" Longitude 103°35'15.3"

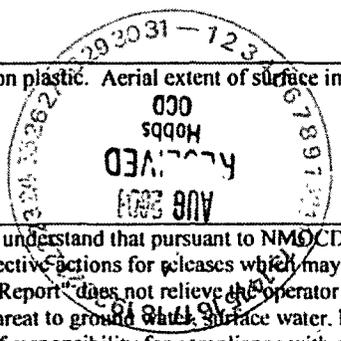
**NATURE OF RELEASE**

Type of Release Crude Oil	Volume of Release 15 barrels	Volume Recovered 0 barrels
Source of Release 8" Steel Pipeline	Date and Hour of Occurrence 8-12-04 @ 06:00	Date and Hour of Discovery 8-12-04 @ 13:45
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 8-12-04 @ 19:00	
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 7.176 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: cireynolds@paalp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 8-17-04 Phone: 505-441-0965		

Attach Additional Sheets If Necessary

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

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

Form C-141  
Revised October 10, 2003

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    **XX** Final Report

Name of Company	Plains Marketing, L. P.	Contact	Camille Reynolds
Address	3112 W. US Hwy 82, Lovington, NM 88260	Telephone No.	(505) 441-0965
Facility Name	Saunders 8" # 4	Facility Type	8" Steel Pipeline
Surface Owner	Norman Hahn	Mineral Owner	
		Lease No.	

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	35	13S	33E					Lea

Latitude 32° 08' 55.6" North      Longitude 103° 35' 15.3" West.

**NATURE OF RELEASE**

Type of Release	Crude Oil	Volume of Release	15 barrels	Volume Recovered	0 barrels
Source of Release	8-inch Steel Pipeline	Date and Hour of Occurrence	12 August 2004 @ 0600	Date and Hour of Discovery	12 August 2004 @ 1345
Was Immediate Notice Given?	XX Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Larry Johnson		
By Whom?	Camille Reynolds	Date and Hour	12 August 2004 @ 1900		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <b>XX</b> <input 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-inch steel pipeline resulted in a release of sour crude oil. A clamp was installed on the line 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 sour crude oil is 38-42. The sour crude has an H2S content of <10 ppm. The line was approximately 1.5 feet bgs at the release point.

Describe Area Affected and Cleanup Action Taken.\* One (1) groundwater sampling event was conducted in the fourth quarter of 2005. Four (4) consecutive groundwater sampling events were conducted in 2006. Laboratory results of the five (5) groundwater sampling events indicated groundwater was not impacted at the Saunders 8" # 4 release site. **Plains requests approval to plug & abandon the three (3) groundwater monitoring wells on-site in accordance with NMOCD guidelines.**  
**SEE ATTACHED PLAINS MARKETING, L. P., ANNUAL GROUNDWATER REPORT, DATED JANUARY 2007, FOR DETAILS OF THE GROUNDWATER SAMPLING EVENTS CONDUCTED IN CALENDAR YEAR 2006.**  
**DTW: 83 TO 84 FEET BGS**

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:		<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:		Attached <input type="checkbox"/>
Date: 18 January 2007	Phone: (505) 441-0965		

\* Attach Additional Sheets If Necessary

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

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

Form C-141  
Revised October 10, 2003

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

**Release Notification and Corrective Action 1R-0453**

**OPERATOR**

Initial Report  Final Report

Name of Company	Plains Marketing, L. P.	Contact	Camille Reynolds
Address	3112 W. U. S. Hwy 82, Lovington, NM 88260	Telephone No.	(505) 441-0965
Facility Name	Saunders 8" #4	Facility Type	8" Steel Pipeline

Surface Owner	Norman Hahn	Mineral Owner		Lease No.	
---------------	-------------	---------------	--	-----------	--

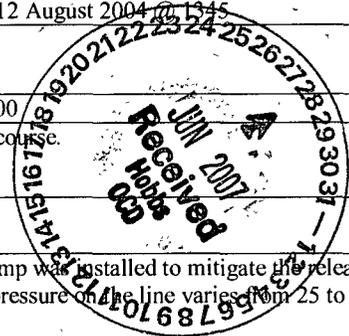
**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	35	13S	33E					Lea

Latitude 32° 08' 55.6" North Longitude 103° 35' 15.3" West

**NATURE OF RELEASE**

Type of Release	Crude Oil	Volume of Release	15 barrels	Volume Recovered	0 barrels
Source of Release	8" Steel Pipeline	Date and Hour of Occurrence	12 August 2004 @ 0600	Date and Hour of Discovery	12 August 2004 @ 1345
Was Immediate Notice Given?	XX Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Larry Johnson		
By Whom?	Camille Reynolds	Date and Hour	12 August 2004 @ 1900		
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 1400 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 H2S content of less than 10 ppm.

Describe Area Affected and Cleanup Action Taken.\* Allstate Environmental initially responded to the crude oil release. At the request of Plains Marketing, L. P., Basin, assumed remedial responsibility. The crude oil release site was excavated and the impacted soil placed on a poly-liner adjacent to the excavation, confirmation soil samples were collected from the floor & walls of the excavation. Horizontal & vertical delineation of the site was accomplished utilizing an air rotary drill rig. Groundwater Monitoring Wells were installed. Poly-liners were installed at 22 feet bgs & 12 feet bgs as approved by NMOCD. Excavated soil was blended and utilized as backfill.

**SEE ATTACHED PLAINS MARKETING PRELIMINARY SITE INVESTIGATION REPORT & REMEDIATION PLAN (19 JULY 2005), AND CLOSURE REQUEST (11 JANUARY 2007) WITH ATTACHMENTS FOR DETAILS OF REMEDIAL ACTIVITIES CONDUCTED.**

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: <i>Enrico Eger</i>	
Title: Remediation Coordinator	Approval Date: <u>6-29-07</u>	Expiration Date: _____
E-mail Address: <u>cjreynolds@paalp.com</u>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 11 January 2007	Phone: (505) 441-0965	

RPT# 1452