

GW - 52

**GENERAL  
CORRESPONDENCE**

**YEAR(S):**  
2006-1996

# Transwestern Pipeline

2006 APR 20 PM 12 54

6381 North Main Street  
Roswell, NM 88201

505.625.8022 Fax: 505.627.8172

**Larry Campbell**  
Division Environmental Specialist

April 13, 2006

UPS Confirmation No.

1Z 875 525 03 4472 4946

Mr. Ed Martin  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87504

Re: Notification of Annual Sump Inspections, Transwestern Pipeline Company

Dear Mr. Martin:

By this letter, Transwestern Pipeline Company is providing written notification to the Oil Conservation Division that the annual sump inspections will be completed for the following facilities on the following dates:

Station 8 Corona GW-89	5/8/06
Station 9 Roswell GW-52	5/9/06
P-1 Compressor Station GW-90	5/10/06
Wt-1 Compressor Station GW-80	5/10/06

Submittal of this letter complies with the notification requirements as presented in each facilities Discharge Plan.

Should your agency require additional information concerning this written notification, contact the undersigned at our Roswell Technical Operations office at (505) 625-8022.

Sincerely,



Larry Campbell  
Division Environmental Specialist

xc: Roswell Compressor Station  
Corona Compressor Station  
P-1 Compressor Station  
Wt-1 Compressor Station  
Envisions file no. 205.1.20

# Transwestern Pipeline

2006 JAN 33 AM 8 06

6381 North Main Street  
Roswell, NM 88201

505.625.8022 Fax: 505.627.8172

**Larry Campbell**  
Division Environmental Specialist

January 27, 2006

Mr. Roger Anderson  
Oil Conservation Division  
1220 S. St. Francis Dr.  
Santa Fe, New Mexico 87505

Re: Discharge Plan Renewal and Filing Fee, Transwestern Pipeline Company,  
Compressor Station No. 9, Roswell, OCD Discharge Plan GW 052

Dear Mr. Anderson:

Enclosed find check no. 8000003818 in the amount of \$1800.00 issued by Transwestern Pipeline Company to cover the required renewal and filing fee for the above referenced facility's OCD Discharge Plan.

Should you require additional information concerning this submittal, contact the undersigned at our Roswell Technical Operations office at (505) 625-8022.

Sincerely,



Larry Campbell  
Division Environmental Specialist

Xc: envisions file no. 205.1.20  
Roswell Team

THE SANTA FE  
**NEW MEXICAN**  
Founded 1849

RECEIVED

NOV 28 2005

OIL CONSERVATION  
DIVISION

NM OIL CONSERVATION DEPT.

ATTN: Ed Martin  
1220 ST. FRANCIS DR  
ATT MARY ANAYA  
SANTA FE NM 87505

ALTERNATE ACCOUNT: 50589

AD NUMBER: 00147277 ACCOUNT: 00002212

LEGAL NO: 78023

P.O. #: 06-199-050125

312 LINES 1 TIME(S)

174.72

AFFIDAVIT:

5.50

TAX:

13.63

TOTAL:

193.85

AFFIDAVIT OF PUBLICATION

STATE OF NEW MEXICO  
COUNTY OF SANTA FE

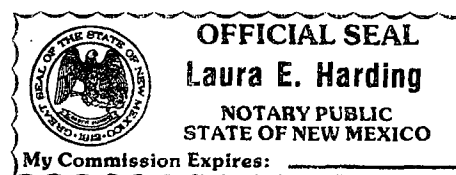
I, R. Lara, being first duly sworn declare and say that I am Legal Advertising Representative of THE SANTA FE NEW MEXICAN, a daily newspaper published in the English language, and having a general circulation in the Counties of Santa Fe and Los Alamos, State of New Mexico and being a newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 on Session Laws of 1937; that the publication # 78023 a copy of which is hereto attached was published in said newspaper 1 day(s) between 11/22/2005 and 11/22/2005 and that the notice was published in the newspaper proper and not in any supplement; the first date of publication being on the 22nd day of November, 2005 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

/s/ R. Lara  
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 22nd day of November, 2005

Notary Laura E. Harding

Commission Expires: 11/23/07





**NOTICE OF  
PUBLICATION**

**STATE OF NEW  
MEXICO  
ENERGY, MINERALS  
AND NATURAL  
RESOURCES  
DEPARTMENT  
OIL CONSERVATION  
DIVISION**

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan renewal application has been submitted to the Director of the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(GW-235) - Mr. Jerry Tuffy, BASIC ENERGY SERVICES (formerly American Energy Services), 6121 US Highway 64, Bloomfield, New Mexico 87499 has submitted an application for their BLOOMFIELD SERVICE CENTER located in the NW/4 of Section 30, Township 29 North, Range 11 West, San Juan County, New Mexico. All effluents that may be generated at the facility will be collected in closed top receptacles and transported off-site for disposal at an OCD approved facility. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of approximately 10 feet with a total dissolved solids concentration of approximately 200 mg/L. The discharge permit addresses how oil-field products and waste will be properly handled, stored and disposed of, including how spills, leaks, and other accidental discharges to the surface will be managed. The OCD proposed conditions can be viewed at <http://www.emnrd.state.nm.us/emnrd/oed/ENV-DraftPublicEtc.htm> in the Draft Discharge Permit for this facility.

(GW-052) Transwestern Pipeline Company, Mr. Larry Campbell, Division Environmental Scientist, 6381 North Main, Roswell, New Mexico 88201, has submitted a renewal application for the previously ap-

proved discharge plan for their Roswell Compressor Station, located in the SW/4 of Section 21, Township 9 South, Range 24 East, NMPM, Chaves County, New Mexico. Approximately 1000 gallons per day of wastewater will be transferred to an offsite live-stock-watering tank. The wastewater has a total dissolved solids concentration of about 1250 mg/L. Groundwater most likely to be affected by a spill, leak or accidental discharge to the surface is at a depth of approximately 240 feet with a total dissolved solids concentration of approximately 1551 mg/L. The discharge plan addresses how spills, leaks and other accidental discharges to the surface will be managed. The OCD proposed conditions can be viewed at <http://www.emnrd.state.nm.us/emnrd/oed/ENV-DraftPublicEtc.htm> in the Draft Discharge Permit for this facility.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

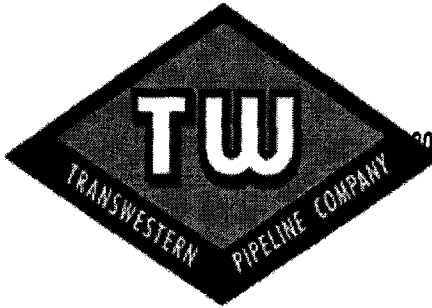
GIVEN under the seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 17th day of November 2005.

**STATE OF  
NEW MEXICO  
OIL CONSERVATION  
DIVISION**

SEAL

**MARK FEISMIER, P.E.,  
Director**

Legal #78023  
Pub. November 22,  
2005



2005 JUL 21 AM 11 43

**Transwestern Pipeline Company**

6381 North Main Street  
Roswell, NM 88201  
505-625-8022

July 18, 2005

UPS Confirmation No. 1Z8755250345392991

Mr. Ed Martin  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

Re: Renewal of Groundwater Discharge Plan GW-052, Transwestern Pipeline Company,  
Roswell Compressor Station

Dear Mr. Martin:

Transwestern Pipeline Company, owner and operator of the Roswell Compressor Station, requests renewal by the Oil Conservation Division (OCD) of discharge plan GW-052 for the above referenced facility.

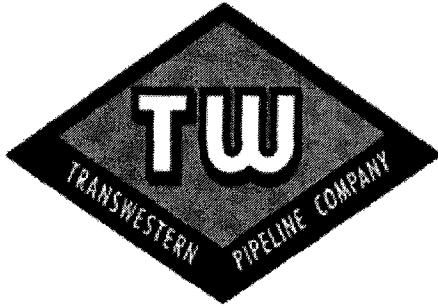
Be advised that there have been no new modifications or alterations performed or constructed at this location which would differ from those originally covered under the original discharge plan application submitted on May 15, 1989, and operating practices currently at the facility reflect operating practices which were presented in the original application.

Should you require any additional information concerning this renewal request, contact the undersigned at our Roswell Technical Operations office at (505) 625-8022.

Sincerely,

Larry Campbell  
Division Environmental Specialist

xc: envisions file no. 205.1.20  
Roswell Team  
file



**Transwestern Pipeline Company**

6381 North Main Street  
Roswell, NM 88201  
505-625-8022

June 20, 2005

UPS Confirmation No. 1Z8755250340567490

Mr. Ed Martin  
Oil Conservation Division  
1220 St. Francis Dr.  
Santa Fe, NM 87504

Re: Underground Drain Line Testing, Roswell Compressor Station No. 9, Transwestern Pipeline Company, OCD Discharge Plan No. GW-52

Dear Mr. Martin:

The following report presents the results of the underground drain line testing at the Transwestern Pipeline Company (Transwestern) Compressor Station # 9 Roswell, New Mexico. This station is currently operating under OCD discharge plan GW- 52, which requires drain line testing to be conducted on all underground drain lines once every five years. The testing program was conducted using the methodology submitted by letter on July 8, 1997 to the OCD, which was then approved by the agency on July 16, 1997.

**METHODOLOGY**

The testing program was initiated on May 27, 2005. The following drain line systems at the facility were hydrostatically tested:

<u>Drain Line System</u>	<u>Length of Line (ft.)</u>	<u>Size of pipe (in.)</u>
West Texas Pig Receiver sump to PLL(2) Tank	195	2.0
Mist Extractor to PLL(2) Tank	63	2.0
Comp. Bldg. to OWW(1) Sump	426	4" drain lines to 8" header
Comp. Bldg. OWW(1) Sump to OWW(1) Tank	1,230	
Wash Bay to West Texas Pig Trap Sump	90	4.0
PLL(2) Tank to Truck Loading Point	111	4.0
OWW(1) Tank to Truck Loading Point	111	4.0
Selexol Sump to Selexol OWW(1) Tank	105	2.0

Scrubber dump to Selexol PLL(2) Tank	100	2.0
Comp. Bldg. to used oil tank	240	2.0
Electric oil pump to used oil tank	60	2.0
Ambitrol tank to Comp. Bldg.	324	2.0
Panhandle 24" Pig Receiver sump to OWW(1)	375	2.0
Gear oil tank to Comp. Bldg.	324	2.0
New lube oil tank to Comp. Bldg.	324	2.5
Scrubber Dumps and Pig Receiver		
Lines to Mist Extractor	1,500	1", 2" 3" and 4" lines all connected

**(1) Oily Waste Water**

**(2) Pipe Line Liquids**

**NOTE: Length of lines are approximated**

For each drain line tested, the following methodology was employed. A test header was constructed by isolating each drain line and attaching and sealing a 90 degree elbow of the same pipe diameter to one of the two drain pipe ends. A seven (7) ft vertical pipe of the same pipe diameter was attached and sealed to the exposed vertical end of the 90 degree elbow. At the horizontal terminal end of the exposed drain pipe a test plug was temporarily inserted and sealed. The drain line and attached test header were then filled with water to a marked level on the vertical pipe of 6.95 ft. above the horizontal elevation of the drain line. This water level head created a positive pressure of 3.0 psi on the existing piping system. This pressure was then allowed to equilibrate in the line and standpipe and the test was conducted for a period of thirty minutes to determine water loss in the line. Any water leakage will be indicated by a drop in the water level of the vertical standpipe below the 6.95 ft mark.

**RESULTS AND CONCLUSIONS**

All drain lines referenced in the methodology section were tested according to the methodology presented above. For every underground process and wastewater line, there were no instances where the water level in the vertical standpipe receded below the water level mark of 6.95 ft. Based upon the results of this study, Transwestern concludes that the integrity of the underground drain line systems at this facility are intact and that no further actions are required on these lines.

Should you desire additional information concerning this testing procedure or report, please contact me at our Roswell Technical Operations office at (505) 625-8022.

Sincerely,



Larry Campbell  
Division Environmental Specialist

Xc: envisions file no. 205.2.20  
Roswell Compresso Station



GARY E. JOHNSON  
GOVERNOR

State of New Mexico  
ENVIRONMENT DEPARTMENT

Hazardous Waste Bureau  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303  
Telephone (505) 428-2500  
Fax (505) 428-2567

[www.nmenv.state.nm.us](http://www.nmenv.state.nm.us)



PETER MAGGIORE  
SECRETARY

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

GW-052

November 5, 2001

Mr. Larry Campbell  
Transwestern Pipeline Company  
6381 North Main Street  
Roswell, New Mexico 88201

**SUBJECT: WORK PLAN FOR EXCAVATION OF AFFECTED SOIL  
ROSWELL COMPRESSOR STATION, EPA ID# NMD986676955  
HWB-TWP-01-001**

Attention: Mr. Larry Campbell

The New Mexico Environment Department Hazardous Waste Bureau (HWB) has completed a review of Transwestern Pipeline Company's submittal "Work Plan for Excavation of Affected Soil in the Former Surface Impoundment Areas" dated July 2, 2001. The work plan addresses the results of the characterization of waste and contaminated soil at the location of the closed surface impoundments and the removal of the surface impoundments at the Transwestern Pipeline Company Compressor Station Number 9 (EPA ID# NMD986676955) located in Roswell, New Mexico. Based on the information provided in the work plan, HWB approves of the proposed excavation and remediation activities. The approval is conditional upon approval of the work plan by the New Mexico Department of Energy, Minerals and Natural Resources Oil Conservation Division. Please call this office at (505) 248-2553 if you have questions regarding the conditional approval of the Work Plan.

Sincerely,

Dave Cobrain  
Geologist  
Permits Management Program

DWC

Transwestern Pipeline Company

November 5, 2001

Page 2

cc: James Bearzi, NMED HWB  
John Kieling, NMED HWB  
William Kendrick, Transwestern Pipeline Company  
Bill Olson, NMOCD  
Ed Martin, NMOCD  
George Robinson, Cypress Engineering Services, Inc.  
Pam Allen, NMED HWB

file: red/TWP/01  
track: TWP/Campbell/Cobrain/11-05-01/approval work plan surface impoundments soil excavation



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Lori Wrotenbery**

Director

**Oil Conservation Division**

September 11, 2003

Mr. Bill Kendrick  
Transwestern Pipeline Company  
1400 Smith Street  
Houston, Texas 77002

**RE: CASE # GW052R  
ROSWELL COMPRESSOR STATION  
ROSWELL, NEW MEXICO**

Dear Mr. Kendrick:

The New Mexico Oil Conservation Division has reviewed Transwestern Pipeline Company's (TPC) September 3, 2003 "PROPOSAL FOR INSTALLATION OF THREE ADDITIONAL MONITOR WELLS, ROSWELL COMPRESSOR STATION, TRANSWESTERN PIPELINE COMPANY". This document contains TPC's proposed work plan for additional monitor wells to determine the extent of ground water contamination related to the TPC Roswell Compressor Station.

The above-referenced work plan is approved with the following conditions:

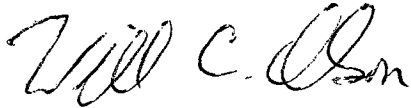
1. The ground water monitor wells shall be constructed and sampled in accordance with the OCD's prior work plan approvals.
2. TPC shall notify the OCD at least 1 week in advance of the scheduled activities such that the OCD has the opportunity to witness the events and split samples.
3. The investigation results shall be included in the subsequent annual ground water monitoring report.

Please be advised that OCD approval does not limit TPC to the above-referenced work plan if the investigation activities fail to adequately determine the extent of contamination related to TPC's activities, or if contamination exists which is outside the scope of the work plan. In addition, OCD approval does not relieve TPC of responsibility for compliance with any other federal, state or local laws and regulations.

Mr. Bill Kendrick  
September 11, 2003  
Page 2

If you have any questions, please contact me at (505) 476-3491.

Sincerely,

A handwritten signature in black ink, appearing to read "William C. Olson". The signature is fluid and cursive, with the first name "William" being the most prominent part.

William C. Olson  
Hydrologist  
Environmental Bureau

xc: Tim Gum, OCD Artesia Office  
Cody Morrow , NM State Land Office  
George Robinson, Cypress Engineering Services, Inc.  
Dave Cobrain, NMED Hazardous Waste Bureau



Transwestern Pipeline Company  
1400 Smith Street  
Houston, TX 77002  
713-853-6161

September 3, 2003

Mr. William C. Olson  
Environmental Bureau  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

RECEIVED

SEP 08 2003

OIL CONSERVATION  
DIVISION

RE: Proposal for Installation of Three Additional Monitor Wells  
Roswell Compressor Station  
Transwestern Pipeline Company

Transwestern Pipeline Company proposes to install 3 additional groundwater monitor wells in an effort to complete delineation of the downgradient extent of affected groundwater. Presently, the lateral extent of affected groundwater has been defined in all directions except to the south. The locations for the proposed wells are indicated in the attached site diagram. Drilling activities are tentatively scheduled for the week of September 29, 2003.

If you have any questions or comments regarding the proposed activities, please contact George Robinson at (713) 345-1537 or you can contact me at (713) 646-7644.

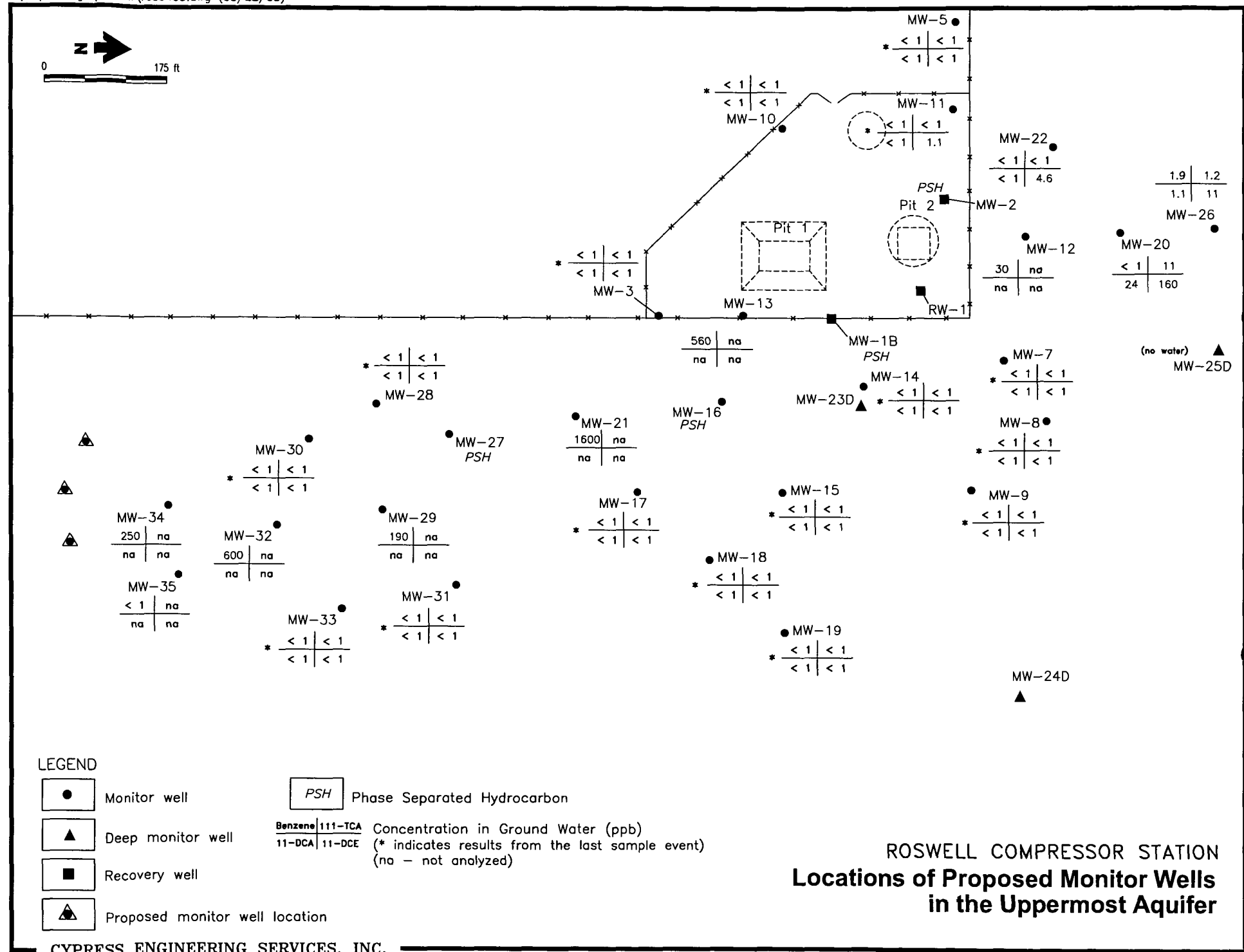
Sincerely,



Bill Kendrick  
Director Environmental Affairs  
Transwestern Pipeline Company

xc w/attachments:

Larry Campbell	Transwestern Pipeline Co.
George Robinson	Cypress Engineering
Tim Gum	OCD Artesia Office



Transwestern Pipeline Company  
1400 Smith Street  
Houston, TX 77002  
713-853-6161

June 30, 2003

Mr. William C. Olson  
Environmental Bureau  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

RECEIVED

JUL 03 2003

ENVIRONMENTAL BUREAU  
OIL CONSERVATION DIVISION

RE: Final Remedial Design  
Roswell Compressor Station  
Chavez County, New Mexico

Enclosed is one copy of the Final Remedial Design for groundwater remediation activities at the Roswell Station.

If you have any questions or comments regarding this transmittal, please contact George Robinson at (713) 345-1537 or you can contact me at (713) 646-7644.

Sincerely,



Bill Kendrick  
Senior Director Environmental Affairs  
Transwestern Pipeline Company

xc w/o enclosures:

Larry Campbell	Transwestern Pipeline Co.
George Robinson	Cypress Engineering

**Transwestern Pipeline Company**

1400 Smith Street  
Houston, TX 77002  
713-853-6161

May 15, 2003

Mr. William C. Olson  
Environmental Bureau  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**RECEIVED**

**MAY 20 2003**

ENVIRONMENTAL BUREAU  
OIL CONSERVATION DIVISION

Mr. David Cobrain  
Hazardous Waste Bureau  
New Mexico Environment Department  
2905 Rodeo Park Dr. East, Bldg. 1  
Santa Fe, New Mexico 87505

RE: Soil Excavation and Removal Report  
Roswell Compressor Station  
Transwestern Pipeline Company  
NMOCD Case # GW052R

This report has been prepared to document completion of soil removal activities at the Transwestern Pipeline Company (TW) Roswell Compressor Station. Soil removal activities were completed in accordance with the "Work Plan for Excavation and Removal of Affected Soil in the Former Surface Impoundment Areas" dated October 18, 2001. This work plan had been approved by both the NMOCD and the NMED.

Soil removal activities were initiated on February 25, 2002 and were completed on March 11, 2002. There were no significant deviations from the approved work plan. In the course of the removal, a total of 3520 cubic yards of soil was transported to the Gandy Marley landfarm facility located near Tatum, New Mexico. An additional 576 cubic yards of debris removed from the area was transported to the Controlled Recovery Inc. landfill facility located West of Hobbs, New Mexico.

Subsequent to soil removal, the sidewalls of the two excavations were sloped back and soil samples were collected from the exposed bottom and sidewalls of the excavations as described in the work plan. The soil sample locations are indicated on the attached figures, Figure 1 and Figure 2. Laboratory results for the bottom and sidewall samples are presented in the attached tables, Table 1 and Table 2. Lab results for Total TPH are also posted on Figure 1 and Figure 2. Sidewall sample results indicate that the lateral extent of the excavations successfully removed near surface affected soil to an acceptable level. Bottom sample results indicate that the vertical extent of the excavations successfully removed the most heavily affected soil. Affected soil below the depth of the excavations will be addressed by soil vapor extraction in the course of additional soil and groundwater remediation activities.

Subsequent to collection of bottom and sidewall soil samples, the bottom of the excavation areas were prepared to facilitate the placement of a plastic liner at the bottom of each area. A 30mil polyethylene liner measuring 60 feet by 90 feet was placed at the bottom of the former Pit 1 area. A 30mil polyethylene liner measuring 65 feet by 70 feet was placed at the bottom of the former Pit 2 area.

Subsequent to placement of the plastic liners, the excavations were backfilled. Blended soil was utilized first for backfill material. The blended soil originated from less affected soil removed from above and around the perimeter of the former pit areas. Soil samples of blended soil were collected in accordance with the work plan. Laboratory results for blended soil samples are presented in Table 3 and Table 4. Soil samples from four blended soil piles indicated a TPH concentration greater than 1000 mg/kg. In each case, the soil was blended further and retested until results indicated a TPH concentration less than 1000 mg/kg. Clean soil from off-site was utilized to complete the backfilling of the excavations in accordance with the work plan. Soil samples of the backfill soil from off-site were collected in accordance with the work plan. Laboratory results for these soil samples are presented in Table 5.

Electronic copies of all laboratory reports are provided in pdf format on the attached CD. Selected photos of the removal activities are also attached.

If there are any questions or comments regarding the excavation and removal activities or this report, please contact me at (713) 646-7644 or George Robinson at (713) 345-1537.

Sincerely,



Bill Kendrick  
Director, Environmental Affairs

Attachments:

Figure 1 – Pit 1 Area Excavation Samples

Figure 2 – Pit 2 Area Excavation Samples

Table 1 – Summary of Analytical Results for Pit 1 Excavation Bottom and Sidewall Soil Samples

Table 2 – Summary of Analytical Results for Pit 2 Excavation Bottom and Sidewall Soil Samples

Table 3 – Summary of Analytical Results for Pit 1 Excavation Blended Soil Samples

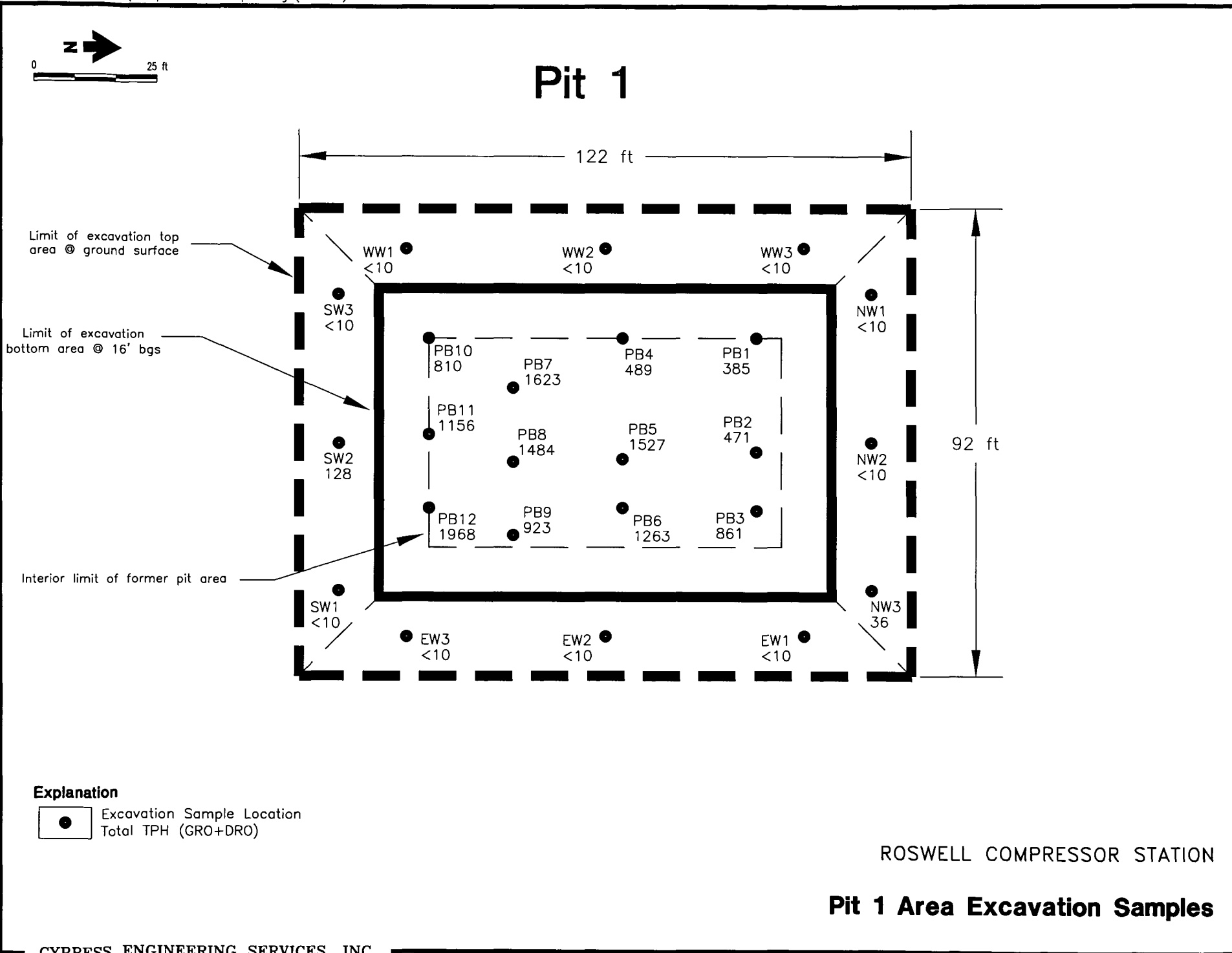
Table 4 – Summary of Analytical Results for Pit 2 Excavation Blended Soil Samples

Table 5 – Summary of Analytical Results for Pit 1 and Pit 2 Backfill Soil Samples

xc: (with attachments)

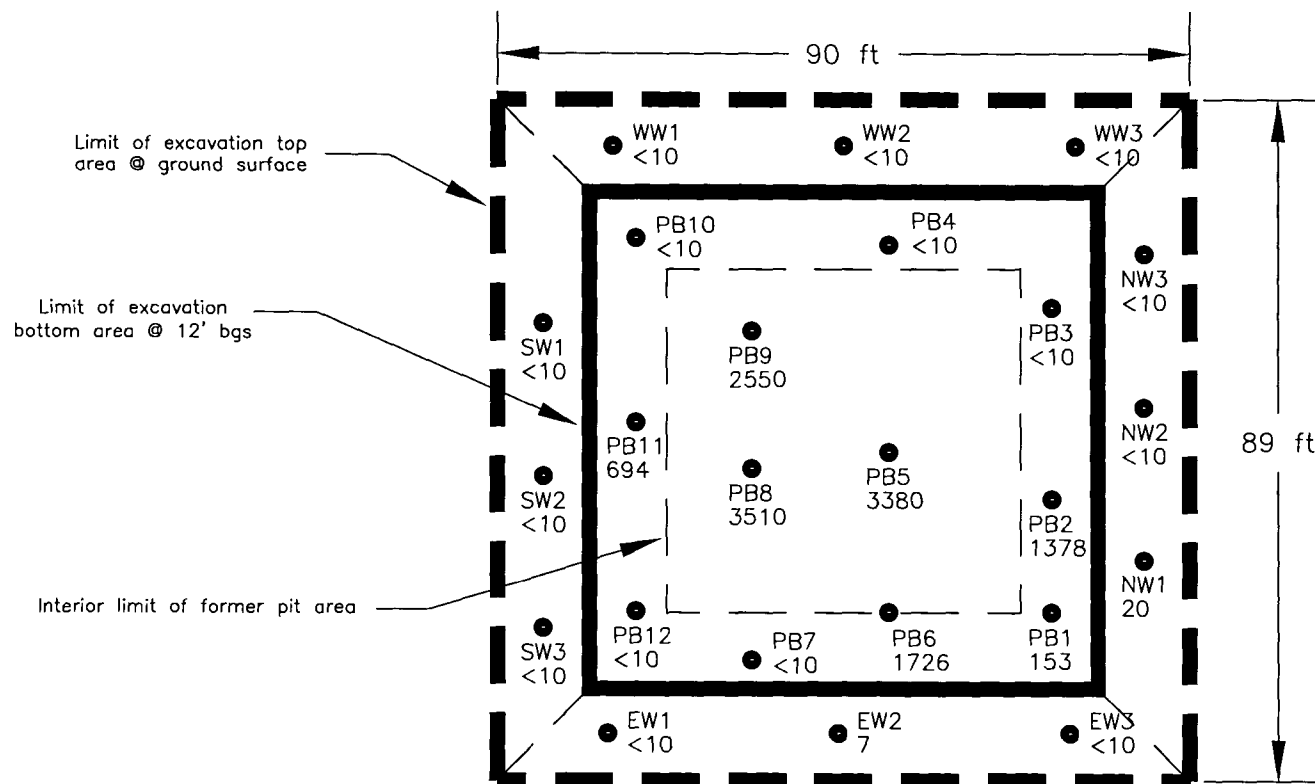
Larry Campbell  
George Robinson  
Bryan Arrant

Transwestern Pipeline Company  
Cypress Engineering  
NMOCD Artesia District Office





# Pit 2



## Explanation

- Excavation Sample Location
- Total TPH (GRO+DRO)

ROSWELL COMPRESSOR STATION

## Pit 2 Area Excavation Samples

**Table 1. Summary of Analytical Results for Pit 1 Excavation Bottom and Sidewall Soil Samples  
Compressor Station No. 9 - Roswell, NM**

Sample ID	Sampling Date	TPH (mg/kg)			VOCs (ug/kg)																
		GRO	DRO	Total (GRO+DRO)	1,1,1-Trichloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1,4 Dioxane	2-Butanone (MEK)	Acetone	Isopropylbenzene	n-Propylbenzene	Naphthalene	p-Isopropyltoluene	sec-Butylbenzene	Tetrachloroethene	Trichloroethene	Benzene	Toluene	Ethylbenzene	Xylenes
Pit #1 - PB-1	03/06/02	85.8	299	385	<25	438	281	<500	<50	<250	<25	46.1	117	<25	<25	<25	<25	<20	126	79.5	704
Pit #1 - PB-2	03/06/02	198	273	471	<25	981	648	<500	<50	<250	42.6	105	285	35.3	32.8	41	<25	<20	224	214	1856
Pit #1 - PB-3	03/06/02	426	435	861	<50	2110	1290	<1000	<100	<500	53.8	263	541	<50	<50	897	<50	35.5	914	323	3254
Pit #1 - PB-4	03/06/02	68.4	421	489	<10	423	275	<200	<20	141	<10	30.3	231	12.7	12.3	18.4	<10	<20	125	75.1	700
Pit #1 - PB-5	03/06/02	697	830	1527	<100	2430	1490	<2000	<200	1880	114	301	888	144	134	718	<100	174	2060	524	4880
Pit #1 - PB-6	03/06/02	621	642	1263	509	3000	1720	<2000	<200	<1000	217	430	944	200	167	1420	<100	429	3550	812	7060
Pit #1 - PB-7	03/06/02	503	1120	1623	<50	1370	857	1630	<100	614	77.1	215	426	62.6	66.5	87.6	<50	73.8	1240	493	3748
Pit #1 - PB-8	03/06/02	494	990	1484	<50	2260	1310	2070	<100	710	96	301	615	114	107	692	<50	49.9	1470	262	2529
Pit #1 - PB-9	03/06/02	469	454	923	247	2290	1600	<1000	<100	757	137	354	445	118	125	503	<50	81.6	1750	323	3221
Pit #1 - PB-10	03/06/02	366	444	810	<50	1070	712	<1000	<100	599	<50	61.8	269	<50	<50	53.9	<50	34.8	956	215	1989
Pit #1 - PB-11	03/06/02	301	855	1156	<100	2900	1850	<2000	<200	<1000	265	461	575	180	201	140	<100	<20	1140	585	4880
Pit #1 - PB-12	03/06/02	798	1170	1968	460	4530	2670	<2000	508	2740	460	799	2390	274	307	339	<100	423	4460	1140	8690
Pit #1 - NW-1	03/06/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #1 - NW-2	03/06/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #1 - NW-3	03/06/02	9.3	26.7	36	<5	<5	7.85	<100	<10	<50	<5	<5	7.18	<5	<5	<5	<5	<20	<20	<20	<20
Pit #1 - EW-1	03/06/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #1 - EW-2	03/06/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #1 - EW-3	03/06/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #1 - SW-1	03/06/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #1 - SW-2	03/06/02	26.7	101	128	<5	50.1	31.8	<100	<10	<50	<5	<5	24.3	<5	<5	<5	<5	<20	<20	<20	33.7
Pit #1 - SW-3	03/06/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #1 - WW-1	03/06/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #1 - WW-2	03/06/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #1 - WW-3	03/06/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20

Notes:

TPH - Total Petroleum Hydrocarbons by method 8015mod (GRO+DRO)



**Table 2. Summary of Analytical Results for Pit 2 Excavation Bottom and Sidewall Soil Samples  
Compressor Station No. 9 - Roswell, NM**

Sample ID	Sampling Date	TPH (mg/kg)			VOCs (ug/kg)																
		GRO	DRO	Total (GRO+DRO)	1,1,1-Trichloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1,4 Dioxane	2-Butanone (MEK)	Acetone	Isopropylbenzene	n-Propylbenzene	Naphthalene	p-Isopropyltoluene	sec-Butylbenzene	Tetrachloroethene	Trichloroethene	Benzene	Toluene	Ethylbenzene	Xylenes
Pit #2 - PB-1	03/12/02	8.3	145	153	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #2 - PB-2	03/12/02	844	534	1378	<200	1440	1640	<4000	<400	<2000	<200	<200	374	234	<200	<200	<200	<20	<20	54.7	574
Pit #2 - PB-3	03/12/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #2 - PB-4	03/12/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #2 - PB-5	03/12/02	2290	1090	3380	<1000	8750	5280	<20000	<2000	<10000	<1000	1270	1060	<1000	<1000	<1000	<1000	43.4	536	1140	11530
Pit #2 - PB-6	03/12/02	1050	676	1726	<1000	5050	4090	<20000	<2000	<10000	<1000	<1000	<1000	<1000	<1000	<1000	<1000	<20	<20	408	4052
Pit #2 - PB-7	03/12/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #2 - PB-8	03/12/02	2050	1460	3510	<1000	6560	3980	<20000	<2000	<10000	<1000	<1000	1110	<1000	<1000	<1000	<1000	<20	46.4	927	7700
Pit #2 - PB-9	03/12/02	1460	1090	2550	<1000	6320	4130	<20000	<2000	<10000	<1000	<1000	1190	<1000	<1000	<1000	<1000	<20	128	780	8830
Pit #2 - PB-10	03/12/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #2 - PB-11	03/12/02	371	323	694	<100	1090	1210	<2000	<200	<1000	<100	<100	144	433	<100	<100	<100	<20	<20	36.1	325
Pit #2 - PB-12	03/12/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #2 - NW-1	03/12/02	6.5	13.7	20	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #2 - NW-2	03/12/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #2 - NW-3	03/12/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #2 - EW-1	03/12/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #2 - EW-2	03/12/02	<5	6.8	6.8	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #2 - EW-3	03/12/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #2 - WW-1	03/12/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #2 - WW-2	03/12/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #2 - WW-3	03/12/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #2 - SW-1	03/12/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #2 - SW-2	03/12/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	<5	<5	<5	<5	<5	<20	<20	<20	<20
Pit #2 - SW-3	03/12/02	<5	<5	<10	<5	<5	<5	<100	<10	<50	<5	<5	12.5	<5	<5	<5	<5	<20	<20	<20	<20

Notes:

TPH - Total Petroleum Hydrocarbons by method 8015mod (GRO+DRO)

**Table 3. Summary of Analytical Results for Pit 1 Excavation Blended Soil Samples  
Compressor Station No. 9 - Roswell, NM**

Sample ID	Sampling Date	TPH (mg/kg)			VOCs (ug/kg)				
		GRO	DRO	Total (GRO+DRO)	Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX
Work Plan Criteria:		--	--	1000	10000	--	--	--	50000
Pit #1 - SPW-1	03/04/02	32.1	247	279	<20	86.8	94.2	659	840
Pit #1 - SPW-2	03/04/02	123	874	997	<20	284	165	1268	1717
Pit #1 - SPW-3	03/04/02	90.6	637	728	<20	307	163	1301	1771
Pit #1 - SPW-4	03/04/02	178.0	190	368	<20	199	124	1068	1391
Pit #1 - SPW-5	03/04/02	97.5	674	772	<20	168	118	1029	1315
Pit #1 - SPW-6	03/04/02	34.1	283	317	<20	239	158	1363	1760
Pit #1 - SPW-7	03/04/02	48.1	334	382	<20	184	140	1252	1576
Pit #1 - SPW-8	03/04/02	33.4	258	291	<20	324	208	1805	2337
Pit #1 - SPW-9	03/04/02	54.4	332	386	<20	274	186	1555	2015
Pit #1 - SPW-10	03/04/02	112	729	841	<20	359	206	1638	2203
Pit #1 - SPW-11	03/04/02	44.2	244	288	<20	286	167	1448	1901
Pit #1 - SPW-12	03/04/02	118	600	718	<20	347	197	1694	2238
Pit #1 - SPW-13	03/04/02	133	598	731	<20	355	206	1763	2324
Pit #1 - SPW-14	03/04/02	80	293	373	<20	414	251	2065	2730
Pit #1 - SPW-15	03/04/02	50	283	333	<20	233	140	1239	1612
Pit #1 - SPW-16	03/04/02	46.9	211	258	<20	307	226	1933	2466
Pit #1 - SPN-1	03/04/02	<5	<5	<10	<20	<20	<20	<20	<20
Pit #1 - SPN-2	03/04/02	<5	<5	<10	<20	<20	<20	<20	<20
Pit #1 - SPW-17	03/05/02	50.1	249	299	<20	89.6	83.4	786	959
Pit #1 - SPW-18	03/05/02	116	800	916	<20	229	132	1204	1565
Pit #1 - SPW-19	03/05/02	95.6	588	684	<20	143	84.6	777	1005
Pit #1 - SPW-20	03/05/02	103	687	790	<20	284	155	1282	1721
Pit #1 - SPW-21	03/05/02	103	737	840	<20	188	102	836	1126
Pit #1 - SPW-22	03/05/02	70.4	415	485	<20	171	98.2	850	1119
Pit #1 - SPW-23	03/05/02	69.8	386	456	<20	105	68.7	626	800
Pit #1 - SPW-24	03/05/02	76.8	459	536	<20	220	94.5	847	1162
Pit #1 - SPS-1	03/05/02	72.5	410	483	<20	138	79.9	735	953
Pit #1 - SPS-2	03/05/02	88.9	468	557	<20	135	101	954	1190
Pit #1 - SPS-3	03/05/02	97.1	537	634	<20	133	94.9	911	1139
Pit #1 - SPS-4	03/05/02	81.8	473	555	<20	114	76.1	745	935
Pit #1 - SPS-5	03/05/02	90.3	366	456	<20	244	148	1398	1790
Pit #1 - SPS-6	03/05/02	108	359	467	<20	230	164	1551	1945
Pit #1 - SPS-7	03/05/02	79.3	205	284	<20	218	171	1629	2018
Pit #1 - SPS-8	03/05/02	171	494	665	<20	246	193	1826	2265
Pit #1 - SPS-9	03/05/02	139	389	528	<20	212	154	1406	1772
Pit #1 - SPS-10	03/05/02	172	387	559	<20	367	276	2648	3291
Pit #1 - SPS-11	03/05/02	282	635	917	<20	319	275	2671	3265
Pit #1 - SPS-12	03/05/02	368	915	1283	<20	387	300	2911	3598
Pit #1 - SPS-13	03/05/02	289	640	929	<20	248	228	2247	2723
Pit #1 - SPS-14	03/05/02	276	789	1065	<20	277	247	2481	3005
Pit #1 - SPS-15	03/05/02	161	519	680	<20	220	200	1948	2368
Pit #1 - SPS-16	03/05/02	106	616	722	<20	198	98.9	911	1208
Pit #1 - SPS-17	03/05/02	110	597	707	<20	240	106	977	1323
Pit #1 - SPS-18	03/05/02	57.5	164	222	<20	237	132	1279	1648
Pit #1 - SPS-19	03/05/02	258	874	1132	<20	306	222	2059	2587
Pit #1 - SPS-20	03/05/02	250	653	903	<20	432	254	2322	3008
Pit #1 - SPS-21	03/05/02	176	411	587	<20	363	247	2319	2929
Pit #1 - SPS-22	03/05/02	286	519	805	<20	383	282	2679	3344
Pit #1 - SPS-23	03/05/02	233	597	830	<20	310	241	2290	2841
Pit #1 - SPS-24	03/05/02	138	336	474	<20	326	216	1995	2537
Pit #1 - SPS-25	03/05/02	204	384	588	<20	412	320	2974	3706

**Table 3. Summary of Analytical Results for Pit 1 Excavation Blended Soil Samples  
Compressor Station No. 9 - Roswell, NM**

Sample ID	Sampling Date	TPH (mg/kg)			VOCs (ug/kg)				
		GRO	DRO	Total (GRO+DRO)	Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX
Work Plan Criteria:		--	--	1000	10000	--	--	--	50000
Pit #1 - SPS-26	03/05/02	252	473	725	<20	329	285	2722	3336
Pit #1 - SPS-27	03/05/02	57.9	100	158	<20	348	260	2461	3069
Pit #1 - SPS-28	03/05/02	187	477	664	<20	449	306	2879	3634
Pit #1 - SPS-29	03/05/02	202	460	662	<20	406	290	2716	3412
Pit #1 - SPS-30	03/05/02	228	375	603	<20	463	328	3097	3888
Pit #1 - SPC-1	03/07/02	144	650	794	<20	112	109	1096	1317
Pit #1 - SPC-2	03/07/02	105	536	641	<20	86	88	891	1065
Pit #1 - SPC-3	03/07/02	96.2	188	284	<20	86.7	93.2	940	1120
Pit #1 - SPC-4	03/07/02	93.6	472	566	<20	72.2	89.3	977	1139
Pit #1 - SPC-5	03/07/02	71.6	210	282	<20	87.9	85.8	955	1129
Pit #1 - SPC-6	03/07/02	89.5	410	500	<20	80	62	726	868
Pit #1 - SPC-7	03/07/02	196	655	851	<20	108	92.2	1045	1245
Pit #1 - SPC-8	03/07/02	122	429	551	<20	137	116	1292	1545
Pit #1 - SPC-9	03/07/02	96.1	284	380	<20	127	97.6	1096	1321
Pit #1 - SPC-10	03/07/02	152	502	654	<20	125	88.4	953	1166
Pit #1 - SPC-11	03/07/02	66.9	276	343	<20	82.5	71.9	761	915
Pit #1 - SPC-12	03/07/02	120	610	730	<20	119	101	1015	1235
Pit #1 - SPC-13	03/07/02	38.6	108	147	<20	21.8	26.4	298	347
Pit #1 - SPC-14	03/07/02	27.3	146	173	<20	27.7	29.7	331	388
Pit #1 - SPC-15	03/07/02	20.4	68.8	89	<20	<20	<20	174	174
Pit #1 - SPC-16	03/07/02	19.2	81.8	101	<20	<20	<20	168	168
Pit #1 - SPC-17	03/07/02	101	319	420	<20	96.7	88.4	917	1102
Pit #1 - SPC-18	03/07/02	87.6	333	421	<20	147	112	1155	1414
Pit #1 - SPC-19	03/07/02	45.8	159	205	<20	25.9	30.4	358	414
Pit #1 - SPC-20	03/07/02	103	335	438	<20	78	65.8	783	927
Pit #1 - SPC-21	03/07/02	72.4	266	338	<20	158	122	1251	1531
Pit #1 - SPC-22	03/07/02	137	525	662	<20	325	185	1768	2278
Pit #1 - SPC-23	03/07/02	78.2	301	379	<20	163	123	1266	1552
Pit #1 - SPC-24	03/07/02	57.1	149	206	<20	413	203	1843	2459
Pit #1 - SPS-12 Retest	03/09/02	126	532	658	<20	34.3	47.2	658	740
Pit #1 - SPS-14 Retest	03/09/02	150	685	835	<20	54.8	75.6	986	1116
Pit #1 - SPS-19 Retest	03/09/02	297	957	1254	<20	120	167	2094	2381
Pit #1 - SPS-19 Test-3	03/13/02	46.5	92.1	139	<20	<20	<20	31	31

Notes:

"--" - No applicable work plan criteria

TPH - Total Petroleum Hydrocarbons by method 8015mod (GRO+DRO)

**Table 4. Summary of Analytical Results for Pit 2 Excavation Blended Soil Samples  
Compressor Station No. 9 - Roswell, NM**

Sample ID	Sampling Date	TPH (mg/kg)			VOCs (ug/kg)				
		GRO	DRO	Total (GRO+DRO)	Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX
Work Plan Criteria:		--	--	1000	10000	--	--	--	50000
Pit #2 - SPT-1	03/11/02	54.4	60.4	115	<20	<20	<20	143	143
Pit #2 - SPT-2	03/11/02	28.7	31.2	60	<20	<20	<20	59	59
Pit #2 - SPT-3	03/11/02	15	37.5	53	<20	<20	<20	<20	<20
Pit #2 - SPT-4	03/11/02	6.8	14.9	22	<20	<20	<20	<20	<20
Pit #2 - SPT-5	03/11/02	9.0	18.9	28	<20	<20	<20	<20	<20
Pit #2 - SPT-6	03/11/02	11.2	10.4	22	<20	<20	<20	<20	<20
Pit #2 - SPT-7	03/11/02	10.3	21.0	31	<20	<20	<20	<20	<20
Pit #2 - SPNE-1	03/11/02	162	290	452	<20	<20	<20	113	113
Pit #2 - SPNE-2	03/11/02	316	343	659	<20	<20	29.3	321	351
Pit #2 - SPNE-3	03/11/02	134	215	349	<20	<20	22	241	263
Pit #2 - SPNE-4	03/11/02	68.5	61.7	130	<20	<20	27.4	299	327
Pit #2 - SPNE-5	03/11/02	264	186	450	<20	<20	46.7	616	663
Pit #2 - SPNE-6	03/11/02	203	286	489	<20	<20	<20	206	206
Pit #2 - SPNE-7	03/11/02	117	169	286	<20	<20	<20	195	195
Pit #2 - SPNE-8	03/11/02	121	186	307	<20	<20	<20	170	170
Pit #2 - SPNE-9	03/11/02	67.5	89	157	<20	<20	<20	184	184
Pit #2 - SPNE-10	03/11/02	74.1	86.4	161	<20	<20	<20	149	149
Pit #2 - SPNE-11	03/11/02	106	139	245	<20	<20	<20	138	138
Pit #2 - SPNE-12	03/11/02	129	211	340	<20	<20	<20	220	220
Pit #2 - SPNE-13	03/11/02	89.1	116	205	<20	<20	20.8	214	235
Pit #2 - SPNE-14	03/11/02	277	221	498	<20	71.1	21.2	1200	1292
Pit #2 - SPNE-15	03/11/02	121	139	260	<20	100	34.5	810	945
Pit #2 - SPNE-16	03/11/02	150	127	277	<20	207	28.1	1262	1497
Pit #2 - SPNE-17	03/11/02	124	114	238	<20	85.4	23.1	731	840
Pit #2 - SPC-1	03/12/02	196	257	453	<20	<20	23.6	311	334
Pit #2 - SPC-2	03/12/02	69.6	77.5	147	<20	<20	<20	151	151
Pit #2 - SPC-3	03/12/02	49.8	56.2	106	<20	<20	<20	167	167
Pit #2 - SPC-4	03/12/02	78.8	97.6	176	<20	<20	<20	223	223
Pit #2 - SPC-5	03/12/02	63.2	73.8	137	<20	<20	<20	171	171
Pit #2 - SPC-6	03/12/02	66.2	102	168	<20	<20	<20	199	199
Pit #2 - SPC-7	03/12/02	68.9	88.9	158	<20	<20	<20	212	212
Pit #2 - SPC-8	03/12/02	84.6	186	271	<20	<20	<20	174	174
Pit #2 - SPT-9	03/12/02	35.3	54.8	90	<20	<20	<20	97	97
Pit #2 - SPT-10	03/12/02	32.8	42.8	76	<20	<20	<20	71	71
Pit #2 - SPT-11	03/12/02	98.3	115	213	<20	<20	<20	159	159
Pit #2 - SPT-12	03/12/02	74.9	106	181	<20	<20	<20	172	172
Pit #2 - SPT-13	03/12/02	70.2	78.9	149	<20	<20	<20	137	137
Pit #2 - SPT-14	03/12/02	109	53.2	162	<20	<20	48.4	531	579
Pit #2 - SPT-15	03/12/02	102	52.3	154	<20	<20	46.8	523	570
Pit #2 - SPT-16	03/12/02	94.3	40.5	135	<20	<20	46.3	507	553
Pit #2 - SPT-17	03/12/02	5.89	5.2	11	<20	<20	<20	<20	<20
Pit #2 - SPT-18	03/12/02	5.1	<5	5	<20	<20	<20	<20	<20
Pit #2 - SPT-19	03/12/02	147	157	304	<20	<20	<20	<20	<20
Pit #2 - SPT-8	03/12/02	90.6	81.6	172	<20	<20	<20	117	117

Notes:

\*--\* - No applicable work plan criteria

TPH - Total Petroleum Hydrocarbons by method 8015mod (GRO+DRO)

**Table 5. Summary of Analytical Results for Pit 1 and Pit 2 Backfill Soil Samples  
Compressor Station No. 9 - Roswell, NM**

Sample ID	Sampling Date	TPH (mg/kg)			VOCs (ug/kg)				
		GRO	DRO	Total (GRO+DRO)	Benzene	Toluene	Ethylbenzene	Xylenes	Total BTEX
Work Plan Criteria:		--	--	1000	10000	--	--	--	50000
Pit #1 - Sand-1	03/05/02	<5	7.3	7.3	<20	<20	<20	<20	<20
Pit #1 - Sand-2	03/05/02	<5	6.1	6.1	<20	<20	<20	<20	<20
Pit #1 - Sand-3	03/05/02	<5	15.5	15.5	<20	<20	<20	<20	<20
Pit #1 - Sand-4	03/05/02	<5	50.6	50.6	<20	<20	<20	<20	<20
Pit #1 - Sand-5	03/05/02	<5	5.9	5.9	<20	<20	<20	<20	<20
Pit #1 - Sand-6	03/05/02	<5	8.8	8.8	<20	<20	<20	<20	<20
Backfill-1	03/19/02	<5	<5	<5	<20	<20	<20	<20	<20
Backfill-2	03/19/02	<5	<5	<5	<20	<20	<20	<20	<20
Backfill-3	03/19/02	<5	<5	<5	<20	<20	<20	<20	<20

Notes:

"--" - No applicable work plan criteria

TPH - Total Petroleum Hydrocarbons by method 8015mod (GRO+DRO)

# TW Roswell Station – Soil Excavation & Removal Project



Top Photo: Pit 1 excavation in progress.



Bottom Photo: Pit 1 excavation complete.



## TW Roswell Station – Soil Excavation & Removal Project



Top Photo: Pit 1 excavation, preparing bottom for liner.



Bottom Photo: Pit 1 excavation, laying out liner.



## TW Roswell Station – Soil Excavation & Removal Project



Top Photo: Pit 2 excavation in progress.



Bottom Photo: Pit 2 excavation complete.



## TW Roswell Station – Soil Excavation & Removal Project



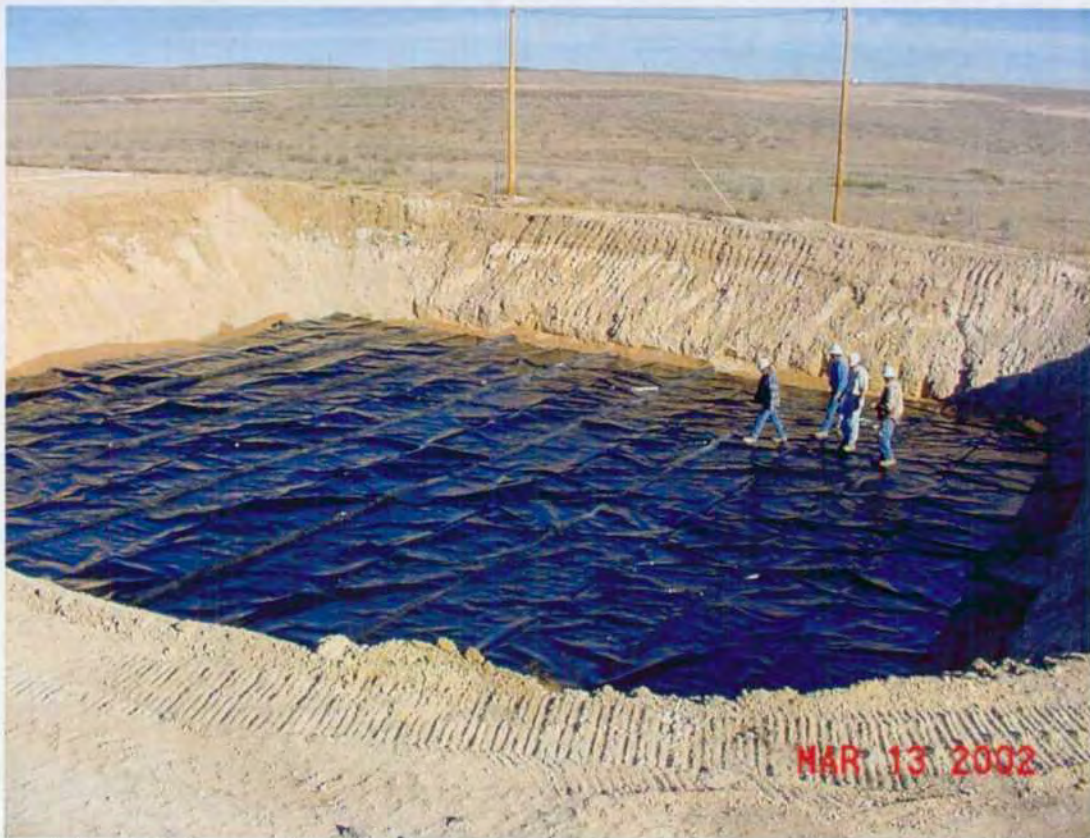
Top Photo: Pit 2 excavation, preparing bottom for liner.



Bottom Photo: Pit 2 excavation, laying out liner.



## TW Roswell Station – Soil Excavation & Removal Project



Top Photo: Pit 2 excavation, liner in-place.



Bottom Photo: Project Complete, Pit 1 area in foreground and Pit 2 area in background.

**Transwestern Pipeline Company**  
1400 Smith Street  
Houston, TX 77002  
713-853-6161

**CERTIFIED MAIL / RETURN RECEIPT REQUESTED TO FOLLOW**

March 12, 2003

Mr. Ed Gearhart, Enforcement Section  
New Mexico Environment Department  
Air Quality Bureau  
2048 Galisteo St.  
Santa Fe, NM 87505

RE: Air Quality Permit Nos. 1776 and 1777  
Transwestern Pipeline Company  
AIRS Nos. 35-025-00219 and 35-025-00220  
Actual Startup Date Notification

Dear Mr. Gearhart:

As required by Condition 6.b). of the subject permits, Transwestern Pipeline Company (Transwestern) is submitting notification of the actual start-up of Soil Vapor Extraction (SVE) operations at Transwestern's Roswell Station located in Chaves County, NM. The actual start-up date was March 10, 2003. In addition, as required by Condition 6.d)., Transwestern will operate the thermal oxidizer at or above the manufacturer's recommended temperature of 1,400° Fahrenheit.

If you have any questions regarding this issue, please contact George Robinson at (713) 345-1537. Thank you for your help in this matter.

Sincerely,



Bill Kendrick  
Senior Director

cc: Mr. William C. Olson, Environmental Bureau  
New Mexico Oil Conservation Division, 1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Mr. Larry Campbell, Transwestern Pipeline Company  
Mr. George Robinson, Cypress Engineering


**ACKNOWLEDGEMENT OF RECEIPT  
OF CHECK/CASH**

I hereby acknowledge receipt of check No. [REDACTED] dated 6/30/03  
or cash received on 7/3/03 in the amount of \$ 2,700.00  
from Transwestern Pipeline Co.  
for Roswell Compressor Station GW-052  
Submitted by: (Facility Name) Will [Signature] Date: (DP May) 7/10/03  
Submitted to ASD by: \_\_\_\_\_ Date: \_\_\_\_\_  
Received in ASD by: \_\_\_\_\_ Date: \_\_\_\_\_  
Filing Fee ☒ New Facility ☐ Renewal ☐  
Modification ☒ Other ☐

Organization Code 521.07 Applicable FY 2003

To be deposited in the Water Quality Management Fund.

Full Payment ✓ or Annual Increment       

<input type="checkbox"/> Florida Gas Transmission Company <input type="checkbox"/> _____		<input type="checkbox"/> Northern Natural Gas Company <input checked="" type="checkbox"/> Transwestern Pipeline Company		35-60 1130	No. <span style="background-color: black; color: black;">[REDACTED]</span>																																								
PAY TO THE ORDER OF <u>Water Quality Management Fund, c/o Oil Conservation Division</u>				DATE <u>June 30 120 03</u>																																									
WHOSE ADDRESS IS <u>1220 South St. Francis Drive, Santa Fe, NM 87505</u>				<u>\$ 2,700.00</u>																																									
<u>Two Thousand Seven Hundred and .00/100-----</u>					<u>DOLLARS</u>																																								
STATE <u>NM</u>		COUNTY <u>Chaves</u>		ROW NO. _____																																									
LEGAL DESCRIPTION <span style="background-color: black; color: black;">[REDACTED]</span>																																													
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Description</th> <th>GL Co. #</th> <th>Tax Code</th> <th>GL Account #</th> <th>Cost Center</th> <th>WBS Element</th> <th>Material/Far Order</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>Right of Way [Easement]</td> <td></td> <td></td> <td>53102000</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Damages, Services, Other</td> <td></td> <td></td> <td>53102100</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Real Property Purchase (Land Acquisition)</td> <td></td> <td></td> <td>53102200</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Remarks</td> <td colspan="5"> <u>Filing fees for a discharge permit modification for the TW Station 9 discharge plan.</u> </td> <td> <u>Total</u> </td> <td> <u>2,700.00</u> </td> </tr> </tbody> </table>						Description	GL Co. #	Tax Code	GL Account #	Cost Center	WBS Element	Material/Far Order	Amount	Right of Way [Easement]			53102000					Damages, Services, Other			53102100					Real Property Purchase (Land Acquisition)			53102200					Remarks	<u>Filing fees for a discharge permit modification for the TW Station 9 discharge plan.</u>					<u>Total</u>	<u>2,700.00</u>
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NOT VALID AFTER 180 DAYS <b>E.O.S.C.</b> P.O. Box 1188 Houston, Texas 77251-1188 Through JPMorgan Chase Bank National Association Houston, Texas <div style="text-align: center;">           AUTHORIZED SIGNATURE       </div>																																													



**NEW MEXICO ENVIRONMENT DEPARTMENT  
REVENUE TRANSMITTAL FORM**

Description	FUND	CES	DFA ORG	DFA ACCT	ED ORG	ED ACCT	AMOUNT	
1 CY Reimbursement Project _____ Tax _____	064	01						1
5 Gross Receipt Tax	064	01		2329	900000	2329134		2
3 Air Quality Title V	092	13	1300	1896	900000	4169134		3
4 PRP Prepayments	248	14	1400	9696	900000	4969014		4
2 Climax Chemical Co.	248	14	1400	9696	900000	4969015		5
8 Circle K Reimbursements	248	14	1400	9696	900000	4969248		6
7 Hazardous Waste Permits	339	27	2700	1696	900000	4169027		7
8 Hazardous Waste Annual Generator Fees	339	27	2700	1696	900000	4169339		8
10 <input checked="" type="checkbox"/> Water Quality - Oil Conservation Division	341	29		2329	900000	2329029	2,700.00	10
11 Water Quality - GW Discharge Permit	341	29	2900	1696	900000	4169029		11
12 Air Quality Permits	631	31	2500	1696	900000	4169031		12
13 Payments under Protest	851	33		2919	900000	2919033		13
*14 Xerox Copies	652	34		2349	900000	2349001		*14
15 Ground Water Penalties	652	34		2349	900000	2349002		15
16 Witness Fees	652	34		2349	900000	2439003		16
17 Air Quality Penalties	652	34		2349	900000	2349004		17
18 OSHA Penalties	652	34		2349	900000	2349005		18
19 Prior Year Reimbursement	652	34		2349	900000	2349006		19
20 Surface Water Quality Certification	652	34		2349	900000	2349009		20
21 Jury Duty	652	34		2349	900000	2349012		21
22 CY Reimbursements ( i.e. telephone)	652	34		2349	900000	2349014		22
*23 UST Owner's List	783	24	2500	9696	900000	4969201		*23
*24 Hazardous Waste Notifiers List	783	24	2500	9696	900000	4969202		*24
*25 UST Maps	783	24	2500	9696	900000	4969203		*25
*26 UST Owner's Update	783	24	2500	9696	900000	4969205		*26
*28 Hazardous Waste Regulations	783	24	2500	9696	900000	4969207		*28
*29 Radiologic Tech. Regulations	783	24	2500	9696	900000	4969208		*29
*30 Superfund CERLIS List	783	24	2500	9696	900000	4969211		*30
31 Solid Waste Permit Fees	783	24	2500	9696	900000	4969213		31
32 Smoking School	783	24	2500	9696	900000	4969214		32
*33 SWQB - NPS Publications	783	24	2500	9696	900000	4969222		*33
*34 Radiation Licensing Regulation	783	24	2500	9696	900000	4969228		*34
*35 Sale of Equipment	783	24	2500	9696	900000	4969301		*35
*36 Sale of Automobile	783	24	2500	9696	900000	4969302		*36
*37 Lost Recoveries	783	24	2500	9696	900000	4969614		**37
*38 Lost Repayments	783	24	2500	9696	900000	4969615		**38
39 Surface Water Publication	783	24	2500	9696	900000	4969801		39
40 Exxon Reese Drive Ruidoso - CAF	783	24	2500	9696	900000	4969242		40
41 Emerg. Hazardous Waste Penalties NOV	957	32	9600	1696	900000	4164032		41
42 Radiologic Tech. Certification	987	05	0500	1696	900000	4169005		42
44 Ust Permit Fees	989	20	3100	1696	900000	4169020		44
45 UST Tank Installers Fees	989	20	3100	1696	900000	4169021		45
46 Food Permit Fees	991	26	2600	1696	900000	4169026		46
43 Other								43

\* Gross Receipt Tax Required

\*\* Site Name & Project Code Required

TOTAL 2,700.00

Contact Person: Roger Anderson

Phone: 6-3490

Date: 7/10/03

Received in ASD By: \_\_\_\_\_

Date: \_\_\_\_\_

RT #:

ST #: \_\_\_\_\_

**Transwestern Pipeline Company**

1400 Smith Street  
Houston, TX 77002  
713-853-6161

June 30, 2003

Mr. William C. Olson  
Environmental Bureau  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

**RECEIVED**

**JUL 03 2003**

ENVIRONMENTAL BUREAU  
OIL CONSERVATION DIVISION

RE: Discharge Permit Modification (GW-052)  
Roswell Compressor Station  
Chavez County, New Mexico

Enclosed is one signed copy of the conditions for approval. Also enclosed is a check in the amount of \$2,700.00 to cover both the filling fee and the flat fee for abatement of groundwater.

If you have any questions or comments regarding this transmittal, please contact George Robinson at (713) 345-1537 or you can contact me at (713) 646-7644.

Sincerely,



Bill Kendrick  
Senior Director Environmental Affairs  
Transwestern Pipeline Company

xc w/enclosures:

Larry Campbell  
George Robinson  
Tim Gum

Transwestern Pipeline Co.  
Cypress Engineering  
OCD Artesia Office

**ATTACHMENT TO PERMIT MODIFICATION APPROVAL  
DISCHARGE PERMIT GW-052**

**Transwestern Pipeline Company  
Roswell Compressor Station**

**DISCHARGE PERMIT MODIFICATION APPROVAL CONDITIONS  
June 16, 2003**

1. Payment of Discharge Permit Fees: The \$100.00 filing fee and the \$2,600.00 flat fee for abatement of ground water and vadose zone contamination have not been received by the OCD. The filing fee is due upon receipt of this approval. The flat fee may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the discharge plan, with the first payment due upon receipt of this approval. OCD requires that TPC pay the required flat fee 30 days after permit approval. If TPC chooses to make annual payments then OCD will require documentation of payment to be included in the annual report.
2. Commitments: TPC will abide by all commitments submitted in the discharge permit modification application dated September 10, 2003 including those commitments in TPC's August 30, 2003 "CONCEPTUAL REMEDIAL DESIGN, ROSWELL COMPRESSOR STATION, ROSWELL, NEW MEXICO" and these conditions for approval.
3. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums should be stored on their sides with the bungs in place and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets must also be stored on an impermeable pad with curbing.
4. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.
5. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new facilities or modifications to existing facilities must place the tank on an impermeable type pad within the berm.
6. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.

7. Labeling: All tanks, drums, and other containers should be clearly labeled to identify their contents and other emergency information necessary if the tank were to rupture, spill, or ignite. OCD allows master plans to be used that identifies all tanks, location, size and contents with a numbering system marked on the tanks which corresponds to plot plans contained in the plan.
8. Below Grade Tanks/Sumps/Pits/Ponds: All below grade tanks, sumps, pits and ponds must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All below grade tanks, sumps and pits must be tested annually, except systems that have secondary containment with leak detection. These systems with leak detection shall have a monthly inspection of the leak detection to determine if the primary containment is leaking. Results of tests and inspections shall be maintained at the facility covered by this discharge plan and available for OCD inspection. Any system found to be leaking shall be reported pursuant to Item # 12. Permit holders may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing.
9. Below-grade Wastewater Lines: All below-grade fluid recovery gathering lines between the recovery wells and the water treatment facility must be tested to demonstrate mechanical integrity prior to operation and every five (5) years thereafter. Results of such tests shall be maintained at the facility covered by this discharge plan and available for OCD inspection. Permit holders may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing.
10. Class V Wells: No Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be approved for construction and/or operation unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.
11. Housekeeping: All systems designed for spill collection/prevention, and leak detection will be inspected monthly to ensure proper operation and to prevent over topping or system failure. All open to atmosphere spill collection devices will be emptied of fluids, other than rainwater, within 48 hours of discovery. Enclosed secondary containment devices shall be emptied of all fluids within 48 hours to ensure that the primary device is not leaking. A record of inspection will be retained on site for a period of five years.
12. Spill Reporting: All spills/releases shall be reported pursuant to 19.15.3.116 NMAC and 20.6.2.1203 NMAC to the OCD Artesia District Office.



13. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261. Any waste stream that is not listed in the discharge permit will be approved by OCD on a case-by-case basis.

Rule 712 Waste: Pursuant to Rule 712, disposal of certain non-domestic waste is allowed at solid waste facilities permitted by the New Mexico Environment Department as long as the waste stream is identified in the discharge permit, and existing process knowledge of the waste stream does not change without notification to the Oil Conservation Division.

14. OCD Inspections: Additional requirements may be placed on the facility based upon results from OCD inspections.
15. Storm Water Plan: TPC shall maintain stormwater runoff controls. As a result of operations if any water contaminant that exceeds the WQCC standards listed in 20.6.2.3101 NMAC is discharged in any stormwater run-off then TPC shall notify the OCD within 24 hours, modify the permit within 15 days and submit for OCD approval. TPC shall also take immediate corrective actions pursuant to Item 12 of these conditions.
16. Ground Water Treatment: Only treated ground water that meets the New Mexico Water Quality Control Commission standards in 20.6.2.3103 NMAC shall be land applied over the zone of remediation. The treated water shall be land applied a manner that does not result in ponding or runoff from the facility.
17. Vadose Zone and Water Pollution: The previously submitted investigation(s) and remediation permits were submitted pursuant to the discharge permit and all future discoveries of contamination will be addressed through the discharge permit process.
18. Ground Water Treatment System Monitoring:
- TPC shall monitor water quality from the treatment system once prior to the initial land application and monthly thereafter. Monitoring samples shall be obtained and analyzed for concentrations of aromatic and halogenated volatile organics, and major cations and anions using EPA approved methods. The monthly volume of water treated and land applied shall also be measured. The monthly water volumes and water quality sampling results shall be included in each annual report on the ground water remediation system.
19. Transfer of Discharge permit: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge permit. A written commitment to comply with the terms and conditions of the previously approved discharge permit must be submitted by the purchaser and approved by the OCD prior to transfer.

20. **Closure:** The OCD will be notified when operations of the facility are discontinued for a period in excess of six months. Prior to closure of the facility a closure permit will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.
21. **Certification:** **Transwestern Pipeline Company** by the officer whose signature appears below, accepts this and agrees to comply with all terms and conditions contained herein. **Transwestern Pipeline Company** further acknowledges that these conditions and requirements may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Conditions accepted by: **Transwestern Pipeline Company**

BILL KENDRICK  
Company Representative- print name

Bill Kendrick Date 6-27-03  
Company Representative- Sign

Title SR. DIRECTOR ENVIRONMENTAL  
AFFAIRS



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Lori Wrotenbery**

Director

**Oil Conservation Division**

June 16, 2003

Mr. Bill Kendrick  
Transwestern Pipeline Company  
1400 Smith St.  
Houston, Texas 77002

**RE: DISCHARGE PERMIT MODIFICATION (GW-052)  
ROSWELL COMPRESSOR STATION  
CHAVEZ COUNTY, NEW MEXICO**

Dear Mr. Kendrick:

The groundwater discharge permit modification for the Transwestern Pipeline Company (TPC) Roswell Compressor Station located in the SW/4, SW/4 of Section 21, Township 9 South, Range 24 East, NMPM, Chavez County, New Mexico, **is hereby approved** under the conditions contained in the enclosed attachment. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 30 working days of receipt of this letter.**

The original discharge permit was approved on November 9, 1990. The permit was most recently renewed on January 30, 2001. The discharge permit modification consists of TPC's September 10, 2002 "CONCEPTUAL REMEDIAL DESIGN AND DISCHARGE PLAN MODIFICATION, ROSWELL COMPRESSOR STATION, TRANSWESTERN PIPELINE COMPANY" and August 30, 2002 "CONCEPTUAL REMEDIAL DESIGN, ROSWELL COMPRESSOR STATION, ROSWELL, NEW MEXICO". The modification is for abatement of ground water and vadose zone contamination related to prior unlined pits at the facility.

The discharge permit is modified pursuant to 20.6.2.3109.C NMAC. Please note 20.6.2.3109.G NMAC, which provides for possible future amendment of the permit. Please be advised that approval of this permit modification does not relieve TPC of responsibility should operations result in pollution of surface water, ground water or the environment. In addition, OCD approval does not relieve TPC of responsibility for compliance with any other governmental authority's rules and regulations. Please be advised that all exposed pits, including lined pits and open top tanks (exceeding 16 feet in diameter) shall be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

Please note that 20.6.2.3104 NMAC requires that "when a permit has been approved, discharges must be consistent with the terms and conditions of the permit." Pursuant to 20.6.2.3107.C NMAC, TPC is required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.

**Please be aware that the discharge permit approval will expire November 9, 2005** and an application for renewal should be submitted in ample time before that date. Pursuant to 20.6.2.3106.F NMAC, if a discharger submits a discharge permit renewal application at least 120 days before the discharge permit expires and is in compliance with the approved permit, then the existing discharge permit will not expire until the application for renewal has been approved or disapproved.

The discharge permit modification for the TPC Roswell Compressor Station is subject to discharge permit fees pursuant to 20.6.2.3114 NMAC. Every billable facility submitting a discharge permit will be assessed a fee equal to the filing fee of \$100.00 plus a flat fee of \$2,600.00 for abatement of ground water and vadose zone contamination. The OCD has not received either the \$100.00 filing fee or the \$2,600.00 flat fee.



If you have any questions, please contact Bill Olson of my staff at (505) 476-3491. On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge permit modification review.

Sincerely,

Roger C. Anderson  
Environmental Bureau Chief

RCA/wco

Attachment

xc: Tim Gum, OCD Artesia District Supervisor  
George Robinson, Cypress Engineering

**ATTACHMENT TO PERMIT MODIFICATION APPROVAL  
DISCHARGE PERMIT GW-052**

**Transwestern Pipeline Company  
Roswell Compressor Station**

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June 16, 2003**

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3. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums should be stored on their sides with the bungs in place and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets must also be stored on an impermeable pad with curbing.
4. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.
5. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new facilities or modifications to existing facilities must place the tank on an impermeable type pad within the berm.
6. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.

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8. Below Grade Tanks/Sumps/Pits/Ponds: All below grade tanks, sumps, pits and ponds must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All below grade tanks, sumps and pits must be tested annually, except systems that have secondary containment with leak detection. These systems with leak detection shall have a monthly inspection of the leak detection to determine if the primary containment is leaking. Results of tests and inspections shall be maintained at the facility covered by this discharge plan and available for OCD inspection. Any system found to be leaking shall be reported pursuant to Item # 12. Permit holders may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing.
9. Below-grade Wastewater Lines: All below-grade fluid recovery gathering lines between the recovery wells and the water treatment facility must be tested to demonstrate mechanical integrity prior to operation and every five (5) years thereafter. Results of such tests shall be maintained at the facility covered by this discharge plan and available for OCD inspection. Permit holders may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing.
10. Class V Wells: No Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be approved for construction and/or operation unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.
11. Housekeeping: All systems designed for spill collection/prevention, and leak detection will be inspected monthly to ensure proper operation and to prevent over topping or system failure. All open to atmosphere spill collection devices will be emptied of fluids, other than rainwater, within 48 hours of discovery. Enclosed secondary containment devices shall be emptied of all fluids within 48 hours to ensure that the primary device is not leaking. A record of inspection will be retained on site for a period of five years.
12. Spill Reporting: All spills/releases shall be reported pursuant to 19.15.3.116 NMAC and 20.6.2.1203 NMAC to the OCD Artesia District Office.

13. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261. Any waste stream that is not listed in the discharge permit will be approved by OCD on a case-by-case basis.
- Rule 712 Waste: Pursuant to Rule 712, disposal of certain non-domestic waste is allowed at solid waste facilities permitted by the New Mexico Environment Department as long as the waste stream is identified in the discharge permit, and existing process knowledge of the waste stream does not change without notification to the Oil Conservation Division.
14. OCD Inspections: Additional requirements may be placed on the facility based upon results from OCD inspections.
15. Storm Water Plan: TPC shall maintain stormwater runoff controls. As a result of operations if any water contaminant that exceeds the WQCC standards listed in 20.6.2.3101 NMAC is discharged in any stormwater run-off then TPC shall notify the OCD within 24 hours, modify the permit within 15 days and submit for OCD approval. TPC shall also take immediate corrective actions pursuant to Item 12 of these conditions.
16. Ground Water Treatment: Only treated ground water that meets the New Mexico Water Quality Control Commission standards in 20.6.2.3103 NMAC shall be land applied over the zone of remediation. The treated water shall be land applied a manner that does not result in ponding or runoff from the facility.
17. Vadose Zone and Water Pollution: The previously submitted investigation(s) and remediation permits were submitted pursuant to the discharge permit and all future discoveries of contamination will be addressed through the discharge permit process.
18. Ground Water Treatment System Monitoring:
- TPC shall monitor water quality from the treatment system once prior to the initial land application and monthly thereafter. Monitoring samples shall be obtained and analyzed for concentrations of aromatic and halogenated volatile organics, and major cations and anions using EPA approved methods. The monthly volume of water treated and land applied shall also be measured. The monthly water volumes and water quality sampling results shall be included in each annual report on the ground water remediation system.
19. Transfer of Discharge permit: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge permit. A written commitment to comply with the terms and conditions of the previously approved discharge permit must be submitted by the purchaser and approved by the OCD prior to transfer.

20. Closure: The OCD will be notified when operations of the facility are discontinued for a period in excess of six months. Prior to closure of the facility a closure permit will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.
21. Certification: **Transwestern Pipeline Company** by the officer whose signature appears below, accepts this and agrees to comply with all terms and conditions contained herein. **Transwestern Pipeline Company** further acknowledges that these conditions and requirements may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Conditions accepted by: **Transwestern Pipeline Company**

\_\_\_\_\_  
Company Representative- print name

\_\_\_\_\_  
Date  
Company Representative- Sign

Title \_\_\_\_\_



## Olson, William

---

**From:** Robinson, George [George.Robinson@ENRON.com]  
**Sent:** Thursday, October 17, 2002 5:38 PM  
**To:** Bill Olson (E-mail)  
**Cc:** Kendrick, William; Campbell, Larry  
**Subject:** TW Roswell Discharge Plan

Transwestern Pipeline Company recently submitted a remediation plan to your office for review and approval. The document provides a conceptual design for the soil and groundwater remediation system to be installed at the Roswell site. This document also serves as an addendum to the existing facility Discharge Plan.

With approval by your office, Transwestern plans to install surface and subsurface conveyance piping for the liquid recovery system at the same time that subsurface conveyance piping for the SVE system is installed. This installation is scheduled to start in mid-November and complete by end of December 2002. The liquid conveyance piping will consist primarily of 3/4" HDPE pipe and associated fittings, valves, sample ports, etc. The general location of the pipe trenches is shown in drawing C-2 of the remediation plan. The procedure for post construction testing of SVE and liquid recovery lines as specified in Section 4.5 of the "Final Remedial Design" specifications for construction is copied below.

As stated in the recent approval by your office of well installation activities, there will be no discharges from the liquid recovery system before the discharge plan modification is approved by the OCD.

If there are any questions regarding the proposed liquid recovery system installation activities, please contact me at the number shown below or contact Bill Kendrick at (713) 646-7644.

Thanks,  
George

### 4.5 TESTING

A. All vapor extraction piping shall be pressure tested by the Contractor prior to acceptance. All below grade pipe must be tested prior to backfill.

1. Vacuum Testing: requires that all Soil Vapor Extraction (SVE) process piping and hose be isolated as necessary and a minimum vacuum of 100 inches water be applied and the vacuum source disconnected from the piping. The test vacuum is to be monitored for one hour with an appropriate gauge on the piping system. The piping and hose must remain at the test vacuum (+/-2%) to pass the test procedure.

2. Pipe systems or sections thereof shall be repaired or replaced by the Contractor at no cost to the Company until they pass the required test.

B. All pressure piping (e.g., total fluids and pneumatic lines) shall be pressure tested by the Contractor prior to acceptance. All below grade pipe must be tested prior to backfill.

1. Pressure Testing: requires that all pressure process piping and hose be isolated as necessary and a minimum pressure of 100 PSI be applied and the pressure source disconnected from the piping. The test pressure is to be monitored for one hour with an appropriate gauge on the piping system. The piping and hose must remain within 2 % of the test pressure to pass the test procedure.

2. The integrity of continuous HDPE piping (e.g., no welded joints) may be determined prior to its use. HDPE that passes may be used without further testing so long as no welded joints will be placed below grade. All strands of pipe with welded joints shall be tested prior to backfilling as described above.

George C. Robinson, PE

Contract Environmental Engineer  
Cypress Engineering  
ENRON Office: (713) 345-1537  
ENRON email: george.robinson@enron.com

\*\*\*\*\*

This e-mail is the property of Enron Corp. and/or its relevant affiliate and may contain confidential and privileged material for the sole use of the intended recipient (s). Any review, use, distribution or disclosure by others is strictly prohibited. If you are not the intended recipient (or authorized to receive for the recipient), please contact the sender or reply to Enron Corp. at [enron.messaging.administration@enron.com](mailto:enron.messaging.administration@enron.com) and delete all copies of the message. This e-mail (and any attachments hereto) are not intended to be an offer (or an acceptance) and do not create or evidence a binding and enforceable contract between Enron Corp. (or any of its affiliates) and the intended recipient or any other party, and may not be relied on by anyone as the basis of a contract by estoppel or otherwise. Thank you.

\*\*\*\*\*

THE SANTA FE  
**NEW MEXICAN**

Founded 1849

**RECEIVED**

OCT 23 2002

**OIL CONSERVATION  
DIVISION**

**NOTICE OF  
PUBLICATION**

**STATE OF NEW MEXICO  
ENERGY, MINERALS  
AND NATURAL RE-  
SOURCE DEPARTMENT  
OIL CONSERVATION  
DIVISION**

EMNRD  
1220 ST. FRANCIS DR.  
SANTA FE, NM 87505  
ATTN ED MARTIN

AD NUMBER: 286556      ACCOUNT: 56660  
LEGAL NO: 72329      P.O.#: 03-199-0000  
203 LINES      1 time(s) at \$ 89.49  
AFFIDAVITS: 5.25  
TAX: 5.92  
TOTAL: 100.66

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission (WQCC) Regulations, the following discharge plan modification has been submitted to the Director of the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(GW-052) - Transwestern Pipeline Company, Bill Kendrick (Project Manager), 1400 Smith Street, Houston, Texas 77002, has submitted a

discharge plan modification for the remediation of contaminated soil and ground water at the Roswell Compressor Station located in the SW 1/4 SW 1/4, of Section 21, Township 9 South, Range 24 East NMPM, Chaves County, New Mexico. The modification addresses remediation of contaminated soil and ground water through the use of multi-phase extraction wells. Approximately 10 gallons per minute of contaminated ground water is to be processed through a treatment system to remove contaminants to below WQCC ground water standards prior to surface applications. Groundwater most likely to be affected by the discharge is at a depth of approximately 50 feet with a total dissolved solids concentration of approximately 2,600 mg/l. The discharge plan addresses system operation and monitoring, and how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge

plan application may be viewed between 8:00 a.m. and 4:00 p.m., Monday through Friday, at the above address or at the Oil Conservation Division Artesia District Office, 1301 West Grand Ave., Artesia, NM 88210. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted and a public hearing may be requested by any interested person. Request for public hearing shall set forth the reasons why a hearing shall be held. A hearing will be held if the Director determines that there is significant public interest. If no hearing is held, the Director will approve or disapprove the plan based on the information available. If a public hearing is held, the Director will approve the plan based on the information in the plan and information presented at the hearing.

GIVEN under the Seal of New Mexico Conservation Commission at Santa Fe, New Mexico, on this 15th day of October, 2002.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

SEAL  
LORI WROTENBERY, Director  
Legal #72329  
Pub. Oct. 16, 2002

**AFFIDAVIT OF PUBLICATION**

STATE OF NEW MEXICO  
COUNTY OF SANTA FE

I, K. Voorhees being first duly sworn declare and say that I am Legal Advertising Representative of THE SANTA FE NEW MEXICAN, a daily newspaper published in the English language, and having a general circulation in the Counties of Santa Fe and Los Alamos, State of New Mexico and being a Newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 on Session Laws of 1937; that the publication #72329 a copy of which is hereto attached was published in said newspaper 1 day(s) between 10/18/2002 and 10/18/2002 and that the notice was published in the newspaper proper and not in any supplement; the first publication being on the 18 day of October, 2002 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

IS/ K. Voorhees  
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this  
21 day of October A.D., 2002

Notary Laura J. Widing  
Commission Expires 11/23/03

AFFIDAVIT OF PUBLICATION

COUNTY OF CHAVES  
STATE OF NEW MEXICO

I, Fran Saunders  
Legals Clerk

Of the Roswell Daily Record, a daily newspaper published at Roswell, New Mexico, do solemnly swear that the clipping hereto attached was published in the regular and entire issue of said paper and not in a supplement thereof for a period of: —

one time

beginning with the issue dated

October 17th 2002

and ending with the issue dated

October 17th 2002

*Fran Saunders*  
Clerk

Sworn and subscribed to before me

This 23rd day of October 2002

*Marylon S. Shipper*  
Notary Public

My Commission expires  
July 25, 2006

(SEAL)

Publish October 17, 2002

NOTICE OF PUBLICATION

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission (WQCC) Regulations, the following discharge plan modifications has been submitted to the Director of the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, Telephone (505) 825-3440:

(GW-052) - Transwestern Pipeline Company, Bill Kendrick (Project Manager), 1400 Smith Street, Houston, Texas 77002, has submitted a discharge plan modification for the remediation of contaminated soil and ground water at the Roswell Compressor Station located in the SW1/4SW1/4, of Section 21, Township 9 South, Range 24 East NMPM, Chaves County, New Mexico. The modification addresses remediation of contaminated soil and ground water through the use of multi-phase extraction wells. Approximately 10 gallons per minute of contaminated ground water is to be processed through a treatment system to remove contaminants to below WQCC ground water standards prior to surface applications. Groundwater most likely to be affected by the discharge is at a depth of approximately 30 feet with a total dissolved solids concentration of approximately 2,800 mg/l. The discharge plan addresses system operation and monitoring, and how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed between 8:00 a.m. and 4:00 p.m., Monday through Friday, at the above address or at the Oil Conservation Division Artesia District Office, 1301 West Grand Ave., Artesia, NM 88201. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted and a public hearing may be requested by any interested person. Request for public hearing shall set forth the reasons why a hearing shall be held. A hearing will be held if the Director determines that there is significant public interest. If no hearing is held, the Director will approve or disapprove the plan based on the information available. If a public hearing is held, the Director will approve the plan based on the information in the plan and information presented at the hearing.

GIVEN under the Seal of New Mexico Conservation Commission at Santa Fe, New Mexico, on this 15th day of October, 2002.

SEAL

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION  
LORI WINTENBERRY, Director

AFFIDAVIT OF PUBLICATION

COUNTY OF CHAVES  
STATE OF NEW MEXICO

I, Fran Saunders  
Legals Clerk

Of the Roswell Daily Record, a daily newspaper published at Roswell, New Mexico, do solemnly swear that the clipping hereto attached was published in the regular and entire issue of said paper and not in a supplement thereof for a period of:

one time

beginning with the issue dated

October 17th 2002

and ending with the issue dated

October 17th 2002

*Fran Saunders*  
Clerk

Sworn and subscribed to before me

This 23rd day of October 2002

*Marylon S. Shipper*  
Notary Public

My Commission expires  
July 25, 2006

(SEAL)

Publish October 17, 2002

NOTICE OF PUBLICATION

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission (WQCC) Regulations, the following discharge plan modifications has been submitted to the Director of the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(GW-052) - Transwestern Pipeline Company, Bill Kendrick (Project Manager), 1400 Smith Street, Houston, Texas 77002, has submitted a discharge plan modification for the remediation of contaminated soil and ground water at the Roswell Compressor Station located in the SW1/4SW1/4, of Section 21, Township 9 South, Range 24 East NMPM, Chaves County, New Mexico. The modification addresses remediation of contaminated soil and ground water through the use of multi-phase extraction wells. Approximately 10 gallons per minute of contaminated ground water is to be processed through a treatment system to remove contaminants to below WQCC ground water standards prior to surface applications. Groundwater most likely to be affected by the discharge is at a depth of approximately 50 feet with a total dissolved solids concentration of approximately 2,600 mg/l. The discharge plan addresses system operation and monitoring, and how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed between 8:00 a.m. and 4:00 p.m., Monday through Friday, at the above address or at the Oil Conservation Division Artesia District Office, 1301 West Grand Ave., Artesia, NM 88201. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted and a public hearing may be requested by any interested person. Request for public hearing shall set forth the reasons why a hearing shall be held. A hearing will be held if the Director determines that there is significant public interest. If no hearing is held, the Director will approve or disapprove the plan based on the information available. If a public hearing is held, the Director will approve the plan based on the information in the plan and information presented at the hearing.

GIVEN under the Seal of New Mexico Conservation Commission at Santa Fe, New Mexico, on this 15th day of October, 2002.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

SEAL

LORI WROTENBERY, Director

## Olson, William

---

**From:** Olson, William  
**Sent:** Tuesday, October 15, 2002 3:59 PM  
**To:** George Robinson (E-mail)  
**Cc:** Dave Cobrain (E-mail)  
**Subject:** TW Roswell Station - Well Installations



ROSWELL-WELL    ROSWELL-WELL    ROSWELL-WELL  
(PES MONITORING YPES MULTI-PHASE.YPES SOIL VAPOR .

George,

The below-referenced proposed well installation plan for the Transwestern Pipeline Company Roswell Station is approved. Please be aware that discharges from the system cannot occur before the discharge plan modification is approved by the OCD.

The public notice of Transwestern's proposed discharge plan modification was sent out to the newspapers today. The 30 day public comment period begins upon publication. OCD review of the plan will occur after the public comment period is complete.

If you have any questions, please contact me.

Sincerely,

William C. Olson  
New Mexico Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505  
(505) 476-3491  
=====

-----Original Message-----

**From:** Robinson, George [mailto:George.Robinson@ENRON.com]  
**Sent:** Tuesday, October 15, 2002 2:45 PM  
**To:** Bill Olson (E-mail)  
**Cc:** Kendrick, William; george.robinson@cypressinc.us  
**Subject:** TW Roswell Station - Well Installations

Transwestern Pipeline Company recently submitted a remediation plan to your office for review and approval. The document provides a conceptual design for the soil and groundwater remediation system to be installed at the Roswell site. This document also serves as an addendum to the existing facility Discharge Plan.

With approval by your office, Transwestern plans to initiate drilling activities on Tuesday, October 22, 2002. A total of 47 wells are scheduled to be installed between this date and December 15, 2002. The locations of the wells are indicated in drawing number C-2 of the remediation plan. The drawing indicates the proposed location of 38 multi-phase (soil vapor and water) extraction wells, 7 shallow vapor extraction wells, and 2 additional monitor wells. A well completion detail for each of the three types of wells is attached with this email message.

If there are any questions regarding the proposed drilling activities, please contact me at the number shown below or contact Bill Kendrick at (713) 646-7644.

Thanks,  
George

<<ROSWELL-WELL TYPES MONITORING WELL (1).pdf>> <<ROSWELL-WELL TYPES MULTI-PHASE  
(1).pdf>> <<ROSWELL-WELL TYPES SOIL VAPOR (1).pdf>>

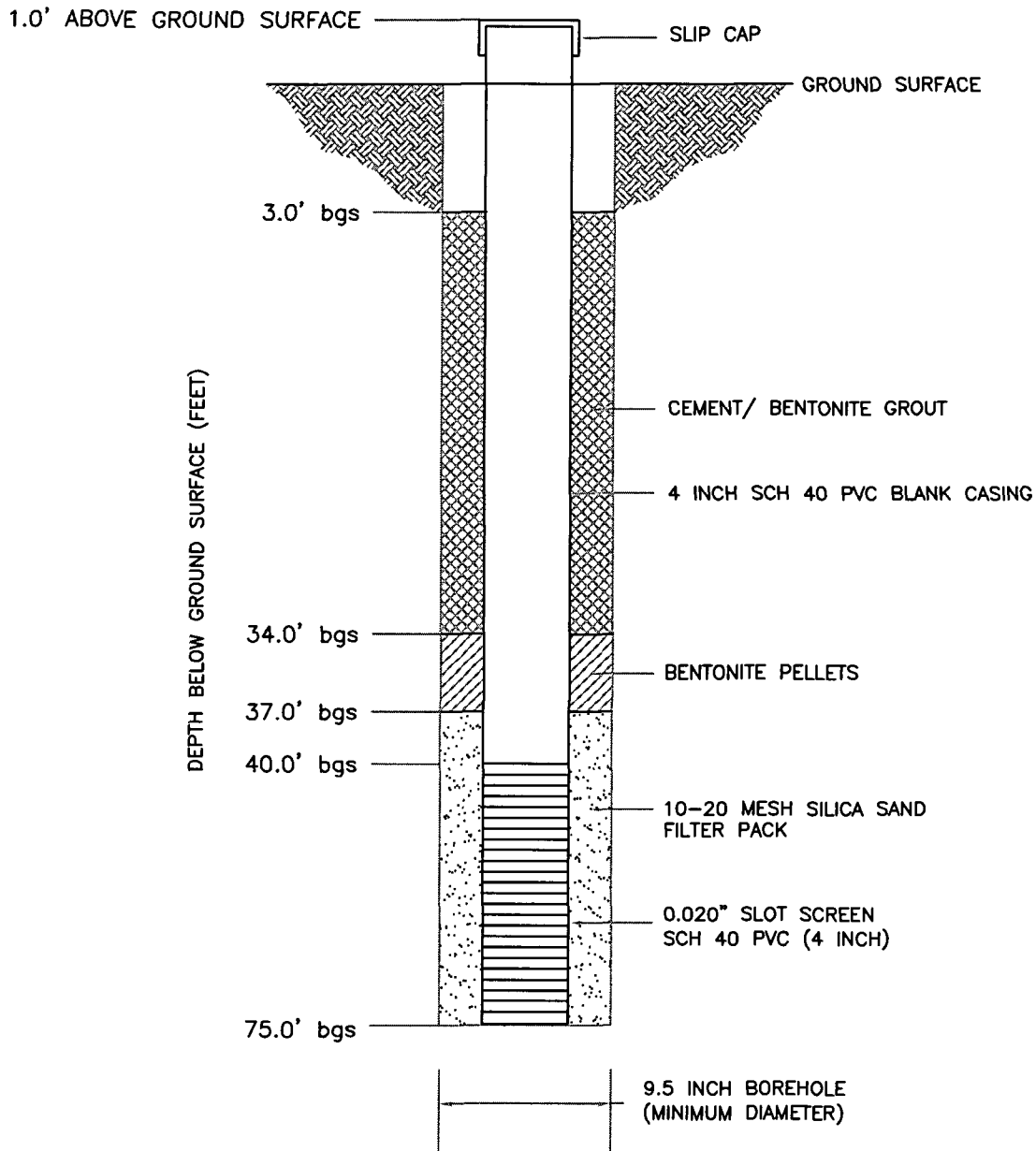
George C. Robinson, PE  
Contract Environmental Engineer  
Cypress Engineering  
ENRON Office: (713) 345-1537  
ENRON email: george.robinson@enron.com

\*\*\*\*\*

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\*\*\*\*\*

# TEMPORARY WELL COMPLETION



NOTE:  
PERMANENT WELL VAULTS WILL BE  
CONSTRUCTED DURING THE  
REMEDIAL IMPLEMENTATION PHASE.

ROSWELL COMPRESSOR STATION  
ROSWELL, NEW MEXICO

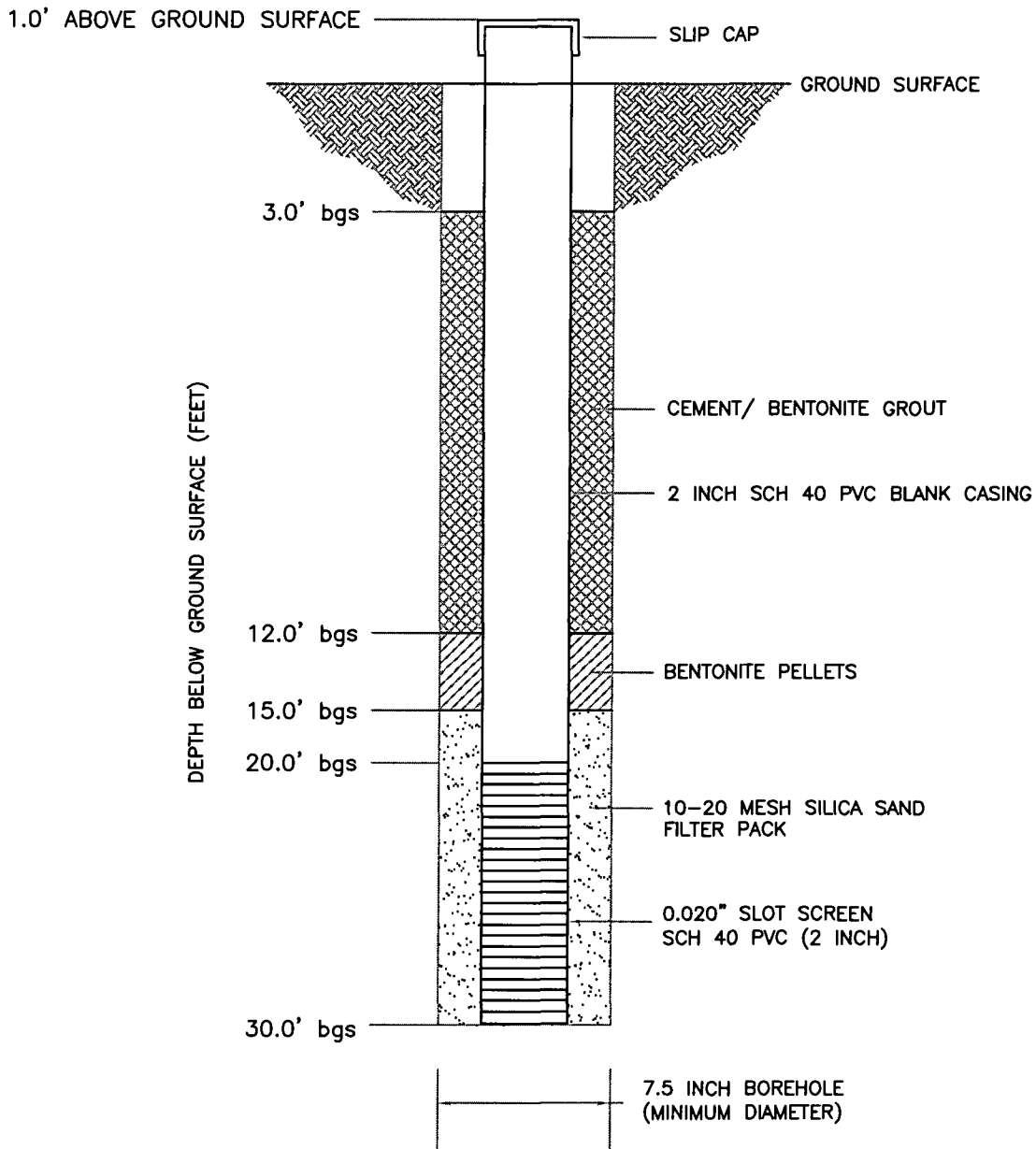
FIGURE 1  
CONSTRUCTION DETAIL FOR  
MULTI-PHASE EXTRACTION WELL



Tetra Tech EM Inc.



# TEMPORARY WELL COMPLETION



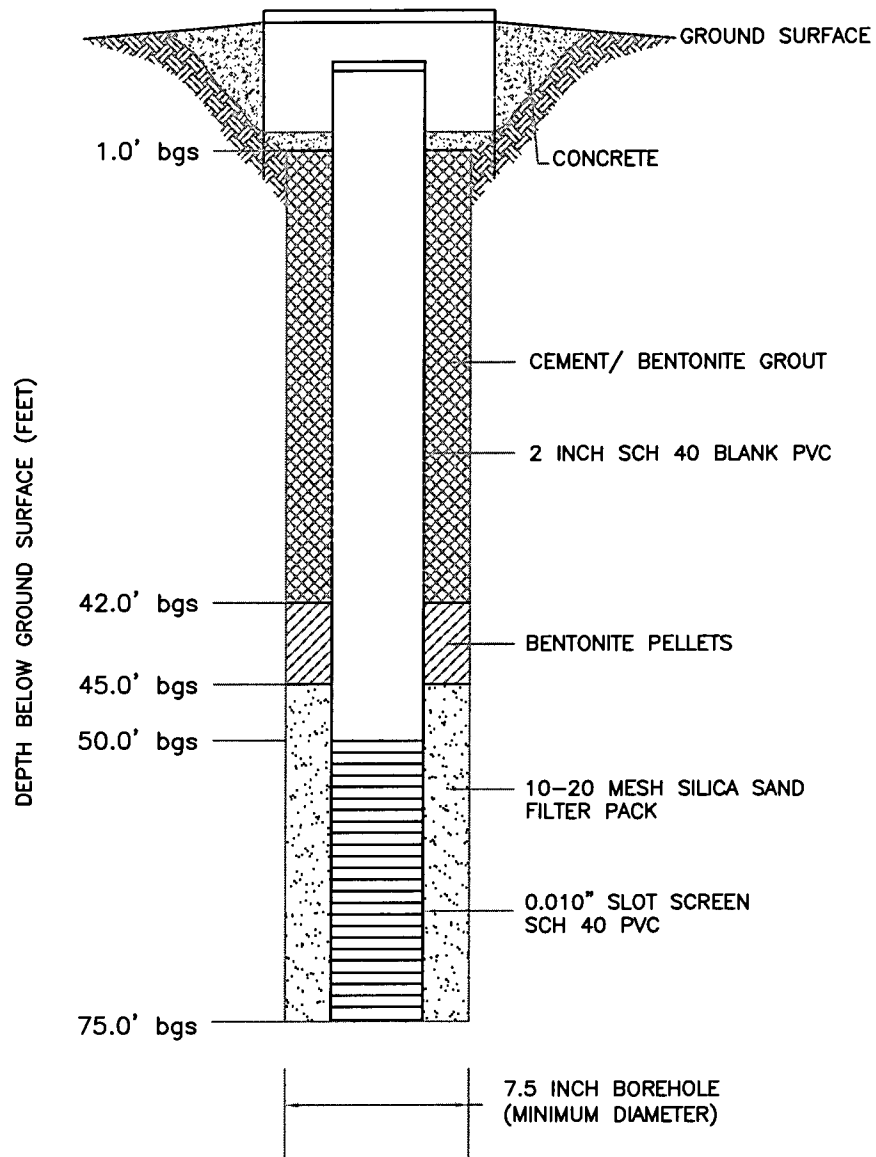
NOTE:  
PERMANENT WELL VAULTS WILL BE  
CONSTRUCTED DURING THE  
REMEDIAL IMPLEMENTATION PHASE.

ROSWELL COMPRESSOR STATION  
ROSWELL, NEW MEXICO

FIGURE 2  
CONSTRUCTION DETAIL FOR SHALLOW  
SOIL VAPOR EXTRACTION WELL



Tetra Tech EM Inc.



ROSWELL COMPRESSOR STATION  
ROSWELL, NEW MEXICO

FIGURE 3  
CONSTRUCTION DETAIL FOR  
GROUNDWATER MONITORING WELL



Tetra Tech EM Inc.

## Olson, William

---

**From:** Martin, Ed  
**Sent:** Tuesday, October 15, 2002 8:16 AM  
**To:** Santa Fe New Mexican (E-mail)  
**Cc:** Ford, Jack; Olson, William; Bruce S. Garber; Chris Shuey; Colin Adams; Director, State Parks; Don Fernald; Don Neeper; Eddie Seay; Gerald R. Zimmerman; Jack A. Barnett; James Bearzi; Jay Lazarus; Lee Wilson & Associates; Marcy Leavitt; Martin Nee; Mike Matush; Ned Kendrick; Regional Forester; Ron Dutton; Secretary, NMED  
**Subject:** Public Notices

Please publish the attached legal notices, one time only, on or before Friday, October 18, 2002.

Upon publication, forward to this office:

1. Publisher's affidavit.
  2. Invoice. Our purchase order number is **03-199-000050**
- If you have any questions, please contact me. Thank you.



Publ. Notice  
GW-099.doc



Publ. Notice  
GW-277.doc



Publ. Notice  
GW-052a.doc

*Ed Martin*

New Mexico Oil Conservation Division  
Environmental Bureau  
1220 S. St. Francis  
Santa Fe, NM 87505  
Phone: 505-476-3492  
Fax: 505-476-3471

## NOTICE OF PUBLICATION

### STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

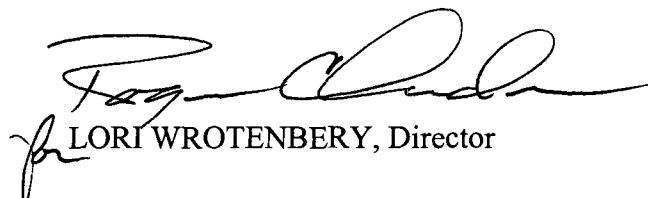
Notice is hereby given that pursuant to New Mexico Water Quality Control Commission (WQCC) Regulations, the following discharge plan modification has been submitted to the Director of the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

**(GW-052) – Transwestern Pipeline Company, Bill Kendrick (Project Manager), 1400 Smith Street, Houston, Texas 77002, has submitted a discharge plan modification for the remediation of contaminated soil and ground water at the Roswell Compressor Station located in the SW 1/4 SW 1/4, of Section 21, Township 9 South, Range 24 East NMPM, Chaves County, New Mexico. The modification addresses remediation of contaminated soil and ground water through the use of multi-phase extraction wells. Approximately 10 gallons per minute of contaminated ground water is to be processed through a treatment system to remove contaminants to below WQCC ground water standards prior to surface applications. Groundwater most likely to be affected by the discharge is at a depth of approximately 50 feet with a total dissolved solids concentration of approximately 2,600 mg/l. The discharge plan addresses system operation and monitoring, and how spills, leaks, and other accidental discharges to the surface will be managed.**

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed between 8:00 a.m. and 4:00 p.m., Monday through Friday, at the above address or at the Oil Conservation Division Artesia District Office, 1301 West Grand Ave., Artesia, NM 88210. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted and a public hearing may be requested by any interested person. Request for public hearing shall set forth the reasons why a hearing shall be held. A hearing will be held if the Director determines that there is significant public interest. If no hearing is held, the Director will approve or disapprove the plan based on the information available. If a public hearing is held, the Director will approve the plan based on the information in the plan and information presented at the hearing.

GIVEN under the Seal of New Mexico Conservation Commission at Santa Fe, New Mexico, on this 15th day of October, 2002.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
LORI WROTENBERY, Director

SEAL

1220 S. St. Francis  
Santa Fe, NM 87505  
Phone 505-476-3492  
Fax 505-476-3471

**New Mexico Oil  
Conservation  
Division**

# Fax

**To:** Roswell Daily Record

**From:** Ed Martin

**Fax:** 505-625-0421

**Pages:** 2

**Phone:** 505-622-7710

**Date:** 10/15/2002

**Re:** Legal Notice

**CC:** Bill Olson

☐ **Urgent**    ☐ **For Review**    ☐ **Please Comment**    ☐ **Please Reply**    ☐ **Please Recycle**

**Please publish the attached legal notice, one time only, on or before Friday, October 18, 2002.**

**Upon publication, forward to this office:**

- 1. Publisher's affidavit.**
- 2. Invoice. Our purchase order number is 03-199-050132.**

**If you have any questions, please contact me. Thank you.**

## NOTICE OF PUBLICATION

### STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission (WQCC) Regulations, the following discharge plan modification has been submitted to the Director of the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

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GIVEN under the Seal of New Mexico Conservation Commission at Santa Fe, New Mexico, on this 15th day of October, 2002.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

SEAL

LORI WROTENBERY, Director

**Transwestern Pipeline Company**

1400 Smith Street  
Houston, TX 77002  
713-853-6161

September 10, 2002

**RECEIVED**

**SEP 12 2002**

ENVIRONMENTAL BUREAU  
OIL CONSERVATION DIVISION

Mr. William C. Olson  
Environmental Bureau  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

RE: Conceptual Remedial Design and Discharge Plan Modification  
Roswell Compressor Station  
Transwestern Pipeline Company

Transwestern Pipeline Company submits the enclosed document for your review and approval. The document provides a conceptual design for the soil and groundwater remediation system to be installed at the Roswell site. This document also serves as an addendum to the existing facility Discharge Plan. Design specifications for construction of the system as well as a plan for operation, maintenance, and performance assessment will be completed and submitted to your office within the next few weeks.

An additional copy of drawing number C-2 has been attached separately with this transmittal for your convenience. This drawing indicates the proposed location of 38 multi-phase (soil vapor and water) extraction wells, 7 shallow vapor extraction wells, 2 additional monitor wells, the trenching layout for conveyance piping, the location of an equipment compound, and the proposed off-site area to be fenced.

If you have any questions or comments regarding the enclosed document, please contact George Robinson at (713) 345-1537 or you can contact me at (713) 646-7644.

Sincerely,



Bill Kendrick  
Director Environmental Affairs  
Transwestern Pipeline Company

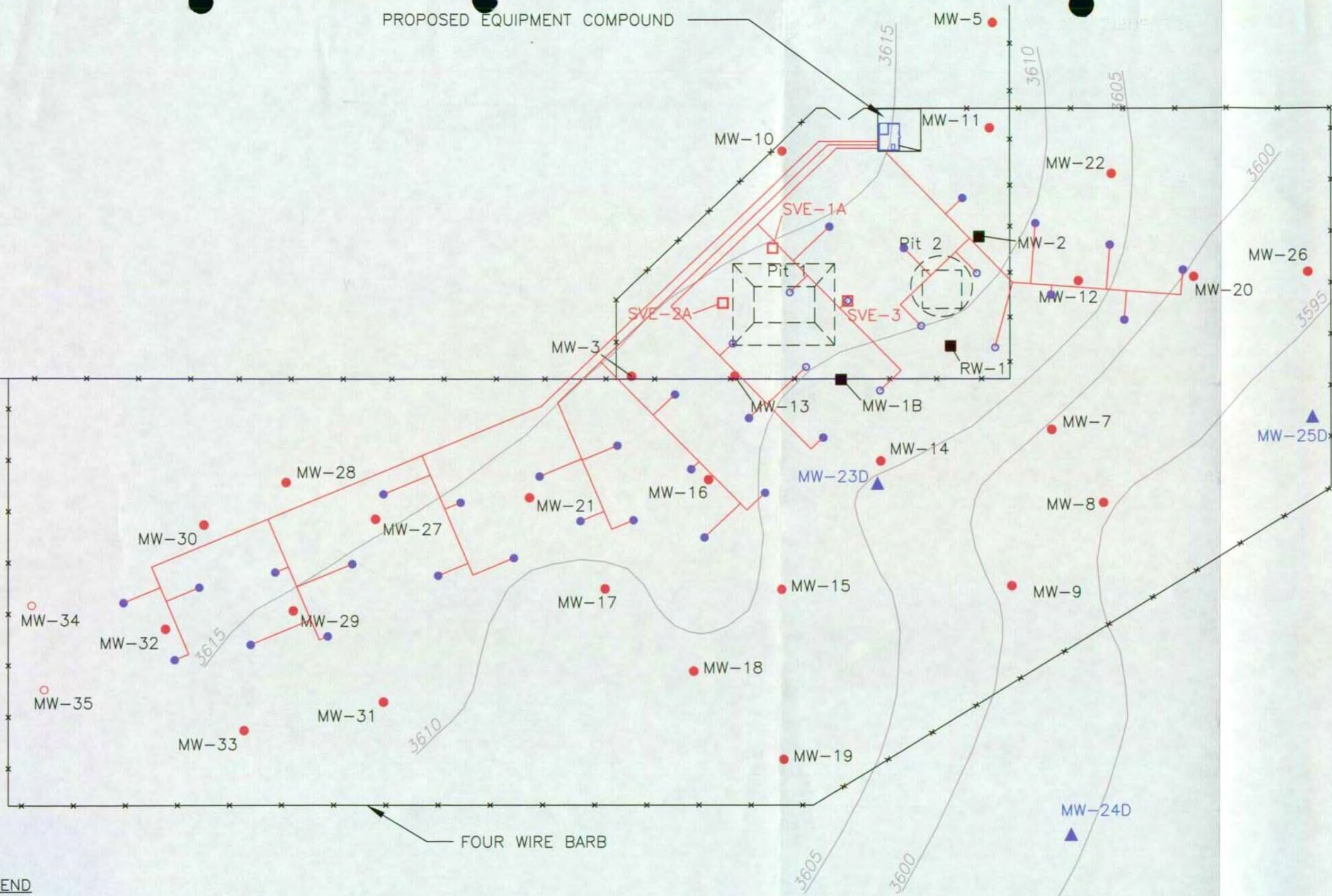
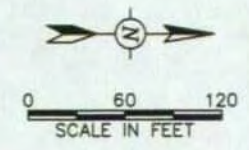
xc w/attachments:

Larry Campbell  
George Robinson  
Tim Gum

Transwestern Pipeline Co.  
Cypress Engineering  
OCD Artesia Office



PROPOSED EQUIPMENT COMPOUND



LEGEND

- |                   |   |
|-------------------|---|
| Monitor Well      | Proposed Assessment Monitor Well                                |
| Deep Monitor Well | Contour line designating surface elevation above mean sea level |
| Recovery Well     | Multi Phase Extraction Well                                     |
| Phase II SVE Well | Multi Phase Extraction and Shallow SVE Well                     |
|                   | Trenching/Conveyance Piping                                     |

Tetra Tech EM Inc.		REVISIONS	
DESIGNED BY: JS	RE-CHECKED BY:	REV. DATE	DRWN CHD
DRAWN BY: RM	APPROVED BY:		
CHECKED BY: BM	DATE:		
ROSWELL COMPRESSOR STATION ROSWELL, NEW MEXICO		Trenching/Conveyance Piping Plan	
PROJECT NUMBER: P-202203		DRAWING NO.: C-2	



**Martin, Ed**

**From:** Martin, Ed  
**Sent:** Wednesday, April 10, 2002 7:42 AM  
**To:** 'Campbell, Larry'  
**Subject:** RE: Drain line Testing

This plan is approved as stated. Please let me have a summary of the results of the tests when complete. Take care.  
Ed

-----Original Message-----

From: Campbell, Larry [mailto:Larry.Campbell@ENRON.com]  
Sent: Tuesday, April 09, 2002 11:48 AM  
To: EMARTIN@state.nm.us  
Subject: Drain line Testing

Ed, when you were in the Hobbs area last month inspecting a couple of compressor stations operated by Transwestern Pipeline Company, I requested that Transwestern be given approval to conduct the 5 year drain line testing requirements at its 13 compressor stations which are currently under OCD discharge plans, prior to the five renewal date on the permit. The reason for this request is to reduce the price of sending a contractor out multiple times to do drain line testing when it would benefit Transwestern if the contractor could start at one end of our pipeline system and move concurrently from station to station and complete the testing for the al the compressor station along the entire pipeline in New Mexico. I am proposing to use the same methodology as was previously approved by your agency for the last drain line testing and propose to conduct the testing during the month of July. The list of facilities which are covered under this request are as follows:

Transwestern Pipeline Company

Wt-1 Compressor Station	GW-109
Mountainair Compressor Station	GW-110
Laguna Compressor Station	GW- 95
Thoreau Compressor Station	GW- 80
Bloomfield Comrpessor Station	GW- 84
Portales Compressor Station	GW- 90
Bisti Compressor Station	GW-285
Roswell Compressor Station	GW- 52
Gallup Compressor Station	GW-325
Monument Compressor Station	GW-197
Corona Compressor Station	GW- 89

Northern Natural Gas Company

Eunice Compressor Station	GW-113
Jal Compressor Station	GW-283

Ed, give me your thoughts on this.

Thanks

\*\*\*\*\*

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**AUTHORIZED SIGNATURE**

**NEW MEXICO ENVIRONMENT DEPARTMENT  
REVENUE TRANSMITTAL FORM**

Description	FUND	CES	DFA ORG	DFA ACCT	ED ORG	ED ACCT	AMOUNT
1 CY Reimbursement Project _____ Tax _____	064	01		2329	900000	2329134	
5 Gross Receipt Tax	064	01		1896	900000	4169134	
3 Air Quality Title V	092	13	1300	9696	900000	4989014	
4 PRP Prepayments	248	14	1400	9696	900000	4989015	
2 Climax Chemical Co.	248	14	1400	9696	900000	4969248	
6 Circle K Reimbursements	248	14	1400	9696	900000	4169027	
7 Hazardous Waste Permits	339	27	2700	1696	900000	4169339	
8 Hazardous Waste Annual Generator Fees	339	27	2700	1696	900000	2329029	
10 Water Quality - Oil Conservation Division	341	29		1696	900000	4169029	690.00
11 Water Quality - GW Discharge Permit	341	29	2900	1696	900000	4169031	
12 Air Quality Permits	631	31	2500	2919	900000	2919033	
13 Payments under Protest	651	33		2349	900000	2349001	
*14 Xerox Copies	652	34		2349	900000	2349002	
15 Ground Water Penalties	652	34		2349	900000	2439003	
16 Witness Fees	652	34		2349	900000	2349004	
17 Air Quality Penalties	652	34		2349	900000	2349005	
18 OSHA Penalties	652	34		2349	900000	2349006	
19 Prior Year Reimbursement	652	34		2349	900000	2349009	
20 Surface Water Quality Certification	652	34		2349	900000	2349012	
21 Jury Duty	652	34		2349	900000	2349014	
22 CY Reimbursements ( i.e. telephone)	652	34		2349	900000	4969201	
*23 UST Owner's List	783	24	2500	9696	900000	4969202	
*24 Hazardous Waste Notifiers List	783	24	2500	9696	900000	4989203	
*25 UST Maps	783	24	2500	9696	900000	4989205	
*26 UST Owner's Update	783	24	2500	9696	900000	4969207	
*28 Hazardous Waste Regulations	783	24	2500	9696	900000	4969208	
*29 Radiologic Tech. Regulations	783	24	2500	9696	900000	4989211	
*30 Superfund CERLIS List	783	24	2500	9696	900000	4969213	
31 Solid Waste Permit Fees	783	24	2500	9696	900000	4969214	
32 Smoking School	783	24	2500	9696	900000	4969222	
*33 SWQB - NPS Publications	783	24	2500	9696	900000	4969228	
*34 Radiation Licensing Regulation	783	24	2500	9696	900000	4969301	
*35 Sale of Equipment	783	24	2500	9696	900000	4969302	
*36 Sale of Automobile	783	24	2500	9696	900000	4969614	
*37 Lost Recoveries	783	24	2500	9696	900000	4969615	
*38 Lost Repayments	783	24	2500	9696	900000	4969801	
39 Surface Water Publication	783	24	2500	9696	900000	4969242	
40 Exxon Reese Drive Ruidoso - CAF	783	24	2500	9696	900000	4164032	
41 Emerg. Hazardous Waste Penalties NOV	957	32	9600	1696	900000	4169005	
42 Radiologic Tech. Certification	957	05	0500	1696	900000	4169020	
44 Ust Permit Fees	989	20	3100	1696	900000	4169021	
45 UST Tank Installers Fees	989	20	3100	1696	900000	4169026	
46 Food Permit Fees	991	26	2600	1696	900000		
43 Other							

\* Gross Receipt Tax Required

\*\* Site Name & Project Code Required

TOTAL 690.00

Contact Person: Ed Martin

Phone: 410-3472

Date: 2/27/71

Received in ASD By: \_\_\_\_\_

Date: \_\_\_\_\_ RT #: \_\_\_\_\_

ST #: \_\_\_\_\_



**Enron Transportation  
& Storage**

*Services Provided by Northern  
Natural Gas Company and  
Transwestern Pipeline Company*

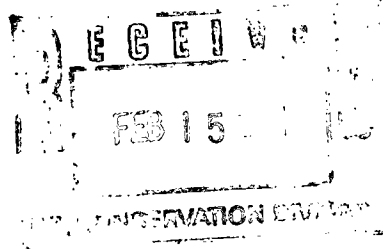
6381 North Main Street

Roswell, NM 88201

(505) 623-2761

Fax (505) 625-8060

February 12, 2001



Mr. Roger Anderson  
Oil Conservation Division  
1220 S. St. Francis Dr.  
Santa Fe, New Mexico 87505

Re: Discharge Plan Renewal Fee, Compressor Station No. 9, Roswell  
OCD Discharge Plan GW 052

Dear Mr. Anderson:

Enclosed find check no. 100000964 in the amount of \$690.00 issued by Transwestern Pipeline Company to cover the required fee for renewal of the above referenced facility's OCD Discharge Plan.

Sincerely,

Larry Campbell  
Division Environmental Specialist

file



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**

Governor

**Jennifer A. Salisbury**

Cabinet Secretary

**Lori Wrotenberg**

Director

**Oil Conservation Division**

January 30, 2001

**CERTIFIED MAIL**

**RETURN RECEIPT NO. 3771-6982**

Mr. Larry Campbell  
Transwestern Pipeline Company  
6381 North Main  
Roswell, New Mexico 88201

**RE:** Discharge Plan Renewal GW-052  
Transwestern Pipeline Company  
Roswell Compressor Station  
Chaves County, New Mexico

Dear Mr. Campbell

The ground water discharge plan renewal application GW-052 for the **Transwestern Pipeline Company Roswell Compressor Station** located in the SW/4 SW/4 of Section 21, Township 9 South, Range 24 East, NMPM, Chaves County, New Mexico, is **hereby approved** under the conditions contained in the enclosed attachment. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe office within 10 working days of receipt of this letter. Please note new mailing address below.**

The original discharge plan application was submitted on April 9, 1990 and approved November 9, 1990. The discharge plan renewal application letter, dated May 30, 2000, submitted pursuant to Section 3106 of the New Mexico Water Quality Control Commission (WQCC) Regulations also includes all earlier applications and all conditions later placed on those approvals. The discharge plan is renewed pursuant to Section 3109.C. Please note Section 3109.G, which provides for possible future amendment of the plan. Please be advised that approval of this plan does not relieve **Transwestern Pipeline Company** of responsibility should operations result in pollution of surface water, ground water or the environment. Nor does it relieve **Transwestern Pipeline Company** of its responsibility to comply with any other governmental authority's rules and regulations.

Please be advised that all exposed pits, including lined pits and open tanks (exceeding 16 feet in diameter) shall be screened, netted or otherwise rendered nonhazardous to wildlife including migratory birds.

Please note that Section 3104 of the regulations provides: "When a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3107.C, **Transwestern Pipeline Company** is required to notify the Director of any facility expansion, production increase or process modification that would result in any change in the discharge of water quality or volume.

Pursuant to Section 3109.H.4, this renewal plan is for a period of five years. This renewal will expire on **November 9, 2005**, and **Transwestern Pipeline Company** should submit an application in ample time before this date. Note that under Section 3106.F of the regulations, if a discharger submits a discharge plan renewal application at least 120 days before the discharge plan expires and is in compliance with the approved plan, then the existing discharge plan will not expire until the application for renewal has been approved or disapproved. It should be noted that all discharge plan facilities will be required to submit the results of an underground drainage testing program as a requirement for discharge plan.

The discharge plan renewal application for the **Transwestern Pipeline Company Roswell Compressor Station** is subject to WQCC Regulation 3114. Every billable facility submitting a discharge plan application will be assessed a fee equal to the filing fee of \$50.00. There is a renewal flat fee assessed for gas compressor station facilities with horsepower rating greater than 3,000 horsepower equal to one-half of the original flat fee or \$690.00. The OCD has received the filing fee.

On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,



Roger C. Anderson  
Chief, Environmental Bureau  
Oil Conservation Division

RCA/eem  
Attachment

Xc: OCD Artesia Office



ATTACHMENT TO THE DISCHARGE PLAN RENEWAL GW-052  
**TRANSWESTERN PIPELINE COMPANY**  
**ROSWELL COMPRESSOR STATION**  
DISCHARGE PLAN APPROVAL CONDITIONS  
January 30, 2001

1. Payment of Discharge Plan Fees: The \$50.00 filing fee has been received by the OCD. There is a required flat fee equal to one-half of the original flat fee for natural gas compressor stations with horsepower rating greater than 3,000 horsepower. The renewal flat fee required for this facility is \$690.00 which may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the discharge plan, with the first payment due upon receipt of this approval. The filing fee is payable at the time of application and is due upon receipt of this approval. All checks are to be made payable to Water Quality Management Fund and forwarded to the OCD Santa Fe Office. Please note new mailing address on letterhead.
2. Commitments: **Transwestern Pipeline Company** will abide by all commitments submitted in the discharge plan renewal application letter dated May 30, 2000 and these conditions for approval.
3. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261. Any waste stream that is not listed in the discharge plan will be approved by OCD on a case-by-case basis.
4. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums will be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets will also be stored on an impermeable pad and curb type containment.
5. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.
6. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new tanks or

RECEIVED

FEB 7

13. Spill Reporting: All spills/releases will be reported pursuant to OCD Rule 116 and WQCC 1203 to the OCD Artesia District Office.
14. Transfer of Discharge Plan: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge plan. A written commitment to comply with the terms and conditions of the previously approved discharge plan must be submitted by the purchaser and approved by the OCD prior to transfer.
15. Storm Water Plan: The facility will have an approved storm water run-off plan.
16. Closure: The OCD will be notified when operations of the **Roswell Compressor Station** are discontinued for a period in excess of six months. Prior to closure of the **Roswell Compressor Station**, the Director will submit a closure plan for approval. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.
17. Conditions accepted by: **Transwestern Pipeline Company**, by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. **Transwestern Pipeline Company** further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Transwestern Pipeline Company

Print Name: LARRY Campbell

Signature: Larry Campbell

Title: Division Environmental Specialist

Date: 02/02/01



**Transwestern Pipeline  
Company**

P. O. Box 1188  
Houston, TX 77251-1188

February 19, 2002

Mr. William C. Olson  
Environmental Bureau  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Mr. David Cobrain  
Hazardous Waste Bureau  
New Mexico Environment Department  
2905 Rodeo Park Dr. East, Bldg. 1  
Santa Fe, New Mexico 87505

RE: Schedule for Excavation of Affected Soil  
Roswell Compressor Station  
Transwestern Pipeline Company

The excavation work originally scheduled for December 2001 has been rescheduled to begin on February 25, 2002. Please call George Robinson at (713) 646-7327 if you have any questions or comments regarding the schedule.

Sincerely,

A handwritten signature in cursive script, reading "William A. Kendrick".

William A. Kendrick  
Director, Environmental Affairs

xc: Larry Campbell	Transwestern Pipeline Co.
George Robinson	Cypress Engineering
Tim Gum	OCD Artesia Office

6652

**Olson, William**

---

**From:** Robinson, George [George.Robinson@ENRON.com]  
**Sent:** Tuesday, February 19, 2002 2:43 PM  
**To:** David Cobrain (E-mail); Bill Olson (E-mail)  
**Cc:** Campbell, Larry; Kendrick, William

The excavation of the former impoundments at the NE corner of the site is scheduled to start on Monday, February 25, 2002. If there are any questions regarding this schedule or the excavation activities please contact me at (713) 345-1537. I will follow-up with a written confirmation of the scheduled start date.

-George

George C. Robinson, PE  
Contract Environmental Engineer  
Cypress Engineering  
ENRON Office: (713) 345-1537  
ENRON email: george.robinson@enron.com

\*\*\*\*\*

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\*\*\*\*\*

**Olson, William**

---

**From:** Robinson, George [George.Robinson@ENRON.com]  
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**Cc:** Campbell, Larry; Kendrick, William

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-George

George C. Robinson, PE  
Contract Environmental Engineer  
Cypress Engineering  
ENRON Office: (713) 345-1537  
ENRON email: george.robinson@enron.com

\*\*\*\*\*  
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\*\*\*\*\*

## Olson, William

---

**From:** Robinson, George [George.Robinson@ENRON.com]  
**Sent:** Friday, November 30, 2001 1:38 PM  
**To:** David Cobrain (E-mail); Bill Olson (E-mail)  
**Cc:** Campbell, Larry; Kendrick, William  
**Subject:** FW: TW Roswell Station Excavation Activities

The excavation work scheduled to start next Tuesday is postponed to a later date. We anticipate that the work will be rescheduled to a date sometime prior to January 31, 2002. If there are any questions regarding the rescheduling of the work please contact me at (713) 646-7327.

Thanks,  
George

> -----Original Message-----

> From: Robinson, George  
> Sent: Wednesday, November 21, 2001 1:52 PM  
> To: David Cobrain (E-mail); Bill Olson (E-mail)  
> Cc: Campbell, Larry; Kendrick, William  
> Subject: TW Roswell Station Excavation Activities

>  
> The excavation of the former impoundments at the NE corner of the site  
> is scheduled to start on Tuesday, December 4th. If there are any  
> questions regarding this schedule or the excavation activities please  
> contact me at (713) 646-7327.

>  
> Thanks  
> George

>  
> George C. Robinson, PE  
> Contract Environmental Engineer  
> Cypress Engineering  
> ENRON Office: (713) 646-7327  
> ENRON email: george.robinson@enron.com  
>

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\*\*\*\*\*



**GARY E. JOHNSON**  
GOVERNOR

**State of New Mexico**  
**ENVIRONMENT DEPARTMENT**

**Hazardous Waste Bureau**  
**2905 Rodeo Park Drive East, Building 1**  
**Santa Fe, New Mexico 87505-6303**  
**Telephone (505) 428-2500**  
**Fax (505) 428-2567**  
**[www.nmenv.state.nm.us](http://www.nmenv.state.nm.us)**



**PETER MAGGIORE**  
SECRETARY

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

November 5, 2001

Mr. Larry Campbell  
Transwestern Pipeline Company  
6381 North Main Street  
Roswell, New Mexico 88201

**SUBJECT: WORK PLAN FOR EXCAVATION OF AFFECTED SOIL**  
**ROS WELL COMPRESSOR STATION, EPA ID# NMD986676955**  
**HWB-TWP-01-001**

Attention: Mr. Larry Campbell

The New Mexico Environment Department Hazardous Waste Bureau (HWB) has completed a review of Transwestern Pipeline Company's submittal "Work Plan for Excavation of Affected Soil in the Former Surface Impoundment Areas" dated July 2, 2001. The work plan addresses the results of the characterization of waste and contaminated soil at the location of the closed surface impoundments and the removal of the surface impoundments at the Transwestern Pipeline Company Compressor Station Number 9 (EPA ID# NMD986676955) located in Roswell, New Mexico. Based on the information provided in the work plan, HWB approves of the proposed excavation and remediation activities. The approval is conditional upon approval of the work plan by the New Mexico Department of Energy, Minerals and Natural Resources Oil Conservation Division. Please call this office at (505) 248-2553 if you have questions regarding the conditional approval of the Work Plan.

Sincerely,

Dave Cobrain  
Geologist  
Permits Management Program

DWC

Transwestern Pipeline Company  
November 5, 2001  
Page 2

cc: James Bearzi, NMED HWB  
John Kielling, NMED HWB  
William Kendrick, Transwestern Pipeline Company  
Bill Olson, NMOCD  
Ed Martin, NMOCD  
George Robinson, Cypress Engineering Services, Inc.  
Pam Allen, NMED HWB

file: red/TWP/01  
track: TWP/Campbell/Cobrain/11-05-01/approval work plan surface impoundments soil excavation



**Olson, William**

---

**From:** Robinson, George [George.Robinson@ENRON.com]  
**Sent:** Wednesday, November 21, 2001 12:52 PM  
**To:** David Cobrain (E-mail); Bill Olson (E-mail)  
**Cc:** Campbell, Larry; Kendrick, William  
**Subject:** TW Roswell Station Excavation Activities

The excavation of the former impoundments at the NE corner of the site is scheduled to start on Tuesday, December 4th. If there are any questions regarding this schedule or the excavation activities please contact me at (713) 646-7327.

Thanks  
George

George C. Robinson, PE  
Contract Environmental Engineer  
Cypress Engineering  
ENRON Office: (713) 646-7327  
ENRON email: george.robinson@enron.com

\*\*\*\*\*  
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\*\*\*\*\*



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**

Governor

**Jennifer A. Salisbury**

Cabinet Secretary

**Lori Wrotenbery**

Director

**Oil Conservation Division**

November 19, 2001

**CERTIFIED MAIL**

**RETURN RECEIPT NO. 5357-8031**

Mr. Bill Kendrick  
Transwestern Pipeline Company  
P.O. Box 1188  
Houston, Texas 77251-1188

**RE: SOIL REMEDIATION WORK PLAN  
ROSWELL COMPRESSOR STATION  
CASE # GW052R**

Dear Mr. Kendrick:

The New Mexico Oil Conservation Division (OCD) has reviewed Transwestern Pipeline Company's (TPC) October 22 "WORK PLAN FOR EXCAVATION OF AFFECTED SOIL, ROSWELL COMPRESSOR STATION, TRANSWESTERN PIPELINE COMPANY". This document contains the results of TPC's characterization of soils in the former pit areas at the TPC Roswell Compressor Station. The document also contains a work plan for excavation and remediation of contaminated soils from the pits.

The above-referenced work plan is approved with the following conditions:

1. All soil samples shall be obtained and analyzed using EPA approved methods and quality assurance/quality control (QA/QC) procedures.
2. The pit excavation and remediation report shall be submitted to the OCD Santa Fe Office by January 11, 2002 with a copy provided to the OCD Artesia District Office. The report shall contain:
  - a. A description of the remediation activities which occurred including conclusions and recommendations.
  - b. Site maps showing the excavations, former pits, tanks, sample locations and any other pertinent site features.
  - c. Summary tables of all soil sampling results and copies of all laboratory analytical data sheets and associated QA/QC data.

Mr. Bill Kendrick  
November 19, 2001  
Page 2

3. TPC shall notify the OCD at least 1 week in advance of the scheduled activities such that the OCD has the opportunity to witness the events and split samples.

Please be advised that OCD approval does not limit TPC to the above-referenced work plan if the activities fail to adequately remediate contamination related to TPC's activities, or if contamination exists which is outside the scope of the work plan. In addition, OCD approval does not relieve TPC of responsibility for compliance with any other federal, state or local laws and regulations.

If you have any questions, please contact me at (505) 476-3491.

Sincerely,



William C. Olson  
Hydrologist  
Environmental Bureau

xc: Tim Gum, OCD Artesia Office  
Mike Matush, NM State Land Office  
George Robinson, Cypress Engineering Services, Inc.  
Dave Cobrain, NMED Hazardous Waste Bureau



GARY E. JOHNSON  
GOVERNOR

**State of New Mexico**  
**ENVIRONMENT DEPARTMENT**  
**Hazardous Waste Bureau**  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6303  
Telephone (505) 428-2500  
Fax (505) 428-2567  
www.nmenv.state.nm.us



PETER MAGGIORE  
SECRETARY

PAUL R. RITZMA  
DEPUTY SECRETARY

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

August 15, 2001

Mr. Larry Campbell  
Transwestern Pipeline Company  
6381 North Main Street  
Roswell, New Mexico 88201

**SUBJECT: SOIL CHARACTERIZATION, SURFACE IMPOUNDMENTS**  
**ROSWELL COMPRESSOR STATION, EPA ID# NMD986676955**  
**HWB-TWP-01-001**

Attention: Mr. Larry Campbell

The New Mexico Environment Department Hazardous Waste Bureau (HWB) has completed a review of Transwestern Pipeline Company's submittal "Work Plan for Characterization of Affected Soil in the Former Surface Impoundment Areas" dated July 2, 2001. The work plan addresses characterization of waste and contaminated soil at the location of closed surface impoundments at the Transwestern Pipeline Company Compressor Station Number 9 (EPA ID# NMD986676955). Based on the information provided in the work plan, HWB approves of the proposed characterization activities. The approval is conditional upon approval of the work plan by the New Mexico Department of Energy, Minerals and Natural Resources Oil Conservation Division. Please call this office at (505) 248-2541 if you have questions regarding the conditional approval of the Work Plan.

Sincerely,

Dave Cobrain  
Geologist  
Permits Management Program

CL 01 AUG 17 PM 4:06  
CL 01 AUG 17 PM 4:06

Transwestern Pipeline Company  
August 15, 2001  
Page 2

DWC

cc: James Bearzi, NMED HWB  
John Kieling, NMED HWB  
Bill Olson, NMOCD  
Ed Martin, NMOCD  
George Robinson, Cypress Engineering Services, Inc.  
Pam Allen, NMED HWB

file: red/TWP/01  
track: TWP/Campbell/Cobrain/08-15-01/approval work plan surface impoundments soil characterization



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**

Governor

**Jennifer A. Salisbury**

Cabinet Secretary

**Lori Wrotenbery**

Director

**Oil Conservation Division**

August 17, 2001

**CERTIFIED MAIL**

**RETURN RECEIPT NO. 3771-7491**

Mr. Bill Kendrick  
Transwestern Pipeline Company  
P.O. Box 1188  
Houston, Texas 77251-1188

**RE: CASE # GW052R  
WASTE CHARACTERIZATION WORK PLAN  
ROSWELL COMPRESSOR STATION**

Dear Mr. Kendrick:

The New Mexico Oil Conservation Division (OCD) has reviewed Transwestern Pipeline Company's (TPC) July 2, 2001 "WORK PLAN FOR CHARACTERIZATION OF AFFECTED SOIL IN THE FORMER SURFACE IMPOUNDMENT AREAS, TRANSWESTERN PIPELINE COMPANY, ROSWELL COMPRESSOR STATION, CHAVES COUNTY, NM". This document contains TPC's proposed work plan for characterizing wastes in the former impoundments at the TPC Roswell Compressor Station.

The work plan as contained in the above-referenced document is approved with the following conditions:

1. All samples shall be obtained and analyzed using EPA approved methods and quality assurance/quality control procedures.
2. The waste characterization report shall be submitted to the OCD Santa Fe Office by October 17, 2001 with a copy provided to the OCD Artesia District Office. The report shall contain:
  - a. A description of the investigation activities which occurred including conclusions and recommendations.
  - b. A geologic/lithologic log for each trench which includes visual observations of contamination and field soil organic vapor measurements.

Mr. Bill Kendrick  
August 17, 2001  
Page 2

- c. Site maps showing the location of the trenches, former pits, tanks, sample locations and any other pertinent site features.
  - d. Summary tables of all sampling results and copies of all laboratory analytical data sheets and associated QA/QC data.
3. TPC shall notify the OCD at least 1 week in advance of the scheduled activities such that the OCD has the opportunity to witness the events and split samples.

Please be advised that OCD approval does not limit TPC to the above-referenced work plan if the investigation activities fail to adequately determine the extent of contamination related to TPC's activities, or if contamination exists which is outside the scope of the work plan. In addition, OCD approval does not relieve TPC of responsibility for compliance with any other federal, state or local laws and regulations.

If you have any questions, please contact me at (505) 476-3491.

Sincerely,



William C. Olson  
Hydrologist  
Environmental Bureau

xc: Tim Gum, OCD Artesia Office  
Mike Matush, NM State Land Office  
George Robinson, Cypress Engineering Services, Inc.  
Dave Cobrain, NMED Hazardous Waste Bureau



Cypress Engineering

10235 West Little York Road, Suite 256  
Houston, Texas 77040

(713) 856-7980 office  
(713) 856-7981 fax

July 26, 2001

Mr. David Cobrain  
Hazardous Waste Bureau  
New Mexico Environment Department  
2905 Rodeo Park Dr. East, Bldg. 1  
Santa Fe, NM 87505

**RECEIVED**

**AUG 01 2001**

ENVIRONMENTAL BUREAU  
OIL CONSERVATION DIVISION

RE: Work Plan for Characterization of Affected Soil  
Roswell Compressor Station  
Transwestern Pipeline Company

Dear David,

The enclosed work plan is submitted for your review and approval. Transwestern is ready to proceed with implementing the work plan upon approval from the NMOCD and the NMED HWB. Please call me if you have any questions or comments regarding the work plan. I can be reached at (713) 646-7644.

Sincerely,

George C. Robinson, P.E.  
President/Principal Engineer

xc: (without attachments)

Larry Campbell  
Bill Olson

Transwestern Pipeline Co.  
NMOCD



# **Work Plan for Characterization of Affected Soil in the Former Surface Impoundment Areas**

**Transwestern Pipeline Company  
Roswell Compressor Station  
Chaves County, New Mexico**

**Submitted to:  
New Mexico Oil Conservation Division  
and  
New Mexico Environment Department  
Hazardous and Radioactive Materials Bureau**

**July 2, 2001**

**Oil Conservation Division  
Environmental Bureau**

**JUL 09 2001**

**RECEIVED**

**Prepared For:  
Transwestern Pipeline Company  
6381 North Main Street  
Roswell, NM 88201**

**Prepared by:  
Cypress Engineering Services, Inc.  
10235 West Little York Road, Suite 256  
Houston, Texas 77040**

## TABLE OF CONTENTS

Section	Page
1.0 Work Plan Objectives .....	1
2.0 Site Background.....	1
3.0 Waste Characterization Activities .....	2
4.0 Reporting and Development of a Removal Work Plan .....	2

## LIST OF FIGURES

### Figure

- 1 Facility Site Map
- 2 Soil Boring and Well Locations
- 3 Proposed Trench Locations

## LIST OF ATTACHMENTS

- 1 Soil Boring Logs for Selected Soil Borings (copied from prior site assessment reports)
- 2 Summary of Detected Compounds for Pit Soil Samples (copied from the Phase I Assessment Report dated November 8, 1995)

# **Work Plan for Characterization of Affected Soil in the Former Surface Impoundment Areas**

## **1. Work Plan Objectives**

The objective of this work plan is to characterize affected soil located in the immediate vicinity of two former surface impoundments at the Transwestern Pipeline Company (Transwestern) Roswell, New Mexico, Compressor Station No. 9. This work plan is the first stage of active remediation measures designed to achieve a broader objective to remediate soil and groundwater affected by a release from the former impoundments.

This work plan will be implemented upon approval by the New Mexico Oil Conservation Division (OCD) and the New Mexico Environment Department Hazardous and Radioactive Materials Bureau (NMED HRMB).

The development of subsequent work plans for the removal of affected soil will be based upon the results from the waste characterization activities described in Section 3 of this work plan.

## **2. Site Background**

A thorough description of the facility and the history and operation of the former surface impoundments was provided in a previous report submitted to the OCD and the NMED HRMB. This report was titled "Corrective Action Plan for Roswell Compressor Station No. 9 Surface Impoundments", dated January 31, 1997. The location of the two impoundments relative to other facility features is indicated in Figure 1.

A brief physical description of the two former surface impoundments is presented as follows:

Impoundment	Approximate Dimensions	Date Constructed	Date Backfilled
Pit 1	40' x 70' (rectangular)	Between 7/61 & 10/72	6/86
Pit 2	70' diameter (circular)	Before 7/61	Before 2/77

It is estimated that the impoundments were at most 10 feet deep. Therefore, the maximum volumes of Pits 1 and 2 during their operational lifetimes were approximately 1000 and 1400 cubic yards, respectively.

### **3. Waste Characterization Activities**

Three trenches will be excavated within each former pit area in order to collect samples for RCRA waste characterization (six trenches total). The trenches will be excavated using a trackhoe. Each trench will be approximately 20 feet in length and excavated to a maximum depth of 14 feet bgs. The trenches in the Pit 1 area will be oriented east-west and spaced equally along the long axis of the former pit area as indicated in Figure 3. The trenches in the Pit 2 area will be oriented north-south and spaced equally within the former pit area.

One sample will be obtained from each trench at depths of 4 feet bgs, 8 feet bgs, and 12 feet bgs (that is, 3 samples from each trench). The proposed sample depths are based upon prior assessment borings that indicate the base of the former impoundment was no more than 14 feet bgs. Based upon field observations, an attempt will be made to obtain the most heavily affected material for characterization. In addition, two blind duplicate samples will be collected for quality assurance purposes. This activity will generate a total of 20 samples for waste characterization.

Laboratory analysis for RCRA waste characterization will include TCLP volatiles, TCLP semi-volatiles, TCLP metals, ignitability, corrosivity, and reactivity. In addition, the sample analysis plan will include Total Petroleum Hydrocarbons (TPH) by method 8015mod (GRO & DRO). Based upon laboratory analysis obtained in the course of prior assessment activities, it is anticipated that samples collected in the course of this activity will not be characteristically hazardous per RCRA regulation.

At the conclusion of sampling activities, excavated soil will be pushed back into the trench from where the soil originated.

### **4. Reporting and Development of a Removal Work Plan**

A waste characterization report will be developed upon review of the laboratory results. This report will include a description of waste characterization activities and a comparison of laboratory results to RCRA hazardous waste characterization criteria. Subsequently, a work plan for removal of affected soil will be developed based upon the results of the waste characterization.

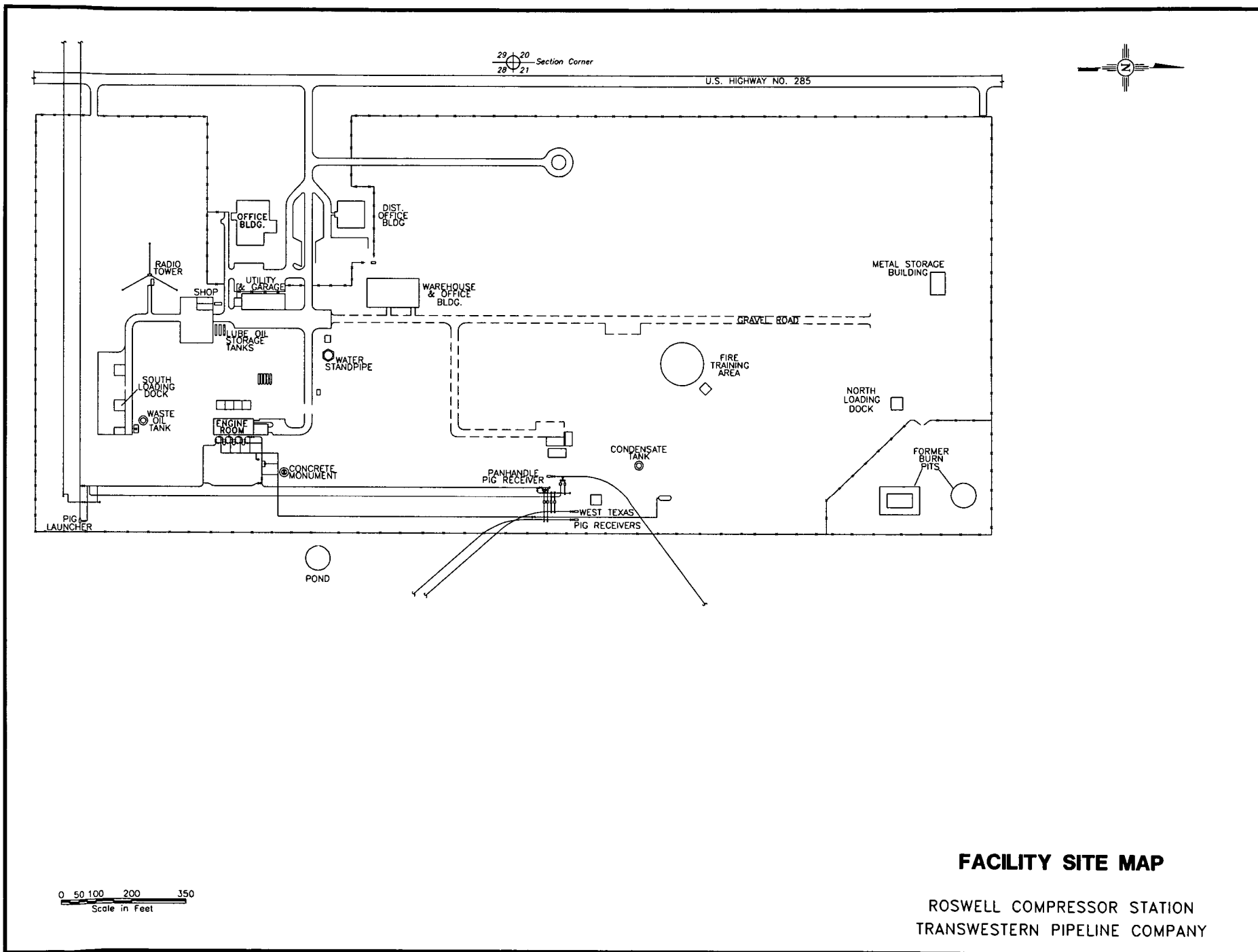
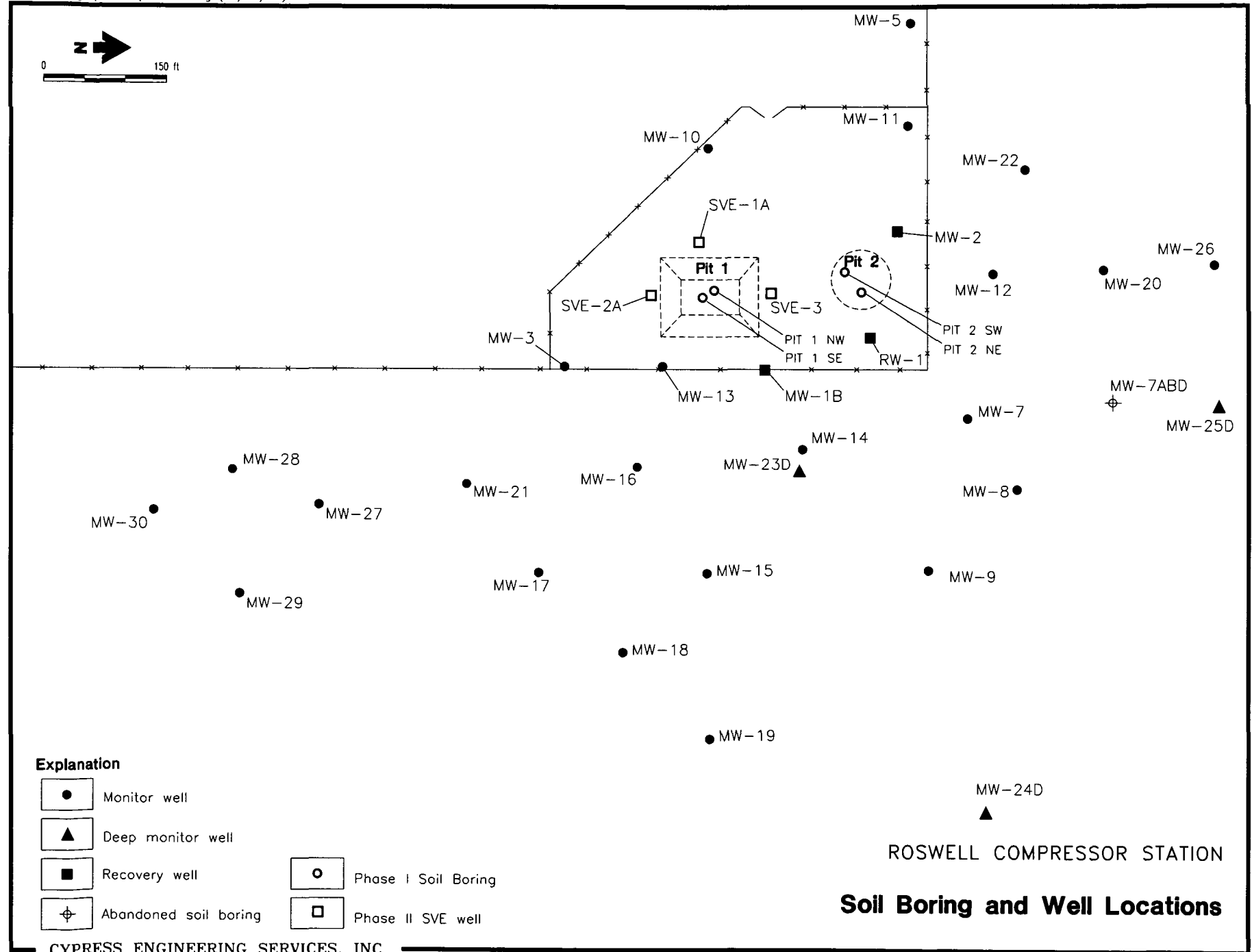
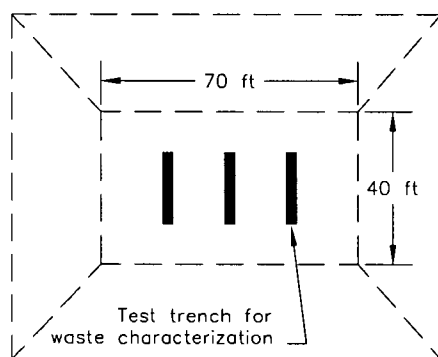


Figure 1

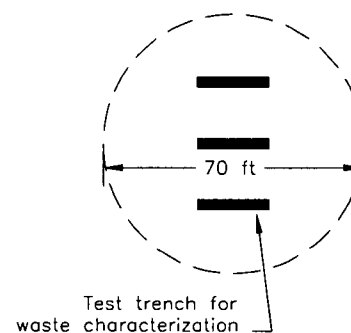




## Pit 1



## Pit 2



ROSWELL COMPRESSOR STATION

**Proposed Trench Locations**

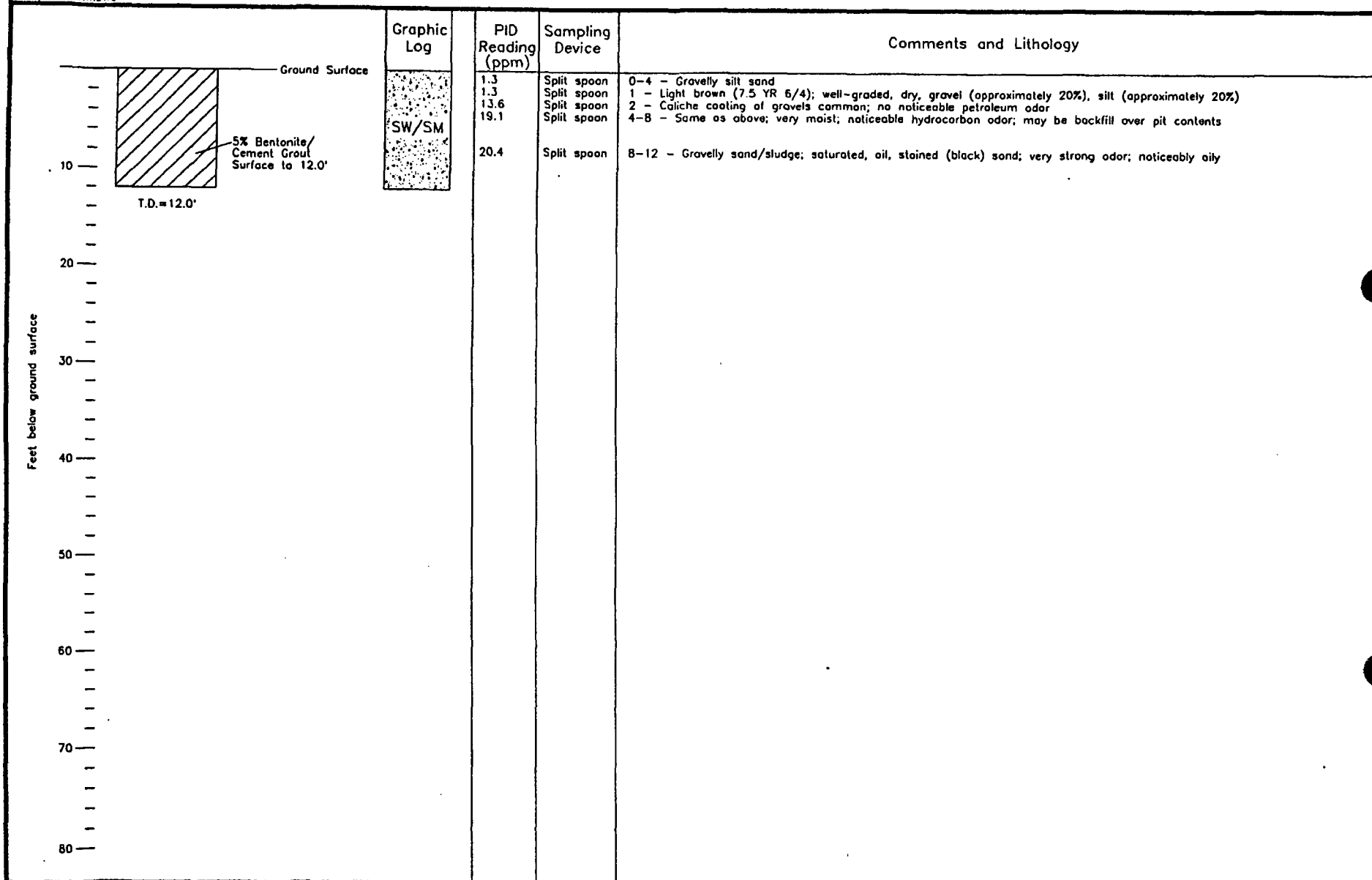
**Work Plan for Characterization of Affected  
Soil in the Former Surface Impoundment Areas**

**Transwestern Pipeline Company  
Roswell Compressor Station  
Chaves County, New Mexico**

**Attachment**

**Selected Soil Boring Logs  
and  
Summary of Lab Results  
for Pit Area Soil Samples**





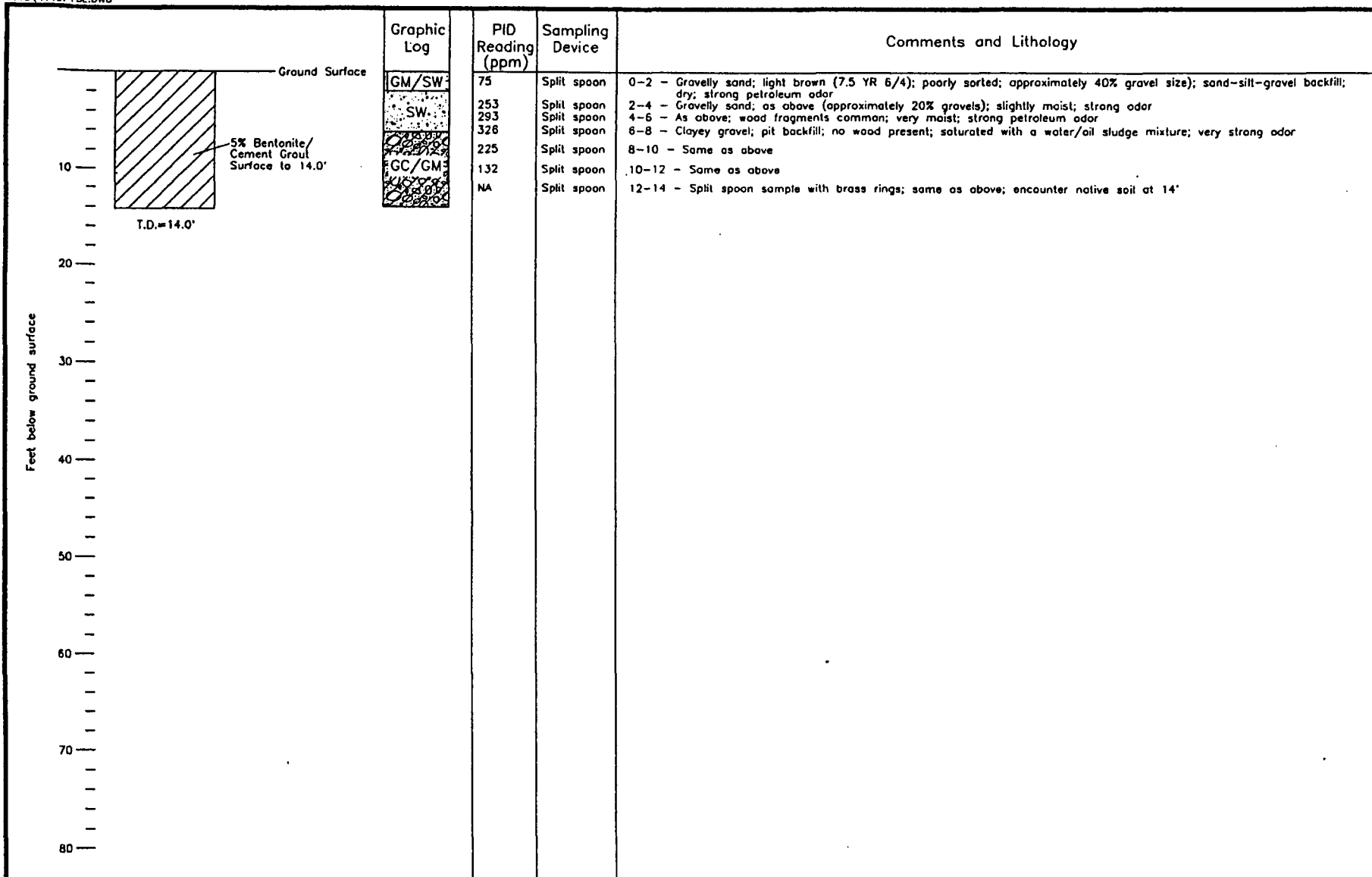
Hydrologists: J. Kirby  
 Driller: Harrison Environmental  
 Date Completed: 8/18/95

Drilling Method: Hollow stem auger  
 Bit Diameter: 8.5 in. O.D.



DANIEL B. STEPHENS & ASSOCIATES, INC.  
 10-19-95 JN 4115

ROSWELL COMPRESSOR STATION  
 Boring Log: Pit 1, NW



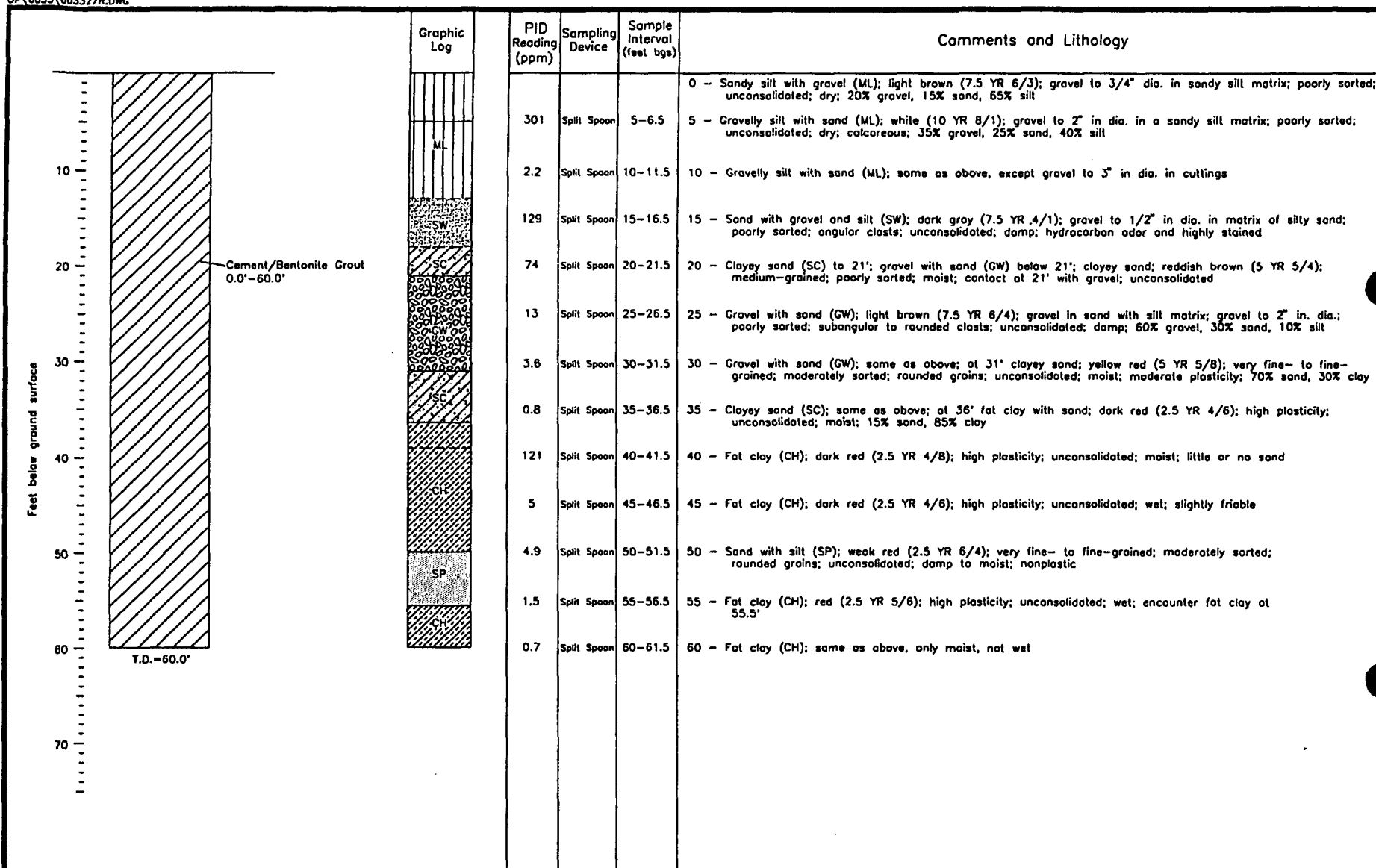
Hydrologists: J. Kirby  
 Driller: Harrison Environmental  
 Date Completed: 8/18/95

Drilling Method: Hollow stem auger  
 Bit Diameter: 8.5 in. O.D.

ROSWELL COMPRESSOR STATION  
 Boring Log: Pit 1, SE



DANIEL B. STEPHENS & ASSOCIATES, INC.  
 10-13-95 JN 4115



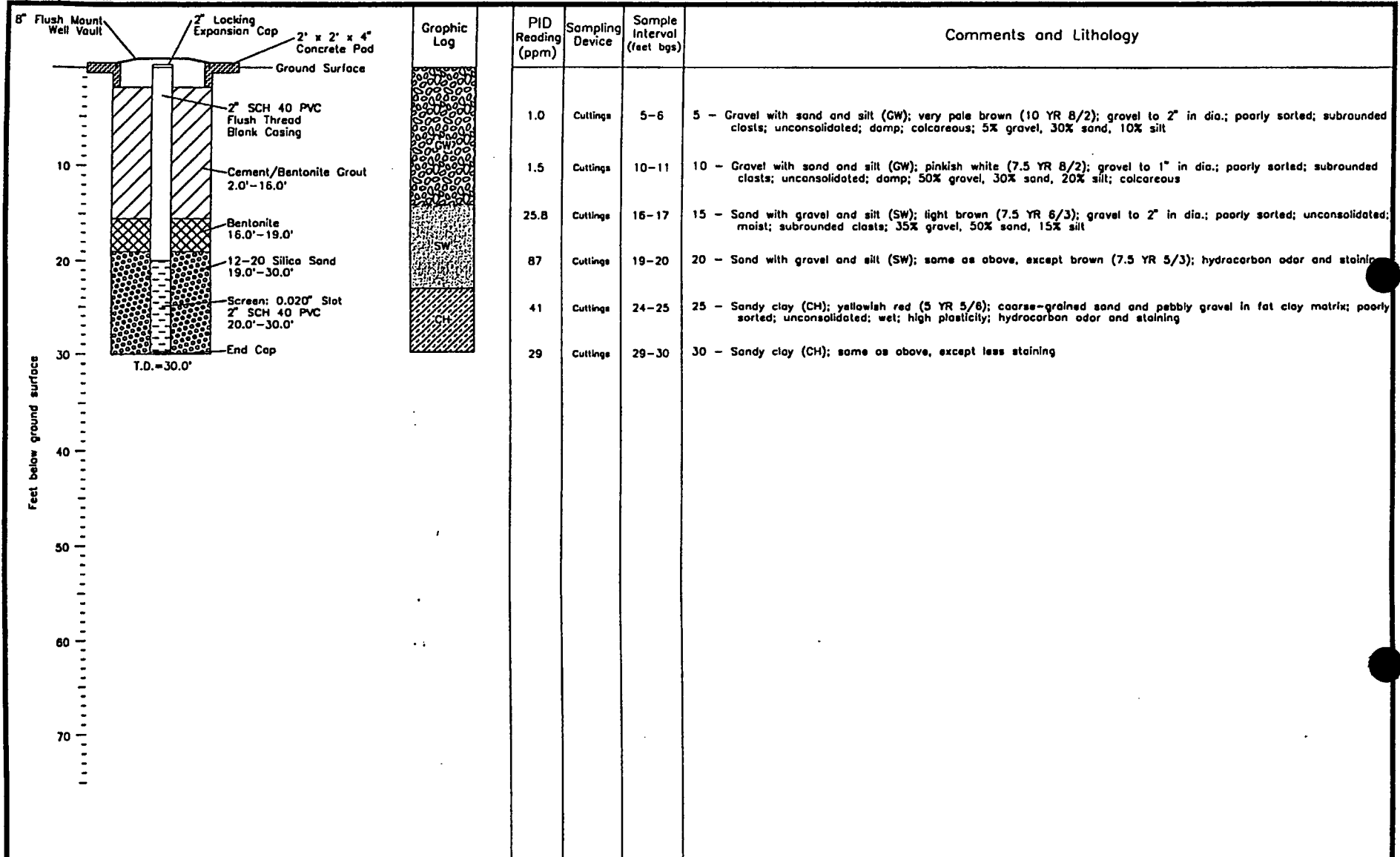
Geologist: Pigman  
 Driller: Layne Environmental Service  
 Date completed: 9-21-96

Drilling method: Hollow stem auger  
 Bit diameter: 8.5 in. O.D.

ROSWELL COMPRESSOR STATION  
**Boring Log: SVE-1**



DANIEL B. STEPHENS & ASSOCIATES, INC.  
 11-27-96 JN 6033



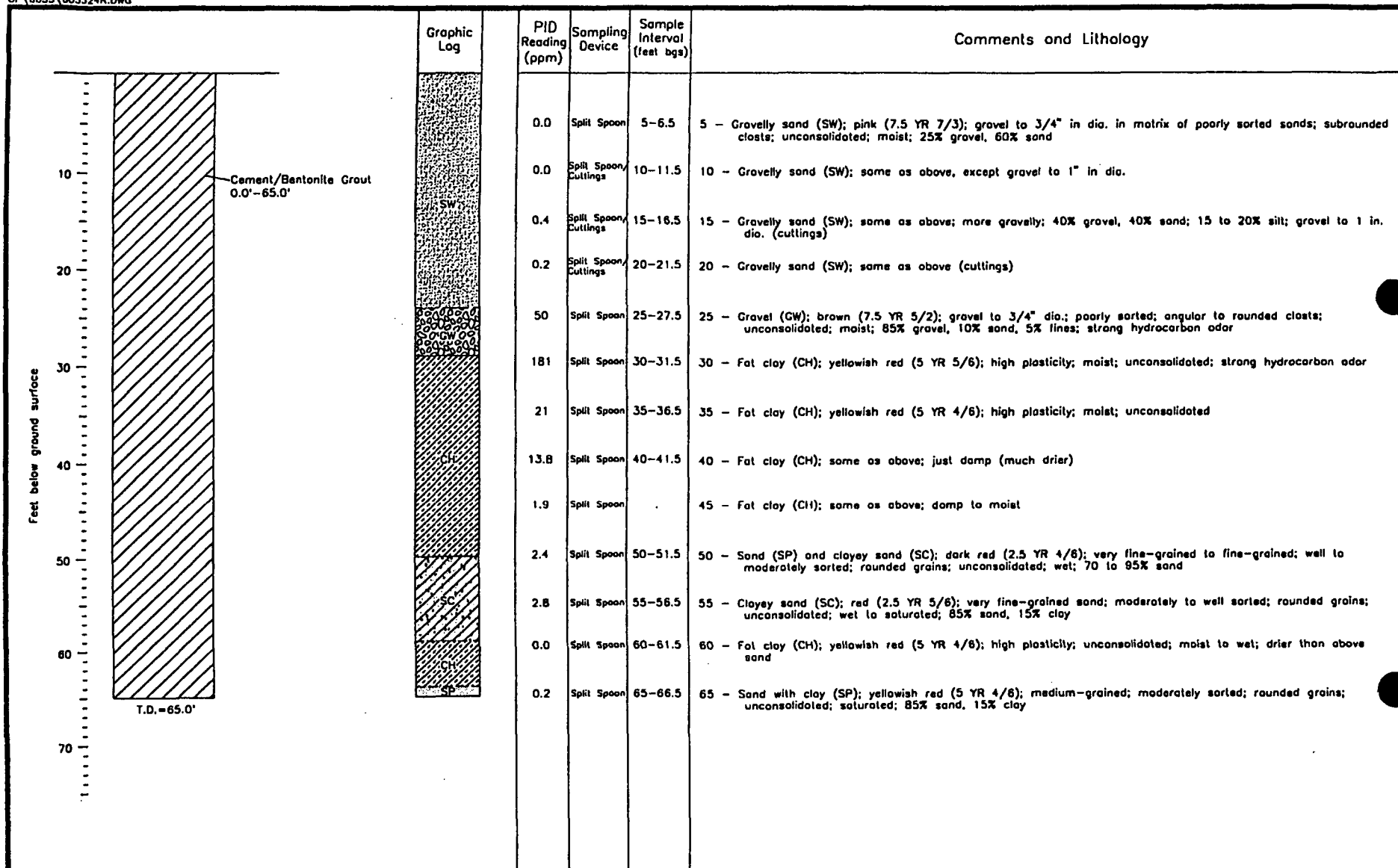
Geologist: Pigman  
Driller: Loyne Environmental Service  
Date completed: 9-21-96

Drilling method: Hollow stem auger  
Bit diameter: 8.5 in. O.D.

ROSWELL COMPRESSOR STATION  
Well Log: SVE-1A



DANIEL B. STEPHENS & ASSOCIATES, INC.  
11-24-96 JN 6033



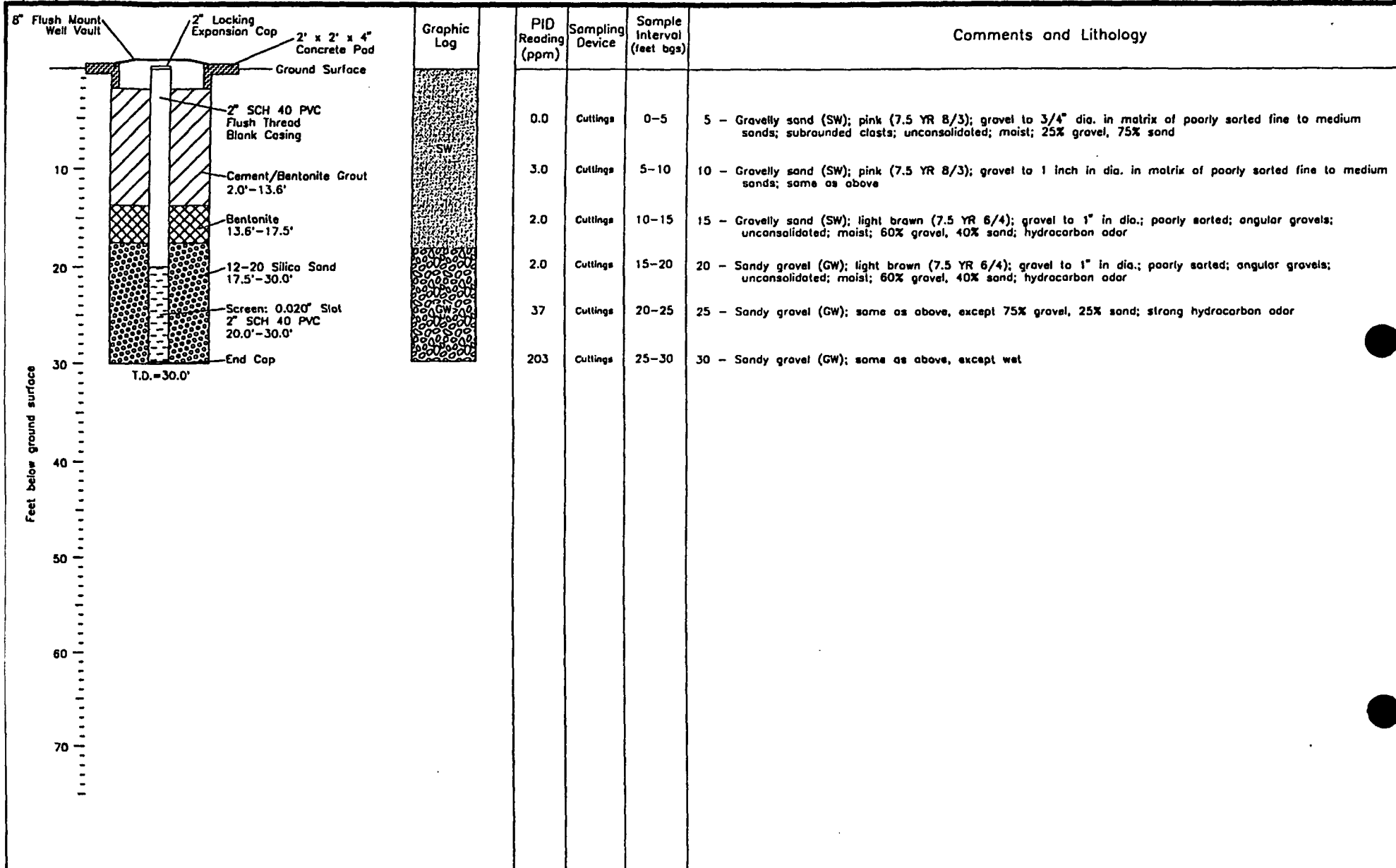
Geologist: Pigman  
 Driller: Loyne Environmental Service  
 Date completed: 9-21-96

Drilling method: Hollow stem auger  
 Bit diameter: 8.5 in. O.D.

ROSWELL COMPRESSOR STATION  
 Boring Log: SVE-2



DANIEL B. STEPHENS & ASSOCIATES, INC.  
 11-24-96 JN 6033



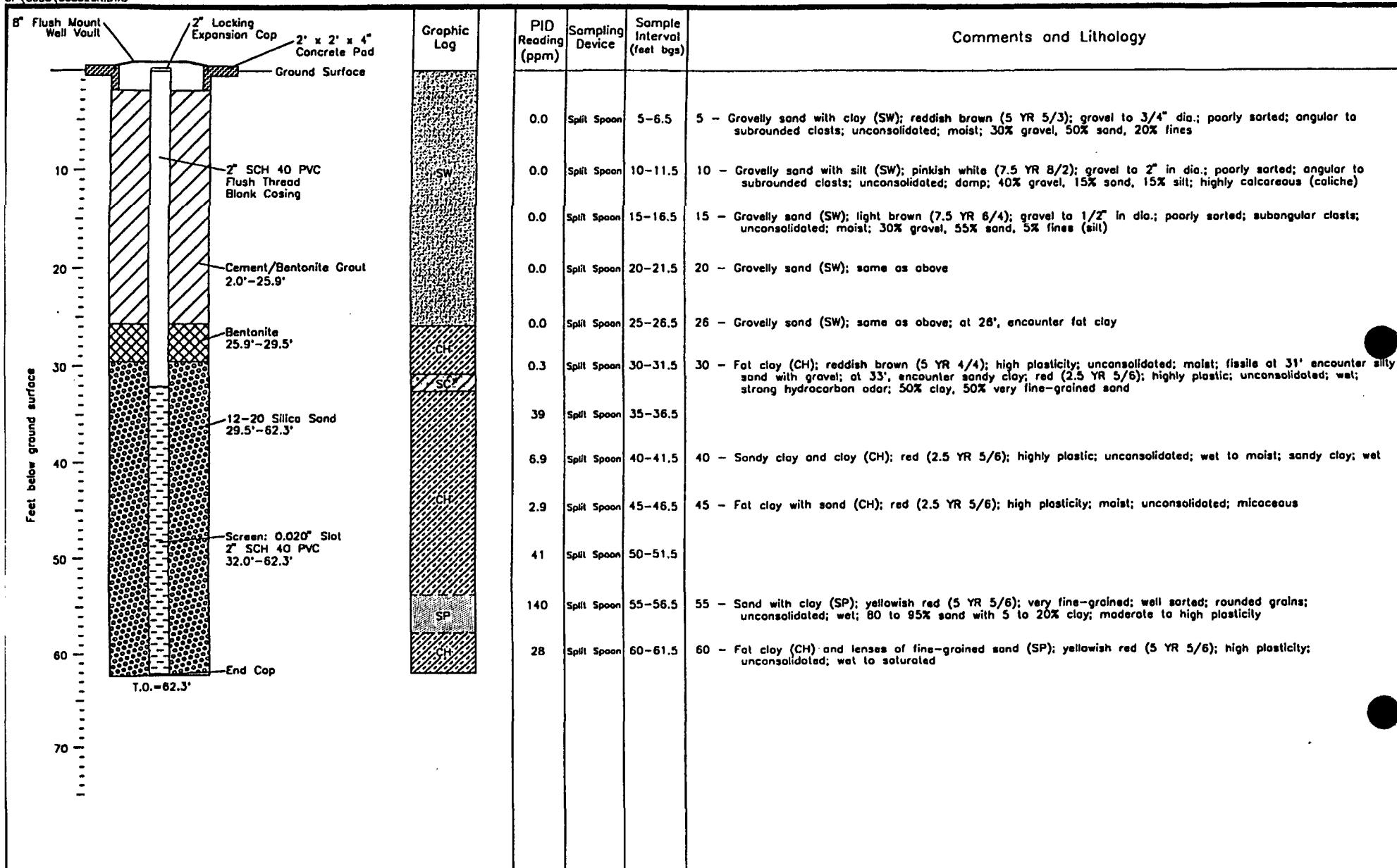
Geologist: Roth  
 Driller: Layne Environmental Service  
 Date completed: 9-20-96

Drilling method: Hollow stem auger  
 Bit diameter: 8.5 in. O.D.

ROSWELL COMPRESSOR STATION  
**Well Log: SVE-2A**



DANIEL B. STEPHENS & ASSOCIATES, INC.  
 11-24-96 JN 6033



Geologist: Pigman  
 Driller: Layne Environmental Service  
 Date completed: 9-16-96

Drilling method: Hollow stem auger  
 Bit diameter: 8.5 in. O.D.

ROSWELL COMPRESSOR STATION  
 Well Log: SVE-3



DANIEL B. STEPHENS & ASSOCIATES, INC.  
 11-24-96 JN 6033



# HALLIBURTON NUS Environmental Corporation

BORING/WELL NUMBER MW-1B

SHEET 1 OF 2

PROJECT Transwestern Pipeline Company

LOCATION Roswell Compressor Station No. 9

PROJECT NUMBER 5T72

COORDINATES

SURFACE ELEVATION 95.2

DATUM GRADE

LOGGED BY S. Richard

DATE DRILLED 4/21/93

ELEVATION FEET	SOIL DESCRIPTION	STRATA	SAMPLE INFORMATION						WELL CONSTRUCTION DETAIL & REMARKS
			Depth Feet	Sample Type	Sample ID	Inches Adv. / Inches Rec.	Penetr- ometer Blow Counts	PID/ FID (ppm)	
	GROUND SURFACE								T.O.C. Elev. 95.18
	Silts and Clays with Gravel								
90			5						
	Hitting rock - No recovery								
	Hitting rock - No recovery. Will try sampling with split spoon sampler.		10	SPT		3 / 0	50		
85									
	Hit large rock								
			15	SPT		3 / 0	50		
80									
	Silts and Clays with Gravels								
			20	SPT		6 / 2	50		
75									
			25	SPT		2 / 0	50		
70									
			30	SPT		2 / 0			
	Very Silty					3 / 0			
65	Silts and Clays, little gravel							0 40	
	SILT - brown, organic odor								
	Black gravel and coarse sand			SPT		24 / 24	9 14 21 36 9	> 1000	

DRILLING CONTRACTOR: Layne Environmental

DRILLER: Russ Deike

DRILLING METHOD: Hollow Stem Auger

DRILLING EQUIPMENT: Failing F-10

DIAMETER, TYPE &amp; INTERVAL OF CASING: 2" PVC

WELL SCREEN/INTERVAL:

FILTER PACK-INTERVAL/QUANTITY:

WELL SEAL-INTERVAL/QUANTITY:

0.020" slot, 55' to 65'

10/20 silica sand, 53' to 65.5'

50' to 53', bentonite pellets





**SHEET 2 OF 2**

**LOCATION** Roswell Compressor Station No. 9

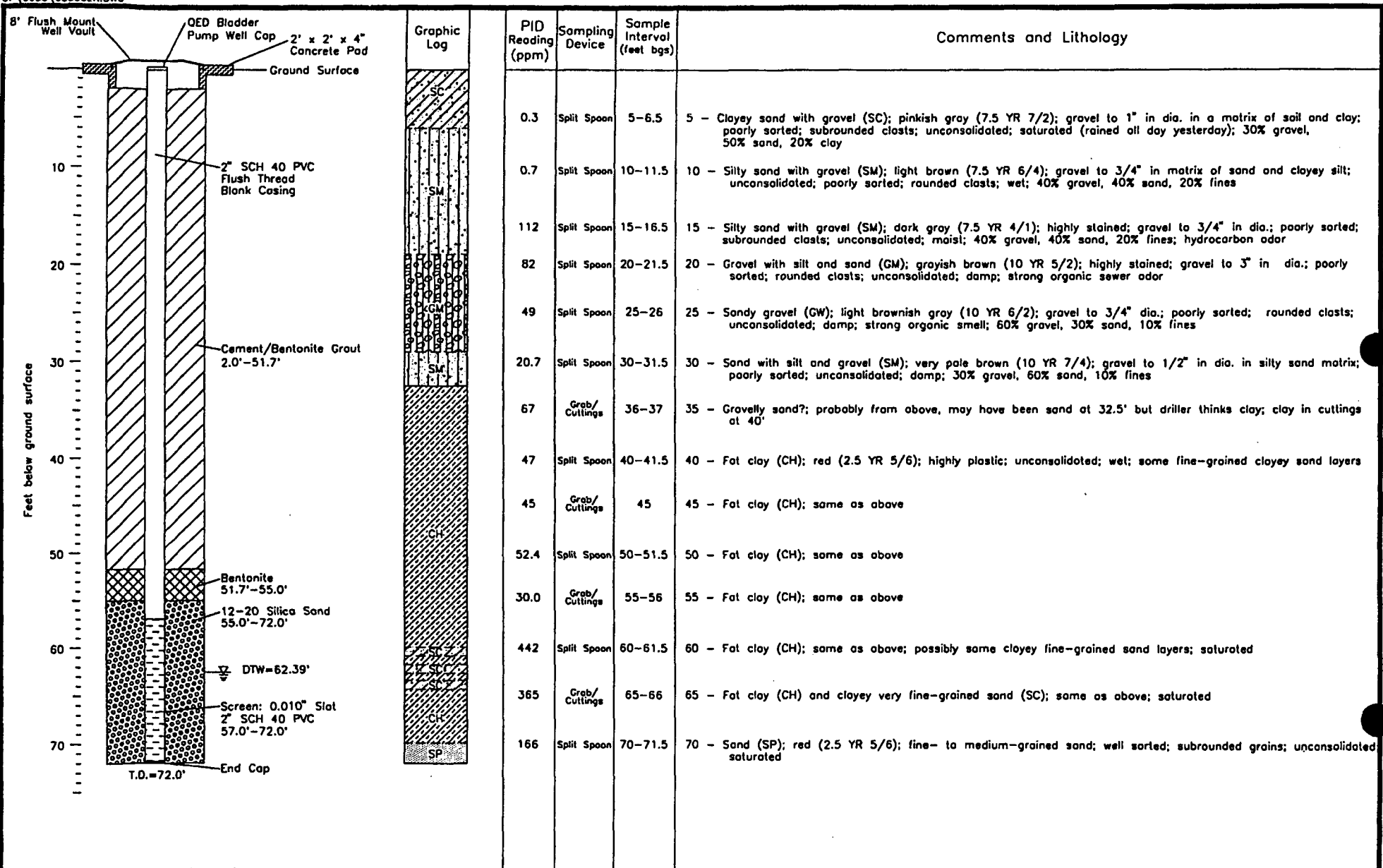
## COORDINATES

**DATUM GRADE**

LOGGED BY S. Richard

DATE DRILLED 4/21/93

ELEVATION FEET	SOIL DESCRIPTION	STRATA	SAMPLE INFORMATION					WELL CONSTRUCTION DETAIL & REMARKS	
			Depth Feet	Sample Type	Sample ID	Inches Adv. / Inches Rec.	Penetr- ometer Blow Counts		PID/ FID (ppm)
CONTINUED FROM PREVIOUS PAGE									
	CLAY - organic odor			SPT		24 / 24	13 23	> 1000	
	No odor			SPT		24 / 24	27 13 18 25 37	50	
55			40						
50			45						
	Interbedded Sands and Clays			SPT		24 / 24	10 21 35 18	> 1000	
45			50	SPT		24 / 24	9 18 19	> 1000	
	CLAY - stiff			SPT		24 / 24	27 6	> 1000	
	CLAY - stiff						12 12		
40			55	SPT		24 / 24	27 5	> 1000	
	SAND - organic odor						7		
	CLAY			SPT		24 / 24	11 19	> 1000	
	SAND with PSH						12 13		
				SPT		24 / 20	14 41 31	> 1000	
35	Fine sand - wet		60	SPT		24 / 18	11 18 33	> 1000	
	6 inches of black sand			SPT		24 / 18	6 15 18	> 1000	
	CLAY						50+ 12	> 1000	
30			65	SPT		24 / 18	21 39 19 9 11 19 21		
	Total depth = 65.5 feet BLS								
									Water level at 58.8 feet BLS at 0900 hr on 4/23/93
									Water level at 62.1 feet BLS at 1700 hr on 4/22/93



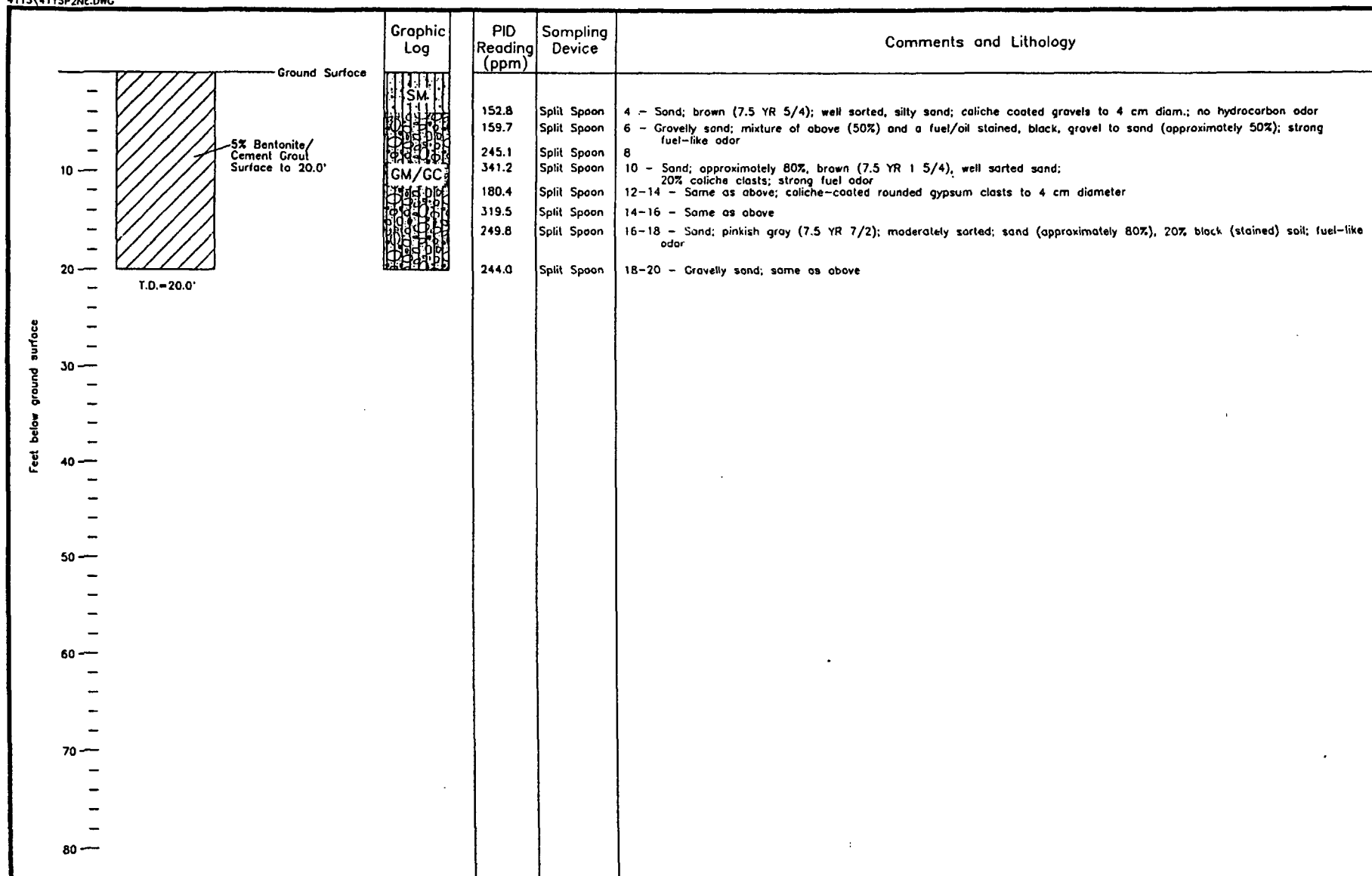
Geologist: Pigman  
Driller: Layne Environmental Service  
Date completed: 9-13-96

Drilling method: Hollow stem auger  
Bit diameter: 8.5 in. O.D.

ROSWELL COMPRESSOR STATION  
**Well Log: MW-13**



DANIEL B. STEPHENS & ASSOCIATES, INC.  
11-27-96 JN 6033



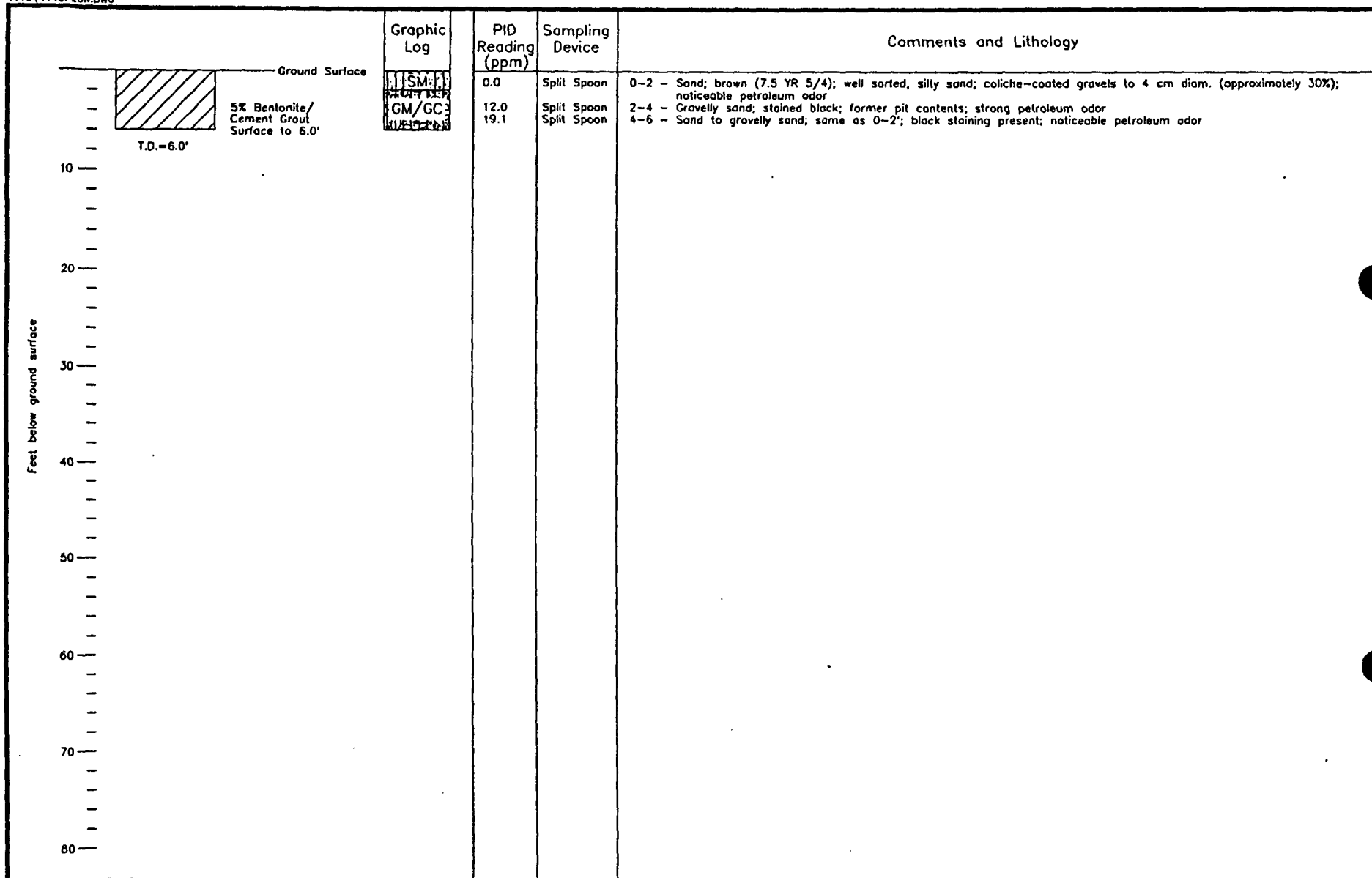
Hydrologists: J. Kirby  
 Driller: Harrison Environmental  
 Date Completed: 8/17/95

Drilling Method: Hollow stem auger  
 Bit Diameter: 8.5 in. O.D.

ROSWELL COMPRESSOR STATION  
 Boring Log: Pit 2, NE



DANIEL B. STEPHENS & ASSOCIATES, INC.  
 10-13-95 JN 4115



Hydrologists: J. Kirby  
 Driller: Harrison Environmental  
 Date Completed: 8/18/95

Drilling Method: Hollow stem auger  
 Bit Diameter: 8.5 in. O.D.

ROSWELL COMPRESSOR STATION  
**Boring Log: Pit 2, SW**



DANIEL B. STEPHENS & ASSOCIATES, INC.  
 10-13-95

JN 4115



# HALLIBURTON NUS

Environmental Corporation

BORING/WELL NUMBER MW-2

SHEET 1 OF 2

PROJECT Transwestern Pipeline Company

LOCATION Roswell Compressor Station No. 9

PROJECT NUMBER 5T72

COORDINATES

SURFACE ELEVATION 97.0

DATUM GRADE

LOGGED BY S. Richard

DATE DRILLED 4/21/93

ELEVATION FEET	SOIL DESCRIPTION	STRATA	SAMPLE INFORMATION						WELL CONSTRUCTION DETAIL & REMARKS
			Depth Feet	Sample Type	Sample ID	Inches Adv. / Inches Rec.	Penetr- ometer Blow Counts	PID/ FID (ppm)	
	GROUND SURFACE								T.O.C. Elev. 96.98
	Silt and Clay with Gravel and Pebbles								
95									
			5	SPT		18 / 18	37 34 29	1	
90									
			10	SPT		6 / 3	50	2	
85									
			15	SPT		6 / 0	50	2	
80	More Gravel								
			20	SPT		6 / 2	50	1	
75									
	3-inch dark brown sandy clay layer, sand is well sorted and medium grained		25	SPT		4 / 2	50	2	
70									
	Small layer (1 foot) of black coarse gravel, organic odor		30	SPT		18 / 15	14 14 14	> 1000	
65	CLAY								
				SPT		18 / 18	5 9 10	700	

DRILLING CONTRACTOR: Layne Environmental

DIAMETER, TYPE & INTERVAL OF CASING: 2" PVC

DRILLER: Russ Deike

WELL SCREEN/INTERVAL:

0.020" slot PVC, 55' to 65'

DRILLING METHOD: Hollow Stem Auger

FILTER PACK-INTERVAL/QUANTITY:

10/20 silica sand, 53' to 65'

DRILLING EQUIPMENT: Failing F-10

WELL SEAL-INTERVAL/QUANTITY:

50' to 53', bentonite pellets



SHEET 2 OF 2

PROJECT Transwestern Pipeline Company

**LOCATION** Roswell Compressor Station No. 9

PROJECT NUMBER 5T72







### COORDINATES

SURFACE ELEVATION 97.0

DATUM GRADE

LOGGED BY S. Richard

DATE DRILLED 4/21/93

ELEVATION FEET	SOIL DESCRIPTION	STRATA	SAMPLE INFORMATION					WELL CONSTRUCTION DETAIL & REMARKS		
			Depth Feet	Sample Type	Sample ID	Inches Adv. / Inches Rec.	Penetr- ometer Blow Counts		PID/ FID (ppm)	
CONTINUED FROM PREVIOUS PAGE										
60	CLAY with Silt and Gravel layers		X	SPT		18 / 18	5 9	50		
			X	SPT		18 / 18	10 5 4 4	45		
40			X	SPT		18 / 18	4 4 3	20		
55			CLAY with Gravel layers	X	SPT		18 / 18	4 5 6		1
50				X	SPT		18 / 14	3 5 6		2
	Clay only		X	SPT		18 / 18	10 12 21	2		
45	Clay		X	SPT		18 / 18	2 3 6	3		
	Clay - hard		X	SPT		18 / 18	4 7 10			
40	SAND - fine grained, well sorted, with clay, organic odor		X	SPT		18 / 8	4 6 14	> 1000		
			X	SPT		18 / 17	7 17 50	> 1000		
				AUGER		42 / 0				
Total depth = 65.0 feet BLS										



**Table 1. Summary of Detected Compounds for Pit Soil Samples  
Roswell Compressor Station No. 9  
Page 1 of 2**

Analyte	Soil Screening Level <sup>a</sup>	Risk-Based Concentration <sup>b</sup>	Sample No. (Sample Date)			
			Pit 1 NW Boring (08/18/95)	Pit 1 SE Boring (08/18/95)	Pit 2 NE Boring (08/17/95)	Pit 2 SW Boring (08/18/95)
<b>Volatile Organic Compounds (mg/kg) by EPA Method 8240</b>						
Acetone	8	7,800	1.4	<0.50	<0.50	<0.10
Benzene	0.02	22	0.21	0.85	0.14	<0.005
Carbon disulfide	14	7,800	<0.02	0.06	<0.02	<0.005
1,1-Dichloroethane (1,1-DCA)	11	7,800	1.0	1.20	<0.02	<0.005
1,1-Dichloroethene (1,1-DCE)	0.03	1.1	0.04	0.04	<0.02	<0.005
Ethylbenzene	5	7,800	0.04	0.37	0.9	<0.005
2-Hexanone	NA	NA	<0.02	0.46	<0.02	<0.005
Methylene chloride (dichloromethane)	0.01	85	<0.02	0.16	<0.02	<0.005
Tetrachloroethene (PCE)	0.04	12	<0.02	0.04	<0.02	0.009
Toluene	5	16,000	0.5	9.1	1.9	<0.005
1,1,1-Trichloroethane (1,1,1-TCA)	0.9	7,000	1.9	16.0	<0.02	0.017
Vinyl acetate	84	78,000	0.2	7.0	<6.0	<0.05
Xylene(s) <sup>c</sup>	74	160,000	0.27	2.4	16.0	<0.005
<b>Semivolatile Organic Compounds (mg/kg) by EPA Method 8270</b>						
Benzo(j)fluoranthene	NA	NA	<3.3	<3.3	<0.33	0.33
Bis(2-ethylhexyl)phthalate	11	46	4.8	<3.3	<0.33	<0.33
Chrysene	1	88	<3.3	<3.3	<0.33	0.33
Fluoranthene	980	3,100	<3.3	<3.3	<0.33	0.76
2-Methylnaphthalene	NA	NA	4.8	<3.3	0.46	<0.33
Phenanthrene	NA	NA	5.6	5.0	<0.33	0.45
Phenol (carbolic acid)	49	47,000	30.0	200	<0.33	<0.33
Pyrene	1,400	2,300	<3.30	<3.3	<0.33	0.89

Notes: This table lists only those analytes that were detected in at least one of the pit soil samples.

Bold values highlight concentrations above reporting limits.

Core Laboratories results for VOCs and SVOCs converted from µg/kg to mg/kg.

<sup>a</sup> Soil screening level for protection of ground water based on a dilution-attenuation factor of 10 (EPA, 1994)

<sup>b</sup> Risk-based concentration for soil ingestion at residential sites (EPA, 1995)

<sup>c</sup> Soil screening level for mixed xylene



**Table 1. Summary of Detected Compounds for Pit Soil Samples  
Roswell Compressor Station No. 9**

Page 2 of 2

Analyte	Soil Screening Level <sup>a</sup>	Risk-Based Concentration <sup>b</sup>	Sample No. (Sample Date)			
			Pit 1 NW Boring (08/18/95)	Pit 1 SE Boring (08/18/95)	Pit 2 NE Boring (08/17/95)	Pit 2 SW Boring (08/18/95)
<b>PCBs (µg/kg) by EPA Method 8080 (No analytes detected)</b>						
<b>Metals (mg/kg) by EPA Methods 6010 and 7471 (for Mercury)</b>						
Aluminum (Al)	NA	78,000	5,950	1,690	1,430	1,63
Antimony (Sb)	NA	31	10	<10	<10	<10
Arsenic (As)	15	23	9	17	6	<5
Barium (Ba)	32	5,500	415	171	233	734
Beryllium (Be)	180	0.15	<0.5	<0.5	0.5	<0.5
Chromium (Cr) <sup>d</sup>	19	390	9	9	8	7
Copper (Cu)	NA	2,900	144	337	56	18
Lead (Pb)	NA	NA	<5	11	<5	<5
Mercury (Hg)	3	23	0.59	1.36	<0.10	<0.10
Nickel (Ni)	21	1,600	9	5	5	<4
Selenium (Se)	3	390	<10	<10	<10	10
Tin (Sn)	NA	47,000	<5	6	5	<5
Vanadium (V)	NA	550	14	10	21	11
Zinc (Zn)	42,000	23,000	97	282	45	34
<b>Miscellaneous (mg/kg) by EPA Methods 9010, 9030, and 418.1, respectively</b>						
Total cyanide <sup>e</sup>	NA	11,290	1.1	1.4	<0.4	<0.4
Total sulfide	NA	NA	1,800	940	530	370
Total petroleum hydrocarbons	NA	NA	4,700	26,000	5,300	<50

Notes: This table lists only those analytes that were detected in at least one of the pit soil samples.  
Bold values highlight concentrations above reporting limits.

<sup>d</sup> Concentrations based on chromium VI  
<sup>e</sup> Includes barium/calcium/copper cyanide

NA = Not available





# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**  
Governor  
**Jennifer A. Salisbury**  
Cabinet Secretary

**Lori Wrotenbery**  
Director  
**Oil Conservation Division**

June 11, 2001

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. 3771-7361**

Mr. Bill Kendrick  
Transwestern Pipeline Company  
P.O. Box 1188  
Houston, Texas 77251-1188

**RE: CASE # GW052R**  
**ANNUAL REPORT**  
**ROSWELL COMPRESSOR STATION**

Dear Mr. Kendrick:

The New Mexico Oil Conservation Division has reviewed Transwestern Pipeline Company's (TPC) February 20, 2001 "ANNUAL REPORT OF GROUNDWATER REMEDIATION ACTIVITIES, COMPRESSOR STATION NO. 9 – ROSWELL, NM, TRANSWESTERN PIPELINE COMPANY". This document contains the results of TPC's ground water monitoring and a proposed work plan for additional monitor wells to determine the extent of ground water contamination related to the TPC Roswell Compressor Station.

The work plan as contained in the above-referenced document is approved with the following conditions:

1. The ground water monitor wells shall be constructed and sampled in accordance with the OCD's prior work plan approvals.
2. TPC shall notify the OCD at least 1 week in advance of the scheduled activities such that the OCD has the opportunity to witness the events and split samples.

Please be advised that OCD approval does not limit TPC to the above-referenced work plan if the investigation activities fail to adequately determine the extent of contamination related to TPC's activities, or if contamination exists which is outside the scope of the work plan. In addition, OCD approval does not relieve TPC of responsibility for compliance with any other federal, state or local laws and regulations.

Mr. Bill Kendrick

June 11, 2001

Page 2

If you have any questions, please contact me at (505) 476-3491.

Sincerely,

A handwritten signature in black ink, appearing to read "William C. Olson". The signature is fluid and cursive, with the first name "William" being more prominent than the last name "Olson".

William C. Olson

Hydrologist

Environmental Bureau

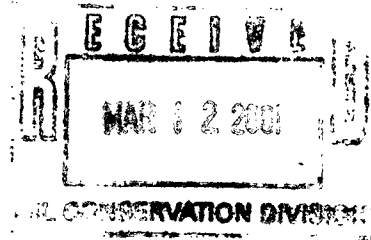
xc: Tim Gum, OCD Artesia Office  
Mike Matush, NM State Land Office  
George Robinson, Cypress Engineering Services, Inc.  
Dave Cobrain, NMED Hazardous Waste Bureau



**Transwestern Pipeline  
Company**  
P. O. Box 1188  
Houston, TX 77251-1188

February 20, 2001

Mr. William C. Olson  
Environmental Bureau  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505



RE: Annual Report of Groundwater Remediation Activities  
Compressor Station No. 9 – Roswell, NM  
Transwestern Pipeline Company

Dear Bill,

Enclosed for your review is the Annual Report of Groundwater Remediation Activities for the Roswell Station site. This report includes the results of recent groundwater assessment work completed at the site and a proposal for additional assessment activities.

If you have any questions or comments regarding this report and proposed work plan, please contact me at (713) 646-7644 or George Robinson at (713) 646-7327.

Sincerely,

Bill Kendrick  
Director, Environmental Affairs

gcr/BK

xc w/attachment:	Larry Campbell	Transwestern Pipeline Company
	George Robinson	Cypress Engineering

**Cypress Engineering**10235 W. Little York Rd., Ste. 256  
Houston, Texas 77040(713) 856-7980 office  
(713) 856-7981 fax**George C. Robinson, P.E.**c/o: ENRON Gas Pipeline Group  
Environmental Affairs; Room 3AC-3142(713) 646-7327 ENRON office  
(713) 646-7867 ENRON fax

## FAX Transmission

**To:** Bill Olson**Fax:** 505-827-8177**From:** George C. Robinson**Date:** October 25, 2000**Comments:****Pages:** 2 (including this cover)

Bill,

I found this in my file. I didn't remember preparing this letter until I saw it. I think this is what we were looking for. Let me know if you don't have the original and I will mail out another copy.

Thanks,  
George

Please call if you do not receive this transmission in its entirety!



**Transwestern Pipeline  
Company**  
P. O. Box 1188  
Houston, TX 77251-1188

August 29, 2000

Mr. William C. Olson  
Environmental Bureau  
New Mexico Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, New Mexico 87505

RE: Annual Report of Groundwater Remediation Activities  
Roswell Compressor Station  
Transwestern Pipeline Company

Dear Bill,

The next report of groundwater remediation activities at the Roswell Station site will be submitted to your office by December 31, 2000. This report is normally scheduled to be issued on or about July of each year. The report date has been postponed this year in light of two considerations. First, the report date has been postponed so that information obtained in the course of additional assessment activities scheduled for October can be included. Second, routine sampling activities completed since the date of the last report have not revealed any significant changes in site conditions.

If you have any questions regarding this issue, please contact me at (713) 646-7644 or George Robinson at (713) 646-7327.

Sincerely,

A handwritten signature in cursive script that reads "Bill Kendrick".

Bill Kendrick  
Director, Environmental Affairs

gcr/WAK

cc: Larry Campbell  
George Robinson

Transwestern Pipeline Co.  
Cypress Engineering

Roswell, NM  
3AC-3142

Natural gas. Electricity. Endless possibilities.™

\*\*\* TOTAL PAGE.02 \*\*\*



5w-02  
**Transwestern Pipeline  
Company**  
P. O. Box 1188  
Houston, TX 77251-1188

August 29, 2000

Mr. William C. Olson  
Environmental Bureau  
New Mexico Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, New Mexico 87505

RE: Annual Report of Groundwater Remediation Activities  
Roswell Compressor Station  
Transwestern Pipeline Company

Dear Bill,

The next report of groundwater remediation activities at the Roswell Station site will be submitted to your office by December 31, 2000. This report is normally scheduled to be issued on or about July of each year. The report date has been postponed this year in light of two considerations. First, the report date has been postponed so that information obtained in the course of additional assessment activities scheduled for October can be included. Second, routine sampling activities completed since the date of the last report have not revealed any significant changes in site conditions.

If you have any questions regarding this issue, please contact me at (713) 646-7644 or George Robinson at (713) 646-7327.

Sincerely,

A handwritten signature in black ink, appearing to read "Bill Kendrick". The signature is fluid and cursive, with a long, sweeping underline.

Bill Kendrick  
Director, Environmental Affairs

gcr/WAK

cc: Larry Campbell  
George Robinson

Transwestern Pipeline Co.  
Cypress Engineering

Roswell, NM  
3AC-3142



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 S. PACHECO  
SANTA FE, NEW MEXICO 87505  
(505) 827-7131

August 19, 1999

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. Z-274-520-701**

Mr. Bill Kendrick  
Transwestern Pipeline Company  
P.O. Box 1188  
Houston, Texas 77251-1188

**RE: GROUND WATER MONITORING AND INVESTIGATION WORK PLAN  
ROSWELL COMPRESSOR STATION**

Dear Mr. Kendrick:

The New Mexico Oil Conservation Division has reviewed Transwestern Pipeline Company's (TPC) June 30, PHASE IV ASSESSMENT REPORT, GROUND WATER MONITORING REPORT & PHASE V GROUND WATER ASSESSMENT WORK PLAN, COMPRESSOR STATION NO. 9 - ROSWELL, NM, TRANSWESTERN PIPELINE COMPANY". This document contains the results of TPC's ground water monitoring and TPC's work plan for additional investigations of the extent of soil and ground contamination related to the TPC Roswell Compressor Station.

The work plan as contained in the above referenced document is approved with the following conditions:

1. Ground water from monitor wells MW-3, MW-10, MW-11, MW-14, MW-15 and MW-17 shall be sampled and analyzed on a semiannual basis.
2. TPC shall notify the OCD at least 1 week in advance of the scheduled activities such that the OCD has the opportunity to witness the events and split samples.

Please be advised that OCD approval does not limit TPC to the above referenced work plan if the investigation activities fail to adequately determine the extent of contamination related to TPC's activities, or if contamination exists which is outside the scope of the work plan. In addition, OCD approval does not relieve TPC of responsibility for compliance with any other federal, state or local laws and regulations.

Mr. Bill Kendrick  
August 19, 1999  
Page 2

If you have any questions, please contact me at (505) 827-7154.

Sincerely,

A handwritten signature in black ink, appearing to read 'Will Olson', written in a cursive style.

William C. Olson  
Hydrologist  
Environmental Bureau

xc: Tim Gum, OCD Artesia Office  
Mike Matush, NM State Land Office  
George Robinson, Cypress Engineering Services, Inc.  
James Bearzi, NMED Hazardous & Radioactive Materials Bureau





# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**

Governor

**Jennifer A. Salisbury**

Cabinet Secretary

**Lori Wrotenberg**

Director

**Oil Conservation Division**

January 30, 2001

## **CERTIFIED MAIL**

**RETURN RECEIPT NO. 3771-6982**

Mr. Larry Campbell  
Transwestern Pipeline Company  
6381 North Main  
Roswell, New Mexico 88201

**RE:** Discharge Plan Renewal GW-052  
Transwestern Pipeline Company  
Roswell Compressor Station  
Chaves County, New Mexico

Dear Mr. Campbell

The ground water discharge plan renewal application GW-052 for the **Transwestern Pipeline Company Roswell Compressor Station** located in the SW/4 SW/4 of Section 21, Township 9 South, Range 24 East, NMPM, Chaves County, New Mexico, is **hereby approved** under the conditions contained in the enclosed attachment. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe office within 10 working days of receipt of this letter. Please note new mailing address below.**

The original discharge plan application was submitted on April 9, 1990 and approved November 9, 1990. The discharge plan renewal application letter, dated May 30, 2000, submitted pursuant to Section 3106 of the New Mexico Water Quality Control Commission (WQCC) Regulations also includes all earlier applications and all conditions later placed on those approvals. The discharge plan is renewed pursuant to Section 3109.C. Please note Section 3109.G, which provides for possible future amendment of the plan. Please be advised that approval of this plan does not relieve **Transwestern Pipeline Company** of responsibility should operations result in pollution of surface water, ground water or the environment. Nor does it relieve **Transwestern Pipeline Company** of its responsibility to comply with any other governmental authority's rules and regulations.

Please be advised that all exposed pits, including lined pits and open tanks (exceeding 16 feet in diameter) shall be screened, netted or otherwise rendered nonhazardous to wildlife including migratory birds.

U.S. Postal Service  
**CERTIFIED MAIL RECEIPT**  
(Domestic Mail Only; No Insurance Coverage Provided)

7000 0520 0021 3771 6982

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Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

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Recipient's Name (Please Print Clearly) (To be completed by mailer)

**LARRY CAMPBELL / TRANSWESTERN**

Street, Apt./No.; or PO Box No.

**6381 NORTH MAIN**

City, State, ZIP+4

**ROSWELL, NM 88201**

PS Form 3800, February 2000

See Reverse for Instructions

Larry Campbell  
GW-052  
January 30, 2001  
Page 2


Please note that Section 3104 of the regulations provides: "When a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3107.C, **Transwestern Pipeline Company** is required to notify the Director of any facility expansion, production increase or process modification that would result in any change in the discharge of water quality or volume.

Pursuant to Section 3109.H.4, this renewal plan is for a period of five years. This renewal will expire on **November 9, 2005**, and **Transwestern Pipeline Company** should submit an application in ample time before this date. Note that under Section 3106.F of the regulations, if a discharger submits a discharge plan renewal application at least 120 days before the discharge plan expires and is in compliance with the approved plan, then the existing discharge plan will not expire until the application for renewal has been approved or disapproved. It should be noted that all discharge plan facilities will be required to submit the results of an underground drainage testing program as a requirement for discharge plan.

The discharge plan renewal application for the **Transwestern Pipeline Company Roswell Compressor Station** is subject to WQCC Regulation 3114. Every billable facility submitting a discharge plan application will be assessed a fee equal to the filing fee of \$50.00. There is a renewal flat fee assessed for gas compressor station facilities with horsepower rating greater than 3,000 horsepower equal to one-half of the original flat fee or \$690.00. The OCD has received the filing fee.

On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,



Roger C. Anderson  
Chief, Environmental Bureau  
Oil Conservation Division

RCA/eem  
Attachment

Xc: OCD Artesia Office

ATTACHMENT TO THE DISCHARGE PLAN RENEWAL GW-052  
**TRANSWESTERN PIPELINE COMPANY**  
**ROSWELL COMPRESSOR STATION**  
DISCHARGE PLAN APPROVAL CONDITIONS  
January 30, 2001

1. Payment of Discharge Plan Fees: The \$50.00 filing fee has been received by the OCD. There is a required flat fee equal to one-half of the original flat fee for natural gas compressor stations with horsepower rating greater than 3,000 horsepower. The renewal flat fee required for this facility is \$690.00 which may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the discharge plan, with the first payment due upon receipt of this approval. The filing fee is payable at the time of application and is due upon receipt of this approval. All checks are to be made payable to Water Quality Management Fund and forwarded to the OCD Santa Fe Office. Please note new mailing address on letterhead.
2. Commitments: **Transwestern Pipeline Company** will abide by all commitments submitted in the discharge plan renewal application letter dated May 30, 2000 and these conditions for approval.
3. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261. Any waste stream that is not listed in the discharge plan will be approved by OCD on a case-by-case basis.
4. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums will be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets will also be stored on an impermeable pad and curb type containment.
5. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.
6. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new tanks or

existing tanks that undergo a major modification, as determined by the Division, must be placed within an impermeable bermed enclosure.

7. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.
8. Labeling: All tanks, drums and containers will be clearly labeled to identify their contents and other emergency notification information.
9. Below Grade Tanks/Sumps: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must demonstrate integrity no later than March 31, 2001 and every year from tested date thereafter. Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing. The test results will be submitted to OCD by April 30, 2001.
10. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity every five (5) years. Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing. The test results will be submitted to OCD upon completion of the test.
11. Class V Wells: No Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be closed unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.
12. Housekeeping: All systems designed for spill collection/prevention will be inspected weekly and after each storm event to ensure proper operation and to prevent overtopping or system failure. A record of inspections will be retained on site for a period of five years.

13. Spill Reporting: All spills/releases will be reported pursuant to OCD Rule 116 and WQCC 1203 to the OCD Artesia District Office.
14. Transfer of Discharge Plan: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge plan. A written commitment to comply with the terms and conditions of the previously approved discharge plan must be submitted by the purchaser and approved by the OCD prior to transfer.
15. Storm Water Plan: The facility will have an approved storm water run-off plan.
16. Closure: The OCD will be notified when operations of the **Roswell Compressor Station** are discontinued for a period in excess of six months. Prior to closure of the **Roswell Compressor Station**, the Director will submit a closure plan for approval. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.
17. Conditions accepted by: **Transwestern Pipeline Company**, by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. **Transwestern Pipeline Company** further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Transwestern Pipeline Company

Print Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_



December 16, 1997

**Enron Transportation  
& Storage**

*Services Provided by Northern  
Natural Gas Company and  
Transwestern Pipeline Company  
Summit Office Building  
4001 Indian School Road, NE, Suite 250  
Albuquerque, NM 87110  
(505) 260-4000  
Fax (505) 254-1437*

Mr. Roger Anderson  
Oil Conservation Division  
2040 South pacheco  
Santa Fe, New Mexico 87504

Reference: Underground Drain Line Testing, Transwestern Pipeline Company'  
Compressor Station # 9 Roswell New Mexico GW- 52

Dear Mr. Anderson:

The following report presents the results of the underground drain line testing at the Transwestern Pipeline Company ( Transwestern) Compressor Station # 9 Roswell, New Mexico facility. This station is currently operating under OCD discharge plan GW-52, which requires drain line testing to be conducted on all underground drain lines. The testing program was conducted using the methodology submitted by letter on July 8, 1997 to the OCD, which was then approved by the agency on July 16, 1997.

**METHODOLOGY**

The testing program was initiated on November 4 - 11, 1997. The following drain line systems at the facility were hydrostatically tested:

<u>Drain Line System</u>	<u>Length of Line (ft.)</u>	<u>Size of pipe (in.)</u>
West Texas Pig Receiver to PLL <sup>(2)</sup> Tank	195	2.0
Mist Extractor to PLL Tank	63	2.0
PLL Tank to Truck Loading Point	111	4.0
OWW <sup>(1)</sup> to Truck Loading Point	111	4.0
Wash Bay to West Texas Pig Trap Sump	90	4.0
Comp. Bldg. OWW Sump To OWW Tank	1,230	2.0
Comp. Bldg. To OWW Sump	426	4" drain lines to 8" Header
(1)Oily Waste Water		
(2)Pipe Line Liquids		

For each drain line tested, the following methodology was employed. A test header was constructed by isolating each drain line and attaching and sealing a 90 degree elbow of the


same pipe diameter to one of the two drain pipe ends. A seven 7 ft vertical pipe of the same pipe diameter was attached and sealed to the exposed vertical end of the 90 degree elbow. At the horizontal terminal end of the exposed drain pipe a test plug was temporarily inserted and sealed. The drain line and attached test header was then filled with water to a marked level on the vertical pipe of 6.95 ft. above the horizontal elevation of the drain pipe. This water level head created a positive pressure of 3.0 psi upon the existing piping system. This pressure was then allowed to equilibrate in the pipe and the test was conducted for a period of thirty minutes to determine water loss in the pipe. Any water leakage will be indicated by a drop in the water level of the vertical pipe below the 6.95 ft mark.

### RESULTS

The results of the drain line testing recorded no instances where the water level in the vertical stand pipe receded below the water level mark of 6.95 ft. Based upon the results of this study, Transwestern concludes that the integrity of all underground drain line systems at this facility are intact and that no further actions are required on these lines.

Should you desire additional information concerning this testing procedure or report, contact Mr. James Russell at (505) 260-4011 or Mr. Larry Campbell at (505) 625-8022.

Sincerely,

  
James R. Russell  
Environmental Specialist

xc: Rich Jolly  
Larry Campbell  
Roswell Team

[illegible]





Cypress Engineering

HAZARDOUS  
WASTE CLEAN  
UP ON HILL

Sandra L. Sharp  
Sr. Environmental Engineer

10235 West Little York, Suite 256  
Houston, Texas 77040-3229

(713) 856-7980 office

(713) 856-7981 fax

\* (713) 646-7252 @ENRON

cypress@neosoft.com

AFFIDAVIT OF PUBLICATION

COUNTY OF CHAVES  
STATE OF NEW MEXICO

I, Fran Saunders  
Legals Clerk

Of the Roswell Daily Record, a daily newspaper published at Roswell, New Mexico, do solemnly swear that the clipping hereto attached was published in the regular and entire issue of said paper and not in a supplement thereof for a period of:

one time

beginning with issue dated  
June 16th 2000

and ending with the issue dated  
June 16th 2000

*Fran Saunders*  
Clerk

Sworn and subscribed to before me

This 21st day of  
June 2000

*Marylou S. Skipper*  
Notary Public

My Commission expires  
July 25, 2002

(SEAL)

Publish, June 16, 2000

NOTICE OF PUBLICATION

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505. Telephone (505) 827-7131:

(GW-052) Transwestern Pipeline Company, Mr. Larry Campbell, Division Environmental Specialist, 6381 North Main, Roswell, New Mexico, 88201, has submitted a renewal application for the previously approved discharge plan for their Roswell Compressor Station located in the SW/4 SW/4 of Section 21, Township 9 South, Range 24 East, NMPM, Chaves County, New Mexico. Approximately 1000 gallon per day of wastewater will be transferred to an offsite livestock-watering tank. The wastewater has a total dissolved solids concentration of approximately 1250 mg/l. Groundwater most likely to be affected by a spill, leak or accidental discharge to the surface is at a depth of approximately 240 feet with a total dissolved solids concentration of approximately 1551 mg/l. The discharge plan addresses how spills, leaks and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modifications, the director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and a public hearing may be requested by any interested person. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the Director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 8th day of June 2000.

SEAL

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION  
Roger C. Anderson  
for: LORI WROTENBERY, Director

AFFIDAVIT OF PUBLICATION

COUNTY OF CHAVES  
STATE OF NEW MEXICO

I, Fran Saunders  
Legals Clerk

Of the Roswell Daily Record, a daily newspaper published at Roswell, New Mexico, do solemnly swear that the clipping hereto attached was published in the regular and entire issue of said paper and not in a supplement thereof for a period of:

one time

beginning with issue dated  
August 24th 2000

and ending with the issue dated  
August 24th 2000

*Fran Saunders*  
Clerk

Sworn and subscribed to before me

This 25th day of  
August 2000

*Marylon S. Shipper*  
Notary Public

My Commission expires  
July 25, 2002

(SEAL)

Publish August 24, 2000

NOTICE OF PUBLICATION

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505) 827-7131:

(GW-052) Transwestern Pipeline Company, Mr. Larry Campbell, Division Environmental Scientist, 6381 North Main, Roswell, New Mexico 88201, has submitted a renewal application for the previously approved discharge plan for their Roswell Compressor Station, located in the SW/4 SW/4 of Section 21, Township 9 South, Range 24 East, NMPM, Chaves County, New Mexico. Approximately 1000 gallons per day of wastewater will be transferred to an offsite livestock-watering tank. The wastewater has a total dissolved solids concentration of about 1250 mg/l. Groundwater most likely to be affected by a spill, leak or accidental discharge to the surface is at a depth of approximately 240 feet with a total dissolved solids concentration of approximately 1551 mg/l. The discharge plan addresses how spills, leaks and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and a public hearing may be requested by any interested person. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 14th day of August 2000.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION  
Roger Anderson  
ROGER ANDERSON for  
LORI WROTENBERY, Director

SEAL

THE SANTA FE  
**NEW MEXICAN**

Founded 1849

*File*

NM OIL CONSERVATION DIVISION  
ATTN: DONNA DOMINGUEZ  
2040 S. PACHECO ST  
SANTA FE, NM 87505

AD NUMBER: 153987 ACCOUNT: 56689  
LEGAL NO: 67563 P.O.#: 00199000278  
185 LINES 1 time(s) at \$ 81.55  
AFFIDAVITS: 5.25  
TAX: 5.43  
TOTAL: 92.23

**NOTICE OF PUBLICATION**

**STATE OF NEW MEXICO  
ENERGY, MINERALS AND  
NATURAL RESOURCES  
DEPARTMENT  
OIL CONSERVATION  
DIVISION**

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(GW-052) Transwestern Pipeline Company, Mr. Larry Campbell, Division Environmental Specialist, 6381 North Main, Roswell, New Mexico, 88201, has submitted a renewal application for the previously approved discharge plan for their Roswell Compressor Station located in the SW/4 SW/4 of Section 21, Township 9 South, Range 24 East, NMPM, Chaves County, New Mexico. Approximately 1000 gallons per day of wastewater will be transferred to an offsite livestock-watering tank. The wastewater has a total dissolved solids concentration of approximately 1250 mg/l. Groundwater most likely to be affected by a spill, leak or accidental discharge to the surface is at a depth of approximately 240 feet with a total dissolved solids concentration of approximately 1551 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 8th day of June, 2000.

STATE OF NEW MEXICO  
OIL CONSERVATION  
DIVISION  
LORI WROTENBERY,  
Director

Legal #67563  
Pub. June 15, 2000

**AFFIDAVIT OF PUBLICATION**

STATE OF NEW MEXICO  
COUNTY OF SANTA FE

I, Betsy Peener being first duly sworn declare and say that I am Legal Advertising Representative of THE SANTA FE NEW MEXICAN, a daily newspaper published in the English language, and having a general circulation in the Counties of Santa Fe and Los Alamos, State of New Mexico and being a Newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 on Session Laws of 1937; that the publication #67563 a copy of which is hereto attached was published in said newspaper 1 day(s) between 06/15/2000 and 06/15/2000 and that the notice was published in the newspaper proper and not in any supplement; the first publication being on the 15 day of June, 2000 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

/s/

Betsy Peener  
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 15 day of June A.D., 2000

Notary

Candace R. Dunton  
Commission Expires 11/16/2003

*OK to pay  
Ed Martin*

THE SANTA FE  
**NEW MEXICAN**  
Founded 1849

NM OIL CONSERVATION DIVISION  
ATTN: DONNA DOMINGUEZ  
2040 S. PACHECO ST.  
SANTA FE, NM 87505

AD NUMBER: 166720      ACCOUNT: 56689  
LEGAL NO: 67943      P.O.#: 00199000278  
183 LINES      1 time(s) at \$ 80.67  
AFFIDAVITS: 5.25  
TAX: 5.37  
TOTAL: 91.29

**NOTICE OF PUBLICATION**

**STATE OF NEW MEXICO  
ENERGY, MINERALS AND  
NATURAL RESOURCES  
DEPARTMENT  
OIL CONSERVATION  
DIVISION**

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505) 827-7131:

**GW-052) Transwestern Pipeline Company, Mr. Barry Campbell, Division Environmental Scientist, 1381 North Main, Roswell, New Mexico 88201, has submitted a renewal application for the previously approved discharge plan for their Roswell Compressor Station, located in the SW/4 SW/4 of Section 21, Township 9 South, Range 24 East, IMPM, Chaves County, New Mexico. Approximately 1000 gallons per day of wastewater will be transferred to an offsite livestock-watering tank. The wastewater has a total dissolved solids concentration of about 1250 mg/l. Groundwater most likely to be affected by a spill, leak or accidental discharge to the surface is at a depth of approximately 240 feet with a total dissolved solids concentration of approximately 1551 mg/l. The discharge plan addresses flow spills, leaks and other accidental discharges to the surface will be managed.**

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and a public hearing may be requested by any interested person. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this **14th day of August 2000.**

STATE OF NEW MEXICO  
OIL CONSERVATION  
DIVISION  
LORI WROTENBERY,  
Director  
Legal #67943  
Pub. August 22, 2000

**AFFIDAVIT OF PUBLICATION**

**STATE OF NEW MEXICO  
COUNTY OF SANTA FE**

I, BARRY CAMPBELL being first duly sworn declare and say that I am Legal Advertising Representative of THE SANTA FE NEW MEXICAN, a daily newspaper published in the English language, and having a general circulation in the Counties of Santa Fe and Los Alamos, State of New Mexico and being a Newspaper duly qualified to publish legal notices and advertisements under the provisions of Chapter 167 on Session Laws of 1937; that the publication #67943 a copy of which is hereto attached was published in said newspaper 1 day(s) between 08/22/2000 and 08/22/2000 and that the notice was published in the newspaper proper and not in any supplement; the first publication being on the 22 day of August, 2000 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

/S/

BARRY CAMPBELL  
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this  
22 day of August A.D., 2000

Notary

KEVIN E. HARDING

Commission Expires

11/23/03



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**

Governor

**Jennifer A. Salisbury**

Cabinet Secretary

**Lori Wrotenbery**

Director

**Oil Conservation Division**

## NOTICE OF PUBLICATION

### STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505) 827-7131:

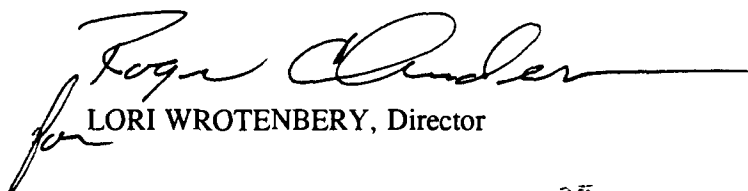
**(GW-052) Transwestern Pipeline Company, Mr. Larry Campbell, Division Environmental Scientist, 6381 North Main, Roswell, New Mexico 88201, has submitted a renewal application for the previously approved discharge plan for their Roswell Compressor Station, located in the SW/4 SW/4 of Section 21, Township 9 South, Range 24 East, NMPM, Chaves County, New Mexico. Approximately 1000 gallons per day of wastewater will be transferred to an offsite livestock-watering tank. The wastewater has a total dissolved solids concentration of about 1250 mg/l. Groundwater most likely to be affected by a spill, leak or accidental discharge to the surface is at a depth of approximately 240 feet with a total dissolved solids concentration of approximately 1551 mg/l. The discharge plan addresses how spills, leaks and other accidental discharges to the surface will be managed.**

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If no public hearing is held, the Director will approve or disapprove the proposed plan based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the plan and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this *14th day of August 2000*.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
LORI WROTENBERY, Director

S E A L

**Transwestern Pipeline Company**  
TECHNICAL OPERATIONS  
6381 North Main • Roswell, New Mexico 88201

May 30, 2000

Mr. Wayne Price  
Oil Conservation Division  
2040 South Pacheco  
Santa Fe, New Mexico 87505

Re: Renewal of Groundwater Discharge Plan GW-052, Roswell Compressor Station

Dear Mr. Price:

Transwestern Pipeline Company, owner and operator of the Roswell Compressor Station, requests renewal by the Oil Conservation Division (OCD) of discharge plan GW-50 for the above referenced facility. A renewal application accompanies this letter request in addition to a check (no. 0602083626) in the amount of \$50.00 to cover the applicable discharge renewal fee.

Be advised that there have been no new modifications or alterations performed or constructed at this location which would differ from those originally covered under the original discharge plan application submitted on May 15, 1989, and operating practices currently at the facility reflect operating practices which were presented in the original application.

Should you require any additional information concerning this renewal request, contact the undersigned at our Roswell Technical Operations at (505) 625-8022.

Sincerely,



Larry Campbell  
Division Environmental Specialist

xc: Arnie Bailey  
Roswell Team  
file

TRANSWESTERN PIPELINE COMPANY  
P.O. BOX 1188  
HOUSTON, TEXAS 77251-1188



05/22/2000

2000019 01 SD

0510

3

PG 1 OF 1

OIL CONSERVATION DIVISION  
P O BOX 1980  
HOBBS, NM  
88241

VENDOR NO. #409153859  
REMITTANCE STATEMENT

VOUCHER NO.	INVOICE DATE	INVOICE NUMBER	PURCHASE ORDER	AMOUNT		
				GROSS	DISCOUNT	NET
0005001155	05/22/2000	GW-052		50.00	0.00	50.00
			NM, 88201 - ATTN LARRY CAMPBELL DISCHARGE PLAN RENEWAL NOTICE FOR ROWELL COMP. STATION			TOTAL 50.00

SPECIAL INSTRUCTIONS:

MAIL TO TRANSWESTERN PIPELINE, 6381 N. MAIN, ROSWELL

DETACH AND RETAIN THIS STUB FOR YOUR RECORDS.

CHECK # 0602083626 ATTACHED BELOW





District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 South First, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
2040 South Pacheco  
Santa Fe, NM 87505

Revised March 17, 1999

Submit Original  
Plus 1 Copy  
to Santa Fe  
1 Copy to Appropriate  
District Office

**DISCHARGE PLAN APPLICATION FOR SERVICE COMPANIES,  
GAS PLANTS, REFINERIES, COMPRESSOR, AND CRUDE OIL PUMP STATIONS**

(Refer to the OCD Guidelines for assistance in completing the application)

☐ New ☒ Renewal ☐ Modification

1. Type: NATURAL GAS PIPELINE COMPRESSOR STATION (ROSWELL COMPRESSOR STATION)
2. Operator: TRANSWESTERN PIPELINE COMPANY  
Address: 6381 NORTH MAIN STREET, ROSWELL, N.M. 88201  
Contact Person: LARRY CAMPBELL Phone: 505 625-8022
3. Location: \_\_\_\_\_/4 \_\_\_\_\_/4 Section \_\_\_\_\_ Township \_\_\_\_\_ Range \_\_\_\_\_  
Submit large scale topographic map showing exact location.
4. Attach the name, telephone number and address of the landowner of the facility site.
5. Attach the description of the facility with a diagram indicating location of fences, pits, dikes and tanks on the facility.
6. Attach a description of all materials stored or used at the facility.
7. Attach a description of present sources of effluent and waste solids. Average quality and daily volume of waste water must be included.
8. Attach a description of current liquid and solid waste collection/treatment/disposal procedures.
9. Attach a description of proposed modifications to existing collection/treatment/disposal systems.
10. Attach a routine inspection and maintenance plan to ensure permit compliance.
11. Attach a contingency plan for reporting and clean-up of spills or releases.
12. Attach geological/hydrological information for the facility. Depth to and quality of ground water must be included.
13. Attach a facility closure plan, and other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.

**14. CERTIFICATION**

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Larry Campbell Title: DIVISION ENVIRONMENTAL Specialist  
Signature: LARRY CAMPBELL Date: 5/30/00

ACKNOWLEDGEMENT OF RECEIPT  
OF CHECK/CASH

I hereby acknowledge receipt of check No. [REDACTED] dated 5/22/00,  
or cash received on 6/7/00 in the amount of \$ 50.00  
from TRANSWESTERN PIPELINE CO.  
for ROSWELL COMPRESSOR STATION GW-52  
50-

Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_  
(Facility Name) (DP No.)

Submitted to ASD by: ED MARTIN Date: 6/8/00

Received in ASD by: \_\_\_\_\_ Date: \_\_\_\_\_

Filing Fee ☒ New Facility \_\_\_\_\_ Renewal \_\_\_\_\_

Modification \_\_\_\_\_ Other \_\_\_\_\_  
(Legend)

Organization Code 521.07 Applicable FY 2000

To be deposited in the Water Quality Management Fund.

Full Payment ☒ or Annual Increment \_\_\_\_\_



TRANSWESTERN PIPELINE COMPANY  
P.O. BOX 1188  
HOUSTON, TEXAS 77251-1188

62-20  
311

No. [REDACTED]

05/22/2000

PAY TO THE  
ORDER OF

OIL CONSERVATION DIVISION  
P O BOX 1980  
HOBBS, NM  
88241

\*\*\*\*\*\$50.00

NOT VALID AFTER 90 DAYS

Fifty and 00/100 Dollars

JMCMahan

AUTHORIZED SIGNATURE





NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT

Jennifer A. Salisbury  
CABINET SECRETARY

Oil Conservation Div.  
Environmental Bureau  
2040 S. Pacheco  
Santa Fe, NM 87505

**Memorandum of Meeting or Conversation**

Telephone \_\_\_\_\_  
Personal \_\_\_\_\_  
E-Mail   X  

Time: 11am  
Date: 5/17/00

Originating Party: Wayne Price-OCD

Other Parties: Larry Campbell- Transwestern Pipeline

Subject: Discharge Plan Renewal Notice for the following Facilities:

GW-197	Monument Turbine St.	expires 08/30/00
GW-052	Roswell Compressor St.	expires 11/09/00

**WQCC 3106.F.** If the holder of an approved discharge plan submits an application for discharge plan renewal at least 120 days before the discharge plan expires, and the discharger is not in violation of the approved discharge plan on the date of its expiration, then the existing approved discharge plan for the same activity shall not expire until the application for renewal has been approved or disapproved. A discharge plan continued under this provision remains fully effective and enforceable. An application for discharge plan renewal must include and adequately address all of the information necessary for evaluation of a new discharge plan. Previously submitted materials may be included by reference provided they are current, readily available to the secretary and sufficiently identified to be retrieved. [12-1-95]

**Discussion:** Discussed WQCC 3106F and gave notice to submit Discharge Plan renewal application with \$50.00 filing fee for the above listed facilities.

**Conclusions or Agreements:**

Transwestern may submit Discharge Plan application only and refer to existing discharge plan if site has no changes. DP applications are on OCD's web page  
<http://www.emnrd.state.nm.us/ocd/>

Signed: *Wayne Price*

CC: Larry Campbell E-mail [lcampbe@enron.com](mailto:lcampbe@enron.com)



**NEW MEXICO ENERGY, MINERALS  
& NATURAL RESOURCES DEPARTMENT**

OIL CONSERVATION DIVISION  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

May 17, 1999

Mr. Bill Kendrick  
ENRON Gas Pipeline Group  
P.O. Box 1188  
Houston, Texas 77251-1188

**RE: GROUND WATER ANALYSES  
ROSWELL COMPRESSOR STATION**

Dear Mr. Kendrick:

Enclosed you will find copies of the New Mexico Oil Conservation Division's (OCD) ground water sample analyses that the OCD split with ENRON Gas Pipeline Group (ENRON) during the March 30, 1999 monitor well sampling at the ENRON Roswell Compressor Station.

If you have any questions, please call me at (505) 827-7154.

Sincerely,

A handwritten signature in cursive script, appearing to read "Will Olson".

William C. Olson  
Hydrologist  
Environmental Bureau

xc: OCD Artesia District Office  
George Robinson, Cypress Engineering Services, Inc.  
James Bearzi, NMED Hazardous & Radioactive Materials Bureau Chief

PINNACLE  
LABORATORIES

2709-D Pan American Freeway NE  
Albuquerque, New Mexico 87107  
Phone (505) 344-3777  
Fax (505) 344-4413

Pinnacle Lab ID number **903096**  
April 01, 1999

NMOCD  
2040 S. PACHECO  
SANTA FE, NM 87505

RECEIVED  
APR 2 1999  
LABORATORY

Project Name ENRON-ROSWELL  
Project Number (none)

Attention: BILL OLSON

On 3/31/99 Pinnacle Laboratories, Inc. Inc., (ADHS License No. AZ0592), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.



Kimberly D. McNeill  
Project Manager



H. Mitchell Rubenstein, Ph. D.  
General Manager

MR: mt

Enclosure

PINNACLE  
LABORATORIES

2709-D Pan American Freeway NE  
Albuquerque, New Mexico 87107  
Phone (505) 344-3777  
Fax (505) 344-4413

CLIENT	: NMOCD	PINNACLE ID	: 903096
PROJECT #	: (none)	DATE RECEIVED	: 3/31/99
PROJECT NAME	: ENRON-ROSWELL	REPORT DATE	: 4/1/99
PIN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	9903301625 (MW-26)	AQUEOUS	3/30/99
02	9903301645 (MW-25D)	AQUEOUS	3/30/99
03	9903301745 (MW-24D)	AQUEOUS	3/30/99

## GC/MS RESULTS

TEST : VOLATILE ORGANICS EPA METHOD 8260  
CLIENT : NM OIL CONSERVATION DIVISION PINNACLE I.D. : 903096  
PROJECT # : NONE DATE RECEIVED : 3/31/99  
PROJECT NAME : ENRON-ROSWELL

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
903096-01	9903301625 (MW-26)	AQUEOUS	3/30/99	N/A	03/31/99	1
PARAMETER	DET. LIMIT	UNITS				

Dichlorodifluoromethane	1.0	1.6	ug/L
Chloromethane	1.0	< 1.0	ug/L
Vinyl Chloride	1.0	< 1.0	ug/L
Bromomethane	1.0	< 1.0	ug/L
Chloroethane	1.0	< 1.0	ug/L
Trichlorofluoromethane	1.0	< 1.0	ug/L
Acetone	10	< 10	ug/L
Acrolein	5.0	< 5.0	ug/L
1,1-Dichloroethene	1.0	< 1.0	ug/L
Iodomethane	1.0	< 1.0	ug/L
Methylene Chloride	1.0	< 1.0	ug/L
Acrylonitrile	5.0	< 5.0	ug/L
cis-1,2-Dichloroethene	1.0	< 1.0	ug/L
Methyl-t-butyl Ether	1.0	< 1.0	ug/L
1,1,2,1,2,2-Trichlorotrifluoroethane	1.0	1.2	ug/L
1,1-Dichloroethane	1.0	< 1.0	ug/L
trans-1,2-Dichloroethene	1.0	< 1.0	ug/L
2-Butanone	10	< 10	ug/L
Carbon Disulfide	1.0	< 1.0	ug/L
Bromochloromethane	1.0	< 1.0	ug/L
Chloroform	1.0	< 1.0	ug/L
2,2-Dichloropropane	1.0	< 1.0	ug/L
1,2-Dichloroethane	1.0	< 1.0	ug/L
Vinyl Acetate	1.0	< 1.0	ug/L
1,1,1-Trichloroethane	1.0	< 1.0	ug/L
1,1-Dichloropropene	1.0	< 1.0	ug/L
Carbon Tetrachloride	1.0	< 1.0	ug/L
Benzene	1.0	< 1.0	ug/L
1,2-Dichloropropane	1.0	< 1.0	ug/L
Trichloroethene	1.0	< 1.0	ug/L
Bromodichloromethane	1.0	< 1.0	ug/L
2-Chloroethyl Vinyl Ether	10	< 10	ug/L
cis-1,3-Dichloropropene	1.0	< 1.0	ug/L
trans-1,3-Dichloropropene	1.0	< 1.0	ug/L
1,1,2-Trichloroethane	1.0	< 1.0	ug/L
1,3-Dichloropropane	1.0	< 1.0	ug/L
Dibromomethane	1.0	< 1.0	ug/L
Toluene	1.0	< 1.0	ug/L
1,2-Dibromoethane	1.0	< 1.0	ug/L
4-Methyl-2-Pentanone	10	< 10	ug/L
2-Hexanone	10	< 10	ug/L
Dibromochloromethane	1.0	< 1.0	ug/L
Tetrachloroethene	1.0	< 1.0	ug/L
Chlorobenzene	1.0	< 1.0	ug/L
Ethylbenzene	1.0	< 1.0	ug/L
1,1,1,2-Tetrachloroethane	1.0	< 1.0	ug/L

## GC/MS RESULTS

TEST : VOLATILE ORGANICS EPA METHOD 8260  
CLIENT : NM OIL CONSERVATION DIVISION PINNACLE I.D. : 903096  
PROJECT # : NONE DATE RECEIVED : 3/31/99  
PROJECT NAME : ENRON-ROSWELL

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
903096-01	9903301625 (MW-26)	AQUEOUS	3/30/99	N/A	03/31/99	1

PARAMETER	DET. LIMIT	UNITS
m&p Xylenes	1.0 < 1.0	ug/L
o-Xylene	1.0 < 1.0	ug/L
Styrene	1.0 < 1.0	ug/L
Bromoform	1.0 < 1.0	ug/L
1,1,2,2-Tetrachloroethane	1.0 < 1.0	ug/L
1,2,3-Trichloropropane	1.0 < 1.0	ug/L
Isopropyl Benzene	1.0 < 1.0	ug/L
Bromobenzene	1.0 < 1.0	ug/L
trans-1,4-Dichloro-2-Butene	1.0 < 1.0	ug/L
n-Propylbenzene	1.0 < 1.0	ug/L
2-Chlorotoluene	1.0 < 1.0	ug/L
4-Chlorotoluene	1.0 < 1.0	ug/L
1,3,5-Trimethylbenzene	1.0 < 1.0	ug/L
tert-Butylbenzene	1.0 < 1.0	ug/L
1,2,4-Trimethylbenzene	1.0 < 1.0	ug/L
sec-Butylbenzene	1.0 < 1.0	ug/L
1,3-Dichlorobenzene	1.0 < 1.0	ug/L
1,4-Dichlorobenzene	1.0 < 1.0	ug/L
p-Isopropyltoluene	1.0 < 1.0	ug/L
1,2-Dichlorobenzene	1.0 < 1.0	ug/L
n-Butylbenzene	1.0 < 1.0	ug/L
1,2-Dibromomo-3-chloropropane	1.0 < 1.0	ug/L
1,2,4-Trichlorobenzene	1.0 < 1.0	ug/L
Naphthalene	1.0 < 1.0	ug/L
Hexachlorobutadiene	1.0 < 1.0	ug/L
1,2,3-Trichlorobenzene	1.0 < 1.0	ug/L

### SURROGATE % RECOVERY

1,2-Dichloroethane-d4	98 ( 80 - 120 )
Toluene-d8	100 ( 88 - 110 )
Bromofluorobenzene	93 ( 86 - 115 )



## GC/MS RESULTS

TEST : VOLATILE ORGANICS EPA METHOD 8260  
CLIENT : NM OIL CONSERVATION DIVISION PINNACLE I.D. : 903096  
PROJECT # : NONE DATE RECEIVED : 3/31/99  
PROJECT NAME : ENRON-ROSWELL

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
903096-02	9903301645 (MW-25D)	AQUEOUS	3/30/99	N/A	03/31/99	1
PARAMETER	DET. LIMIT		UNITS			

Dichlorodifluoromethane	1.0	< 1.0	ug/L
Chloromethane	1.0	< 1.0	ug/L
Vinyl Chloride	1.0	< 1.0	ug/L
Bromomethane	1.0	< 1.0	ug/L
Chloroethane	1.0	< 1.0	ug/L
Trichlorofluoromethane	1.0	< 1.0	ug/L
Acetone	10	< 10	ug/L
Acrolein	5.0	< 5.0	ug/L
1,1-Dichloroethene	1.0	< 1.0	ug/L
Iodomethane	1.0	< 1.0	ug/L
Methylene Chloride	1.0	< 1.0	ug/L
Acrylonitrile	5.0	< 5.0	ug/L
cis-1,2-Dichloroethene	1.0	< 1.0	ug/L
Methyl-t-butyl Ether	1.0	< 1.0	ug/L
1,1,2,1,2,2-Trichlorotrifluoroethane	1.0	< 1.0	ug/L
1,1-Dichloroethane	1.0	< 1.0	ug/L
trans-1,2-Dichloroethene	1.0	< 1.0	ug/L
2-Butanone	10	< 10	ug/L
Carbon Disulfide	1.0	< 1.0	ug/L
Bromochloromethane	1.0	< 1.0	ug/L
Chloroform	1.0	< 1.0	ug/L
2,2-Dichloropropane	1.0	< 1.0	ug/L
1,2-Dichloroethane	1.0	< 1.0	ug/L
Vinyl Acetate	1.0	< 1.0	ug/L
1,1,1-Trichloroethane	1.0	< 1.0	ug/L
1,1-Dichloropropene	1.0	< 1.0	ug/L
Carbon Tetrachloride	1.0	< 1.0	ug/L
Benzene	1.0	< 1.0	ug/L
1,2-Dichloropropane	1.0	< 1.0	ug/L
Trichloroethene	1.0	< 1.0	ug/L
Bromodichloromethane	1.0	< 1.0	ug/L
2-Chloroethyl Vinyl Ether	10	< 10	ug/L
cis-1,3-Dichloropropene	1.0	< 1.0	ug/L
trans-1,3-Dichloropropene	1.0	< 1.0	ug/L
1,1,2-Trichloroethane	1.0	< 1.0	ug/L
1,3-Dichloropropane	1.0	< 1.0	ug/L
Dibromomethane	1.0	< 1.0	ug/L
Toluene	1.0	< 1.0	ug/L
1,2-Dibromoethane	1.0	< 1.0	ug/L
4-Methyl-2-Pentanone	10	< 10	ug/L
2-Hexanone	10	< 10	ug/L
Dibromochloromethane	1.0	< 1.0	ug/L
Tetrachloroethene	1.0	< 1.0	ug/L
Chlorobenzene	1.0	< 1.0	ug/L
Ethylbenzene	1.0	< 1.0	ug/L
1,1,1,2-Tetrachloroethane	1.0	< 1.0	ug/L

GC/MS RESULTS

TEST : VOLATILE ORGANICS EPA METHOD 8260  
CLIENT : NM OIL CONSERVATION DIVISION PINNACLE I.D. : 903096  
PROJECT # : NONE DATE RECEIVED : 3/31/99  
PROJECT NAME : ENRON-ROSWELL

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
903096-02	9903301645 (MW-25D)	AQUEOUS	3/30/99	N/A	03/31/99	1

PARAMETER	DET. LIMIT	UNITS
m&p Xylenes	1.0 < 1.0	ug/L
o-Xylene	1.0 < 1.0	ug/L
Styrene	1.0 < 1.0	ug/L
Bromoform	1.0 < 1.0	ug/L
1,1,2,2-Tetrachloroethane	1.0 < 1.0	ug/L
1,2,3-Trichloropropane	1.0 < 1.0	ug/L
Isopropyl Benzene	1.0 < 1.0	ug/L
Bromobenzene	1.0 < 1.0	ug/L
trans-1,4-Dichloro-2-Butene	1.0 < 1.0	ug/L
n-Propylbenzene	1.0 < 1.0	ug/L
2-Chlorotoluene	1.0 < 1.0	ug/L
4-Chlorotoluene	1.0 < 1.0	ug/L
1,3,5-Trimethylbenzene	1.0 < 1.0	ug/L
tert-Butylbenzene	1.0 < 1.0	ug/L
1,2,4-Trimethylbenzene	1.0 < 1.0	ug/L
sec-Butylbenzene	1.0 < 1.0	ug/L
1,3-Dichlorobenzene	1.0 < 1.0	ug/L
1,4-Dichlorobenzene	1.0 < 1.0	ug/L
p-Isopropyltoluene	1.0 < 1.0	ug/L
1,2-Dichlorobenzene	1.0 < 1.0	ug/L
n-Butylbenzene	1.0 < 1.0	ug/L
1,2-Dibromomo-3-chloropropane	1.0 < 1.0	ug/L
1,2,4-Trichlorobenzene	1.0 < 1.0	ug/L
Naphthalene	1.0 < 1.0	ug/L
Hexachlorobutadiene	1.0 < 1.0	ug/L
1,2,3-Trichlorobenzene	1.0 < 1.0	ug/L

SURROGATE % RECOVERY

1,2-Dichloroethane-d4	99 ( 80 - 120 )
Toluene-d8	99 ( 88 - 110 )
Bromofluorobenzene	94 ( 86 - 115 )

## GC/MS RESULTS

TEST : VOLATILE ORGANICS EPA METHOD 8260  
CLIENT : NM OIL CONSERVATION DIVISION PINNACLE I.D. : 903096  
PROJECT # : NONE DATE RECEIVED : 3/31/99  
PROJECT NAME : ENRON-ROSWELL

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
903096-03	9903301745 (MW-24D)	AQUEOUS	3/30/99	N/A	03/31/99	1
PARAMETER	DET. LIMIT	UNITS				

Dichlorodifluoromethane	1.0	< 1.0	ug/L
Chloromethane	1.0	< 1.0	ug/L
Vinyl Chloride	1.0	< 1.0	ug/L
Bromomethane	1.0	< 1.0	ug/L
Chloroethane	1.0	< 1.0	ug/L
Trichlorofluoromethane	1.0	< 1.0	ug/L
Acetone	10	< 10	ug/L
Acrolein	5.0	< 5.0	ug/L
1,1-Dichloroethene	1.0	< 1.0	ug/L
Iodomethane	1.0	< 1.0	ug/L
Methylene Chloride	1.0	< 1.0	ug/L
Acrylonitrile	5.0	< 5.0	ug/L
cis-1,2-Dichloroethene	1.0	< 1.0	ug/L
Methyl-t-butyl Ether	1.0	< 1.0	ug/L
1,1,2,1,2,2-Trichlorotrifluoroethane	1.0	< 1.0	ug/L
1,1-Dichloroethane	1.0	< 1.0	ug/L
trans-1,2-Dichloroethene	1.0	< 1.0	ug/L
2-Butanone	10	< 10	ug/L
Carbon Disulfide	1.0	< 1.0	ug/L
Bromochloromethane	1.0	< 1.0	ug/L
Chloroform	1.0	< 1.0	ug/L
2,2-Dichloropropane	1.0	< 1.0	ug/L
1,2-Dichloroethane	1.0	< 1.0	ug/L
Vinyl Acetate	1.0	< 1.0	ug/L
1,1,1-Trichloroethane	1.0	< 1.0	ug/L
1,1-Dichloropropene	1.0	< 1.0	ug/L
Carbon Tetrachloride	1.0	< 1.0	ug/L
Benzene	1.0	< 1.0	ug/L
1,2-Dichloropropane	1.0	< 1.0	ug/L
Trichloroethene	1.0	< 1.0	ug/L
Bromodichloromethane	1.0	< 1.0	ug/L
2-Chloroethyl Vinyl Ether	10	< 10	ug/L
cis-1,3-Dichloropropene	1.0	< 1.0	ug/L
trans-1,3-Dichloropropene	1.0	< 1.0	ug/L
1,1,2-Trichloroethane	1.0	< 1.0	ug/L
1,3-Dichloropropane	1.0	< 1.0	ug/L
Dibromomethane	1.0	< 1.0	ug/L
Toluene	1.0	< 1.0	ug/L
1,2-Dibromoethane	1.0	< 1.0	ug/L
4-Methyl-2-Pentanone	10	< 10	ug/L
2-Hexanone	10	< 10	ug/L
Dibromochloromethane	1.0	< 1.0	ug/L
Tetrachloroethene	1.0	< 1.0	ug/L
Chlorobenzene	1.0	< 1.0	ug/L
Ethylbenzene	1.0	< 1.0	ug/L
1,1,1,2-Tetrachloroethane	1.0	< 1.0	ug/L

## GC/MS RESULTS

TEST : VOLATILE ORGANICS EPA METHOD 8260  
CLIENT : NM OIL CONSERVATION DIVISION PINNACLE I.D. : 903096  
PROJECT # : NONE DATE RECEIVED : 3/31/99  
PROJECT NAME : ENRON-ROSWELL

SAMPLE ID #	CLIENT ID	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
903096-03	9903301745 (MW-24D)	AQUEOUS	3/30/99	N/A	03/31/99	1

PARAMETER	DET. LIMIT	UNITS
m&p Xylenes	1.0	< 1.0 ug/L
o-Xylene	1.0	< 1.0 ug/L
Styrene	1.0	< 1.0 ug/L
Bromoform	1.0	< 1.0 ug/L
1,1,2,2-Tetrachloroethane	1.0	< 1.0 ug/L
1,2,3-Trichloropropane	1.0	< 1.0 ug/L
Isopropyl Benzene	1.0	< 1.0 ug/L
Bromobenzene	1.0	< 1.0 ug/L
trans-1,4-Dichloro-2-Butene	1.0	< 1.0 ug/L
n-Propylbenzene	1.0	< 1.0 ug/L
2-Chlorotoluene	1.0	< 1.0 ug/L
4-Chlorotoluene	1.0	< 1.0 ug/L
1,3,5-Trimethylbenzene	1.0	< 1.0 ug/L
tert-Butylbenzene	1.0	< 1.0 ug/L
1,2,4-Trimethylbenzene	1.0	< 1.0 ug/L
sec-Butylbenzene	1.0	< 1.0 ug/L
1,3-Dichlorobenzene	1.0	< 1.0 ug/L
1,4-Dichlorobenzene	1.0	< 1.0 ug/L
p-Isopropyltoluene	1.0	< 1.0 ug/L
1,2-Dichlorobenzene	1.0	< 1.0 ug/L
n-Butylbenzene	1.0	< 1.0 ug/L
1,2-Dibromomo-3-chloropropane	1.0	< 1.0 ug/L
1,2,4-Trichlorobenzene	1.0	< 1.0 ug/L
Naphthalene	1.0	< 1.0 ug/L
Hexachlorobutadiene	1.0	< 1.0 ug/L
1,2,3-Trichlorobenzene	1.0	< 1.0 ug/L

### SURROGATE % RECOVERY

1,2-Dichloroethane-d4	102 ( 80 - 120 )
Toluene-d8	98 ( 88 - 110 )
Bromofluorobenzene	93 ( 86 - 115 )

GC/MS RESULTS

TEST : VOLATILE ORGANICS EPA METHOD 8260  
CLIENT : NM OIL CONSERVATION DIVISION PINNACLE I.D. : 903096  
PROJECT # : NONE  
PROJECT NAME : ENRON-ROSWELL

SAMPLE ID #	BATCH	MATRIX	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
REAGENT BLANK	033199	AQUEOUS	N/A	03/31/99	1

PARAMETER	DET. LIMIT	UNITS
Dichlorodifluoromethane	1.0 < 1.0	ug/L
Chloromethane	1.0 < 1.0	ug/L
Vinyl Chloride	1.0 < 1.0	ug/L
Bromomethane	1.0 < 1.0	ug/L
Chloroethane	1.0 < 1.0	ug/L
Trichlorofluoromethane	1.0 < 1.0	ug/L
Acetone	10 < 10	ug/L
Acrolein	5.0 < 5.0	ug/L
1,1-Dichloroethene	1.0 < 1.0	ug/L
Iodomethane	1.0 < 1.0	ug/L
Methylene Chloride	1.0 < 1.0	ug/L
Acrylonitrile	5.0 < 5.0	ug/L
cis-1,2-Dichloroethene	1.0 < 1.0	ug/L
Methyl-t-butyl Ether	1.0 < 1.0	ug/L
1,1,2,1,2,2-Trichlorotrifluoroethane	1.0 < 1.0	ug/L
1,1-Dichloroethane	1.0 < 1.0	ug/L
trans-1,2-Dichloroethene	1.0 < 1.0	ug/L
2-Butanone	10 < 10	ug/L
Carbon Disulfide	1.0 < 1.0	ug/L
Bromochloromethane	1.0 < 1.0	ug/L
Chloroform	1.0 < 1.0	ug/L
2,2-Dichloropropane	1.0 < 1.0	ug/L
1,2-Dichloroethane	1.0 < 1.0	ug/L
Vinyl Acetate	1.0 < 1.0	ug/L
1,1,1-Trichloroethane	1.0 < 1.0	ug/L
1,1-Dichloropropene	1.0 < 1.0	ug/L
Carbon Tetrachloride	1.0 < 1.0	ug/L
Benzene	1.0 < 1.0	ug/L
1,2-Dichloropropane	1.0 < 1.0	ug/L
Trichloroethene	1.0 < 1.0	ug/L
Bromodichloromethane	1.0 < 1.0	ug/L
2-Chloroethyl Vinyl Ether	10 < 10	ug/L
cis-1,3-Dichloropropene	1.0 < 1.0	ug/L
trans-1,3-Dichloropropene	1.0 < 1.0	ug/L
1,1,2-Trichloroethane	1.0 < 1.0	ug/L
1,3-Dichloropropane	1.0 < 1.0	ug/L
Dibromomethane	1.0 < 1.0	ug/L
Toluene	1.0 < 1.0	ug/L
1,2-Dibromoethane	1.0 < 1.0	ug/L
4-Methyl-2-Pentanone	10 < 10	ug/L
2-Hexanone	10 < 10	ug/L
Dibromochloromethane	1.0 < 1.0	ug/L
Tetrachloroethene	1.0 < 1.0	ug/L
Chlorobenzene	1.0 < 1.0	ug/L
Ethylbenzene	1.0 < 1.0	ug/L

GC/MS RESULTS

TEST : VOLATILE ORGANICS EPA METHOD 8260  
CLIENT : NM OIL CONSERVATION DIVISION PINNACLE I.D. : 903096  
PROJECT # : NONE  
PROJECT NAME : ENRON-ROSWELL

SAMPLE ID #	BATCH	MATRIX	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
REAGENT BLANK	033199	AQUEOUS	N/A	03/31/99	1

PARAMETER	DET. LIMIT	UNITS
1,1,1,2-Tetrachloroethane	1.0 < 1.0	ug/L
m&p Xylenes	1.0 < 1.0	ug/L
o-Xylene	1.0 < 1.0	ug/L
Styrene	1.0 < 1.0	ug/L
Bromoform	1.0 < 1.0	ug/L
1,1,2,2-Tetrachloroethane	1.0 < 1.0	ug/L
1,2,3-Trichloropropane	1.0 < 1.0	ug/L
Isopropyl Benzene	1.0 < 1.0	ug/L
Bromobenzene	1.0 < 1.0	ug/L
trans-1,4-Dichloro-2-Butene	1.0 < 1.0	ug/L
n-Propylbenzene	1.0 < 1.0	ug/L
2-Chlorotoluene	1.0 < 1.0	ug/L
4-Chlorotoluene	1.0 < 1.0	ug/L
1,3,5-Trimethylbenzene	1.0 < 1.0	ug/L
tert-Butylbenzene	1.0 < 1.0	ug/L
1,2,4-Trimethylbenzene	1.0 < 1.0	ug/L
sec-Butylbenzene	1.0 < 1.0	ug/L
1,3-Dichlorobenzene	1.0 < 1.0	ug/L
1,4-Dichlorobenzene	1.0 < 1.0	ug/L
p-Isopropyltoluene	1.0 < 1.0	ug/L
1,2-Dichlorobenzene	1.0 < 1.0	ug/L
n-Butylbenzene	1.0 < 1.0	ug/L
1,2-Dibromomo-3-chloropropane	1.0 < 1.0	ug/L
1,2,4-Trichlorobenzene	1.0 < 1.0	ug/L
Naphthalene	1.0 < 1.0	ug/L
Hexachlorobutadiene	1.0 < 1.0	ug/L
1,2,3-Trichlorobenzene	1.0 < 1.0	ug/L

SURROGATE % RECOVERY

1,2-Dichloroethane-d4	101 ( 80 - 120 )
Toluene-d8	97 ( 88 - 110 )
Bromofluorobenzene	94 ( 86 - 115 )

PINNACLE  
LABORATORIES

2709-D Pan American Freeway NE  
Albuquerque, New Mexico 87107  
Phone (505) 344-3777  
Fax (505) 344-4413

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

TEST	: VOLATILE ORGANICS EPA METHOD 8260	PINNACLE I.D.	: 903096
SPIKED SAMPLE	: 903096-01	DATE ANALYZED	: 3/31/99
CLIENT	: NM OIL CONSERVATION DIVISION	UNITS	: ug/L (PPB)
PROJECT #	: NONE		
PROJECT NAME	: ENRON-ROSWELL		

COMPOUND	SAMPLE CONC.	SPIKE ADDED	MS RESULT	MSD RESULT	MS %REC	MSD %REC	RPD	QC LIMITS RPD	QC LIMITS %RECOVERY
1,1-DICHLOROETHENE	<1.0	50.0	55.4	53.8	111	108	3	14	61-145
BENZENE	<1.0	50.0	58.5	56.2	117	112	4	11	76-127
TRICHLOROETHENE	<1.0	50.0	52.3	50.7	105	101	3	14	71-120
TOLUENE	<1.0	50.0	53.9	51.9	108	104	4	13	76-125
CHLOROBENZENE	<1.0	50.0	53.8	53.1	108	106	1	13	75-130

## CHAIN OF CUSTODY

DATE: 3/31/99 PAGE: 1 OF 1

PLI Accession #:

903096

**SHADED AREAS ARE FOR LAB USE ONLY.**

**PLEASE FILL THIS FORM IN COMPLETELY.**

PROJECT MANAGER: Bill Olson

COMPANY: NM Oil Conservation Division

ADDRESS: 2049 S. Pacheco  
Santa Fe NM 87505

PHONE: (505) 827-7154

FAX: (505) 827-8177

BILL TO: Same

COMPANY: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

[illegible]

ANALYSIS REQUEST									
Petroleum Hydrocarbons (418.1) TRPH									
(MOD.8015) Diesel/Direct Inject									
(M8015) Gas/Purge & Trap									
8021 (BTEX)/8015 (Gasoline) MTBE									
8021 (BTEX) <input type="checkbox"/> MTBE <input type="checkbox"/> TMB <input type="checkbox"/> PCE									
8021 (TCL)									
8021 (EDX)									
8021 (HALO)									
8021 (CUST)									
504.1 EDB <input type="checkbox"/> / DBCP <input type="checkbox"/>									
8260 (TCL) Volatile Organics									
8260 (Full) Volatile Organics	2	2							
8260 (CUST) Volatile Organics									
8260 (Landfill) Volatile Organics									
Pesticides /PCB (608/8081/8082)									
Herbicides (615/8151)									
Base/Neutral/Acid Compounds GC/MS (625/8270)									
Polynuclear Aromatics (610/8310/8270-SIMS)									
General Chemistry:									
Priority Pollutant Metals (13)									
Target Analyte List Metals (23)									
RCRA Metals (8)									
RCRA Metals by TCLP (Method 1311)									
Metals:									
NUMBER OF CONTAINERS	3	3							

PROJECT INFORMATION		PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS		RELINQUISHED BY: 1.		RELINQUISHED BY: 2.	
PROJ. NO.:		(RUSH) <input type="checkbox"/> 24hr <input type="checkbox"/> 48hr <input type="checkbox"/> 72hr <input type="checkbox"/> 1 WEEK (NORMAL) <input checked="" type="checkbox"/>		Signature: <i>[Signature]</i> Time: <i>0830</i>		Signature: _____ Time: _____	
PROJ. NAME: <i>ENRON - Roswell</i>		CERTIFICATION REQUIRED: <input type="checkbox"/> NM <input type="checkbox"/> SDWA <input type="checkbox"/> OTHER		Printed Name: <i>William Olson</i> Date: <i>3/31/99</i>		Printed Name: _____ Date: _____	
P.O. NO.:		METHANOL PRESERVATION <input type="checkbox"/>		Company: <i>NM DCD</i>		Company: _____	
SHIPPED VIA:		COMMENTS: FIXED FEE <input type="checkbox"/>		See reverse side (Force Majeure)			
SAMPLE RECEIPT				RECEIVED BY: 1.		RECEIVED BY: (LAB) 2.	
NO. CONTAINERS	<i>9</i>			Signature: _____ Time: _____		Signature: <i>Francine Tonnio</i> Time: <i>0830</i>	
CUSTODY SEALS	<input checked="" type="checkbox"/> Y / N / NA			Printed Name: _____ Date: _____		Printed Name: <i>Francine Tonnio</i> Date: <i>3/31/99</i>	
RECEIVED INTACT	<i>YLS</i>			Company: _____		Pinnacle Laboratories Inc.	
BLUE ICE <input checked="" type="checkbox"/>	<i>3°C</i>						





**Cypress Engineering**

10235 W. Little York Rd., Ste. 256  
Houston, Texas 77040

(713) 856-7980 office  
(713) 856-7981 fax

**George C. Robinson, P.E.**

c/o: ENRON Gas Pipeline Group  
Environmental Affairs; Room 3AC-3142

(713) 646-7327 ENRON office  
(713) 646-7867 ENRON fax

## **FAX Transmission**

**To:** Bill Olson

**Fax:** 505-827-8177

**From:** George C. Robinson

**Date:** October 7, 1998

**Comments:**

**Pages:** 2 (including this cover)

Please call if you do not receive this transmission in its entirety!



**GARY E. JOHNSON**  
GOVERNOR

**State of New Mexico**  
**ENVIRONMENT DEPARTMENT**  
**Hazardous & Radioactive Materials Bureau**  
2044 Galisteo Street  
P.O. Box 26110  
Santa Fe, New Mexico 87502  
(505) 827-1557  
Fax (505) 827-1544



**PETER MAGGIORE**  
SECRETARY

September 30, 1998

Mr. Bill Kendrick  
ENRON Gas Pipeline Group  
P.O. Box 1188  
Houston, Texas 77251-1188

Dear Mr. Kendrick:

The New Mexico Environment Department ( NMED ) has been receiving updates on ENRON's efforts on environmental sampling and the on-going effort to address the environmental concerns at the Roswell Compressor Station site by the Transwestern Pipeline Company. The Hazardous and Radioactive Materials Bureau ( HRMB ), at this time, is not taking a position on the acceptability of the remedial and monitoring efforts as they may or may not relate to compliance with New Mexico's Hazardous Waste Act ( HWA ), the Resource Conservation Recovery Act ( RCRA ) or regulations promulgated under those acts.

The HRMB and NMED reserve any and all rights under New Mexico's Hazardous Waste Act ( HWA ), the Resource Conservation and Recovery Act ( RCRA ) as amended by the Hazardous Solid Waste Amendment of 1984 and regulations promulgated under those statutes and as authorized for implementation by the State of New Mexico and by the U.S. Environmental Protection Agency ( EPA ) at any point in time.

Please continue to keep us informed of your efforts at the site. Contact me at (505) 827-1557 or Ms. Susan Mc Michael at ( 505 ) 827-0127 should you have questions on this letter.

Sincerely,

A handwritten signature in cursive script, reading "Benito J. Garcia".

Benito J. Garcia  
Chief, HRMB

cc: Susan Mc Michael, Office of General Counsel, NMED  
Ed Kelley, Ph.D., Director, WWMD, NMED  
Dave Neleigh, EPA, Region 6

**Olson, William**

---

**From:** Robinson, George[SMTP:grobins@enron.com]  
**Reply To:** grobins@enron.com  
**Sent:** Monday, August 03, 1998 6:05 PM  
**To:** Olson, William; JERRY\_BOBER@NMENV.STATE.NM.US  
**Cc:** bkendri@enron.com  
**Subject:** Transwestern Roswell Station

Transwestern Pipeline Company will be completing a quarterly ground water sampling event at the Roswell Station during the week of August 10-14, 1998. In addition, Transwestern will initiate the Phase IV Soil and Ground Water Assessment Plan field activities on August 10, 1998. These activities are anticipated to continue through August 21, 1998. Toward the end of this period, Transwestern will be collecting ground water samples from four additional monitor wells that are to be installed in the course of the Phase IV activities. Both the OCD and the NMED staff are invited to participate in these activities to witness sampling procedures and/or to collect split samples. If your office is interested in participating, please call me at (713) 646-7327 and let me know so that we can coordinate our schedules.

Thanks,

George Robinson



**Enron Gas  
Pipeline Group**

P.O. Box 1188  
Houston, TX 77251-1188  
(713) 853-6161

July 23, 1998

Mr. William C. Olson  
Environmental Bureau  
New Mexico Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, New Mexico 87505

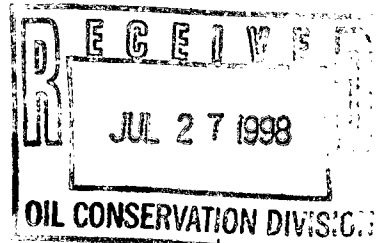
RE: Final Disposition of Investigation Derived Wastes (IDW)  
Roswell Compressor Station  
Transwestern Pipeline Company

Dear Bill,

In the course of assessment activities approximately 300 gallons of clean purge water has been collected. The purge water is currently stored at the site in six drums. Five of the drums are 100% full and one is half full.

The proposed final disposition of purge water contained in the six drums is based upon the results of laboratory analyses of ground water samples collected from each well. The contents of each of the six drums is summarized in the table below.

Source	Drums	Lab Results	Comments/Disposition
MW-23D purge water (1/98 sampling event)	2	non-detect for all VOCs & SVOCs	discharge to ground surface
MW-6, 11, 5, 10, 3, 19, 18, 17 and 8 purge water (1/98 sampling event)	1	non-detect for all VOCs & SVOCs	discharge to ground surface
MW-22 & 18 (8/97 sampling event) MW-10, 18, 14, 8 & 7 purge water (11/97 sampling event)	1	non-detect for all VOCs & SVOCs	discharge to ground surface
MW-11, 3, 5, 6 & 9 (8/97 sampling event) MW-5, 6, 11, 19 & 17 purge water (11/97 sampling event)	1	non-detect for all VOCs & SVOCs	discharge to ground surface
MW-15, 9, 3 & 22 (11/97 sampling event) MW-15, 9, 22 & 7 purge water (1/98 sampling event)	1	non-detect for all VOCs & SVOCs	discharge to ground surface



10/19/98 1315 hrs.  
Verbal approval  
to George Robinson  
Will Olson

Notes:

- The laboratory reports for ground water samples supporting the information indicated under the column heading "Lab Results" were included in the Phase III assessment report and Phase IV assessment plan previously submitted to your office for review.

Transwestern will implement the proposed disposition of IDW upon obtaining approval from your office. If you have any questions regarding this issue, please contact me at (713) 646-7644 or George Robinson at (713) 646-7327.

Sincerely,



Bill Kendrick  
Manager, Environmental Affairs

sls/BK

enclosure

xc w/enclosure: Tim Gum NMOCD Artesia District Office



Cypress Engineering

10235 West Little York Road, Suite 256  
Houston, Texas 77040

(713) 856-7980 office  
(713) 856-7981 fax

June 5, 1998

Salt Creek Farm & Ranch  
Attn.: Mr. Bob Naylor  
P.O. Box 1973  
Roswell, NM 88202

**RECEIVED**

**JUN 08 1998**

**RE: Transwestern Pipeline Company  
Results of Water Well Sampling**

ENVIRONMENTAL BUREAU  
OIL CONSERVATION DIVISION

Dear Mr. Naylor,

The purpose of this letter is to transmit the results for the recent sampling of a water well located at the Salt Creek Ranch.

Sampling activities were completed on May 6-7, 1998, by Mr. Clayton Barnhill of CMB Environmental located in Roswell, NM. The primary purpose of these activities was to obtain a measurement of depth to water and a surveyed elevation of the depth to water measuring point at each of three regional aquifer water wells located near Transwestern's Roswell Station. Wagener Engineering of Roswell, NM, provided the surveying services.

Table 1, attached, presents a summary of depth to water measurements and the calculated water surface elevation for the three wells completed within the regional aquifer. This information is also presented in Figure 1 which indicates that the local direction of ground water flow within the regional aquifer is toward the northeast.

A secondary objective was to obtain a sample from the water well located at the Salt Creek Ranch. This water sample was collected purely as a conservative measure. Approximately 3400 gallons of water was purged prior to collecting samples for laboratory analysis. A "Well Data Form" provided by CMB Environmental for the purging and sampling procedure is attached. Table 2, attached, presents a summary of the laboratory analytical results for the ground water samples collected. None of the organic constituents of concern present at Transwestern's Roswell Station former impoundment area were detected in the ground water samples collected from the Salt Creek Ranch water well.

If you have any questions or comments regarding this transmittal, please contact me at telephone number (713) 646-7327.

Sincerely,

George C. Robinson, P.E.  
President

xc w/attachment:

Mr. Larry Campbell  
Transwestern Pipeline Company  
6381 North Main Street  
Roswell, NM 88201

Mr. Bill Kendrick  
ENRON Gas Pipeline Group  
P.O. Box 1188  
Houston, TX 77251-1188

Mr. Bill Olson  
NM Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, NM 87505

Mr. Jerry Bober  
NM Environment Dept./HRMB  
2044 Galisteo St., Bldg A  
Santa Fe, NM 87505

Mr. Dennis Karnes  
Pecos Valley Artesian Conservancy District  
P.O. Box 1346  
Roswell, NM 88202

Mr. Robert Young  
NM State Land Office  
310 Old Santa Fe Trail  
Santa Fe, NM 87504



Well #5  
355164

3551.00

3550.00

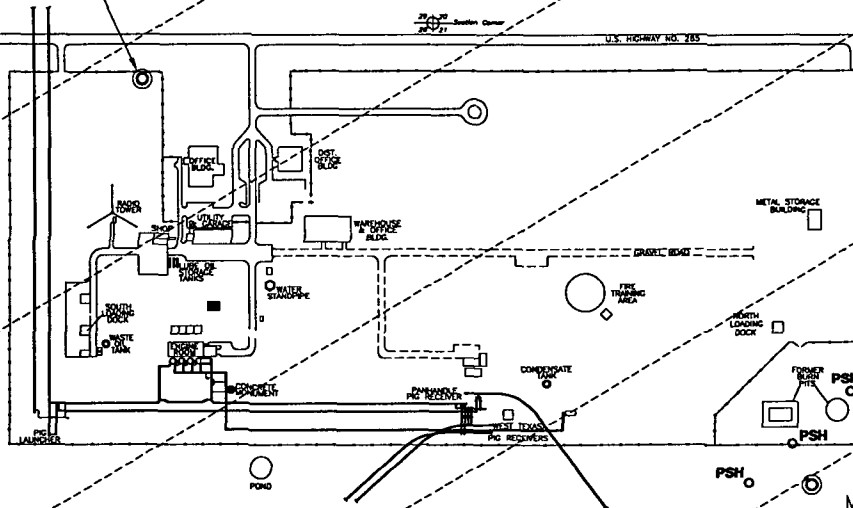
3549.00

3548.00

3547.00

3546.00

Well #2  
3549.80



MW-23D  
3545.95

0 200 400 600  
Scale in Feet

# GROUND WATER ELEVATIONS FOR THE REGIONAL AQUIFER - MAY 6, 1998

ROSWELL COMPRESSOR STATION  
TRANSWESTERN PIPELINE COMPANY

CYPRESS ENGINEERING SERVICES, INC.

Figure 1



**Table 1. Summary of Ground Water Surface Elevations in the Regional Aquifer  
Compressor Station No. 9 - Roswell, NM**

Well ID	Sampling Date	Top of Casing (ft)	Depth to Water (ft)	Surface Elevation (ft)
MW-23 D	08/19/97	3605.16	62.05	3543.11
	10/30/97		59.11	3546.05
	01/26/98	3604.96 (b)	56.19	3548.97
	05/06/98		59.01	3545.95
	05/07/98		59.08	3545.88
Well #2	05/06/98	3615.28 (b)	65.48	3549.80
	05/07/98		65.51	3549.77
Well #5	05/06/98	3635.39 (b)	83.75	3551.64
	05/07/98		83.79	3551.60

NOTES:

(b) Elevation based on survey by Wagener Engineering dated 5/6/98

MW-23D - Deep monitor well located at NE corner of Roswell Station site

Well #2 - Pecos Valley Artesian Conservancy District monitor well located at SW corner of Roswell Station site

Well #5 - Offsite water well located at approximately 2800 feet W of NW corner of Roswell Station site

**Table 2. Summary of Ground Water Analyses - Offsite Well #5  
Compressor Station No. 9 - Roswell, NM**

Well ID	Sampling Date	Organics (mg/L)		Major Ions (mg/L)								Metals (mg/L)												
		VOCs	PAHs	TDS	Chloride	Sulfate	NO <sub>2</sub> /NO <sub>3</sub> -N, total	Calcium	Potassium	Magnesium	Sodium	Total alkalinity (as CaCO <sub>3</sub> )	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Manganese	Mercury	Selenium	Silver	Zinc
NMWQCC Standard		varies	varies	1000	250	600	10	none	none	none	none	none	0.1	1.0	0.01	0.05	1.0	1.0	0.05	0.20	0.002	0.2	0.05	0.05
Well #5	12/22/94	all ND	—	2420	750	768	1.74	297	1.7	80.5	502	154	< 0.05	0.02	< 0.005	< 0.01	< 0.01	0.32	< 0.05	< 0.01	< 0.0002	< 0.1	< 0.01	< 0.01
	05/07/98	all ND	all ND	1900	680	800	1.48	241	2	69.4	387	141	< 0.1	0.022	< 0.005	< 0.01	< 0.01	< 0.02	< 0.05	0.012	< 0.0002	< 0.1	< 0.01	< 0.02

**NOTES:**

"—" - A result for this constituent(s) is not available

"all ND" - Indicates that all of the constituents in this class were reported by the laboratory as Non-Detect

"VOCs" - Volatile Organic Compounds

"PAHs" - Polycyclic Aromatic Hydrocarbons

## CMB CONSULTING GEOLOGIST

## WELL DATA FORM

Type Well <input type="checkbox"/> MW <input type="checkbox"/> Production <input checked="" type="checkbox"/> Other <u>ABANDONED WATER WELL</u>		Type of Data <input type="checkbox"/> Development <input checked="" type="checkbox"/> Sampling <input type="checkbox"/> Pump Test <input type="checkbox"/> Other		Well No. <u>WATER WELL #5</u> Sheet 1 of 1 Sheets	
1. Project <u>Water Well Sampling</u> <u>Cypress Engineering Services</u>		2. Project Location <u>Twp / Roswell Station</u> <u>6381 N. MAIN ST. Roswell, NM</u>		3. Date <u>5/6/98 - 5/7/98</u>	
4. Technician <u>CM BARNHILL</u>		88201			
7. Method <u>Pumping</u> Surging Air Lift Bailing Other		8. Manufacturer's Designation of Rig <u>DSR-1000</u>		9. Location of Well (Site, Description) <u>WATER WELL #5</u>	
<b>Water Levels</b>					
Initial		Final		Final + 24 Hours	
Date: <u>5/6/98</u> Time: <u>8:55</u>		Date: <u>5/6/98</u> Time: <u>18:10</u>		Date: Time:	
10. Total Depth of Well (from TOC) <u>360.0</u>		15. Total Depth of Well (from TOC) <u>360.0</u>		20. Total Depth of Well (from TOC)	
11. Water Level (from TOC) <u>83.75'</u> <u>83.79'</u> <u>05/11/98</u> <u>10:00 A.M.</u>		16. Water Level (from TOC) <u>83.70</u>		21. Water Level (from TOC)	
12. Water Column Height <u>276.25'</u>		Nom Dia Sch 40 x = gal/ft Sch 80 2" 0.1743 0.1534 4" 0.6613 0.5972 6" 1.5007 1.3540 8" 2.5856 2.3720 10" 4.0 GPM/ft		17.3 Well Volumes <u>3381 Gal.</u>	
13. Well Diameter <u>10" steel casing</u>		18.5 Well Volumes <u>5635 Gal.</u>		22. Size and Type of <u>Pump or Bailer</u> <u>Redifloc, 1.8"</u> <u>354" Jet sub.</u> <u>Set @ 190'</u>	
14. Well Volume (gal) (s.w.e. height) <u>1127'</u>		19. Purge Volume <u>3422.50</u>			
<b>Final Field Analysis</b>					
23. Total Amount of Water Removed <u>3422.50</u> <u>Gallons</u>		24. Was Well Pumped Dry? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		25. Was water added to well? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If yes, source:	
				26. Was the Groundwater Sampled <input checked="" type="checkbox"/> No If yes, what was the sample number & Date: Sampling Personnel? <u>WATER WELL #5</u> <u>5/6/98 CMBarnhill @ 16:50</u>	
27. Final Parameters Time Temp F Conductivity pH NTUs WL Removed Flow Rate Observations <u>16:50</u> <u>74.8</u> <u>3.63</u> <u>7.35</u> <u>&lt;5</u> <u>84.3/3422.50</u> <u>11.0 GPM</u> <u>Clear.</u>					
IF PETROLEUM IS IN THE WELL, DO NOT TAKE pH AND CONDUCTIVITY PARAMETERS					
28. Physical Appearance and Remarks <u>clear with strong sulfur smell</u>					
29. Purge water disposal method: <u>ON SURFACE</u>					
<b>Sampling / Development Parameters</b>					
		x1000		WL	
Time		Conductivity (umhos/cm)		(from TOC)	
Temp F		pH		Volume (gallons)	
		NTUs		Flow Rate (gpm)	
				Photo #, Observations (1)	
<u>6/98</u>	<u>9:45</u>	<u>69.9</u>	<u>5.04</u>	<u>7.64</u>	<u>&lt;5</u>
				<u>83.75</u>	<u>3.0</u>
<u>5/98</u>	<u>11:35</u>	<u>74.6</u>	<u>1.20</u>	<u>8.86</u>	<u>&lt;5</u>
				<u>83.79</u>	<u>11.5</u>
	<u>12:35</u>	<u>66.7</u>	<u>3.36</u>	<u>7.47</u>	<u>&lt;5</u>
				<u>84.31</u>	<u>660</u>
	<u>13:35</u>	<u>70.0</u>	<u>3.47</u>	<u>7.52</u>	<u>&lt;5</u>
				<u>84.31</u>	<u>1310</u>
	<u>14:35</u>	<u>73.7</u>	<u>3.59</u>	<u>7.45</u>	<u>&lt;5</u>
				<u>84.31</u>	<u>1960</u>
	<u>15:35</u>	<u>73.6</u>	<u>3.48</u>	<u>7.47</u>	<u>&lt;5</u>
				<u>84.31</u>	<u>2610</u>
	<u>16:35</u>	<u>74.0</u>	<u>3.57</u>	<u>7.39</u>	<u>&lt;5</u>
				<u>84.31</u>	<u>3260</u>
	<u>16:50</u>	<u>74.8</u>	<u>3.63</u>	<u>7.35</u>	<u>&lt;5</u>
				<u>84.31</u>	<u>3422</u>
(1) Note volume and physical character of sediments removed.					
NTU = Nephelometric turbidity units					
WL = Water Level from Top of PVC casing					
Checked By <u>CM Barnhill</u> <u>CRC #7145</u>					Date <u>5/7/98</u>

**WAGENER** **WE**  
**ENGINEERING**

1410 N. Missouri Ave.  
Roswell, N.M. 88201  
(505) 623-8382

May 7, 1998

George C. Robinson, P.E.  
CYPRESS ENGINEERING  
10235 West Little York Road  
Suite 256  
Houston, Texas 77040

RE: Transwestern's Roswell Compressor Station

Dear George,

Transmitted herewithin are the X Y & Z coordinates of the wells Clayton Barnhill requested. The elevation of the two water wells were shot at the north rim on the steel casing. The elevation for monitoring well 23-D was shot on the north rim of the PVC casing. The elevations were measured to one hundredth of a foot. Horizontal locations are within one tenth of a foot.

The bench mark and coordinate system are the same ones used during the August 1995, September 1996 and August 1997 surveys for D.B. Stephens & Associates, Inc.

DESCRIPTION	NORTHING	EASTING	ELEVATION
BENCH MARK	100.00	-200.00	3613.81
NORTH RIM WELL CASING WELL No. 2	-176.59	-867.06	3615.28
NORTH RIM WELL CASING WELL No. 5	2566.04	-3685.00	3635.39
NORTH RIM WELL CASING MW 23-D	1915.28	393.56	3604.96

I, Todd P. Wagener, New Mexico Registered Professional Surveyor, No. 9242, certify that I conducted and am responsible for this unclassified survey, and that this survey meets the Minimum Standards for Surveying in New Mexico.

  
Todd P. Wagener NMRPS No. 9242

May 6, 1998  
Date of Survey

May 7, 1998  
Date of certification





**HOUSTON LABORATORY**  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

May 26, 1998

Mr. George Robinson  
CYPRESS ENGINEERING, INC.  
10235 W. Little York Rd. #256  
Houston, TX 77040

The following report contains analytical results for the sample(s) received at Southern Petroleum Laboratories (SPL) on May 9, 1998. The sample(s) was assigned to Certificate of Analysis No.(s) 9805418 and analyzed for all parameters as listed on the chain of custody.

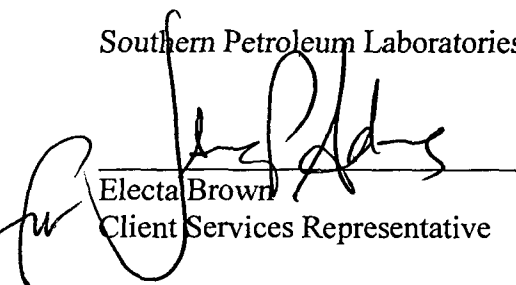
Sample "Water Well #5" (SPL ID: 9805418-01) was randomly chosen as a Quality Control sample for metals analysis by SW-846 method 6010. The Matrix Spike (MS) and Matrix Spike Duplicate (MSD) recoveries were outside of advisable limits for Calcium (Ca) and Sodium (Na). A Laboratory Control Sample (LCS) was analyzed as a Quality Control check for the analytical batch and all recoveries were within acceptable limits.

Any data flag or quality control exception associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s).

If you have any questions or comments pertaining to this data report, please do not hesitate to contact me. Please reference the above Certificate of Analysis No. during any inquiries.

Again, SPL is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

Southern Petroleum Laboratories

A handwritten signature in dark ink, appearing to read "Electa Brown", is written over a horizontal line. To the left of the signature is a small, stylized mark that looks like "fw".  
Electa Brown  
Client Services Representative

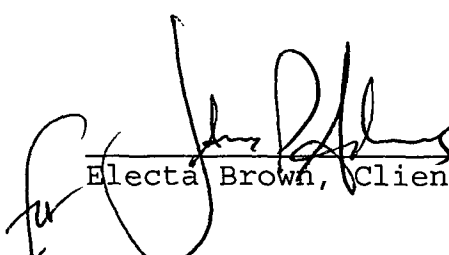


HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 98-05-418

Approved for Release by:

  
Electa Brown, Client Services Representative

5/21/98  
Date:

Greg Grandits  
Laboratory Director

Cynthia Schreiner  
Quality Assurance Officer

The attached analytical data package may not be reproduced except in full without the express written approval of this laboratory.



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

Certificate of Analysis No. H9-9805418-01

Cypress Engineering, Inc.  
10235 W. Little York Rd #256  
Houston, TX 77040  
ATTN: George Robinson

DATE: 05/22/98

PROJECT: Transwestern Pipeline  
SITE: Roswell Station #9  
SAMPLED BY: Cypress Engineering  
SAMPLE ID: Water Well #5

PROJECT NO:  
MATRIX: WATER  
DATE SAMPLED: 05/07/98 16:50:00  
DATE RECEIVED: 05/09/98

ANALYTICAL DATA			
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Alkalinity, as CaCO <sub>3</sub> Method 310.1 * Analyzed by: JS Date: 05/20/98 13:45:00	141	1	mg/L
Chloride Method 325.3 * Analyzed by: ET Date: 05/19/98 18:00:00	680	10	mg/L
Sulfate Method 375.4 * Analyzed by: DAM Date: 05/18/98 15:00:00	800	50	mg/L
Total Dissolved Solids Method 160.1 * Analyzed by: KS Date: 05/13/98 16:30:00	1900	100	mg/L
Nitrate-Nitrite, as N Method 353.3 * Analyzed by: EM Date: 05/11/98 11:00:00	1.48	0.05	mg/L
Liquid-liquid extraction SEMIVOLATILES Method 3520C *** Analyzed by: AS Date: 05/12/98 12:00:00	05/12/98		

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance  
with EPA guidelines for quality assurance.



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

Certificate of Analysis No. H9-9805418-01

Cypress Engineering, Inc.  
10235 W. Little York Rd #256  
Houston, TX 77040  
ATTN: George Robinson

DATE: 05/22/98

PROJECT: Transwestern Pipeline  
SITE: Roswell Station #9  
SAMPLED BY: Cypress Engineering  
SAMPLE ID: Water Well #5

PROJECT NO:  
MATRIX: WATER  
DATE SAMPLED: 05/07/98 16:50:00  
DATE RECEIVED: 05/09/98

ANALYTICAL DATA			
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Silver, Dissolved Method 6010B *** Analyzed by: JM Date: 05/22/98 08:08:00	ND	0.01	mg/L
Arsenic, Dissolved Method 6010B *** Analyzed by: JM Date: 05/22/98 08:08:00	ND	0.1	mg/L
Barium, Dissolved Method 6010B *** Analyzed by: JM Date: 05/22/98 08:08:00	0.022	0.005	mg/L
Calcium, Dissolved Method 6010B *** Analyzed by: JM Date: 05/22/98 08:08:00	241	0.1	mg/L
Cadmium, Dissolved Method 6010B *** Analyzed by: JM Date: 05/22/98 08:08:00	ND	0.005	mg/L
Chromium, Dissolved Method 6010B *** Analyzed by: JM Date: 05/22/98 08:08:00	ND	0.01	mg/L

ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance  
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HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

Certificate of Analysis No. H9-9805418-01

Cypress Engineering, Inc.  
10235 W. Little York Rd #256  
Houston, TX 77040  
ATTN: George Robinson

DATE: 05/22/98

PROJECT: Transwestern Pipeline  
SITE: Roswell Station #9  
SAMPLED BY: Cypress Engineering  
SAMPLE ID: Water Well #5

PROJECT NO:  
MATRIX: WATER  
DATE SAMPLED: 05/07/98 16:50:00  
DATE RECEIVED: 05/09/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Copper, Dissolved Method 6010B *** Analyzed by: JM Date: 05/22/98 08:08:00	ND	0.01	mg/L	
Iron, Dissolved Method 6010B *** Analyzed by: JM Date: 05/22/98 08:08:00	ND	0.02	mg/L	
Mercury, Dissolved Method 7470 A*** Analyzed by: AG Date: 05/15/98 15:23:00	ND	0.0002	mg/L	
Potassium, Dissolved Method 6010B *** Analyzed by: JM Date: 05/22/98 08:08:00	2	2	mg/L	
Magnesium, Dissolved Method 6010B *** Analyzed by: JM Date: 05/22/98 08:08:00	69.4	0.1	mg/L	
Manganese, Dissolved Method 6010B *** Analyzed by: JM Date: 05/22/98 08:08:00	0.012	0.005	mg/L	

ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance  
with EPA guidelines for quality assurance.



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

Certificate of Analysis No. H9-9805418-01

Cypress Engineering, Inc.  
10235 W. Little York Rd #256  
Houston, TX 77040  
ATTN: George Robinson

DATE: 05/22/98

PROJECT: Transwestern Pipeline  
SITE: Roswell Station #9  
SAMPLED BY: Cypress Engineering  
SAMPLE ID: Water Well #5

PROJECT NO:  
MATRIX: WATER  
DATE SAMPLED: 05/07/98 16:50:00  
DATE RECEIVED: 05/09/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Sodium, Dissolved Method 6010B *** Analyzed by: JM Date: 05/22/98 08:08:00	387	0.5	mg/L	
Dissolved Metals Prep. Method 3005A *** Analyzed by: SRC Date: 05/11/98 08:30:00	05/11/98			
Lead, Dissolved Method 6010B *** Analyzed by: JM Date: 05/22/98 08:08:00	ND	0.05	mg/L	
Selenium, Dissolved Method 6010B *** Analyzed by: JM Date: 05/22/98 08:08:00	ND	0.1	mg/L	
Zinc, Dissolved Method 6010B *** Analyzed by: JM Date: 05/22/98 08:08:00	ND	0.02	mg/L	

ND - Not detected.

Notes: \*Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA  
\*\*Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.  
\*\*\*Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance  
with EPA guidelines for quality assurance.



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

Certificate of Analysis No. H9-9805418-01

Cypress Engineering, Inc.  
10235 W. Little York Rd #256  
Houston, TX 77040  
ATTN: George Robinson

05/22/98

PROJECT: Transwestern Pipeline  
SITE: Roswell Station #9  
SAMPLED BY: Cypress Engineering  
SAMPLE ID: Water Well #5

PROJECT NO:  
MATRIX: WATER  
DATE SAMPLED: 05/07/98 16:50:00  
DATE RECEIVED: 05/09/98

ANALYTICAL DATA			
PARAMETER	RESULTS	PQL*	UNITS
Benzene	ND	5	ug/L
Bromobenzene	ND	5	ug/L
Bromochloromethane	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
n-Butylbenzene	ND	5	ug/L
sec-Butylbenzene	ND	5	ug/L
tert-Butylbenzene	ND	5	ug/L
Carbon tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chlorodibromomethane	ND	5	ug/L
Chloroethane	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
2-Chlorotoluene	ND	5	ug/L
4-Chlorotoluene	ND	5	ug/L
1,2-Dibromo-3-chloropropane	ND	5	ug/L
1,2-Dibromoethane	ND	5	ug/L
Dibromomethane	ND	5	ug/L
1,2-Dichlorobenzene	ND	5	ug/L
1,3-Dichlorobenzene	ND	5	ug/L
1,4-Dichlorobenzene	ND	5	ug/L
Dichlorodifluoromethane	ND	10	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
1,3-Dichloropropane	ND	5	ug/L
2,2-Dichloropropane	ND	5	ug/L
1,1-Dichloropropene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Hexachlorobutadiene	ND	5	ug/L
Isopropylbenzene	ND	5	ug/L
p-Isopropyltoluene	ND	5	ug/L
Methylene chloride	ND	5	ug/L

METHOD: 8260 Water, Volatile Organics  
(continued on next page)



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

Certificate of Analysis No. H9-9805418-01

Cypress Engineering, Inc.

SAMPLE ID: Water Well #5

ANALYTICAL DATA (continued)				
PARAMETER	RESULTS	PQL*	UNITS	
Naphthalene	ND	5	ug/L	
n-Propylbenzene	ND	5	ug/L	
Styrene	ND	5	ug/L	
1,1,1,2-Tetrachloroethane	ND	5	ug/L	
1,1,2,2-Tetrachloroethane	ND	5	ug/L	
Tetrachloroethene	ND	5	ug/L	
Toluene	ND	5	ug/L	
1,2,3-Trichlorobenzene	ND	5	ug/L	
1,2,4-Trichlorobenzene	ND	5	ug/L	
1,1,1-Trichloroethane	ND	5	ug/L	
1,1,2-Trichloroethane	ND	5	ug/L	
Trichloroethene	ND	5	ug/L	
Trichlorofluoromethane	ND	5	ug/L	
1,2,3-Trichloropropane	ND	5	ug/L	
1,2,4-Trimethylbenzene	ND	5	ug/L	
1,3,5-Trimethylbenzene	ND	5	ug/L	
Vinyl chloride	ND	10	ug/L	
Xylenes (total)	ND	5	ug/L	
Acetone	ND	100	ug/L	
Carbon Disulfide	ND	5	ug/L	
Vinyl Acetate	ND	10	ug/L	
2-Butanone	ND	20	ug/L	
1,2-Dichloroethene (total)	ND	5	ug/L	
2-Chloroethylvinylether	ND	10	ug/L	
4-Methyl-2-Pentanone	ND	10	ug/L	
cis-1,3-Dichloropropene	ND	5	ug/L	
trans-1,3-Dichloropropene	ND	5	ug/L	
2-Hexanone	ND	10	ug/L	

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
1,2-Dichloroethane-d4	50 ug/L	98	76	114
Toluene-d8	50 ug/L	100	88	110
4-Bromofluorobenzene	50 ug/L	104	86	115

ANALYZED BY: JC

DATE/TIME: 05/14/98 15:49:00

METHOD: 8260 Water, Volatile Organics

NOTES: \* - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

Certificate of Analysis No. H9-9805418-01

Cypress Engineering, Inc.  
10235 W. Little York Rd #256  
Houston, TX 77040  
ATTN: George Robinson

05/22/98

PROJECT: Transwestern Pipeline  
SITE: Roswell Station #9  
SAMPLED BY: Cypress Engineering  
SAMPLE ID: Water Well #5

PROJECT NO:  
MATRIX: WATER  
DATE SAMPLED: 05/07/98 16:50:00  
DATE RECEIVED: 05/09/98

#### ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Acenaphthene	ND	5	ug/L
Acenaphthylene	ND	5	ug/L
Anthracene	ND	5	ug/L
Benzo(a)Anthracene	ND	5	ug/L
Benzo(b)Fluoranthene	ND	5	ug/L
Benzo(k)Fluoranthene	ND	5	ug/L
Benzo(a)Pyrene	ND	5	ug/L
Benzo(g,h,i)Perylene	ND	5	ug/L
Chrysene	ND	5	ug/L
Dibenz(a,h)Anthracene	ND	5	ug/L
Fluoranthene	ND	5	ug/L
Fluorene	ND	5	ug/L
Indeno(1,2,3-cd)Pyrene	ND	5	ug/L
2-Methylnaphthalene	ND	5	ug/L
Naphthalene	ND	5	ug/L
Phenanthrene	ND	5	ug/L
Pyrene	ND	5	ug/L
1-Methylnaphthalene	ND	5	ug/L

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
Nitrobenzene-d5	50 ug/L	80	35	114
2-Fluorobiphenyl	50 ug/L	100	43	116
Terphenyl-d14	50 ug/L	72	33	141
Phenol-d5	75 ug/L	27	10	110
2-Fluorophenol	75 ug/L	39	21	110
2,4,6-Tribromophenol	75 ug/L	99	10	123

ANALYZED BY: RY                      DATE/TIME: 05/13/98 01:17:00  
EXTRACTED BY: AS                    DATE/TIME: 05/12/98 12:00:00  
METHOD: 8270C, Semivolatile Organics - Water  
NOTES: \* - Practical Quantitation Limit              ND - Not Detected  
          NA - Not Analyzed

#### COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance  
with EPA guidelines for quality assurance.

*QUALITY CONTROL*  
*DOCUMENTATION*

3A  
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL

Contract:

Lab Code:

Case No.: 9805418 SAS No.:

SDG No.:

Matrix Spike - EPA Sample No.: WATER WELL #5

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
=====	=====	=====	=====	=====	=====
1,1-Dichloroethene	50	0	62	124	61-145
Trichloroethene	50	0	43	86	71-120
Benzene	50	0	48	96	76-127
Toluene	50	0	42	84	76-125
Chlorobenzene	50	0	47	94	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS	
=====	=====	=====	=====	=====	RPD	REC.
1,1-Dichloroethene	50	58	116	7	14	61-145
Trichloroethene	50	44	88	2	14	71-120
Benzene	50	48	96	0	11	76-127
Toluene	50	41	82	2	13	76-125
Chlorobenzene	50	48	96	2	13	75-130

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits due to matrix interference

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

SPL Houston Labs

RECOVERY REPORT

Client Name: Client SDG: n980514  
Sample Matrix: LIQUID Fraction: VOA  
Lab Smp Id: LCS  
Level: LOW Operator: JC  
Data Type: MS DATA SampleType: LCS  
SpikeList File: 8260\_water.spk Quant Type: ISTD  
Sublist File: 8260.sub  
Method File: /var/chem/n.i/n980514.b/n8260w.m  
Misc Info: N134W1//N134CW1

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
8 1,1-Dichloroethene	50	67	134.00	61-145
29 Trichloroethene	50	51	102.00	71-120
25 Benzene	50	52	104.00	76-127
37 Toluene	50	47	94.00	76-125
45 Chlorobenzene	50	52	104.00	75-130

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 21 1,2-Dichloroethane	50	45	90.00	76-114
\$ 36 Toluene-d8	50	47	94.00	88-110
\$ 56 Bromofluorobenzene	50	52	104.00	86-115





## SPL Blank QC Report

HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 628-9900

2

Matrix: Aqueous  
Sample ID: VLBLK  
Batch: N980514122720

Reported on: 05/15/98 14:59  
Analyzed on: 05/14/98 08:36  
Analyst: JC

METHOD 8260/8240 N134B01

Compound	Result	Detection Limit	Units
Dichlorodifluoromethane	ND	10	ug/L
Chloromethane	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Bromomethane	ND	10	ug/L
Chloroethane	ND	10	ug/L
Trichlorofluoromethane	ND	5	ug/L
Acetone	ND	100	ug/L
1,1-Dichloroethene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
Carbon Disulfide	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
2-Butanone	ND	20	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloroethene (total)	ND	5	ug/L
2,2-Dichloropropane	ND	5	ug/L
Bromochloromethane	ND	5	ug/L
Chloroform	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloropropene	ND	5	ug/L
Benzene	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Dibromomethane	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
2-Chloroethylvinylether	ND	10	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L

**Notes**

ND - Not detected.



## SPL Blank QC Report

HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 960-9000

3

Matrix: Aqueous  
Sample ID: VLBLK  
Batch: N980514122720

Reported on: 05/15/98 14:59  
Analyzed on: 05/14/98 08:36  
Analyst: JC

METHOD 8260/8240 N134B01

Compound	Result	Detection Limit	Units
1,3-Dichloropropane	ND	5	ug/L
2-Hexanone	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,2-Dibromoethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
1,1,1,2-Tetrachloroethane	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Bromoform	ND	5	ug/L
Styrene	ND	5	ug/L
Xylene (Total)	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
1,2,3-Trichloropropane	ND	5	ug/L
Isopropylbenzene	ND	5	ug/L
Bromobenzene	ND	5	ug/L
N-Propylbenzene	ND	5	ug/L
2-Chlorotoluene	ND	5	ug/L
4-Chlorotoluene	ND	5	ug/L
1,3,5-Trimethylbenzene	ND	5	ug/L
tert-Butylbenzene	ND	5	ug/L
1,2,4-Trimethylbenzene	ND	5	ug/L
1,3-Dichlorobenzene	ND	5	ug/L
sec-Butylbenzene	ND	5	ug/L
1,4-Dichlorobenzene	ND	5	ug/L
p-Isopropyltoluene	ND	5	ug/L
1,2-Dichlorobenzene	ND	5	ug/L
n-Butylbenzene	ND	5	ug/L
1,2-Dibromo-3-Chloropropan	ND	5	ug/L
1,2,4-Trichlorobenzene	ND	5	ug/L
Naphthalene	ND	5	ug/L
Hexachlorobutadiene	ND	5	ug/L
1,2,3-Trichlorobenzene	ND	5	ug/L

**Notes**

ND - Not detected.



# SPL Blank QC Report

HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 960-9000

4

Matrix: Aqueous  
Sample ID: VLBLK  
Batch: N980514122720

Reported on: 05/15/98 14:59  
Analyzed on: 05/14/98 08:36  
Analyst: JC

METHOD 8260/8240 N134B01

Surrogate	Result	QC Criteria	Units
1,2-Dichloroethane-d4	104	76-114	% Recovery
Toluene-d8	102	88-110	% Recovery
Bromofluorobenzene	104	86-115	% Recovery

Samples in Batch 9805418-01

## Notes

ND - Not detected.

3C  
WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL

Contract:

Lab Code:

Case No.: 980512

SAS No.:

SDG No.:

Matrix Spike - EPA Sample No.: Blank Spike/Spike-Dup

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Phenol	75	0	27	36	12-110
2-Chlorophenol	75	0	57	76	27-123
1,4-Dichlorobenzene	50	0	37	74	36- 97
N-Nitroso-di-n-prop. (1)	50	0	43	86	41-116
1,2,4-Trichlorobenzene	50	0	39	78	39- 98
4-Chloro-3-methylphenol	75	0	58	77	23- 97
Acenaphthene	50	0	41	82	46-118
4-Nitrophenol	75	0	26	35	30-150
2,4-Dinitrotoluene	50	0	43	86	50-150
Pentachlorophenol	75	0	56	75	9-125
Pyrene	50	0	42	84	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS	
					RPD	REC.
Phenol	75	26	35	3	42	12-110
2-Chlorophenol	75	55	73	4	40	27-123
1,4-Dichlorobenzene	50	34	68	8	28	36- 97
N-Nitroso-di-n-prop. (1)	50	38	76	12	38	41-116
1,2,4-Trichlorobenzene	50	38	76	3	28	39- 98
4-Chloro-3-methylphenol	75	55	73	5	42	23- 97
Acenaphthene	50	38	76	8	31	46-118
4-Nitrophenol	75	23	31	12	50	30-150
2,4-Dinitrotoluene	50	40	80	7	50	50-150
Pentachlorophenol	75	53	71	5	50	9-125
Pyrene	50	36	72	15	31	26-127

(1) N-Nitroso-di-n-propylamine.

\* Values outside of QC limits due to diluted out

RPD: 0 out of 11 outside limits

Spike Recovery: 0 out of 22 outside limits



## SPL Blank QC Report

HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0900

1

Matrix: Aqueous  
Sample ID: BLANK  
Batch: E980512042258

Reported on: 05/15/98 11:15  
Analyzed on: 05/13/98 15:20  
Analyst: RY

## METHOD 8270 J132B03

C o m p o u n d	Result	Detection Limit	Units
Naphthalene	ND	5	ug/L
2-Methylnaphthalene	ND	5	ug/L
1-Methylnaphthalene	ND	5	ug/L
Acenaphthylene	ND	5	ug/L
Acenaphthene	ND	5	ug/L
Fluorene	ND	5	ug/L
Phenanthrene	ND	5	ug/L
Anthracene	ND	5	ug/L
Fluoranthene	ND	5	ug/L
Pyrene	ND	5	ug/L
Benzo[a]anthracene	ND	5	ug/L
Chrysene	ND	5	ug/L
Benzo[b]fluoranthene	ND	5	ug/L
Benzo[k]fluoranthene	ND	5	ug/L
Benzo[a]pyrene	ND	5	ug/L
Indeno[1,2,3-cd]pyrene	ND	5	ug/L
Dibenz[a,h]anthracene	ND	5	ug/L
Benzo[g,h,i]perylene	ND	5	ug/L

S u r r o g a t e	Result	QC Criteria	Units
Nitrobenzene-d5	74	35-114	% Recovery
2-Fluorobiphenyl	88	43-116	% Recovery
Terphenyl-d14	76	33-141	% Recovery
Phenol-d5	37	10-110	% Recovery
2-Fluorophenol	47	21-110	% Recovery
2,4,6-Tribromophenol	84	10-123	% Recovery

Samples in Batch 9805418-01

Notes

ND - Not detected.

## ICP Spectroscopy Method 6010 Quality Control Report



Matrix: DISSOLVED Units: mg/L

Analyst: JM

HOUSTON LABORATORY

8880 INTERCHANGE DRIVE

HOUSTON, TEXAS 77054

Date: 052298 Time: 0808 File Name: 052298C2

Checked: PHONE (713) 660-0900

## Laboratory Control Sample

Element	Mth. Blank	True Value	Result	% Recovery	Lower Limit	Upper Limit
Silver	ND	2.00	2.03	101	1.60	2.40
Aluminum						
Arsenic	ND	4.00	4.03	101	3.20	4.80
Barium	ND	2.00	1.99	99	1.60	2.40
Beryllium						
Calcium	ND	20.00	20.03	100	16.00	24.00
Cadmium	ND	2.00	1.96	98	1.60	2.40
Cobalt						
Chromium	ND	2.00	2.00	100	1.60	2.40
Copper	ND	2.00	2.03	101	1.60	2.40
Iron	ND	2.00	1.99	100	1.60	2.40
Potassium	ND	20.00	19.92	100	16.00	24.00
Magnesium	ND	20.00	20.30	102	16.00	24.00
Manganese	ND	2.00	2.02	101	1.60	2.40
Sodium	ND	20.00	19.36	97	16.00	24.00
Nickel						
Lead	ND	2.00	2.03	102	1.60	2.40
Antimony						
Selenium	ND	4.00	4.02	101	3.20	4.80
Thallium						
Vanadium						
Zinc	ND	2.00	2.03	101	1.60	2.40

## Work Orders in Batch

Work Order Fractions

98-05-418 01E

## Matrix Spike - Spike Duplicate Results

Work Order Spiked: 9805418-01E

Element	Sample Result	Spike Added	Matrix Spike Result	Matrix Spike Recovery	Matrix Spike Duplicate Result	Matrix Spike Duplicate Recovery	QC Limits % Recovery	Spike RPD %	QC Limits %
Silver	0.0035	1.0	0.9227	91.9	0.8608	85.7	80 120	7.0	20.0
Aluminum									
Arsenic	ND	2.0	2.039	102.0	2.044	102.2	80 120	0.2	20.0
Barium	0.0219	1.0	0.9695	94.8	0.9602	93.8	80 120	1.0	20.0
Beryllium									
Calcium	240.6	10.0	243.9	33.0 *	246.7	61.0 *	80 120	59.6 **	20.0
Cadmium	ND	1.0	0.9791	97.9	0.9903	99.0	80 120	1.1	20.0
Cobalt									
Chromium	ND	1.0	0.9626	96.3	0.9725	97.3	80 120	1.0	20.0
Copper	ND	1.0	0.9919	99.2	0.9855	98.6	80 120	0.6	20.0
Iron	ND	1.0	0.9761	97.6	0.9816	98.2	80 120	0.6	20.0
Potassium	2.066	10.0	13.1	110.3	13.2	111.3	80 120	0.9	20.0
Magnesium	69.4	10.0	77.48	80.8	77.49	80.9	80 120	0.1	20.0
Manganese	0.012	1.0	0.9822	97.0	0.9889	97.7	80 120	0.7	20.0
Sodium	387	10.0	392.6	56.0 *	389.2	22.0 *	80 120	87.2 **	20.0
Nickel									
Lead	ND	1.0	1.002	100.2	1.019	101.9	80 120	1.7	20.0
Antimony									
Selenium	ND	2.0	2.036	101.8	2.027	101.4	80 120	0.4	20.0
Thallium									
Vanadium									
Zinc	ND	1.0	1.019	101.9	1.027	102.7	80 120	0.8	20.0

\* Values Outside QC Range Due To Matrix Interference.

\*\* Values Outside QC Range.

Elements Bench Spiked: ALL



\*\* SPL QUALITY CONTROL REPORT \*\*

HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

Matrix: Aqueous

Reported on: 05/15/98

Analyzed on: 05/15/98

Analyst: AG

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Mercury, Dissolved  
Method 7470 A\*\*\*

SPL Sample ID Number	Blank Value ug/L	LCS Concentration ug/L	Measured Concentration ug/L	% Recovery	QC Limits Recovery
LCS	ND	2.00	1.93	96.5	80 - 120

-9805535

Samples in batch:

9805418-01E      9805567-01B      9805567-02B      9805567-03B

COMMENTS:

LCS = SPL ID# 94-452-45-21



\*\* SPL QUALITY CONTROL REPORT \*\*

HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

Matrix: Aqueous

Reported on: 05/15/98

Analyzed on: 05/15/98

Analyst: AG

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Mercury, Dissolved  
Method 7470 A\*\*\*

SPL Sample	Method	Sample	Spike	Matrix Spike		Matrix Spike Duplicate		RPD	QC LIMITS (Advisory)		
ID Number	Blank ug/L	Result ug/L	Added ug/L	Result ug/L	Recovery %	Result ug/L	Recovery %	(%)	RPD Max	% REC	
9805418-01E	ND	ND	2.00	1.91	95.5	1.83	91.5	4.3	20	75	-125

-9805535

Samples in batch:

9805418-01E    9805567-01B    9805567-02B    9805567-03B

COMMENTS:

LCS = SPL ID# 94-452-45-21





\*\* SPL QUALITY CONTROL REPORT \*\*

HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

Matrix: Aqueous

Reported on: 05/20/98

Analyzed on: 05/20/98

Analyst: JS

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Alkalinity, as  $\text{CaCO}_3$   
Method 310.1 \*

SPL Sample ID Number	Blank Value mg/L	LCS Concentration mg/L	Measured Concentration mg/L	% Recovery	QC Limits Recovery
LCS	ND	65	65	100	95 - 113

-9805688

Samples in batch:

9805418-01B	9805543-01D	9805543-02D	9805543-03D
9805543-04D	9805543-05D	9805544-02G	9805544-04G
9805544-05G	9805621-02C		

COMMENTS:

LCS#94453192-24



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

®

\*\* SPL QUALITY CONTROL REPORT \*\*

Matrix: Aqueous

Reported on: 05/20/98

Analyzed on: 05/20/98

Analyst: JS

This sample was randomly selected for use in the SPL quality control program. The results are as follows:

Alkalinity, as CaCO<sub>3</sub>  
Method 310.1 \*

-- DUPLICATE ANALYSIS --

SPL Sample ID	Original Sample Concentration mg/L	Duplicate Sample mg/L	RPD	RPD Max.
9805418-01B	141	142	0.7	18

-9805687

Samples in batch:

9805418-01B	9805543-01D	9805543-02D	9805543-03D
9805543-04D	9805543-05D	9805544-02G	9805544-04G
9805544-05G	9805621-02C		

COMMENTS:



\*\* SPL QUALITY CONTROL REPORT \*\*

HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

Matrix: Aqueous

Reported on: 05/19/98

Analyzed on: 05/19/98

Analyst: ET

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Chloride  
Method 325.3 \*

SPL Sample ID Number	Blank Value mg/L	LCS Concentration mg/L	Measured Concentration mg/L	% Recovery	QC Limits Recovery
LCS	ND	170	169.27	99.6	94 - 106

-9805652

Samples in batch:

9805418-01B	9805543-01D	9805543-02D	9805543-03D
9805543-04D	9805543-05D	9805550-03A	9805551-03A
9805785-01A	9805829-01A		

COMMENTS:

LCS = SPL ID#94453192-24



\*\* SPL QUALITY CONTROL REPORT \*\*

HOUSTON LABORATORY  
8680 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

Matrix: Aqueous

Reported on: 05/19/98

Analyzed on: 05/19/98

Analyst: ET

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Chloride  
Method 325.3 \*

SPL Sample	Method	Sample	Spike	Matrix Spike		Matrix Spike Duplicate		RPD	QC LIMITS (Advisory)	
ID Number	Blank	Result	Added	Result	Recovery	Result	Recovery	(%)	RPD	% REC
	mg/L	mg/L	mg/L	mg/L	%	mg/L	%		Max	
9805829-01A	ND	36.16	50.00	86.85	101	86.50	101	0	5	92 -109

-9805640

Samples in batch:

9805418-01B	9805543-01D	9805543-02D	9805543-03D
9805543-04D	9805543-05D	9805550-03A	9805551-03A
9805785-01A	9805829-01A		

COMMENTS:



HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

\*\* SPL QUALITY CONTROL REPORT \*\*

Matrix: Aqueous

Reported on: 05/18/98

Analyzed on: 05/18/98

Analyst: DAM

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Sulfate  
Method 375.4 \*

SPL Sample ID Number	Blank Value mg/L	LCS Concentration mg/L	Measured Concentration mg/L	% Recovery	QC Limits Recovery
LCS	ND	9.14	9.32	102	82 - 111

-9805603

Samples in batch:

9805274-01H	9805274-02H	9805274-03H	9805274-04H
9805274-05H	9805274-06H	9805408-01F	9805408-02F
9805418-01B	9805478-02A		

COMMENTS:

LCS = SPL ID#:94453192-24



\*\* SPL QUALITY CONTROL REPORT \*\*

HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

Matrix: Aqueous

Reported on: 05/18/98

Analyzed on: 05/18/98

Analyst: DAM

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Sulfate  
Method 375.4 \*

SPL Sample	Method	Sample	Spike	Matrix Spike		Matrix Spike Duplicate		RPD	QC LIMITS (Advisory)		
ID Number	Blank	Result	Added	Result	Recovery	Result	Recovery	(%)	RPD	% REC	
	mg/L	mg/L	mg/L	mg/L	%	mg/L	%		Max		
9805274-01H	ND	ND	10.0	9.61	96.1	9.79	97.9	1.9	9.5	84	-120

-9805602

Samples in batch:

9805274-01H    9805274-02H    9805274-03H    9805274-04H  
9805274-05H    9805274-06H    9805408-01F    9805408-02F  
9805418-01B    9805478-02A

COMMENTS:



\*\* SPL QUALITY CONTROL REPORT \*\*

HOUSTON LABORATORY

8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

Matrix: Aqueous

Reported on: 05/14/98

Analyzed on: 05/13/98

Analyst: KS

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Total Dissolved Solids  
Method 160.1 \*

SPL Sample ID Number	Blank Value mg/L	LCS Concentration mg/L	Measured Concentration mg/L	% Recovery	QC Limits Recovery
LCS	ND	293.2	289	98.6	93 - 107

-9805514

Samples in batch:

9805418-01B      9805545-01F

COMMENTS:

SPL LCS ID# 95535192-17



®

## \*\* SPL QUALITY CONTROL REPORT \*\*

## HOUSTON LABORATORY

8880 INTERCHANGE DRIVE

HOUSTON, TEXAS 77054

PHONE (713) 660-0901

Matrix: Aqueous

Reported on: 05/14/98

Analyzed on: 05/13/98

Analyst: KS

This sample was randomly selected for use in the SPL quality control program. The results are as follows:

Total Dissolved Solids

Method 160.1 \*

## -- DUPLICATE ANALYSIS --

SPL Sample ID	Original Sample Concentration mg/L	Duplicate Sample mg/L	RPD	RPD Max.
9805418-01B	1860	1940	4.2	5

-9805513

Samples in batch:

9805418-01B 9805545-01F

COMMENTS:





HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

\*\* SPL QUALITY CONTROL REPORT \*\*

Matrix: Aqueous

Reported on: 05/11/98

Analyzed on: 05/11/98

Analyst: EM

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Nitrate-Nitrite, as N  
Method 353.3 \*

SPL Sample ID Number	Blank Value mg/L	LCS Concentration mg/L	Measured Concentration mg/L	% Recovery	QC Limits Recovery
LCS	ND	1.00	0.94	94.0	92 - 111

-9805360

Samples in batch:

9805234-01B      9805234-02B      9805418-01C

COMMENTS:

SPL LCS#: 94453190-18



\*\* SPL QUALITY CONTROL REPORT \*\*

HOUSTON LABORATORY  
8880 INTERCHANGE DRIVE  
HOUSTON, TEXAS 77054  
PHONE (713) 660-0901

Matrix: Aqueous

Reported on: 05/11/98

Analyzed on: 05/11/98

Analyst: EM

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Nitrate-Nitrite, as N  
Method 353.3 \*

SPL Sample	Method	Sample	Spike	Matrix Spike		Matrix Spike Duplicate		RPD	QC LIMITS (Advisory)		
ID Number	Blank	Result	Added	Result	Recovery	Result	Recovery	(%)	RPD	% REC	
	mg/L	mg/L	mg/L	mg/L	%	mg/L	%		Max		
9805234-01B	ND	1.06	5.00	5.99	98.6	5.94	97.6	1.0	12	87	-120

-9805359

Samples in batch:

9805234-01B    9805234-02B    9805418-01C

COMMENTS:

*CHAIN OF CUSTODY*  
*AND*  
*SAMPLE RECEIPT CHECKLIST*



SPL, Inc.

## Analysis Request &amp; Chain of Custody Record

SPL Worksheet No:

9805418

51312

page \_\_\_ of \_\_\_

Client Name: CYPRESS ENGINEERING SERVICE

Address/Phone: 10235 West Little York Rd Houston, TX

Client Contact: MR. George Robinson 713-646-7327 77040

Project Name: TRANS Western Pipeline

Project Number:

Project Location: Roswell Station #9

Invoice To:

SAMPLE ID	DATE	TIME	comp	grab
-----------	------	------	------	------

SAMPLE ID	DATE	TIME	comp	grab
-----------	------	------	------	------

SAMPLE ID	DATE	TIME	comp	grab
-----------	------	------	------	------

SAMPLE ID	DATE	TIME	comp	grab
-----------	------	------	------	------

\* Please Add  
Preservative to  
Nitrate / Nitrite  
1 liter Plastic  
ASAP

matrix

bottle

size

pres.

Number of Containers

100% 8260 including  
1,2-dichloroethene  
and 3 samples of dichloroetheneTDS, Chloride,  
Sulfate, ALKALINITYNITRATE & NITRITE  
AS Nitrogen EPA  
Method 353.1PAHs, Method 8270  
including 2 monomers  
and 10 others. 150mg/LMETALS 7470 For Hg  
6010 for all others.  
As, Ba, Cd, Cr, Cu, Fe, Pb, Mn, Ni, Se, Ag, Co, Ni, Fe, Zn, Pb, Cu, K, Na, Mg.

W=water S=soil

SL=sludge O=other:

P=plastic A=amber glass

G=glass V=vial

1=1 liter 4=4oz 40=40ml

8=8oz 16=16oz

1=HCl 2=HNO3

3=H2SO4 O=other:

100% 8260 including  
1,2-dichloroethene  
and 3 samples of dichloroetheneTDS, Chloride,  
Sulfate, ALKALINITYNITRATE & NITRITE  
AS Nitrogen EPA  
Method 353.1PAHs, Method 8270  
including 2 monomers  
and 10 others. 150mg/LMETALS 7470 For Hg  
6010 for all others.  
As, Ba, Cd, Cr, Cu, Fe, Pb, Mn, Ni, Se, Ag, Co, Ni, Fe, Zn, Pb, Cu, K, Na, Mg.

W=water S=soil

SL=sludge O=other:

P=plastic A=amber glass

G=glass V=vial

1=1 liter 4=4oz 40=40ml

8=8oz 16=16oz

1=HCl 2=HNO3

3=H2SO4 O=other:

100% 8260 including  
1,2-dichloroethene  
and 3 samples of dichloroetheneTDS, Chloride,  
Sulfate, ALKALINITYNITRATE & NITRITE  
AS Nitrogen EPA  
Method 353.1PAHs, Method 8270  
including 2 monomers  
and 10 others. 150mg/LMETALS 7470 For Hg  
6010 for all others.  
As, Ba, Cd, Cr, Cu, Fe, Pb, Mn, Ni, Se, Ag, Co, Ni, Fe, Zn, Pb, Cu, K, Na, Mg.

Client/Consultant Remarks:

Any Questions Please Call MR. Robinson  
713-646-7327

Laboratory remarks:

**RUSH**Intact? ☐ Y ☐ N

Temp: 30°C

Requested TAT

Special Reporting Requirements

Fax Results ☐Raw Data ☐

Special Detection Limits (specify):

PM review (initial):

Standard QC ☐Level 3 QC ☒Level 4 QC ☐24hr ☐72hr ☐48hr ☐Standard ☒Other ☐

1. Relinquished by Sampler:

date 5/8/98 time 16:40

3. Relinquished by:

date

5. Relinquished by:

date

2. Received by:

4. Received by:

6. Received by Laboratory:

☒ 8880 Interchange Drive, Houston, TX 77054 (713) 660-0901☐ 459-Hughes Drive, Traverse City MI 49684 (616) 947-5777☐ 500 Ambassador Caffery Parkway, Scott, LA 70583 (318) 237-4775☐ 1501 E Orange Avenue, Fullerton, CA 92631 (714) 447-6868



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 S. PACHECO  
SANTA FE, NEW MEXICO 87505  
(505) 827-7131

June 3, 1998

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. Z-235-437-279**

Mr. Bill Kendrick  
Transwestern Pipeline Company  
P.O. Box 1188  
Houston, Texas 77251-1188

**RE: INVESTIGATION WORK PLAN  
ROSWELL COMPRESSOR STATION**

Dear Mr. Kendrick:

The New Mexico Oil Conservation Division has reviewed Transwestern Pipeline Company's (TPC) March 28, 1998 "ANNUAL GROUND WATER MONITORING REPORT & PHASE IV SOIL AND GROUND WATER ASSESSMENT PLAN, ROSWELL COMPRESSOR STATION, TRANSWESTERN PIPELINE COMPANY". This document contains the results of TPC's ground water monitoring and TPC's work plan for additional investigations of the extent of soil and ground contamination related to the TPC Roswell Compressor Station.

The work plan as contained in the above referenced document is approved with the following conditions:

1. The proposed deep monitor well MW-25D will be installed at the location as shown on the attached figure.
2. The investigation report will be submitted to the OCD Santa Fe Office by September 18, 1998 with a copy provided to the OCD Artesia District Office.

Please be advised that OCD approval does not relieve TPC of liability if the investigation work plan fails to adequately determine the extent of contamination related to TPC's activities. In addition, OCD approval does not relieve TPC of responsibility for compliance with any other federal, state or local laws and regulations.

Mr. Bill Kendrick  
June 3, 1998  
Page 2

If you have any questions, please contact me at (505) 827-7154.

Sincerely,



William C. Olson  
Hydrologist  
Environmental Bureau

xc: Tim Gum, OCD Artesia Office  
Mike Matush, NM State Land Office  
George Robinson, Cypress Engineering Services, Inc.  
Benito Garcia, NMED Hazardous & Radioactive Materials Bureau

Z 235 437 279

US Postal Service

**Receipt for Certified Mail**

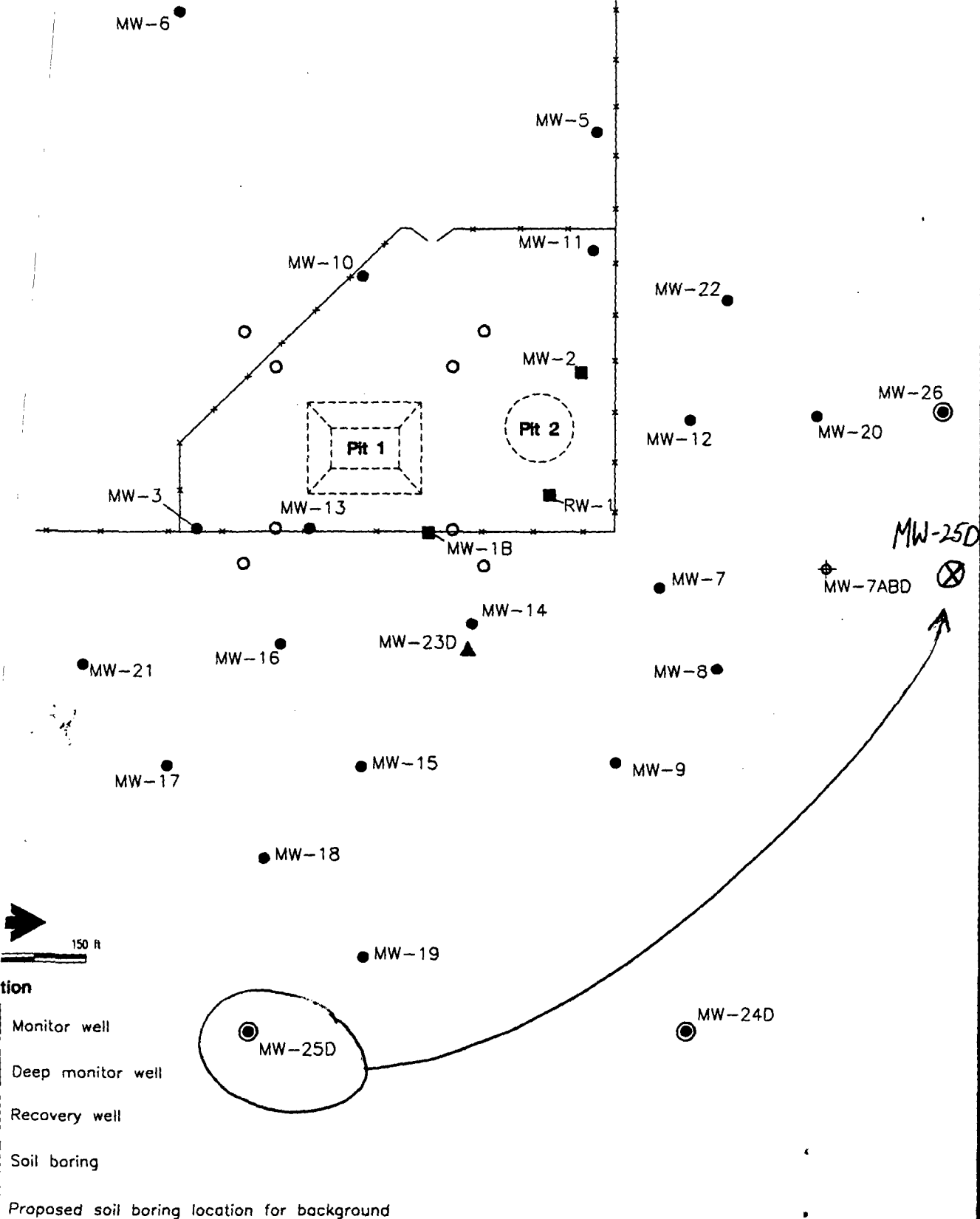
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Street & Number	
Post Office, State, & ZIP Code	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

PS Form 3800, April 1995

Road



ROSWELL COMPRESSOR STATION  
Proposed Monitor Well and  
Soil Boring Locations

**Cypress Engineering**10235 West Little York Road, Suite 256  
Houston, Texas 77040(713) 856-7980 office  
(713) 856-7981 fax**George C. Robinson, P.E.**c/o: ENRON Operations Corp.  
Environmental Affairs Dept.  
P.O. Box 1188, Room 3AC-3142  
Houston, TX 77251-1188(713) 646-7327 ENRON office  
(713) 646-7867 ENRON fax

## FAX Transmission

**To:** Bill Olson**Fax:** 505-827-8177**From:** George C. Robinson**Date:** May 12, 1998**Comments:****Pages:** 2 (including this cover)

Bill,

Last week we measured the depth to water in the three nearest regional aquifer wells and surveyed the top of casings in order to produce the attached diagram. After you have had a chance to review this, I would like to discuss the possibility of eliminating the proposed deep monitor wells from our most recent work plan. I'll try to contact you tomorrow on this matter.

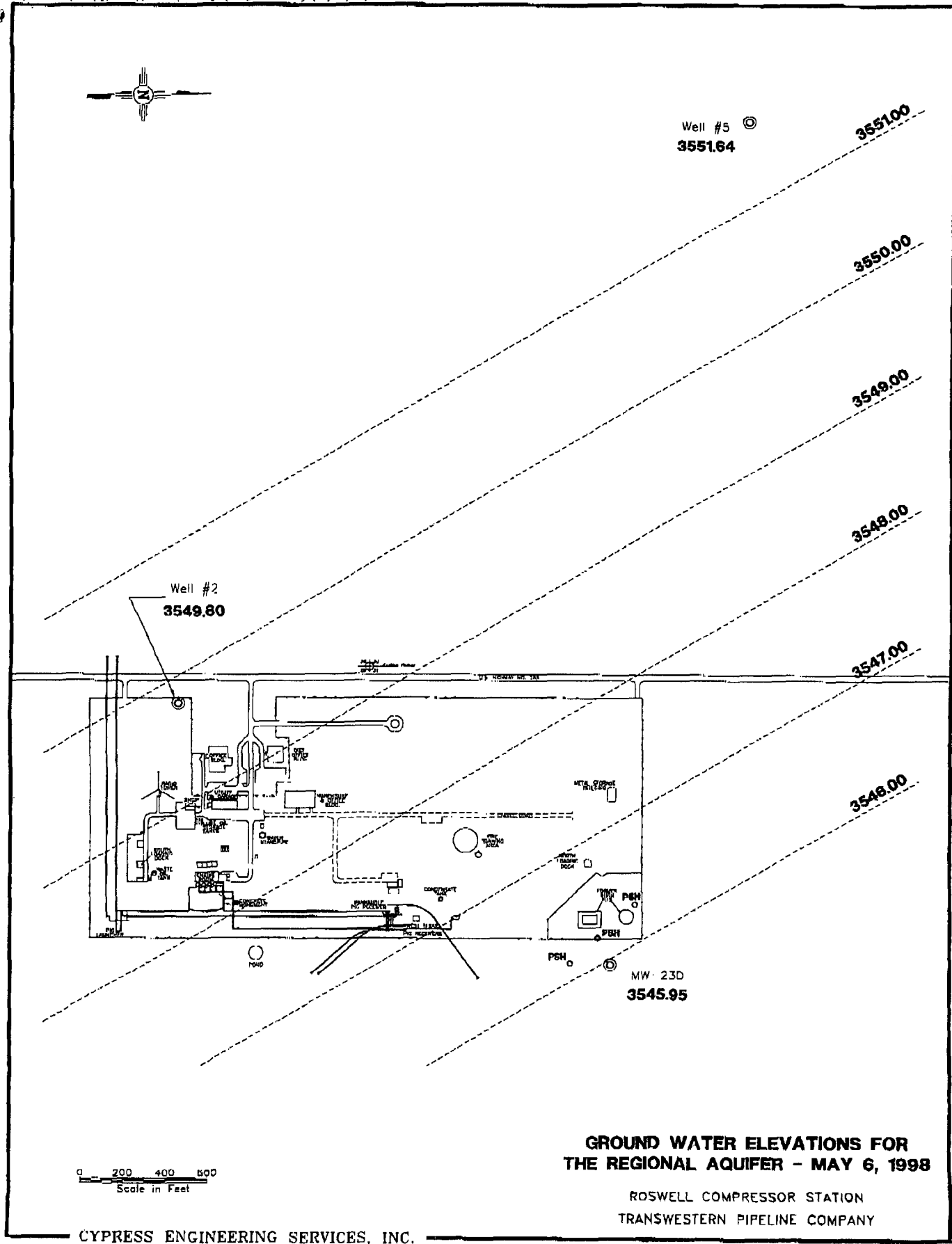
Thanks,

George

Please call if you do not receive this transmission in its entirety!



f:\contin\ead\cypress\grabins\drawings\ros\rosalex.dwg (05/10/98)

**Figure 1**

\*\* TOTAL PAGE.02 \*\*

# Transwestern Pipeline Company

P. O. Box 1188 Houston, Texas 77251-1188 (713) 853-6161

March 28, 1998

Mr. William C. Olson  
Environmental Bureau  
New Mexico Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, New Mexico 87505

MAR 31 1998

CHUCK ROBINSON

RE: Annual Ground Water Monitoring Report &  
Phase IV Soil and Ground Water Assessment Plan  
Roswell Compressor Station  
Transwestern Pipeline Company

Dear Bill,

Enclosed for your review and approval is the Annual Ground Water Monitoring Report and Phase IV Soil and Ground Water Assessment Plan for the subject facility.

The content of the Phase IV plan, in general, is identical to the Phase III soil and ground water assessment plan which was reviewed and approved by your office last year. Changes have been made to incorporate comments by your office as prescribed in your correspondence related to the subject facility dated April 17, 1997, and February 24, 1998. More specifically, the key elements of the Phase IV plan include the following:

- Installation of two additional monitor wells within the uppermost aquifer
- Installation of two additional monitor wells within the deeper regional aquifer
- Collection of soil samples from the immediate pit area for treatability studies [Note: this has been modified slightly from the previous plan to include collection of samples using a split spoon sampler rather than a backhoe.]
- Collection of 16 soil samples for determination of background metal concentrations [Note: this has been modified slightly from the previous plan to incorporate the OCD's comment regarding sample locations and has been modified to include analysis for 19 metal constituents rather than 14]

If you have any questions or comments regarding this report and work plan, please contact me at (713) 646-7644 or George Robinson at (713) 646-7327.

Sincerely,



Bill Kendrick  
Manager, Environmental Affairs

gcr/BK

c w/attachment:	Jerry Bober	NMED HRMB
	Benito Garcia	NMED HRMB
	Robert Young	NM State Land Office
	Larry Campbell	Transwestern
	George Robinson	Cypress Engineering



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO  
SANTA FE, NEW MEXICO 87505  
(505) 827-7131

February 24, 1998

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. Z-235-437-236**

Mr. Bill Kendrick  
ENRON Gas Pipeline Group  
P.O. Box 1188  
Houston, Texas 77251-1188

**RE: INVESTIGATION DERIVED WASTES  
ROSWELL COMPRESSOR STATION**

Dear Mr. Kendrick:

The New Mexico Oil Conservation Division has reviewed ENRON Gas Pipeline Group's (ENRON) October 14, 1997 "FINAL DISPOSITION OF INVESTIGATION DERIVED WASTES (IDW), ROSWELL COMPRESSOR STATION, TRANSWESTERN PIPELINE COMPANY". This document contains ENRON's requesting approval of onsite disposal of ground water investigation derived wastes at the ENRON Roswell Compressor Station.


The OCD **approves** of the request for purge water wastes generated from monitor wells MW-23D and the combined purge water from monitor wells MW-7, 8, 10, 14, 15, 17 and 19.

The request for onsite disposal of soil cuttings is **denied** because background metals soil concentrations at the site have not yet been determined.

Please be advised that OCD approval does not relieve ENRON of liability if their disposal actions pose a future threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve ENRON of responsibility for compliance with any other federal, state or local laws and regulations.

If you have any questions, please contact me at (505) 827-7154.

Sincerely,

  
William C. Olson  
Hydrogeologist  
Environmental Bureau

xc: Tim Gum, OCD Artesia Office  
Mike Matush, NM State Land Office  
George Robinson, Cypress Engineering Services, Inc.  
Benito Garcia, NMED Hazardous & Radioactive Materials Bureau



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 S. PACHECO  
SANTA FE, NEW MEXICO 87505  
(505) 827-7131

February 24, 1998

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. Z-235-437-236**

Mr. Bill Kendrick  
ENRON Gas Pipeline Group  
P.O. Box 1188  
Houston, Texas 77251-1188

**RE: GROUND WATER ASSESSMENT  
ROSWELL COMPRESSOR STATION**

Dear Mr. Kendrick:

The New Mexico Oil Conservation Division has reviewed ENRON Gas Pipeline Group's (ENRON) October 14, 1997 "PHASE III SOIL AND GROUND WATER ASSESSMENT REPORT, ROSWELL COMPRESSOR STATION, TRANSWESTERN PIPELINE COMPANY". This document contains the results of ENRON's recent investigations of the extent of contamination related to the ENRON Roswell Compressor Station.

The OCD has the following comments on the above referenced report:

1. Section 3.2, Page 9

The statement that the soil metals concentrations are within background concentrations cannot be evaluated since ENRON to date has not taken any background soil samples.

2. Section 3.3.2, Page 11

- a. The extent of ground water contamination in the vicinity of MW-20 and MW-21 has not been completed.
- b. The extent of halogenated organic compounds is not entirely represented by areas with measurable concentrations of 1,1,1-TCA. Monitor wells MW-20 and MW-13 contain 1,2-DCA in concentrations in excess of New Mexico Water Quality Control Commission (WQCC) standards. These wells are not within the estimated extent of 1,1,1-TCA as shown on figure 6. The estimated extent of halogenated organic compounds needs to include these areas.

Mr. Bill Kendrick  
February 24, 1998  
Page 2

- c. The statement that all metals detected were below WQCC standards is not correct. Monitor well MW-1 contains arsenic and barium in excess of WQCC standards and monitor wells MW-18, MW-20 and MW-22 contain iron in excess of WQCC standards.

3. Section 4, Page 12

This section only lists benzene, toluene, ethylbenzene, xylene, 1,1,1-TCA and 1,1-DCA as primary target compounds. However, ground water at the site also contains naphthalene, 1,2-DCA, 1,1-DCE, arsenic, barium, iron, chloride and total dissolved solids in excess of WQCC standards. These constituents will also need to be addressed in future investigative reports and remedial action plans.

4. It is difficult for the OCD to evaluate vertical water quality impacts with only one deep well since it has not been determined whether monitor well MW-23D is actually downgradient of the upper contaminated zone.

In order to address the OCD's above comments, the OCD requires that ENRON submit a work plan to complete the definition of the lateral and vertical extent of contamination and to determine background metals concentrations at the site. The plan will be submitted to the OCD Santa Fe Office by April 24, 1998 with a copy provided to the OCD Artesia Office. Once all investigative activities have been completed the OCD will require that a final comprehensive site investigation report be compiled and submitted for approval.

If you have any questions, please contact me at (505) 827-7154.

Sincerely,



William C. Olson  
Hydrogeologist  
Environmental Bureau

xc: Tim Gum, OCD Artesia Office  
Mike Matush, NM State Land Office  
George Robinson, Cypress Engineering Services, Inc.  
Benito Garcia, NMED Hazardous & Radioactive Materials Bureau

Z 235 437 236

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No Insurance Coverage Provided.

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Return Receipt Showing to Whom, Date, & Addressee's Address	
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PS Form 3800, April 1995



Cypress Engineering

16300 Katy Freeway, Suite 210  
Houston, Texas 77094-1610

(281) 578-3115 office  
(281) 578-3491 fax

February 5, 1998

New Mexico State Land Office  
Attn. Mr. Robert Young  
310 Old Santa Fe Trail  
Santa Fe, NM 87504

RE: Transwestern Pipeline Company - Roswell Station Remediation

Dear Robert,

Enclosed for your review and files is one copy of the report titled "Phase III Soil and Ground Water Assessment for Roswell Compressor Station No. 9 Surface Impoundments - Volume I" and dated October 15, 1997. This report presents the results of the assessment activities completed in August 1997 at Transwestern Pipeline Company's Compressor Station No. 9 located nine miles north of Roswell, New Mexico. Volume II of this report, which contains only copies of laboratory reports, is not included with this transmittal but could be provided upon request.

Also enclosed for your review and files is one copy of the "Corrective Action Plan" dated January 31, 1997.

If you have any questions or comments regarding the contents of these reports, please contact me at (713) 646-7327.

Sincerely,

George C. Robinson, P.E.  
President

c w/o enclosure:

Bill Kendrick  
Bill Olson

ENRON Gas Pipeline Group  
New Mexico Oil Conservation Division

**Bill Olson**

---

**From:** Robinson, George[SMTP:grobins@enron.com]  
**Sent:** Thursday, January 15, 1998 4:47 PM  
**To:** billolson  
**Cc:** timgum  
**Subject:** Transwestern Roswell Station

Dear Bill,

Cypress Engineering will be collecting ground water samples at the Transwestern Roswell Station on or about January 23 through January 28, 1998. If you have any questions or comments regarding this notice please call Sandy Sharp at 713-646-7252.

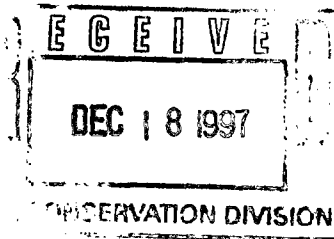
Thanks,

George Robinson





December 16, 1997



**Enron Transportation  
& Storage**

*Services Provided by Northern  
Natural Gas Company and  
Transwestern Pipeline Company  
Summit Office Building  
4001 Indian School Road, NE, Suite 250  
Albuquerque, NM 87110  
(505) 260-4000  
Fax (505) 254-1437*

Mr. Roger Anderson  
Oil Conservation Division  
2040 South pacheco  
Santa Fe, New Mexico 87504

Reference: Underground Drain Line Testing, Transwestern Pipeline Company'  
Compressor Station # 9 Roswell New Mexico GW- 52

Dear Mr. Anderson:

The following report presents the results of the underground drain line testing at the Transwestern Pipeline Company ( Transwestern) Compressor Station # 9 Roswell, New Mexico facility. This station is currently operating under OCD discharge plan GW-52, which requires drain line testing to be conducted on all underground drain lines. The testing program was conducted using the methodology submitted by letter on July 8, 1997 to the OCD, which was then approved by the agency on July 16, 1997.

**METHODOLOGY**

The testing program was initiated on November 4 - 11, 1997. The following drain line systems at the facility were hydrostatically tested:

<u>Drain Line System</u>	<u>Length of Line (ft.)</u>	<u>Size of pipe (in.)</u>
West Texas Pig Receiver to PLL <sup>(2)</sup> Tank	195	2.0
Mist Extractor to PLL Tank	63	2.0
PLL Tank to Truck Loading Point	111	4.0
OWW <sup>(1)</sup> to Truck Loading Point	111	4.0
Wash Bay to West Texas Pig Trap Sump	90	4.0
Comp. Bldg. OWW Sump To OWW Tank	1,230	2.0
Comp. Bldg. To OWW Sump	426	4" drain lines to 8" Header
<sup>(1)</sup> Oily Waste Water		
<sup>(2)</sup> Pipe Line Liquids		

For each drain line tested, the following methodology was employed. A test header was constructed by isolating each drain line and attaching and sealing a 90 degree elbow of the


same pipe diameter to one of the two drain pipe ends. A seven 7 ft vertical pipe of the same pipe diameter was attached and sealed to the exposed vertical end of the 90 degree elbow. At the horizontal terminal end of the exposed drain pipe a test plug was temporarily inserted and sealed. The drain line and attached test header was then filled with water to a marked level on the vertical pipe of 6.95 ft. above the horizontal elevation of the drain pipe. This water level head created a positive pressure of 3.0 psi upon the existing piping system. This pressure was then allowed to equilibrate in the pipe and the test was conducted for a period of thirty minutes to determine water loss in the pipe. Any water leakage will be indicated by a drop in the water level of the vertical pipe below the 6.95 ft mark.

### RESULTS

The results of the drain line testing recorded no instances where the water level in the vertical stand pipe receded below the water level mark of 6.95 ft. Based upon the results of this study, Transwestern concludes that the integrity of all underground drain line systems at this facility are intact and that no further actions are required on these lines.

Should you desire additional information concerning this testing procedure or report, contact Mr. James Russell at (505) 260-4011 or Mr. Larry Campbell at (505) 625-8022.

Sincerely,

  
James R. Russell  
Environmental Specialist

xc: Rich Jolly  
Larry Campbell  
Roswell Team



**Enron Gas  
Pipeline Group**

P.O. Box 1188  
Houston, TX 77251-1188  
(713) 853-6161

October 14, 1997

Mr. William C. Olson  
Environmental Bureau  
New Mexico Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, New Mexico 87505

**RECEIVED**

**OCT 20 1997**

RE: Phase III Soil and Ground Water Assessment Report  
Roswell Compressor Station  
Transwestern Pipeline Company

Environmental Bureau  
Oil Conservation Division

Dear Bill,

Enclosed for your review and files is a copy of the Phase III Soil and Ground Water Assessment Report, Volumes I and II. An additional copy of Volume I of the report is also enclosed.

If you have any questions or comments regarding this report, please contact me at (713) 646-7644 or George Robinson at (713) 646-7327.

Sincerely,

Bill Kendrick  
Manager, Environmental Affairs

gcr/BK

xc w/enclosures: Benito Garcia NMED HRMB [(2) Vol. I & (1) Vol. II]



Enron Gas  
Pipeline Group  
P.O. Box 1188  
Houston, TX 77251-1188  
(713) 853-6161

October 14, 1997

Mr. William C. Olson  
Environmental Bureau  
New Mexico Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, New Mexico 87505

**RECEIVED**

**OCT 20 1997**

Environmental Bureau  
Oil Conservation Division

RE: Final Disposition of Investigation Derived Wastes (IDW)  
Roswell Compressor Station  
Transwestern Pipeline Company

*MW-23D disposal  
verbally approved to  
George Robinson on  
10/31/97 at 10:00 hrs  
Will Olson*

Dear Bill,

In the course of the Phase III assessment activities, approximately 350 gallons of purge water and 5 cubic yards of soil cuttings were generated. The purge water is currently stored at the site in eleven drums. At this time, only five of the drums are 100% full and require final disposition. The other six drums will continue to be used for the containment of purge water generated in the course of the next quarterly ground water sampling event. As a result, a proposal for the final disposition of these remaining drums will be submitted at a later date.

The proposed final disposition of purge water contained in the five full drums is based upon the results of laboratory analyses of ground water samples collected from each well. The proposed final disposition of soil cuttings is based upon the results of laboratory analyses of a composite soil sample collected from the stockpiled soil. The contents of each of the five drums and the proposed final disposition of IDW is summarized in the table below.

Source	Drums	Lab Results	Comments/Disposition
MW-23D purge water	4	non-detect for all VOCs & SVOCs	discharge to ground surface
MW-7, 8, 10, 14, 15, 17, & 19 purge water	1	non-detect for all VOCs & SVOCs	discharge to ground surface
"Clean" soil cuttings pile	5 cu. yds.	segregated in field based on PID < 100 ppm; non-detect for all VOCs & SVOCs; conc. of metals are within the expected range for background; TPH=100 mg/kg	spread on-site in Pit 1 area

Notes:

- TCLP was not necessary for characterization of soil cuttings since lab results indicate that no regulated constituents are present at a concentration greater than 20 times the TCLP

regulatory level and therefore could not theoretically produce a TCLP extract which would contain a constituent in excess of the TCLP levels.

- The laboratory reports for ground water samples supporting the information indicated under the column heading "Lab Results" were included in the Phase III assessment report previously submitted to your office for review.
- The laboratory report for a composite soil sample collected from the soil cuttings pile is enclosed with this document. The measured TPH concentration of 100 mg/kg does not represent a significantly elevated level of TPH above background. All four soil borings were located in relatively "clean" areas well outside the immediate vicinity of the source area. Note that the results from Core Lab reported in the Phase III assessment report consistently indicate a higher than normal measured TPH concentration for all 30 discrete depth soil samples collected from the four soil borings. The measured TPH concentration for these samples ranged from 37 mg/kg to 93 mg/kg with a mean concentration of 58.9 mg/kg. The maximum measured TPH concentration of 93 mg/kg was for a sample collected from the deep well soil boring at a depth of 126 feet below ground surface. Due to the location of this sample depth within the stratigraphic sequence logged for this boring, one can conclude with fair certainty that this represents a "clean" sample.

Transwestern will implement the proposed disposition of IDW upon obtaining approval from your office. If you have any questions regarding this issue, please contact me at (713) 646-7644 or George Robinson at (713) 646-7327.

Sincerely,



Bill Kendrick  
Manager, Environmental Affairs

gcr/BK

enclosure

xc w/enclosure: Tim Gum NMOCD Artesia District Office



## CORE LABORATORIES

## SAMPLE INFORMATION

Date: 08/28/97

Job Number.: 972194

Customer ...: Daniel B. Stephens &amp; Associates

Attn.....: Bob Marley

Project Number.....: 97000162

Customer Project ID.....: ENRON ROSWELL/6033.2

Project Description.....: DB Stephens/ 6033.2

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
972194-1	CUTTINGS	Soil	08/08/97	10:45	08/09/97	11:05



## CORE LABORATORIES

## LABORATORY TEST RESULTS

Job Number: 972194

Date: 08/28/97

CUSTOMER: Daniel B. Stephens &amp; Associates

PROJECT: ENRON ROSWELL/6033.2

ATTN: Bob Marley

Customer Sample ID: CUTTINGS

Date Sampled.....: 08/08/97

Time Sampled.....: 10:45

Sample Matrix.....: Soil

Laboratory Sample ID: 972194-1

Date Received.....: 08/09/97

Time Received.....: 11:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
I-1230-85	Hexavalent Chromium, Solid	0.02	0.01	mg/L	08/20/97	mjf
SW-846 3050	Acid Digestion: Solids	Complete			08/19/97	veb
SW-846 6010A	Aluminum (Al), Solid	6270	50	mg/Kg	08/25/97	lmt
SW-846 6010A	Antimony (Sb), Solid	3	1	mg/Kg	08/25/97	lmt
SW-846 6010A	Arsenic (As), Solid	2	1	mg/Kg	08/25/97	lmt
SW-846 6010A	Barium (Ba), Solid	124	1	mg/Kg	08/25/97	lmt
SW-846 6010A	Beryllium (Be), Solid	<0.5	0.5	mg/Kg	08/25/97	lmt
SW-846 6010A	Cadmium (Cd), Solid	<0.5	0.5	mg/Kg	08/25/97	lmt
SW-846 6010A	Chromium (Cr), Solid	7	1	mg/Kg	08/25/97	lmt
SW-846 6010A	Cobalt (Co), Solid	<3	3	mg/Kg	08/25/97	lmt
SW-846 6010A	Copper (Cu), Solid	5	1	mg/Kg	08/25/97	lmt
SW-846 6010A	Lead (Pb), Solid	3.8	0.3	mg/Kg	08/25/97	lmt
SW-846 7471	Mercury (Hg), Solid	<0.10	0.10	mg/Kg	08/19/97	veb
SW-846 6010A	Selenium (Se), Solid	<1	1	mg/Kg	08/25/97	lmt
SW-846 6010A	Thallium (Tl), Solid	1	1	mg/Kg	08/25/97	lmt
EPA 418.1	Total Recoverable Petroleum Hydrocarbons, Solid	100	10	mg/Kg	08/21/97	jbd
62-1.3.2.2	1:1 Soil Paste	Complete			08/19/97	mrh
SW-846 3550	Extraction (Ultrasonic) PCBs Ultrasonic Extraction	Complete			08/15/97	rwm
SW-846 8080	PCB Analysis					
	Aroclor 1016, Solid	ND	17	ug/Kg	08/22/97	smc
	Aroclor 1221, Solid	ND	17	ug/Kg	08/22/97	smc
	Aroclor 1232, Solid	ND	17	ug/Kg	08/22/97	smc
	Aroclor 1242, Solid	ND	17	ug/Kg	08/22/97	smc
	Aroclor 1248, Solid	ND	17	ug/Kg	08/22/97	smc
	Aroclor 1254, Solid	ND	17	ug/Kg	08/22/97	smc
	Aroclor 1260, Solid	ND	17	ug/Kg	08/22/97	smc
	Aroclor 1262, Solid	ND	17	ug/Kg	08/22/97	smc
	Aroclor 1268, Solid	ND	17	ug/Kg	08/22/97	smc
	Total PCB's, Solid	ND	17	ug/Kg	08/22/97	smc



## CORE LABORATORIES

## LABORATORY TEST RESULTS

Job Number: 972194

Date: 08/28/97

CUSTOMER: Daniel B. Stephens &amp; Associates

PROJECT: ENRON ROSWELL/6033.2

ATTN: Bob Marley

Customer Sample ID: CUTTINGS

Date Sampled.....: 08/08/97

Time Sampled.....: 10:45

Sample Matrix.....: Soil

Laboratory Sample ID: 972194-1

Date Received.....: 08/09/97

Time Received.....: 11:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 3550	Extraction (Ultrasonic) SVOCs Ultrasonic Extraction	Complete			08/15/97	rwm
SW-846 8270	Semivolatile Organics					
	Acenaphthene, Solid	ND	330	ug/Kg	08/22/97	dmj
	Acenaphthylene, Solid	ND	330	ug/Kg	08/22/97	dmj
	Anthracene, Solid	ND	330	ug/Kg	08/22/97	dmj
	Benzidine, Solid	ND	1650	ug/Kg	08/22/97	dmj
	Benzo(a)anthracene, Solid	ND	330	ug/Kg	08/22/97	dmj
	Benzo(b)fluoranthene, Solid	ND	330	ug/Kg	08/22/97	dmj
	Benzo(k)fluoranthene, Solid	ND	330	ug/Kg	08/22/97	dmj
	Benzo(ghi)perylene, Solid	ND	330	ug/Kg	08/22/97	dmj
	Benzo(a)pyrene, Solid	ND	330	ug/Kg	08/22/97	dmj
	Benzyl alcohol, Solid	ND	330	ug/Kg	08/22/97	dmj
	Butyl benzyl phthalate, Solid	ND	330	ug/Kg	08/22/97	dmj
	Bis(2-chloroethoxy)methane, Solid	ND	330	ug/Kg	08/22/97	dmj
	Bis(2-chloroethyl)ether, Solid	ND	330	ug/Kg	08/22/97	dmj
	Bis(2-chloroisopropyl)ether, Solid	ND	330	ug/Kg	08/22/97	dmj
	Bis(2-ethylhexyl)phthalate, Solid	ND	330	ug/Kg	08/22/97	dmj
	4-Bromophenyl phenyl ether, Solid	ND	330	ug/Kg	08/22/97	dmj
	4-Chloroaniline, Solid	ND	330	ug/Kg	08/22/97	dmj
	2-Chloronaphthalene, Solid	ND	330	ug/Kg	08/22/97	dmj
	4-Chlorophenyl phenyl ether, Solid	ND	330	ug/Kg	08/22/97	dmj
	Chrysene, Solid	ND	330	ug/Kg	08/22/97	dmj
	Dibenzo(a,h)anthracene, Solid	ND	330	ug/Kg	08/22/97	dmj
	Dibenzofuran, Solid	ND	330	ug/Kg	08/22/97	dmj
	1,2-Dichlorobenzene, Solid	ND	330	ug/Kg	08/22/97	dmj
	1,3-Dichlorobenzene, Solid	ND	330	ug/Kg	08/22/97	dmj
	1,4-Dichlorobenzene, Solid	ND	330	ug/Kg	08/22/97	dmj
	3,3-Dichlorobenzidine, Solid	ND	330	ug/Kg	08/22/97	dmj
	Diethyl phthalate, Solid	ND	330	ug/Kg	08/22/97	dmj
	Dimethyl phthalate, Solid	ND	330	ug/Kg	08/22/97	dmj
	Di-n-butyl phthalate, Solid	ND	330	ug/Kg	08/22/97	dmj
	Di-n-octyl phthalate, Solid	ND	330	ug/Kg	08/22/97	dmj
	2,4-Dinitrotoluene, Solid	ND	330	ug/Kg	08/22/97	dmj
	2,6-Dinitrotoluene, Solid	ND	330	ug/Kg	08/22/97	dmj
	Fluoranthene, Solid	ND	330	ug/Kg	08/22/97	dmj
	Fluorene, Solid	ND	330	ug/Kg	08/22/97	dmj
	Hexachlorobenzene, Solid	ND	330	ug/Kg	08/22/97	dmj
	Hexachlorobutadiene, Solid	ND	330	ug/Kg	08/22/97	dmj
	Hexachlorocyclopentadiene, Solid	ND	330	ug/Kg	08/22/97	dmj
	Hexachloroethane, Solid	ND	330	ug/Kg	08/22/97	dmj
	Indeno(1,2,3-cd)pyrene, Solid	ND	330	ug/Kg	08/22/97	dmj
	Isophorone, Solid	ND	330	ug/Kg	08/22/97	dmj
	2-Methylnaphthalene, Solid	ND	330	ug/Kg	08/22/97	dmj
	Naphthalene, Solid	ND	330	ug/Kg	08/22/97	dmj
	o-Nitroaniline, Solid	ND	1650	ug/Kg	08/22/97	dmj
	m-Nitroaniline, Solid	ND	1650	ug/Kg	08/22/97	dmj





## CORE LABORATORIES

## LABORATORY TEST RESULTS

Job Number: 972194

Date: 08/28/97

CUSTOMER: Daniel B. Stephens &amp; Associates

PROJECT: ENRON ROSWELL/6033.2

ATTN: Bob Marley

Customer Sample ID: CUTTINGS

Date Sampled.....: 08/08/97

Time Sampled.....: 10:45

Sample Matrix.....: Soil

Laboratory Sample ID: 972194-1

Date Received.....: 08/09/97

Time Received.....: 11:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
SW-846 8240	p-Nitroaniline, Solid	ND	1650	ug/Kg	08/22/97	dmj
	Nitrobenzene, Solid	ND	330	ug/Kg	08/22/97	dmj
	n-Nitrosodi-n-propylamine, Solid	ND	330	ug/Kg	08/22/97	dmj
	n-Nitrosodiphenylamine, Solid	ND	330	ug/Kg	08/22/97	dmj
	Phenanthrene, Solid	ND	330	ug/Kg	08/22/97	dmj
	Pyrene, Solid	ND	330	ug/Kg	08/22/97	dmj
	1,2,4-Trichlorobenzene, Solid	ND	330	ug/Kg	08/22/97	dmj
	Benzoic acid, Solid	ND	1650	ug/Kg	08/22/97	dmj
	4-Chloro-3-methylphenol, Solid	ND	330	ug/Kg	08/22/97	dmj
	2-Chlorophenol, Solid	ND	330	ug/Kg	08/22/97	dmj
	2,4-Dichlorophenol, Solid	ND	330	ug/Kg	08/22/97	dmj
	2,4-Dimethylphenol, Solid	ND	330	ug/Kg	08/22/97	dmj
	2,4-Dinitrophenol, Solid	ND	1650	ug/Kg	08/22/97	dmj
	2-Methyl-4,6-dinitrophenol, Solid	ND	1650	ug/Kg	08/22/97	dmj
	2-Methylphenol (o-cresol), Solid	ND	330	ug/Kg	08/22/97	dmj
	4-Methylphenol (p-cresol), Solid	ND	330	ug/Kg	08/22/97	dmj
	2-Nitrophenol, Solid	ND	330	ug/Kg	08/22/97	dmj
	4-Nitrophenol, Solid	ND	1650	ug/Kg	08/22/97	dmj
	Pentachlorophenol, Solid	ND	1650	ug/Kg	08/22/97	dmj
	Phenol, Solid	ND	330	ug/Kg	08/22/97	dmj
	2,4,5-Trichlorophenol, Solid	ND	330	ug/Kg	08/22/97	dmj
	2,4,6-Trichlorophenol, Solid	ND	330	ug/Kg	08/22/97	dmj
	Volatile Organics					
	Acetone, Solid	ND	100	ug/Kg	08/14/97	mla
	Benzene, Solid	ND	1	ug/Kg	08/14/97	mla
	Bromodichloromethane, Solid	ND	5	ug/Kg	08/14/97	mla
	Bromoform, Solid	ND	5	ug/Kg	08/14/97	mla
	Bromomethane, Solid	ND	10	ug/Kg	08/14/97	mla
	Methyl ethyl ketone (2-Butanone), Solid	ND	100	ug/Kg	08/14/97	mla
	Carbon disulfide, Solid	ND	5	ug/Kg	08/14/97	mla
	Carbon tetrachloride, Solid	ND	5	ug/Kg	08/14/97	mla
	Chlorobenzene, Solid	ND	5	ug/Kg	08/14/97	mla
	Chloroethane, Solid	ND	10	ug/Kg	08/14/97	mla
	2-Chloroethylvinyl ether, Solid	ND	10	ug/Kg	08/14/97	mla
	Chloroform, Solid	ND	5	ug/Kg	08/14/97	mla
	Chloromethane, Solid	ND	10	ug/Kg	08/14/97	mla
	Dibromochloromethane, Solid	ND	5	ug/Kg	08/14/97	mla
	1,1-Dichloroethane, Solid	ND	5	ug/Kg	08/14/97	mla
	1,2-Dichloroethane, Solid	ND	5	ug/Kg	08/14/97	mla
	1,1-Dichloroethene, Solid	ND	5	ug/Kg	08/14/97	mla
	trans-1,2-Dichloroethene, Solid	ND	5	ug/Kg	08/14/97	mla
	1,2-Dichloropropane, Solid	ND	5	ug/Kg	08/14/97	mla
	cis-1,3-Dichloropropene, Solid	ND	5	ug/Kg	08/14/97	mla
	trans-1,3-Dichloropropene, Solid	ND	5	ug/Kg	08/14/97	mla
	Ethylbenzene, Solid	ND	5	ug/Kg	08/14/97	mla
	2-Hexanone, Solid	ND	50	ug/Kg	08/14/97	mla
	Methylene chloride, Solid	ND	5	ug/Kg	08/14/97	mla
	4-Methyl-2-pentanone (MIBK), Solid	ND	50	ug/Kg	08/14/97	mla



## CORE LABORATORIES

## LABORATORY TEST RESULTS

Job Number: 972194

Date: 08/28/97

CUSTOMER: Daniel B. Stephens &amp; Associates

PROJECT: ENRON ROSWELL/6033.2

ATTN: Bob Marley

Customer Sample ID: CUTTINGS

Date Sampled.....: 08/08/97

Time Sampled.....: 10:45

Sample Matrix.....: Soil

Laboratory Sample ID: 972194-1

Date Received.....: 08/09/97

Time Received.....: 11:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
	Styrene, Solid	ND	5	ug/Kg	08/14/97	mla
	1,1,2,2-Tetrachloroethane, Solid	ND	5	ug/Kg	08/14/97	mla
	Tetrachloroethene, Solid	ND	5	ug/Kg	08/14/97	mla
	Toluene, Solid	ND	5	ug/Kg	08/14/97	mla
	1,1,1-Trichloroethane, Solid	ND	5	ug/Kg	08/14/97	mla
	1,1,2-Trichloroethane, Solid	ND	5	ug/Kg	08/14/97	mla
	Trichloroethene, Solid	ND	5	ug/Kg	08/14/97	mla
	Vinyl acetate, Solid	ND	50	ug/Kg	08/14/97	mla
	Vinyl chloride, Solid	ND	10	ug/Kg	08/14/97	mla
	Xylenes (total), Solid	ND	5	ug/Kg	08/14/97	mla

# *American Environmental Network, Inc.*

AEN I.D. 708323

September 12, 1997

**RECEIVED**

**SEP 15 1997**

Environmental Bureau  
Oil Conservation Division

NMOCD  
2040 S. PACHEO  
SANTA FE, NM 87505

Project Name ENRON ROSWELL  
Project Number (none)

Attention: BILL OLSON

On 8/8/97 American Environmental Network (NM), Inc. (ADHS License No. AZ0015), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

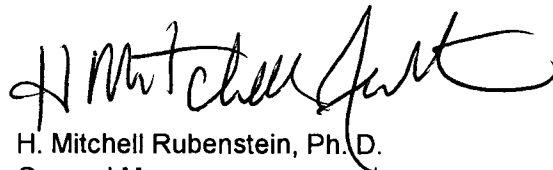
EPA method 8010/8020 was performed by American Environmental Network (NM) Inc., Albuquerque, NM.

All other analyses were performed by American Environmental Network (FL) Inc., Pensacola, FL.

If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.



Kimberly D. McNeill  
Project Manager



H. Mitchell Rubenstein, Ph.D.  
General Manager

MR: mt

Enclosure

*American Environmental Network, Inc.*

CLIENT	: NMOC	AEN I.D.	: 708323
PROJECT #	: (none)	DATE RECEIVED	: 8/8/97
PROJECT NAME	: ENRON ROSWELL	REPORT DATE	: 9/12/97

---

AEN ID. #	CLIENT DESCRIPTION	MATRIX	DATE COLLECTED
01	(MW-20) 9708071335	AQUEOUS	8/7/97
02	(MW-21) 9708071540	AQUEOUS	8/7/97
03	(MW-22) 9708071425	AQUEOUS	8/7/97
04	TRIP BLANK	AQUEOUS	8/6/97

GAS CHROMATOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS / AROMATICS (EPA 8010/8020)  
 CLIENT : NMOCD AEN I.D.: 708323  
 PROJECT # : (none)  
 PROJECT NAME : ENRON ROSWELL

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	(MW-20) 9708071335	AQUEOUS	8/7/97	NA	8/11/97	1
02	(MW-21) 9708071540	AQUEOUS	8/7/97	NA	8/11/97	1
03	(MW-22) 9708071425	AQUEOUS	8/7/97	NA	8/12/97	1
PARAMETER	DET. LIMIT	UNITS	01	02	03	
BENZENE	0.5	UG/L	8.7	480 (D5)	< 0.5	
BROMODICHLORMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	
BROMOFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5	
BROMOMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	
CARBON TETRACHLORIDE	0.2	UG/L	< 0.2	< 0.2	< 0.2	
CHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	
CHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5	
CHLOROFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5	
CHLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0	
DIBROMOCHLOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	
1,2-DIBROMOETHANE (EDB)	0.2	UG/L	< 0.2	< 0.2	< 0.2	
1,2-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	
1,3-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	
1,4-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	
1,1-DICHLOROETHANE	0.3	UG/L	6.3	< 0.3	< 0.3	
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5	< 0.5	< 0.5	
1,1-DICHLOROETHENE	0.2	UG/L	31	< 0.2	< 0.2	
cis-1,2-DICHLOROETHENE	0.2	UG/L	< 0.2	< 0.2	< 0.2	
trans-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0	
1,2-DICHLOROPROPANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	
cis-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2	
trans-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2	
ETHYLBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	
METHYL-t-BUTYL ETHER	2.5	UG/L	< 2.5	< 2.5	< 2.5	
METHYLENE CHLORIDE	2.0	UG/L	< 2.0	< 2.0	< 2.0	
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5	
TETRACHLOROETHENE	0.5	UG/L	< 0.5	< 0.5	< 0.5	
TOLUENE	0.5	UG/L	< 0.5	1.0	< 0.5	
1,1,1-TRICHLOROETHANE	1.0	UG/L	17	< 1.0	< 1.0	
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	
TRICHLOROETHENE	0.3	UG/L	< 0.3	< 0.3	< 0.3	
TRICHLOROFLUOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2	
VINYL CHLORIDE	0.5	UG/L	< 0.5	< 0.5	< 0.5	
TOTAL XYLENES	0.5	UG/L	< 0.5	22	< 0.5	

SURROGATE:  
 BROMOCHLOROMETHANE (%) 105 113 105  
 SURROGATE LIMITS ( 73 - 117 )  
 TRIFLUOROTOLUENE (%) 97 104 104  
 SURROGATE LIMITS ( 69 - 117 )

CHEMIST NOTES:  
 (D5) 5X DILUTION ANALYZED ON 8-12-97.

GAS CHROMATOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS / AROMATICS (EPA 8010/8020)  
 CLIENT : NMOCD AEN I.D.: 708323  
 PROJECT # : (none)  
 PROJECT NAME : ENRON ROSWELL

SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
04	TRIP BLANK	AQUEOUS	8/6/97	NA	8/11/97	1

PARAMETER	DET. LIMIT	UNITS	04
BENZENE	0.5	UG/L	< 0.5
BROMODICHLORMETHANE	0.2	UG/L	< 0.2
BROMOFORM	0.5	UG/L	< 0.5
BROMOMETHANE	1.0	UG/L	< 1.0
CARBON TETRACHLORIDE	0.2	UG/L	< 0.2
CHLOROBENZENE	0.5	UG/L	< 0.5
CHLOROETHANE	0.5	UG/L	< 0.5
CHLOROFORM	0.5	UG/L	< 0.5
CHLOROMETHANE	1.0	UG/L	< 1.0
DIBROMOCHLOROMETHANE	0.2	UG/L	< 0.2
1,2-DIBROMOETHANE (EDB)	0.2	UG/L	< 0.2
1,2-DICHLOROBENZENE	0.5	UG/L	< 0.5
1,3-DICHLOROBENZENE	0.5	UG/L	< 0.5
1,4-DICHLOROBENZENE	0.5	UG/L	< 0.5
1,1-DICHLOROETHANE	0.3	UG/L	< 0.3
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5
1,1-DICHLOROETHENE	0.2	UG/L	< 0.2
cis-1,2-DICHLOROETHENE	0.2	UG/L	< 0.2
trans-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0
1,2-DICHLOROPROPANE	0.2	UG/L	< 0.2
cis-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2
trans-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2
ETHYLBENZENE	0.5	UG/L	< 0.5
METHYL-t-BUTYL ETHER	2.5	UG/L	< 2.5
METHYLENE CHLORIDE	2.0	UG/L	< 2.0
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5
TETRACHLOROETHENE	0.5	UG/L	< 0.5
TOLUENE	0.5	UG/L	< 0.5
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 1.0
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2
TRICHLOROETHENE	0.3	UG/L	< 0.3
TRICHLOROFLUOROMETHANE	0.2	UG/L	< 0.2
VINYL CHLORIDE	0.5	UG/L	< 0.5
TOTAL XYLENES	0.5	UG/L	< 0.5

SURROGATE:  
 BROMOCHLOROMETHANE (%) 103  
 SURROGATE LIMITS ( 73 - 117 )  
 TRIFLUOROTOLUENE (%) 105  
 SURROGATE LIMITS ( 69 - 117 )

CHEMIST NOTES:  
 N/A

GAS CHROMATOGRAPHY RESULTS

REAGENT BLANK

TEST	: PURGEABLE HALOCARBONS / AROMATICS (EPA 8010/8020)		
BLANK I.D.	: 081197	AEN I.D.	: 708323
CLIENT	: NMOCD	DATE EXTRACTED	: N/A
PROJECT #	: (none)	DATE ANALYZED	: 8/11/97
PROJECT NAME	: ENRON ROSWELL	SAMPLE MATRIX	: AQUEOUS

PARAMETER	UNITS	
BENZENE	UG/L	<0.5
BROMODICHLORMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.3
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
cis-1,2-DICHLOROETHENE	UG/L	<0.2
trans-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
cis-1,3-DICHLOROPROPENE	UG/L	<0.2
trans-1,3-DICHLOROPROPENE	UG/L	<0.2
ETHYLBENZENE	UG/L	<0.5
METHYL -t-BUTYL ETHER	UG/L	<2.5
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.5
TETRACHLOROETHENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.3
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5
TOTAL XYLENES	UG/L	<0.5

SURROGATE:

BROMOCHLOROMETHANE (%)		103
SURROGATE LIMITS	( 73 - 117 )	
TRIFLUOROTOLUENE (%)		105
SURROGATE LIMITS	( 69 - 117 )	

CHEMIST NOTES:

N/A

GAS CHROMATOGRAPHY RESULTS  
REAGENT BLANK

TEST	: PURGEABLE HALOCARBONS / AROMATICS (EPA 8010/8020)		
BLANK I.D.	: 081297	AEN I.D.	: 708323
CLIENT	: NMOC	DATE EXTRACTED	: N/A
PROJECT #	: (none)	DATE ANALYZED	: 8/12/97
PROJECT NAME	: ENRON ROSWELL	SAMPLE MATRIX	: AQUEOUS

PARAMETER	UNITS	
BENZENE	UG/L	<0.5
BROMODICHLORMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.3
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
cis-1,2-DICHLOROETHENE	UG/L	<0.2
trans-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
cis-1,3-DICHLOROPROPENE	UG/L	<0.2
trans-1,3-DICHLOROPROPENE	UG/L	<0.2
ETHYLBENZENE	UG/L	<0.5
METHYL -t-BUTYL ETHER	UG/L	<2.5
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.5
TETRACHLOROETHENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.3
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5
TOTAL XYLENES	UG/L	<0.5
SURROGATE:		
BROMOCHLOROMETHANE (%)		101
SURROGATE LIMITS	( 73 - 117 )	
TRIFLUOROTOLUENE (%)		106
SURROGATE LIMITS	( 69 - 117 )	

CHEMIST NOTES:  
N/A



GAS CHROMATOGRAPHY QUALITY CONTROL  
MSMSD

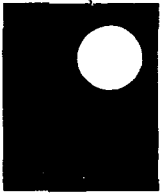
TEST : PURGEABLE HALOCARBONS / AROMATICS (EPA 8010/8020)  
MSMSD # : 708323-03 AEN I.D. : 708323  
CLIENT : NMOCD DATE EXTRACTED : N/A  
PROJECT # : (none) DATE ANALYZED : 8/11/97  
PROJECT NAME : ENRON ROSWELL SAMPLE MATRIX : AQUEOUS  
UNITS : UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	10.0	9.9	99	9.9	99	0	( 82 -128 )	20
TOLUENE	<0.5	10.0	9.4	94	9.5	95	1	( 87 -128 )	20
1,1-DICHLOROETHENE	<0.2	10.0	8.3	83	8.2	82	1	( 44 - 99 )	20
TRICHLOROETHENE	<0.3	10.0	10.0	100	9.9	99	1	( 89 - 127 )	20
CHLOROBENZENE	<0.5	10.0	11.4	114	11.5	115	1	( 87 - 124 )	20

CHEMIST NOTES:  
N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$



# *American Environmental Network, Inc.*

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## SIGNATURE PAGE

Reviewed by:

  
AEN Project Manager

Client: AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.  
ALBUQUERQUE, NEW MEXICO

Project Name: OCD  
Project Number: 708323  
Project Location: ENRON ROSWELL  
Accession Number: 708223

Project Manager: KIMBERLY D. MCNEILL  
Sampled By: N/S

Analysis Report

Analysis: Group of Single Metals

Accession:	708223
Client:	AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.
Project Number:	708323
Project Name:	OCD
Project Location:	ENRON ROSWELL
Department:	METALS

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Date 10-Sep-97

## "FINAL REPORT FORMAT - MULTIPLE"

Accession: 708223  
 Client: AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.  
 Project Number: 708323  
 Project Name: OCD  
 Project Location: ENRON ROSWELL  
 Test: Group of Single Metals  
 QcLevel: II

Parameter:	Unit:	Result:	R.L:	Batch:	Q:
Client ID: 708323-01		Lab ID:001			
SILVER (6010)	MG/L	ND	0.005	A6X216	
ALUMINUM (6010)	MG/L	3.3	0.06	L6W216	
ARSENIC (6010)	MG/L	ND	0.05	R6W216	
BORON (6010)	MG/L	0.21	0.05	O6X216	
BARIUM (6010)	MG/L	0.032	0.001	B6X216	
BERYLLIUM (6010)	MG/L	ND	0.001	Y6X216	
CALCIUM (6010)	MG/L	550	2.5	I6X216	+
CADMIUM (6010)	MG/L	ND	0.001	C6X216	
COBALT (6010)	MG/L	ND	0.005	T6X216	
CHROMIUM (6010)	MG/L	ND	0.005	H6X216	
COPPER (6010)	MG/L	0.024	0.005	F6X216	
IRON (6010)	MG/L	1.9	0.05	N6X216	
POTASSIUM (6010)	MG/L	7.0	0.1	X6X216	
MAGNESIUM (6010)	MG/L	130	0.2	J6W216	
MANGANESE (6010)	MG/L	0.11	0.005	G6X216	
MOLYBDENUM (6010)	MG/L	0.008	0.005	D6X216	
SODIUM (6010)	MG/L	200	0.1	16X216	
NICKEL (6010)	MG/L	ND	0.005	E6X216	
LEAD (6010)	MG/L	ND	0.05	P6W216	
ANTIMONY (6010)	MG/L	ND	0.06	36W216	
SELENIUM (6010)	MG/L	ND	0.005	S6X216	
SILICON (6010)	MG/L	24	1.0	26W216	+
THALLIUM (6010)	MG/L	ND	0.01	46X216	
VANADIUM (6010)	MG/L	0.007	0.005	V6X216	
ZINC (6010)	MG/L	0.03	0.02	56X216	

Comments:

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Date 10-Sep-97

## "FINAL REPORT FORMAT - MULTIPLE"

Accession: 708223  
 Client: AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.  
 Project Number: 708323  
 Project Name: OCD  
 Project Location: ENRON ROSWELL  
 Test: Group of Single Metals  
 QcLevel: II

Parameter:	Unit:	Result:	R.L:	Batch:	Q:
Client ID: 708323-02		Lab ID:002			
SILVER (6010)	MG/L	ND	0.005	A6X216	
ALUMINUM (6010)	MG/L	16	0.06	L6W216	
ARSENIC (6010)	MG/L	ND	0.05	R6W216	
BORON (6010)	MG/L	0.12	0.05	O6X216	
BARIUM (6010)	MG/L	0.14	0.001	B6X216	
BERYLLIUM (6010)	MG/L	ND	0.001	Y6X216	
CALCIUM (6010)	MG/L	600	2.5	I6X216	+
CADMIUM (6010)	MG/L	0.002	0.001	C6X216	
COBALT (6010)	MG/L	ND	0.005	T6X216	
CHROMIUM (6010)	MG/L	0.014	0.005	H6X216	
COPPER (6010)	MG/L	0.042	0.005	F6X216	
IRON (6010)	MG/L	11	0.05	N6X216	
POTASSIUM (6010)	MG/L	14	0.1	X6X216	
MAGNESIUM (6010)	MG/L	130	0.2	J6W216	
MANGANESE (6010)	MG/L	0.40	0.005	G6X216	
MOLYBDENUM (6010)	MG/L	0.017	0.005	D6X216	
SODIUM (6010)	MG/L	200	0.1	16X216	
NICKEL (6010)	MG/L	0.01	0.005	E6X216	
LEAD (6010)	MG/L	ND	0.05	P6W216	
ANTIMONY (6010)	MG/L	ND	0.06	36W216	
SELENIUM (6010)	MG/L	ND	0.005	S6X216	
SILICON (6010)	MG/L	50	1.0	26W216	+
THALLIUM (6010)	MG/L	ND	0.01	46X216	
VANADIUM (6010)	MG/L	0.023	0.005	V6X216	
ZINC (6010)	MG/L	0.05	0.02	56X216	

Comments:

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Date 10-Sep-97

## "FINAL REPORT FORMAT - MULTIPLE"

Accession: 708223  
 Client: AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.  
 Project Number: 708323  
 Project Name: OCD  
 Project Location: ENRON ROSWELL  
 Test: Group of Single Metals  
 QcLevel: II

Parameter:	Unit:	Result:	R.L:	Batch:	Q:
Client ID: 708323-03		Lab ID:003			
SILVER (6010)	MG/L	ND	0.005	A6X216	
ALUMINUM (6010)	MG/L	0.38	0.06	L6W216	
ARSENIC (6010)	MG/L	ND	0.05	R6W216	
BORON (6010)	MG/L	0.13	0.05	O6X216	
BARIUM (6010)	MG/L	0.04	0.001	B6X216	
BERYLLIUM (6010)	MG/L	ND	0.001	Y6X216	
CALCIUM (6010)	MG/L	550	2.5	I6X216	+
CADMIUM (6010)	MG/L	ND	0.001	C6X216	
COBALT (6010)	MG/L	ND	0.005	T6X216	
CHROMIUM (6010)	MG/L	ND	0.005	H6X216	
COPPER (6010)	MG/L	ND	0.005	F6X216	
IRON (6010)	MG/L	0.23	0.05	N6X216	
POTASSIUM (6010)	MG/L	4.3	0.5	X6X216	+
MAGNESIUM (6010)	MG/L	140	0.2	J6W216	
MANGANESE (6010)	MG/L	0.048	0.005	G6X216	
MOLYBDENUM (6010)	MG/L	0.008	0.005	D6X216	
SODIUM (6010)	MG/L	180	0.1	16X216	
NICKEL (6010)	MG/L	ND	0.005	E6X216	
LEAD (6010)	MG/L	ND	0.05	P6W216	
ANTIMONY (6010)	MG/L	ND	0.06	36W216	
SELENIUM (6010)	MG/L	ND	0.005	S6X216	
SILICON (6010)	MG/L	13	0.1	26W216	
THALLIUM (6010)	MG/L	ND	0.01	46X216	
VANADIUM (6010)	MG/L	ND	0.005	V6X216	
ZINC (6010)	MG/L	ND	0.02	56X216	

Comments:

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Date 10-Sep-97

"FINAL REPORT FORMAT - MULTIPLE"

Accession: 708223  
Client: AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.  
Project Number: 708323  
Project Name: OCD  
Project Location: ENRON ROSWELL  
Test: Group of Single Metals

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Client Id:	Lab Matrix: Id:	Date/Time Sampled:	Date Received:
708323-01	001 WATER	07-AUG-97 1335	14-AUG-97
708323-02	002 WATER	07-AUG-97 1540	14-AUG-97
708323-03	003 WATER	07-AUG-97 1425	14-AUG-97

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Date 10-Sep-97

## "Method Report Summary"

Accession Number: 708223  
Client: AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.  
Project Number: 708323  
Project Name: OCD  
Project Location: ENRON ROSWELL  
Test: Group of Single Metals

Client Sample Id:	Parameter:	Unit:	Result:
708323-01	ALUMINUM (6010)	MG/L	3.3
	BORON (6010)	MG/L	0.21
	BARIUM (6010)	MG/L	0.032
	CALCIUM (6010)	MG/L	550
	COPPER (6010)	MG/L	0.024
	IRON (6010)	MG/L	1.9
	POTASSIUM (6010)	MG/L	7.0
	MAGNESIUM (6010)	MG/L	130
	MANGANESE (6010)	MG/L	0.11
	MOLYBDENUM (6010)	MG/L	0.008
	SODIUM (6010)	MG/L	200
	SILICON (6010)	MG/L	24
	VANADIUM (6010)	MG/L	0.007
	ZINC (6010)	MG/L	0.03
708323-02	ALUMINUM (6010)	MG/L	16
	BORON (6010)	MG/L	0.12
	BARIUM (6010)	MG/L	0.14
	CALCIUM (6010)	MG/L	600
	CADMIUM (6010)	MG/L	0.002
	CHROMIUM (6010)	MG/L	0.014
	COPPER (6010)	MG/L	0.042
	IRON (6010)	MG/L	11
	POTASSIUM (6010)	MG/L	14
	MAGNESIUM (6010)	MG/L	130
	MANGANESE (6010)	MG/L	0.40
	MOLYBDENUM (6010)	MG/L	0.017
	SODIUM (6010)	MG/L	200
	NICKEL (6010)	MG/L	0.01
	SILICON (6010)	MG/L	50
	VANADIUM (6010)	MG/L	0.023
	ZINC (6010)	MG/L	0.05
708323-03	ALUMINUM (6010)	MG/L	0.38
	BORON (6010)	MG/L	0.13
	BARIUM (6010)	MG/L	0.04
	CALCIUM (6010)	MG/L	550
	IRON (6010)	MG/L	0.23
	POTASSIUM (6010)	MG/L	4.3
	MAGNESIUM (6010)	MG/L	140
	MANGANESE (6010)	MG/L	0.048
	MOLYBDENUM (6010)	MG/L	0.008
	SODIUM (6010)	MG/L	180
	SILICON (6010)	MG/L	13



Quality Control Report

Analysis: Group of Single Metals

Accession:	708223
Client:	AMERICAN ENVIRONMENTAL NETWORK (NEW MEXICO) INC.
Project Number:	708323
Project Name:	OCD
Project Location:	ENRON ROSWELL
Department:	METALS

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Date 10-Sep-97

## "Metals Quality Control Report"

Parameter:	SILVER	ALUMINUM	ARSENIC	BORON	BARIUM	BERYLLIUM
Batch Id:	A6x216	L6W216	R6W216	O6x216	B6x216	Y6X216
Blank Result:	<0.005	<0.06	<0.05	<0.05	<0.001	<0.001
Anal. Method:	6010	6010	6010	6010	6010	6010
Prep. Method:	3010	3010	3010	3010	3010	3010
Analysis Date:	03-SEP-97	09-SEP-97	09-SEP-97	03-SEP-97	03-SEP-97	03-SEP-97
Prep. Date:	02-SEP-97	02-SEP-97	02-SEP-97	02-SEP-97	02-SEP-97	02-SEP-97

## Sample Duplication

Sample Dup:	708223-3	708223-3	708223-3	708223-3	708223-3	708223-3
Rept Limit:	<0.005	<0.06	<0.05	<0.05	<0.001	<0.001
Sample Result:	1.87	2.2	2.0	2.04	1.92	1.91
Dup Result:	1.85	2.2	2.0	2.03	1.91	1.86
Sample RPD:	1	0	0	0	1	3
Max RPD:	20	20	20	20	20	20
Dry Weight%	N/A	N/A	N/A	N/A	N/A	N/A

## Matrix Spike

Sample Spiked:	708223-3	708223-3	708223-3	708223-3	708223-3	708223-3
Rept Limit:	<0.005	<0.06	<0.05	<0.05	<0.001	<0.001
Sample Result:	<0.005	0.38	<0.05	0.13	0.04	<0.001
Spiked Result:	1.87	2.2	2.0	2.04	1.92	1.91
Spike Added:	2.0	2.0	2.0	2.0	2.0	2.0
% Recovery:	94	91	100	96	94	96
% Rec Limits:	75-125	75-125	75-125	75-125	75-125	75-125
Dry Weight%	N/A	N/A	N/A	N/A	N/A	N/A

## ICV

ICV Result:	0.5	25	4.9	1	.99	0.51
True Result:	0.5	25	5.0	1	1	0.50
% Recovery:	100	100	98	100	99	102
% Rec Limits:	90-110	90-110	90-110	90-110	90-110	90-110

## LCS

LCS Result:	1.84	2.0	2.1	1.86	1.94	1.95
True Result:	2.0	2.0	2.0	2.0	2.0	2.0
% Recovery:	92	100	105	93	97	98
% Rec Limits:	80-120	80-120	80-120	80-120	80-120	80-120

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Date 10-Sep-97

## "Metals Quality Control Report"

Parameter:	CALCIUM	CADMIUM	COBALT	CHROMIUM	COPPER	IRON
Batch Id:	I6X216	C6X216	T6x216	H6X216	F6X216	N6X216
Blank Result:	<2.5+	<0.001	<0.005	<0.005	<0.005	<0.05
Anal. Method:	6010	6010	6010	6010	6010	6010
Prep. Method:	3010	3010	3010	3010	3010	3010
Analysis Date:	03-SEP-97	03-SEP-97	03-SEP-97	03-SEP-97	03-SEP-97	03-SEP-97
Prep. Date:	02-SEP-97	02-SEP-97	02-SEP-97	02-SEP-97	02-SEP-97	02-SEP-97

## Sample Duplication

Sample Dup:	708223-3	708223-3	708223-3	708223-3	708223-3	708223-3
Rept Limit:	<2.5+	<0.001	<0.005	<0.005	<0.005	<0.05
Sample Result:	620	1.74	1.85	1.84	2.07	2.24
Dup Result:	600	1.72	1.83	1.83	2.04	2.21
Sample RPD:	3	1	1	1	1	1
Max RPD:	20	20	20	20	20	20
Dry Weight%	N/A	N/A	N/A	N/A	N/A	N/A

## Matrix Spike

Sample Spiked:	708223-3	708223-3	708223-3	708223-3	708223-3	708223-3
Rept Limit:	<2.5+	<0.001	<0.005	<0.005	<0.005	<0.05
Sample Result:	560	<0.001	<0.005	<0.005	<0.005	0.23
Spiked Result:	620	1.74	1.85	1.84	2.07	2.24
Spike Added:	200F	2.0	2.0	2.0	2.0	2.0
% Recovery:	30	87	93	92	104	101
% Rec Limits:	75-125	75-125	75-125	75-125	75-125	75-125
Dry Weight%	N/A	N/A	N/A	N/A	N/A	N/A

## ICV

ICV Result:	5.1	1.02	.99	1.02	1.02	5.36
True Result:	5.0	1	1.00	1	1	5
% Recovery:	102	102	99	102	102	107
% Rec Limits:	90-110	90-110	90-110	90-110	90-110	90-110

## LCS

LCS Result:	20	1.88	1.91	1.91	2.0	2.07
True Result:	20	2.0	2.0	2.0	2.0	2.0
% Recovery:	100	94	96	96	100	104
% Rec Limits:	80-120	80-120	80-120	80-120	80-120	80-120

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Date 10-Sep-97

## "Metals Quality Control Report"

Parameter:	POTASSIUM	MAGNESIUM	MANGANESE	MOLYBDENUM	SODIUM	NICKEL
Batch Id:	X6x216	J6W216	G6X216	D6X216	16X216	E6x216
Blank Result:	<0.5+	<0.2	<0.005	<0.005	<20	<0.005
Anal. Method:	6010	6010	6010	6010	6010	6010
Prep. Method:	3010	3010	3010	3010	3010	3010
Analysis Date:	03-SEP-97	09-SEP-97	03-SEP-97	03-SEP-97	03-SEP-97	03-SEP-97
Prep. Date:	02-SEP-97	02-AUG-97	02-SEP-97	02-SEP-97	02-SEP-97	02-SEP-97

## Sample Duplication

Sample Dup:	708223-3	708223-3	708223-3	708223-3	708223-3	708223-3
Rept Limit:	<0.5+	<0.2	<0.005	<0.005	<20	<0.005
Sample Result:	25	160	1.93	1.91	200	1.87
Dup Result:	24	160	1.88	1.89	200	1.84
Sample RPD:	4	0	3	1	0	2
Max RPD:	20	20	20	20	20	20
Dry Weight%	N/A	N/A	N/A	N/A	N/A	N/A

## Matrix Spike

Sample Spiked:	708223-3	708223-3	708223-3	708223-3	708223-3	708223-3
Rept Limit:	<0.5+	<0.2	<0.005	<0.005	<20	<0.005
Sample Result:	4.3	140	0.048	0.008	180	<0.005
Spiked Result:	25	160	1.93	1.91	200	1.87
Spike Added:	20	20	2.0	2.0	20	2.0
% Recovery:	104	100	94	95	100	94
% Rec Limits:	75-125	75-125	75-125	75-125	75-125	75-125
Dry Weight%	N/A	N/A	N/A	N/A	N/A	N/A

## ICV

ICV Result:	5.0	25	0.98	0.99	5.0	1.0
True Result:	5.0	25	1	1	5.0	1.0
% Recovery:	100	100	98	99	100	100
% Rec Limits:	90-110	90-110	90-110	90-110	90-110	90-110

## LCS

LCS Result:	19	20	1.88	1.94	20	1.98
True Result:	20	20	2.0	2.0	20	2.0
% Recovery:	95	100	94	97	100	99
% Rec Limits:	80-120	80-120	80-120	80-120	80-120	80-120

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Date 10-Sep-97

## "Metals Quality Control Report"

Parameter:	LEAD	ANTIMONY	SELENIUM	SILICON	THALLIUM	VANADIUM
Batch Id:	P6W216	36W216	S6X216	26W216	46X216	V6X216
Blank Result:	<0.05	<0.06	<0.005	<0.1	<0.01	<0.005
Anal. Method:	6010	6010	6010	6010	6010	6010
Prep. Method:	3010	3010	3010	3010	3010	3010
Analysis Date:	09-SEP-97	09-SEP-97	03-SEP-97	09-SEP-97	03-SEP-97	03-SEP-97
Prep. Date:	02-SEP-97	02-SEP-97	02-SEP-97	02-SEP-97	02-SEP-97	02-SEP-97

## Sample Duplication

Sample Dup:	708223-3	708223-3	708223-3	708223-3	708223-3	708223-3
Rept Limit:	<0.05	<0.06	<0.005	<0.1	<0.01	<0.005
Sample Result:	1.9	2.0	1.79	15	1.86	1.95
Dup Result:	1.9	2.0	1.74	15	1.82	1.93
Sample RPD:	0	0	3	0	2	1
Max RPD:	20	20	20	20	20	20
Dry Weight%	N/A	N/A	N/A	N/A	N/A	N/A

## Matrix Spike

Sample Spiked:	708223-3	708223-3	708223-3	708223-3	708223-3	708223-3
Rept Limit:	<0.05	<0.06	<0.005	<0.1	<0.01	<0.005
Sample Result:	0.05	0.06	<0.005	13	<0.01	<0.005
Spiked Result:	1.9	2.0	1.79	15	1.86	1.95
Spike Added:	2.0	2.0	2.0	2.0	2.0	2.0
% Recovery:	95	97	90	100	93	98
% Rec Limits:	75-125	75-125	75-125	75-125	75-125	75-125
Dry Weight%	N/A	N/A	N/A	N/A	N/A	N/A

## ICV

ICV Result:	5.0	5.0	1	10	0.99	1
True Result:	5.0	5.0	1	10	1	1
% Recovery:	100	100	100	100	99	100
% Rec Limits:	90-110	90-110	90-110	90-110	90-110	90-110

## LCS

LCS Result:	2.1	2.0	1.76	2.0	1.92	1.99
True Result:	2.0	2.0	2.0	2.0	2.0	2.0
% Recovery:	105	100	88	100	96	100
% Rec Limits:	80-120	80-120	80-120	80-120	80-120	80-120

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Date 10-Sep-97

"Metals Quality Control Report"

Parameter:	ZINC
Batch Id:	56X216
Blank Result:	<0.02
Anal. Method:	6010
Prep. Method:	3010
Analysis Date:	03-SEP-97
Prep. Date:	02-SEP-97

Sample Duplication

Sample Dup:	708223-3
Rept Limit:	<0.02

Sample Result:	1.75
Dup Result:	1.73
Sample RPD:	1
Max RPD:	20
Dry Weight%	N/A

Matrix Spike

Sample Spiked:	708223-3
Rept Limit:	<0.02

Sample Result:	<0.02
Spiked Result:	1.75
Spike Added:	2.0
% Recovery:	88
% Rec Limits:	75-125
Dry Weight%	N/A

ICV

ICV Result:	1.01
True Result:	1
% Recovery:	101
% Rec Limits:	90-110

LCS

LCS Result:	1.91
True Result:	2.0
% Recovery:	96
% Rec Limits:	80-120

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Date 10-Sep-97

## "Quality Control Comments"

Batch Id: Comments:

Batch Id:	Comments:
A6x216	ANALYST: JR
A6x216	The results reported under "Sample Duplication" are the MS/MSD.
L6W216	ANALYST: JLH
L6W216	The results reported under "Sample Duplication" are the MS/MSD.
R6W216	ANALYST: JLH
R6W216	The results reported under "Sample Duplication" are the MS/MSD.
O6x216	ANALYST: JR
O6x216	The results reported under "Sample Duplication" are the MS/MSD.
B6x216	ANALYST: JR
B6x216	The results reported under "Sample Duplication" are the MS/MSD.
Y6X216	ANALYST: JR
Y6X216	The results reported under "Sample Duplication" are the MS/MSD.
I6X216	ANALYST: JR
I6X216	The results reported under "Sample Duplication" are the MS/MSD.
C6X216	ANALYST: JR
C6X216	The results reported under "Sample Duplication" are the MS/MSD.
T6x216	ANALYST: JR
T6x216	The results reported under "Sample Duplication" are the MS/MSD.
H6X216	ANALYST: JR
H6X216	The results reported under "Sample Duplication" are the MS/MSD.
F6X216	ANALYST: JR
F6X216	The results reported under "Sample Duplication" are the MS/MSD.
X6x216	ANALYST: JR
X6x216	The results reported under "Sample Duplication" are the MS/MSD.
J6W216	ANALYST: JR
J6W216	The results reported under "Sample Duplication" are the MS/MSD.
G6X216	ANALYST: JR
G6X216	The results reported under "Sample Duplication" are the MS/MSD.
D6X216	ANALYST: JR
D6X216	The results reported under "Sample Duplication" are the MS/MSD.
16X216	ANALYST: JR
16X216	The results reported under "Sample Duplication" are the MS/MSD.
E6x216	ANALYST: JR
E6x216	The results reported under "Sample Duplication" are the MS/MSD.
P6W216	ANALYST: JR
P6W216	The results reported under "Sample Duplication" are the MS/MSD.
36W216	ANALYST: JLH
36W216	The results reported under "Sample Duplication" are the MS/MSD.
S6X216	ANALYST: JR
S6X216	The results reported under "Sample Duplication" are the MS/MSD.
26W216	ANALYST: JR
26W216	The results reported under "Sample Duplication" are the MS/MSD.
46x216	ANALYST: JR
46x216	The results reported under "Sample Duplication" are the MS/MSD.
V6X216	ANALYST: JR
V6X216	The results reported under "Sample Duplication" are the MS/MSD.
56X216	ANALYST: JR
56X216	The results reported under "Sample Duplication" are the MS/MSD.

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Date 10-Sep-97

----- Common Footnotes Metals -----

N/A = NOT APPLICABLE.  
N/S = NOT SUBMITTED.  
N/C = SAMPLE AND DUPLICATE RESULTS ARE AT OR BELOW AEN REPORTING LIMIT;  
THEREFORE, THE RPD IS "NOT CALCULABLE" AND NO CONTROL LIMITS APPLY.  
N/D = NOT DETECTED.  
DISS. OR D = DISSOLVED  
T & D = TOTAL AND DISSOLVED  
R = REACTIVE  
T = TOTAL  
G = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X AEN REPORTING LIMIT AND  
THE ABSOLUTE DIFFERENCE BETWEEN THE SAMPLE AND DUPLICATE RESULT IS AT  
OR BELOW AEN REPORTING LIMIT; THEREFORE, THE RESULTS ARE "IN CONTROL".  
Q = THE ANALYTICAL (POST-DIGESTION) SPIKE IS REPORTED DUE TO PERCENT RECOVERY  
BEING OUTSIDE ACCEPTANCE LIMITS ON THE MATRIX (PRE-DIGESTION) SPIKE.  
# = ELEVATED REPORTING LIMIT DUE TO INSUFFICIENT SAMPLE.  
+ = ELEVATED REPORTING LIMIT DUE TO DILUTION INTO CALIBRATION RANGE.  
\* = ELEVATED REPORTING LIMIT DUE TO MATRIX INTERFERENCE. (DILUTION PRIOR  
TO ANALYSIS)  
@ = ADJUSTED REPORTING LIMIT DUE TO SAMPLE MATRIX. (DILUTION PRIOR TO  
DIGESTION)  
P = ANALYTICAL (POST DIGESTION) SPIKE.  
I = DUPLICATE INJECTION.  
& = AUTOMATED  
F = SAMPLE SPIKED > 4 X SPIKE CONCENTRATION.  
N/C+ = NOT CALCULABLE  
N/C\* = NOT CALCULABLE; SAMPLE SPIKED > 4 X SPIKE CONCENTRATION.  
H = SAMPLE AND/OR DUPLICATE RESULT IS BELOW 5 X AEN REPORTING LIMIT AND THE  
ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE AEN REPORTING  
LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL".  
A = SAMPLE AND DUPLICATE RESULTS ARE "OUT OF CONTROL".  
Z = THE SAMPLE RESULT FOR THE SPIKE IS BELOW THE REPORTING LIMIT. HOWEVER,  
THIS RESULT IS REPORTED FOR ACCURATE QC CALCULATIONS.  
NH= SAMPLE AND / OR DUPLICATE RESULT IS BELOW 5 X AEN REPORTING LIMIT  
AND THE ABSOLUTE DIFFERENCE BETWEEN THE RESULTS EXCEEDS THE AEN  
REPORTING LIMIT; THEREFORE, THE RESULTS ARE "OUT OF CONTROL".  
SAMPLE IS NON-HOMOGENEOUS.  
J = (FLORIDA DEP 'J' FLAG) - MATRIX SPIKE AND POST SPIKE RECOVERY IS OUT OF  
THE ACCEPTABLE RANGE. SEE OUT OF CONTROL EVENTS FORM.  
U = (FLORIDA DEP 'U' FLAG) - THE COMPOUND WAS ANALYZED FOR, BUT NOT DETECTED.  
S = METHOD OF STANDARD ADDITIONS (MSA) WAS PERFORMED ON THIS SAMPLE.

FROM ANALYSIS REPORT:  
REPT LMTS = REPORTING LIMIT BASED ON METHOD DETECTION LIMIT STUDIES.  
Q= QUALIFIER (FOOTNOTE)

FROM QUALITY CONTROL REPORT:  
RPD= RELATIVE PERCENT DEVIATION.  
REPT LIMIT= REPORTING LIMIT BASED ON METHOD DETECTION LIMIT STUDIES.

NOTE: THE UNITS REPORTED ON THE QUALITY CONTROL REPORT ARE REPORTED ON AN AS  
RUN BASIS. (NOT ADJUSTED FOR DRY WEIGHT).

SW-846, 3rd Edition, latest revision.  
EPA 600/4-79-020, Revised March 1983.  
NIOSH Manual of Analytical Methods, 4th Edition.  
Standard Methods For the Examination of Water and Wastewater, 18th Edition, 1992.  
Methods For the Determination of Metals in Environmental Samples - Supplement I,  
EPA 600/R-94-111, May 1994.

GJ = GARY JACOBS  
JLH = JAMES L. HERED  
CD = CHRISTY DRAPER  
JR = JOHN REED  
LV = LASSANDRA VON APPEN



**PROJECT SAMPLE INSPECTION FORM**

Lab Accession #: 708223

Date Received: 14-Aug-97

1. Was there a Chain of Custody? ☒ Yes ☐ No\*
2. Was Chain of Custody properly filled out and relinquished? ☒ Yes ☐ No\*
3. Were samples received cold? ☒ Yes ☐ No\* N/A  
(Criteria: 1° - 4°C: AEN-SOP 1055)
4. Were all samples properly labeled and identified? ☒ Yes ☐ No\*
5. Did samples require splitting? ☐ Yes\* ☒ No  
Req By: PM Client Other\*
6. Were samples received in proper containers for analysis requested? ☒ Yes ☐ No\*
7. Were all sample containers received intact? ☒ Yes ☐ No\*

8. Were samples checked for preservative? ☒ Yes ☐ No\* N/A  
*(Check pH of all H<sub>2</sub>O requiring preservative except VOA vials that require zero headspace)\**
9. Is there sufficient volume for analysis requested? ☒ Yes ☐ No\*
10. Were samples received within Holding Time? ☒ Yes ☐ No\* *(REFER TO AEN-SOP 1040)*
11. Is Headspace visible > ¼" in diameter in VOA vials? ☐ Yes\* ☐ No ☒ N/A  
*If any headspace is evident, comment in out-of-control section.*
12. If sent, were matrix spike bottles returned? ☐ Yes ☐ No\* ☒ N/A
13. Was Project Manager notified of problems? (initials:         ) ☐ Yes ☐ No\* ☒ N/A

Bill Number(s): \_\_\_\_\_

Shipped By: Yek

Cooler Number(s): N/A

Shipping Charges: N/A

Cooler Weight(s): N/A

Cooler Temp(s) (°C): 4°C

0006  
(LIST THERMOMETER NUMBER(S) FOR VERIFICATION)

**Out of Control Events and Inspection Comments:**

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(USE BACK OF PSIF FOR ADDITIONAL NOTES AND COMMENTS)

Inspected By: A. Kitt Date: 14-Aug-97 Logged By: A. Kitt Date: 14-Aug-97

*Note all Out-of-Control and/or questionable events on Comment Section of this form.*

*Note who requested the splitting of samples on the Comment Section of this form.*

*All preservatives for the State of North Carolina, the State of New York, and other requested samples are to be recorded on the sheet provided to record pH results (AEN-SOP 938, section 2.2.9).*

*According to EPA, ¼" of headspace is allowed in 40 ml vials requiring volatile analysis, however, AEN makes it policy to record any headspace as out-of-control (AEN-SOP 938, section 2.2.12).*



American Environmental Network  
Albuquerque, New Mexico

# Interlab Chain of Custody

DATE: 8-12 PAGE: 1 OF 1

<b>NETWORK PROJECT MANAGER:</b> KIMBERLY D. McNEILL  <b>COMPANY:</b> American Environmental Network <b>ADDRESS:</b> 2709-D Pan American Freeway, NE Albuquerque, NM 87107  <div style="font-size: 2em; text-align: center;">708223</div>					<b>ANALYSIS REQUEST</b>																				
<b>CLIENT PROJECT MANAGER:</b>  Kim McNeill					Metals - TAL	Metals - PP List	Metals - RCRA	RCRA Metals by TCLP (1311)	Metals: Item # 24 List below	TOX	TOC	Gen Chemistry	Oil and Grease	BOD	COD	Pesticides/PCB (608/8080)	Herbicides (615/8150)	Base/Neutral Acid Compounds GC/MS (625/8270)	Volatile Organics GC/MS (624/8240)	Polynuclear Aromatics (610/8310)	8240 (TCLP 1311) ZHE	8270 (TCLP 1311)	TO-14	Gross Alpha/Beta	NUMBER OF CONTAINERS
SAMPLE ID	DATE	TIME	MATRIX	LAB ID																					
708323-01	8-7	1335	AQ																						
└ -02	8-7	1540	AQ																						
└ -03	8-7	1425	AQ																						

<b>PROJECT INFORMATION</b> PROJECT NUMBER: <u>708323</u> PROJECT NAME: <u>OCD</u> QC LEVEL: <u>STD</u> IV QC REQUIRED: <u>MS</u> <u>MSD</u> <u>BLANK</u> TAT: <u>STANDARD</u> RUSH!		<b>SAMPLE RECEIPT</b> TOTAL NUMBER OF CONTAINERS CHAIN OF CUSTODY SEALS INTACT? RECEIVED GOOD COND./COLD LAB NUMBER		<b>SAMPLES SENT TO:</b> SAN DIEGO Paragon RENTON PENSACOLA <input checked="" type="checkbox"/> PORTLAND PHOENIX		<b>RELINQUISHED BY: 1.</b> Signature: <u>[Signature]</u> Time: <u>1200</u> Printed Name: <u>Bryan Price</u> Date: <u>8-12-97</u> Albuquerque <u>NM</u>		<b>RELINQUISHED BY: 2.</b> Signature: _____ Time: _____ Printed Name: _____ Date: _____ Company: _____	
DUE DATE: <u>8-21</u> Item #24 Metals: <u>Al, Sb, As, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Si, Ag, Ti, V, Zn, Na</u> RUSH SURCHARGE: _____ CLIENT DISCOUNT: _____ SPECIAL CERTIFICATION REQUIRED: <u>YES</u> <u>NO</u>						<b>RECEIVED BY: 1.</b> Signature: <u>[Signature]</u> Time: <u>0902</u> Printed Name: <u>Kinda Kitt</u> Date: <u>8/14/97</u> Company: <u>AEN 71</u>		<b>RECEIVED BY: (LAB) 2.</b> Signature: _____ Time: _____ Printed Name: _____ Date: _____ Company: _____	

DATE: 8/8/97 PAGE: 1 OF 1

DATE: 8/8/97 PAGE: 1 OF 1

**AEN LAB ID**

708323

**SHADED AREAS ARE FOR LAB USE ONLY**

**PLEASE FILL THIS FORM IN COMPLETELY.**

SAMPLE ID	DATE	TIME	MATRIX	LAB I.D.
MW-20) 9708071335	8/7/97	1335	water	-01
MW-21) 9708071540	8/7/97	1540	water	-02
MW-22) 9708071425	8/7/97	1425	water	-03
Trip Blank	8/6/97	1650	water	-04

ANALYSIS REQUEST					
Petroleum Hydrocarbons (418.1) TRPH					
(MOD.8015) Diesel/Direct/Inject					
(M8015) Gas/Purge & Trap					
Gasoline/BTEX & MTBE (M8015/8020)					
BTEX/MTBE (8020)					
BTEX & Chlorinated Aromatics (602/8020)					
BTEX/MTBE/EDC & EDB (8020/8010/Short)					
Chlorinated Hydrocarbons (601/8010)					
8010/8020	3	3	1		
504 EDB <input type="checkbox"/> / DBCP <input type="checkbox"/>					
Polynuclear Aromatics (610/8310)					
Volatile Organics (624/8240) GC/MS					
Volatile Organics (8260) GC/MS					
Pesticides/PCB (608/8080)					
Herbicides (615/8150)					
Base/Neutral/Acid Compounds GC/MS (625/8270)					
General Chemistry:					
ICAP-6010 (cond. # 24)	-	-	-		
Priority Pollutant Metals (13)					
Target Analyte List Metals (23)					
RCRA Metals (8)					
RCRA Metals by TCLP (Method 1311)					
Metals:					

PROJECT INFORMATION		PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS		RELINQUISHED BY: 1.		RELINQUISHED BY: 2.	
PROJ. NO.:		(RUSH) <input type="checkbox"/> 24hr <input type="checkbox"/> 48hr <input type="checkbox"/> 72hr <input type="checkbox"/> 1 WEEK (NORMAL) <input checked="" type="checkbox"/>		Signature: <i>William Olson</i> Time: 1530		Signature: _____ Time: _____	
PROJ. NAME: ENRON Raswell		CERTIFICATION REQUIRED: <input type="checkbox"/> NM <input type="checkbox"/> SDWA <input type="checkbox"/> OTHER		Printed Name: William Olson Date: 8/8/97		Printed Name: _____ Date: _____	
P.O. NO.:		METHANOL PRESERVATION <input type="checkbox"/>		Company: NM OCP		Company: _____	
SHIPPED VIA:		COMMENTS: FIXED FEE <input type="checkbox"/>		RECEIVED BY: 1.		RECEIVED BY: (CAB)	
SAMPLE RECEIPT				Signature: _____ Time: _____		Signature: _____ Time: _____	
NO. CONTAINERS: 13				Printed Name: _____ Date: _____		Printed Name: _____ Date: _____	
QUANTITY: 177NA				Company: _____		Company: _____	
RECEIVED: 4/3							
DATE: 1							

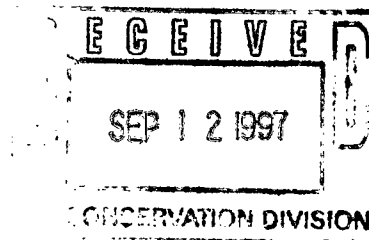


**Enron Gas  
Pipeline Group**

P.O. Box 1188  
Houston, TX 77251-1188  
(713) 853-6161

September 8, 1997

Mr. William C. Olson  
Environmental Bureau  
New Mexico Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, New Mexico 87505



RE: Phase III Soil and Ground Water Assessment  
Roswell Compressor Station  
Transwestern Pipeline Company

Dear Bill,

Transwestern completed implementation of the Phase III assessment field activities on August 8, 1997. These activities were completed as outlined in our most recent correspondence dated June 23, 1997. Transwestern's consultants, Cypress Engineering and Daniel B. Stephens & Associates, are currently in the process of preparing a report of assessment activities and results. A copy of the report will be submitted to your office for review by October 15, 1997.

If you have any questions or comments regarding the scheduled submittal date for the report, please contact me at (713) 646-7644 or George Robinson at (713) 646-7327.

Sincerely,

Bill Kendrick  
Manager, Environmental Affairs

gcr/BK

xc: Benito Garcia	NMED HRMB
Lou Soldano	ENRON GPG Legal
Richard Virtue	Virtue & Najjar, P.C.
Larry Campbell	Transwestern
George Robinson	Cypress Engineering



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 S. PACHECO  
SANTA FE, NEW MEXICO 87505  
(505) 827-7131

August 15, 1997

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. P-410-431-211**

Mr. Bill Kendrick  
ENRON Gas Pipeline Group  
P.O. Box 1188  
Houston, Texas 77251-1188

**RE: GROUND WATER REMEDIATION  
ROSWELL COMPRESSOR STATION**

Dear Mr. Kendrick:

The New Mexico Oil Conservation Division has reviewed ENRON Gas Pipeline Group's (ENRON) June 23, 1997 "PHASE III SOIL AND GROUND WATER ASSESSMENT, ROSWELL COMPRESSOR STATION, TRANSWESTERN PIPELINE COMPANY". The document contains an update of the scheduled assessment activities at the ENRON Roswell Compressor. The document also contains a proposal to plug and abandon recovery well MW-1.

In order to minimize cross contamination of the shallow and deep aquifers as a result of the completion intervals of this well, the above referenced proposal is approved.

Please be advised that OCD approval does not relieve ENRON of liability should their remediation and monitoring program fail to adequately monitor or remediate contamination related to ENRON's operations. In addition, this approval does not relieve ENRON of responsibility for compliance with any other federal, state, tribal or local laws and/or regulations.

If you have any questions, please call me at (505) 827-7154.

Sincerely,

A handwritten signature in black ink, appearing to read "Will Olson".

William C. Olson  
Hydrogeologist  
Environmental Bureau

xc: OCD Artesia Office  
George Robinson, Cypress Engineering Services, Inc.  
Benito Garcia, NMED Hazardous & Radioactive Materials Bureau

P 410 431 211

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PS Form 3800, April 1995



**Enron Gas  
Pipeline Group**

P.O. Box 1188  
Houston, TX 77251-1188  
(713) 853-6161

June 23, 1997

Mr. William C. Olson  
Environmental Bureau  
New Mexico Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, New Mexico 87505

RE: Phase III Soil and Ground Water Assessment  
Roswell Compressor Station  
Transwestern Pipeline Company

Dear Bill,

Transwestern has scheduled implementation of Phase III assessment activities to begin on July 21, 1997. Assessment activities will follow the scope of work which was outlined in Sections 3 and 4 of the Phase III Soil and Ground Water Assessment Plan dated February 26, 1997, and submitted to your office for review. This scope includes the installation of three ground water monitor wells into the uppermost aquifer to complete delineation of affected ground water, the installation of one deep ground water monitor well to determine whether the bedrock aquifer has been affected, and the initiation of a routine ground water monitoring program. Transwestern will incorporate into the work plan the conditions set out in your letter of approval dated April 17, 1997.

An additional task which was not included in the Phase III work plan will be added to the scope of work to be completed. This task is to abandon the recovery well MW-1. Subsequent to heavy rain events, large volumes of water (4000-6000 gallons) are recovered from this well. Generally, this would not present a great problem considering the low concentrations of contaminants contained in the recovered water, however, pending a resolution with the NMED HRMB regarding management of contaminated media, Transwestern has managed the water as if it were a hazardous waste. Disposal costs are high and managing the water in this manner is unwarranted. Therefore, Transwestern plans to abandon this well by overdrilling the well casing, removing the casing to total depth, and grouting the borehole with a 3-5% bentonite grout. Continued remediation in the immediate vicinity of this well will be addressed more effectively by a comprehensive remediation plan to be developed and implemented subsequent to the completion of assessment activities.

Section 2 of the Phase III plan, which includes a scope of work for the collection of soil samples for the determination of background concentrations of metal constituents, will

not be implemented at this time pending comments from the NMED HRMB on this issue. In addition, the scope of work for the collection of soil samples for bench scale testing by remediation subcontractors will not be implemented at this time pending a resolution with the NMED HRMB regarding management of contaminated media. These tasks will be scheduled at a later date.

If you have any questions or comments regarding this schedule or the scope of work, please contact me at (713) 646-7644 or George Robinson at (713) 646-7327.

Sincerely,



Bill Kendrick  
Manager, Environmental Affairs

gcr/BK

xc: Benito Garcia	NMED HRMB
Lou Soldano	ENRON GPG Legal
Richard Virtue	Virtue & Najjar, P.C.





STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO  
SANTA FE, NEW MEXICO 87505  
(505) 827-7131

April 17, 1997

**CERTIFIED MAIL**

**RETURN RECEIPT NO: P-410-431-167**

Mr. Bill Kendrick  
ENRON Operations Corp.  
P.O. Box 1188  
Houston, Texas 77251-1188

**RE: PHASE III INVESTIGATION WORK PLAN  
ROSWELL COMPRESSOR STATION  
TRANSWESTERN PIPELINE CO.**

Dear Mr. Kendrick:

The New Mexico Oil Conservation Division (OCD) has completed a review of Transwestern Pipeline Company's (TPC) February 28, 1996 "PHASE III SOIL AND GROUND WATER ASSESSMENT PLAN, ROSWELL COMPRESSOR STATION, TRANSWESTERN PIPELINE COMPANY". This document contains TPC's proposed work plan for additional (Phase III) soil and ground water contamination investigations at the Roswell Compressor Station. The document also contains a long term ground water monitoring plan.

The above referenced proposed Phase III work plan and long term ground water monitoring plan is approved with the following conditions:

1. The closest soil borings for determining background soil metals concentrations will be located a minimum of 50 feet from the external boundaries of former pit #1.
2. The OCD defers comment on TPC's risk-based contaminant closure levels or performance standards. During site investigations, the OCD considers the OCD's "UNLINED SURFACE IMPOUNDMENT CLOSURE GUIDELINES" and the New Mexico Water Quality Control Commission standards to be the screening levels used in contaminant investigations. The OCD will consider appropriate remediation levels and standards for site closure when the contaminant investigations are complete and a remedial action plan is submitted.
3. The OCD defers comment on modifications to long term metals ground water monitoring until actual monitoring data is submitted which supports the recommended changes.

Mr. Bill Kendrick  
April 17, 1997  
Page 2

4. All wastes generated will be analyzed for hazardous characteristics, benzene, toluene, ethylbenzene, ~~xylene~~ and total petroleum hydrocarbons and submitted to the OCD for approval prior to disposal.
5. TPC will coordinate the Phase III monitor well sampling to coincide with a quarterly sampling event such that all new and preexisting monitor wells are sampled at the same time.
6. All cement grouts used for monitor well completion or plugging and abandonment of boreholes will contain 3 to 5% bentonite.
7. TPC will submit a report on the Phase III investigations to the OCD by August 29, 1997. The report will contain:
  - a. A description of all activities which occurred during the investigation including conclusions and recommendations. The recommendations will include any necessary modifications to the long term ground water monitoring program.
  - b. Lithologic logs and as built well construction diagrams for each soil boring and monitor well.
  - c. Summary tables listing all soil laboratory analytic results including copies of the laboratory analyses and quality assurance/quality control data.
  - d. Summary tables listing all past and present laboratory analytic results of all water quality sampling for each monitoring point including copies of the current laboratory analyses and quality assurance/quality control data.
  - e. Soil and ground water isoconcentration maps for contaminants of concern (COC). In addition to the COC's proposed, COC's will include all contaminants which either are in excess of or have the potential to cause an exceedance of WQCC standards.
  - f. A water table elevation map using the water table elevation of the ground water in all monitor wells.
  - g. A product thickness map based on the thickness of free phase product in all monitor wells.
  - h. The recommended disposition of any wastes generated during the investigations.

Mr. Bill Kendrick  
April 17, 1997  
Page 3

8. TPC will notify the OCD at least one week in advance of all scheduled activities such that an OCD representative has the opportunity to witness the events and/or split samples.
9. All documents submitted for approval will be submitted to the OCD Santa Fe Office with copies provided to the OCD Artesia District Office.

Please be advised that OCD approval does not relieve TPC of liability if contamination exists which is beyond the scope of the work plan, or if the activities fail to adequately determine the extent of contamination related to TPC's activities. In addition, OCD approval does not relieve TPC of responsibility for compliance with RCRA hazardous waste regulations or any other federal, state or local laws and/or regulations.

If you have any questions, please call me at (505) 827-7154.

Sincerely,



William C. Olson  
Hydrogeologist  
Environmental Bureau

xc: OCD Artesia District Office  
Mark Weidler, Secretary NMED  
Benito Garcia, NMED Hazardous and Radioactive Materials Bureau  
George Robinson, Cypress Engineering Services, Inc.

P 410 431 157

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PS Form 3800, April 1995



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO  
SANTA FE, NEW MEXICO 87505  
(505) 827-7131

April 14, 1997

**CERTIFIED MAIL**

**RETURN RECEIPT NO: P-410-431-166**

Mr. Bill Kendrick  
ENRON Operations Corp.  
P.O. Box 1188  
Houston, Texas 77251-1188

**RE: TRANSWESTERN PIPELINE CO. ROSWELL COMPRESSOR STATION**

Dear Mr. Kendrick:

The New Mexico Oil Conservation Division (OCD) has completed a review of Transwestern Pipeline Company's (TPC) February 13, 1996 "FINAL DISPOSITION OF INVESTIGATION DERIVED WASTES, ROSWELL COMPRESSOR STATION, TRANSWESTERN PIPELINE COMPANY". This document contains TPC's request to dispose of soils and ground water from soil borings and ground water monitor wells onsite at the Roswell Compressor Station. The disposal requests are based upon laboratory analytical sampling results.

The above referenced disposal request is approved with the exception of the soil investigation wastes from SVE-2, MW-16, MW-13 and SVE-3. Due to the confusion over the RCRA nature of the solvent wastes contained in the soils from SVE-2, MW-16, MW-13 and SVE-3, TPC's request to dispose of the soils from these boreholes on-site is denied. The OCD requires that TPC further evaluate disposal options for these wastes.

Please be advised that OCD approval does not relieve TPC of liability should their disposal actions result in actual pollution of ground water, surface water, or the environment. In addition, OCD approval does not relieve TPC of responsibility for compliance with any other federal, state or local laws and/or regulations.

If you have any questions, please contact me at (505) 827-7154.

Sincerely,

A handwritten signature in dark ink, appearing to read "Will Olson".

William C. Olson  
Hydrogeologist  
Environmental Bureau

xc: OCD Artesia District Office  
George Robinson, Cypress Engineering Services, Inc.

P 410 431 166

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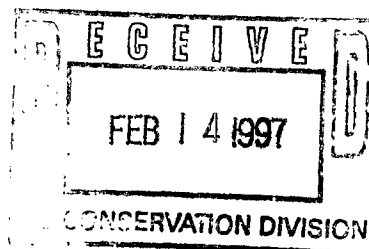
PS Form 3800, April 1995

# ENRON OPERATIONS CORP.

P. O. Box 1188    Houston, Texas 77251-1188    (713) 853-6161

February 13, 1997

Mr. William C. Olson  
Environmental Bureau  
New Mexico Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, New Mexico 87505



RE: Final Disposition of Investigation Derived Wastes  
Roswell Compressor Station  
Transwestern Pipeline Company

Dear Bill,

In the course of the Phase II assessment activities, several drums of investigation derived wastes (IDW) were generated. Most of the IDW had been classified as hazardous/non-hazardous based upon analytical results for samples collected in the course of the assessment, however, some of the IDW required additional sample analyses for classification. The results of the additional sample analyses is summarized in the table below which also lists the source, contents, and proposed disposition of the IDW currently stored at the site.

Source	Drums	Initial Lab Results	Results of Re-sampling	Comments/Disposition
used PPE & other misc. trash	2	not sampled	na	dispose of in station dumpster
SVE-2 soil cuttings	2	PCB(1254)=0.320 ppm, low detections of solvents and BTEX, TPH(max)=3700 ppm	composite of 6 samples (3 from each drum): PCBs < 22 ppb, TPH=6750 ppm	spread on-site in Pit 1 area
MW-16 soil cuttings	1	PCB(1254)=0.021 ppm benzene(max)=3.0 ppm TPH(max)=7200 ppm	composite of 3 samples: PCBs < 22 ppb, TPH=2250 ppm	spread on-site in Pit 1 area
MW-13 soil cuttings	3	low detections of solvents and BTEX TPH(max)=17000 ppm	composited 9 samples (3 from each drum) into 1: TPH=3130 ppm	spread on-site in Pit 1 area
SVE-3 soil cuttings	1	low detections of solvents and BTEX TPH(max)=24 ppm	na	spread on-site in Pit 1 area
MW-15 soil cuttings	4	TPH(max)=34 ppm	na	spread on-site in Pit 1 area
SVE-1 soil cuttings	2	TPH(max)=58 ppm	na	spread on-site in Pit 1 area

Source	Drums	Initial Lab Results	Results of Re-sampling	Comments/Disposition
MW-13 purge water	1	benzene= 4600 ppb	na	contents were classified as characteristically hazardous waste and have already been picked up by Rollins for disposal
MW-12 purge water	2	benzene= 760 ppb	dr#1: all BTEX <2 ppb dr#2: all BTEX <2 ppb	discharge to ground surface
MW-7 purge water	1	all VOCs non-detect except xylene@ 52 ppb	na	discharge to ground surface
MW-10 purge water	1	all VOCs non-detect except benzene@ 2 ppb	na	discharge to ground surface
MW-11 purge water	1	all VOCs non-detect except benzene@ 1 ppb	na	discharge to ground surface
MW-14 purge water	1	all VOCs non-detect except benzene@ 2 ppb	na	discharge to ground surface
MW-15 purge water	1	all VOCs non-detect except benzene@ 4 ppb, toluene@ 6 ppb & xylene@ 6 ppb	na	discharge to ground surface
MW-17 purge water	1	all VOCs non-detect except benzene@ 2 ppb	na	discharge to ground surface
MW-19 purge water	1	all VOCs non-detect except benzene@ 2 ppb	na	discharge to ground surface
"Clean" soil cuttings pile	5 -10 cu. yds.	segregated in field based on PID < 100 ppm	all VOCs by method 8010/8020 non-detect PCBs < 22 ppb, TPH = 67 ppm	spread on-site in Pit 1 area

Notes:

- TCLP was not necessary for characterization of any of the soil samples since lab results indicate that no regulated constituents are present at a concentration greater than 20 times the TCLP regulatory level and therefore could not theoretically produce a TCLP extract which would contain a constituent in excess of the TCLP levels.
- The lab results indicated under the column heading "Initial Lab Results" were, in general, obtained from the most affected soil sample (as determined by field headspace screening) collected in the course of drilling each boring. As a result, the relatively high TPH concentrations measured in some samples were not representative of the entire volume of soil cuttings from those borings. For this reason, composite soil samples were collected from six drums of IDW and submitted to a lab for TPH analysis.
- Three drums of soil were generated from borings for which analyses of a sample from these borings indicated the presence of low concentrations of PCBs. It is unlikely that the detections reported by the lab represent a real presence of PCBs. Therefore, the contents of

these drums were resampled and analyzed for PCBs by a second lab. The more recent lab results indicate non-detect for PCBs.

- Two drums of purge water, from MW-12, were temporarily classified as characteristically hazardous waste based on the results of a ground water sample result. However, based on the results of re-sampling, the purge water from MW-12 has been reclassified as non-hazardous.
- The laboratory reports supporting the information indicated under the column heading "Initial Lab Results" were included in the Phase II assessment report previously submitted to your office for review. The laboratory reports supporting the information indicated under the column heading "Results of Re-sampling" are included as an attachment to this letter.

Transwestern will implement the proposed disposition of IDW upon obtaining approval from your office. If you have any questions regarding this issue, please contact me at (713) 646-7644 or George Robinson at (713) 646-7327.

Sincerely,



Bill Kendrick  
Manager, Environmental Affairs

gcr/BK

xc w/enclosure:

Tim Gum

NMOCD Artesia District Office





LABORATORIES, INC.

JAN 1997

## ANALYTICAL AND QUALITY CONTROL REPORT

George Robinson  
ENRON CORPORATION  
Env. Affairs, Rm 3 AC 3142  
P.O. Box 1188  
Houston, TX 77251

01/03/1997

EPIC Job Number: 96.09138

Page 1

Project Description:

Job Description: Enron/TWP Roswell Station

Enclosed are the Analytical Results and Quality Control Data Reports for the following samples submitted to EPIC Laboratories, Inc. for analysis:

Sample Number	Sample Description	Date Taken	Time Taken	Date Received
325683	SVE-2 Soil Cuttings	12/19/1996	13:38	12/20/1996
325684	Monitor Well #16 Soil Cuttings	12/19/1996	14:00	12/20/1996
325685	Monitor Well #13 Soil Cuttings	12/19/1996	14:20	12/20/1996
325686	Soil Cuttings Clean Pile	12/19/1996	14:50	12/20/1996
325687	Purge Water MW-12 Drum 1	12/19/1996	14:30	12/20/1996
325688	Purge Water MW-12 Drum 2	12/19/1996	14:30	12/20/1996

This Quality Control report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

*Debby Skogen*

Debby Skogen  
Project Coordinator

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.

## ANALYTICAL RESULTS REPORT

George Robinson  
ENRON CORPORATION  
Env. Affairs, Rm 3 AC 3142  
P.O. Box 1188  
Houston, TX 77251

01/03/1997

EPIC Job Number: 96.09138  
Sample Number: 325683

Page 2

Project Description:  
Job Description: Enron/TWP Roswell Station

Sample Description: SVE-2 Soil Cuttings

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch Number	Run Batch Number	Reporting Limit
TPH-418.1 (Nonaqueous)		6750	ug/g	E-418.1		01/02/1997	bss		1263	10
PCB/PEST-NONAQ. (8080)						12/27/1996				
PCB-1016	EDL	<22	ug/kg	S-8080A		12/27/1996	tcc	244	555	22
PCB-1221	EDL	<22	ug/kg	S-8080A		12/27/1996	tcc	244	555	22
PCB-1232	EDL	<22	ug/kg	S-8080A		12/27/1996	tcc	244	555	22
PCB-1242	EDL	<22	ug/kg	S-8080A		12/27/1996	tcc	244	555	22
PCB-1248	EDL	<22	ug/kg	S-8080A		12/27/1996	tcc	244	555	22
PCB-1254	EDL	<22	ug/kg	S-8080A		12/27/1996	tcc	244	555	22
PCB-1260	EDL	<22	ug/kg	S-8080A		12/27/1996	tcc	244	555	22
SURR: DCB		96	% Rec	S-8080A		12/27/1996	tcc	244	555	50-120
SURR: TCX	SU	220	% Rec	S-8080A		12/27/1996	tcc	244	555	40-125

EDL - Elevated Detection Limit due to matrix interference.  
SU - Surrogate outside limits due to matrix interference.

# ANALYTICAL RESULTS REPORT

George Robinson  
ENRON CORPORATION  
Env. Affairs, Rm 3 AC 3142  
P.O. Box 1188  
Houston, TX 77251

01/03/1997

EPIC Job Number: 96.09138  
Sample Number: 325684

Page 3

Project Description:  
Job Description: Enron/TWP Roswell Station

Sample Description: Monitor Well #16 Soil Cuttings

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch Number	Run Batch Number	Reporting Limit
TPH-418.1 (Nonaqueous)		2550	ug/g	E-418.1		01/02/1997	bss		1263	10
PCB/PEST-NONAQ. (8080)						12/27/1996				
PCB-1016	EDL	<22	ug/kg	S-8080A		12/27/1996	tcc	244	555	22
PCB-1221	EDL	<22	ug/kg	S-8080A		12/27/1996	tcc	244	555	22
PCB-1232	EDL	<22	ug/kg	S-8080A		12/27/1996	tcc	244	555	22
PCB-1242	EDL	<22	ug/kg	S-8080A		12/27/1996	tcc	244	555	22
PCB-1248	EDL	<22	ug/kg	S-8080A		12/27/1996	tcc	244	555	22
PCB-1254	EDL	<22	ug/kg	S-8080A		12/27/1996	tcc	244	555	22
PCB-1260	EDL	<22	ug/kg	S-8080A		12/27/1996	tcc	244	555	22
SURR: DCB		92	% Rec	S-8080A		12/27/1996	tcc	244	555	50-120
SURR: TCX		121	% Rec	S-8080A		12/27/1996	tcc	244	555	40-125

EDL - Elevated Detection Limit due to matrix interference.

## ANALYTICAL RESULTS REPORT

George Robinson  
ENRON CORPORATION  
Env. Affairs, Rm 3 AC 3142  
P.O. Box 1188  
Houston, TX 77251

01/03/1997

EPIC Job Number: 96.09138  
Sample Number: 325685

Page 4

Project Description:

Job Description: Enron/TWP Roswell Station

Sample Description: Monitor Well #13 Soil Cuttings

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch Number	Run Batch Number	Reporting Limit
TPH-418.1 (Nonaqueous)		3130	ug/g	E-418.1		01/02/1997	bss		1263	10

# ANALYTICAL RESULTS REPORT

George Robinson  
ENRON CORPORATION  
Env. Affairs, Rm 3 AC 3142  
P.O. Box 1188  
Houston, TX 77251

01/03/1997

EPIC Job Number: 96.09138  
Sample Number: 325686

Page 5

Project Description:  
Job Description: Enron/TWP Roswell Station  
Sample Description: Soil Cuttings Clean File

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch Number	Run Batch Number	Reporting Limit
TPH-418.1 (Nonaqueous)		67	ug/g	E-418.1		01/02/1997	bss		1263	10
Arsenic, Trace ICP		9.5	ug/g	S-6010A	01/02/1997	01/02/1997	des	263	176	0.5
Barium, Trace ICP	BS	201	ug/g	S-6010A	01/02/1997	01/02/1997	des	263	176	0.1
Cadmium, Trace ICP		0.6	ug/g	S-6010A	01/02/1997	01/02/1997	des	263	176	0.1
Chromium, Trace ICP		7.1	ug/g	S-6010A	01/02/1997	01/02/1997	des	263	176	0.5
Lead, Trace ICP		11.0	ug/g	S-6010A	01/02/1997	01/02/1997	des	263	176	0.5
Mercury, CVAA		<0.02	ug/g	S-7470A		12/27/1996	bwb		1002	0.02
Selenium, Trace ICP		5.5	ug/g	S-6010A	01/02/1997	01/02/1997	des	263	176	0.5
Silver, Trace ICP		0.6	ug/g	S-6010A	01/02/1997	01/02/1997	des	263	176	0.2
PCB/PEST-NONAQ. (8080)					12/27/1996					
PCB-1016	EDL	<22	ug/kg	S-8080A		12/27/1996	tcc	244	555	22
PCB-1221	EDL	<22	ug/kg	S-8080A		12/27/1996	tcc	244	555	22
PCB-1232	EDL	<22	ug/kg	S-8080A		12/27/1996	tcc	244	555	22
PCB-1242	EDL	<22	ug/kg	S-8080A		12/27/1996	tcc	244	555	22
PCB-1248	EDL	<22	ug/kg	S-8080A		12/27/1996	tcc	244	555	22
PCB-1254	EDL	<22	ug/kg	S-8080A		12/27/1996	tcc	244	555	22
PCB-1260	EDL	<22	ug/kg	S-8080A		12/27/1996	tcc	244	555	22
SURR: DCB		88	% Rec	S-8080A		12/27/1996	tcc	244	555	50-120
SURR: TCX		100	% Rec	S-8080A		12/27/1996	tcc	244	555	40-125
VOA 8240 NONAQ.										
Acetone		<100	ug/kg	S-8240A		12/28/1996	mgc		465	100
Benzene		<5	ug/kg	S-8240A		12/28/1996	mgc		465	5
Bromodichloromethane		<5	ug/kg	S-8240A		12/28/1996	mgc		465	5
Bromoform		<5	ug/kg	S-8240A		12/28/1996	mgc		465	5
Bromomethane		<10	ug/kg	S-8240A		12/28/1996	mgc		465	10
2-Butanone (MEK)		<100	ug/kg	S-8240A		12/28/1996	mgc		465	100
Carbon disulfide		<100	ug/kg	S-8240A		12/28/1996	mgc		465	100
Carbon tetrachloride		<5	ug/kg	S-8240A		12/28/1996	mgc		465	5
Chlorobenzene		<5	ug/kg	S-8240A		12/28/1996	mgc		465	5
Chloroethane		<10	ug/kg	S-8240A		12/28/1996	mgc		465	10
2-Chloroethylvinyl ether		<20	ug/kg	S-8240A		12/28/1996	mgc		465	20
Chloroform		<5	ug/kg	S-8240A		12/28/1996	mgc		465	5

BS - MS/MSD outside acceptance criteria, bench spike was 85-115%.

EDL - Elevated Detection Limit due to matrix interference.

# ANALYTICAL RESULTS REPORT

George Robinson  
ENRON CORPORATION  
Env. Affairs, Rm 3 AC 3142  
P.O. Box 1188  
Houston, TX 77251

01/03/1997

EPIC Job Number: 96.09138  
Sample Number: 325686

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Project Description:  
Job Description: Enron/TWP Roswell Station

Sample Description: Soil Cuttings Clean Pile

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch Number	Run Batch Number	Reporting Limit
Chloromethane		<10	ug/kg	S-8240A		12/28/1996	mgc		465	10
Dibromochloromethane		<5	ug/kg	S-8240A		12/28/1996	mgc		465	5
1,1-Dichloroethane		<5	ug/kg	S-8240A		12/28/1996	mgc		465	5
1,2-Dichloroethane		<5	ug/kg	S-8240A		12/28/1996	mgc		465	5
1,1-Dichloroethene		<5	ug/kg	S-8240A		12/28/1996	mgc		465	5
trans-1,2-Dichloroethene		<5	ug/kg	S-8240A		12/28/1996	mgc		465	5
1,2-Dichloropropane		<5	ug/kg	S-8240A		12/28/1996	mgc		465	5
cis-1,3-Dichloropropene		<5	ug/kg	S-8240A		12/28/1996	mgc		465	5
trans-1,3-Dichloropropene		<5	ug/kg	S-8240A		12/28/1996	mgc		465	5
Ethyl benzene		<5	ug/kg	S-8240A		12/28/1996	mgc		465	5
2-Hexanone		<50	ug/kg	S-8240A		12/28/1996	mgc		465	50
Methylene chloride		<5	ug/kg	S-8240A		12/28/1996	mgc		465	5
4-Methyl-2-pentanone (MIBK)		<50	ug/kg	S-8240A		12/28/1996	mgc		465	50
Styrene		<5	ug/kg	S-8240A		12/28/1996	mgc		465	5
1,1,2,2-Tetrachloroethane		<5	ug/kg	S-8240A		12/28/1996	mgc		465	5
Tetrachloroethene		<5	ug/kg	S-8240A		12/28/1996	mgc		465	5
Toluene		<5	ug/kg	S-8240A		12/28/1996	mgc		465	5
1,1,1-Trichloroethane		<5	ug/kg	S-8240A		12/28/1996	mgc		465	5
1,1,2-Trichloroethane		<5	ug/kg	S-8240A		12/28/1996	mgc		465	5
Trichloroethene		<5	ug/kg	S-8240A		12/28/1996	mgc		465	5
Vinyl acetate		<50	ug/kg	S-8240A		12/28/1996	mgc		465	50
Vinyl chloride		<10	ug/kg	S-8240A		12/28/1996	mgc		465	10
Xylenes, Total		<5	ug/kg	S-8240A		12/28/1996	mgc		465	5
SURR: 1,2-Dichloroethane-d4		116	% Rec	S-8240A		12/28/1996	mgc		465	70-121
SURR: Toluene-d8		117	% Rec	S-8240A		12/28/1996	mgc		465	81-117
SURR: 4-Bromofluorobenzene		102	% Rec	S-8240A		12/28/1996	mgc		465	74-121

## ANALYTICAL RESULTS REPORT

George Robinson  
ENRON CORPORATION  
Env. Affairs, Rm 3 AC 3142  
P.O. Box 1188  
Houston, TX 77251

01/03/1997

EPIC Job Number: 96.09138  
Sample Number: 325687

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Project Description:

Job Description: Enron/TWP Roswell Station

Sample Description: Purge Water MW-12 Drum 1

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch Number	Run Batch Number	Reporting Limit
EPA-8020 AQ (PRESERVED)										
Benzene		<2	ug/L	S-8020M		12/26/1996	zst		2679	2
Ethylbenzene		<2	ug/L	S-8020M		12/26/1996	zst		2679	2
Toluene		<2	ug/L	S-8020M		12/26/1996	zst		2679	2
Xylenes, Total		<2	ug/L	S-8020M		12/26/1996	zst		2679	2
SURR: a,a,a-TFT		99	% Rec	S-8020M		12/26/1996	zst		2679	60-125

## ANALYTICAL RESULTS REPORT

George Robinson  
ENRON CORPORATION  
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P.O. Box 1188  
Houston, TX 77251

01/03/1997

EPIC Job Number: 96.09138  
Sample Number: 325688

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Project Description:  
Job Description: Enron/TWP Roswell Station

Sample Description: Purge Water MW-12 Drum 2

Parameter	Flag	Result	Units	Analytical Method	Date Prepared	Date Analyzed	Analyst	Prep Batch Number	Run Batch Number	Reporting Limit
EPA-8020 AQ (PRESERVED)										
Benzene		<2	ug/L	S-8020M		12/26/1996	zst		2679	2
Ethylbenzene		<2	ug/L	S-8020M		12/26/1996	zst		2679	2
Toluene		<2	ug/L	S-8020M		12/26/1996	zst		2679	2
Xylenes, Total		<2	ug/L	S-8020M		12/26/1996	zst		2679	2
SURR: a,a,a-TFT		97	% Rec	S-8020M		12/26/1996	zst		2679	60-125



# QUALITY CONTROL REPORT BLANKS

George Robinson  
ENRON CORPORATION  
Env. Affairs, Rm 3 AC 3142  
P.O. Box 1188  
Houston, TX 77251

01/03/1997

EPIC Job Number: 96.09138

Project Description:  
Job Description: Enron/TWP Roswell Station

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch Number	Run Batch Number
TPH-418.1 (Nonaqueous)		<10	ug/g	10	01/02/1997		1263
Arsenic, Trace ICP		<0.5	ug/g	0.5	01/02/1997	263	176
Barium, Trace ICP		<0.1	ug/g	0.1	01/02/1997	263	176
Cadmium, Trace ICP		<0.1	ug/g	0.1	01/02/1997	263	176
Chromium, Trace ICP		<0.5	ug/g	0.5	01/02/1997	263	176
Lead, Trace ICP		<0.5	ug/g	0.5	01/02/1997	263	176
Mercury, CVAA		<0.02	ug/g	0.02	12/27/1996		1002
Selenium, Trace ICP		<0.5	ug/g	0.5	01/02/1997	263	176
Silver, Trace ICP		<0.2	ug/g	0.2	01/02/1997	263	176
EPA-8020 AQ (PRESERVED)							
Benzene		<2	ug/L	2	12/26/1996		2679
Ethylbenzene		<2	ug/L	2	12/26/1996		2679
Toluene		<2	ug/L	2	12/26/1996		2679
Xylenes, Total		<2	ug/L	2	12/26/1996		2679
PCB/PEST-NONAQ. (8080)							
PCB-1016		<22	ug/kg	22	12/27/1996	244	555
PCB-1221		<22	ug/kg	22	12/27/1996	244	555
PCB-1232		<22	ug/kg	22	12/27/1996	244	555
PCB-1242		<22	ug/kg	22	12/27/1996	244	555
PCB-1248		<22	ug/kg	22	12/27/1996	244	555
PCB-1254		<22	ug/kg	22	12/27/1996	244	555
PCB-1260		<22	ug/kg	22	12/27/1996	244	555
VOA 8240 NONAQ.							
Acetone		<100	ug/kg	100	12/28/1996		465
Benzene		<5	ug/kg	5	12/28/1996		465
Bromodichloromethane		<5	ug/kg	5	12/28/1996		465
Bromoform		<5	ug/kg	5	12/28/1996		465
Bromomethane		<10	ug/kg	10	12/28/1996		465

All parameters should be less than the reporting limit.

# QUALITY CONTROL REPORT BLANKS

George Robinson  
ENRON CORPORATION  
Env. Affairs, Rm 3 AC 3142  
P.O. Box 1188  
Houston, TX 77251

01/03/1997

EPIC Job Number: 96.09138

Project Description:  
Job Description: Enron/TWP Roswell Station

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch Number	Run Batch Number
2-Butanone (MEK)		<100	ug/kg	100	12/28/1996		465
Carbon disulfide		<100	ug/kg	100	12/28/1996		465
Carbon tetrachloride		<5	ug/kg	5	12/28/1996		465
Chlorobenzene		<5	ug/kg	5	12/28/1996		465
Chloroethane		<10	ug/kg	10	12/28/1996		465
2-Chloroethylvinyl ether		<20	ug/kg	20	12/28/1996		465
Chloroform		<5	ug/kg	5	12/28/1996		465
Chloromethane		<10	ug/kg	10	12/28/1996		465
Dibromochloromethane		<5	ug/kg	5	12/28/1996		465
1,1-Dichloroethane		<5	ug/kg	5	12/28/1996		465
1,2-Dichloroethane		<5	ug/kg	5	12/28/1996		465
1,1-Dichloroethene		<5	ug/kg	5	12/28/1996		465
trans-1,2-Dichloroethene		<5	ug/kg	5	12/28/1996		465
1,2-Dichloropropane		<5	ug/kg	5	12/28/1996		465
cis-1,3-Dichloropropene		<5	ug/kg	5	12/28/1996		465
trans-1,3-Dichloropropene		<5	ug/kg	5	12/28/1996		465
Ethyl benzene		<5	ug/kg	5	12/28/1996		465
2-Hexanone		<50	ug/kg	50	12/28/1996		465
4-Methyl-2-pentanone (MIBK)		<50	ug/kg	50	12/28/1996		465
Methylene chloride		<5	ug/kg	5	12/28/1996		465
Styrene		<5	ug/kg	5	12/28/1996		465
1,1,2,2-Tetrachloroethane		<5	ug/kg	5	12/28/1996		465
Tetrachloroethene		<5	ug/kg	5	12/28/1996		465
Toluene		<5	ug/kg	5	12/28/1996		465
1,1,1-Trichloroethane		<5	ug/kg	5	12/28/1996		465
1,1,2-Trichloroethane		<5	ug/kg	5	12/28/1996		465
Trichloroethene		<5	ug/kg	5	12/28/1996		465
Vinyl acetate		<50	ug/kg	50	12/28/1996		465

All parameters should be less than the reporting limit.

## QUALITY CONTROL REPORT BLANKS

George Robinson  
ENRON CORPORATION  
Env. Affairs, Rm 3 AC 3142  
P.O. Box 1188  
Houston, TX 77251

01/03/1997

EPIC Job Number: 96.09138

Project Description:

Job Description: Enron/TWP Roswell Station

Parameter	Flag	Blank Result	Units	Reporting Limit	Date Analyzed	Prep Batch Number	Run Batch Number
Vinyl chloride		<10	ug/kg	10	12/28/1996		465
Xylenes, Total		<5	ug/kg	5	12/28/1996		465

All parameters should be less than the reporting limit.

# QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION STANDARD

George Robinson  
ENRON CORPORATION  
Env. Affairs, Rm 3 AC 3142  
P.O. Box 1188  
Houston, TX 77251

01/03/1997

EPIC Job Number: 96.09138

Project Description:

Job Description: Enron/TWP Roswell Station

Parameter	Flag	CCVS True Concentration	Units	CCVS Concentration Found	CCVS Percent Recovery	Date Analyzed	Run Batch Number
TPH-418.1 (Nonaqueous)		120	ug/g	112	93.3	01/02/1997	1263
Arsenic, Trace ICP		1.00	ug/g	0.95	95.0	01/02/1997	176
Barium, Trace ICP		1.00	ug/g	0.96	96.0	01/02/1997	176
Cadmium, Trace ICP		1.00	ug/g	0.96	96.0	01/02/1997	176
Chromium, Trace ICP		1.00	ug/g	0.96	96.0	01/02/1997	176
Lead, Trace ICP		1.00	ug/g	0.98	98.0	01/02/1997	176
Mercury, CVAA		0.50	ug/g	0.54	108.0	12/27/1996	1002
Selenium, Trace ICP		1.00	ug/g	0.97	97.0	01/02/1997	176
Silver, Trace ICP		1.00	ug/g	0.98	98.0	01/02/1997	176
EPA-8020 AQ (PRESERVED)							
Benzene		20	ug/L	21	105.0	12/26/1996	2679
Ethylbenzene		20	ug/L	20	100.0	12/26/1996	2679
Toluene		20	ug/L	20	100.0	12/26/1996	2679
Xylenes, Total		60	ug/L	59	98.3	12/26/1996	2679
PCB/PEST-NONAQ. (8080)							
PCB-1016		160	ug/kg	168	105.0	12/27/1996	555
PCB-1260		200	ug/kg	203	101.5	12/27/1996	555
VOA 8240 NONAQ.							
Chloroform		20	ug/kg	19.68	98.4	12/28/1996	465
1,1-Dichloroethene		20	ug/kg	22.01	110.1	12/28/1996	465
1,2-Dichloropropane		20	ug/kg	18.68	93.4	12/28/1996	465
Ethyl benzene		20	ug/kg	20.87	104.4	12/28/1996	465
Toluene		20	ug/kg	19.30	96.5	12/28/1996	465
Vinyl chloride		20	ug/kg	18.87	94.3	12/28/1996	465

CCVS - Continuing Calibration Verification Standard

# QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

George Robinson  
ENRON CORPORATION  
Env. Affairs, Rm 3 AC 3142  
P.O. Box 1188  
Houston, TX 77251

01/03/1997

EPIC Job Number: 96.09138

**Project Description:**

Job Description: Enron/TWP Roswell Station

Parameter	Flag	Units	Sample Result	Spike Amount Added	Matrix Spike Result	MS Percent Recovery	Duplicate		MSD Percent Recovery	MSD RPD	Date Analyzed	Prep Batch Number	Run Batch Number
							Spike Amount Added	MSD Result					
TPH-418.1 (Nonaqueous)		ug/g	67	500	646	115.8	500	635	113.6	1.9	01/02/1997		1263
Arsenic, Trace ICP		ug/g	9.5	100	101	91.5	100	102	92.5	1.1	01/02/1997	263	176
Barium, Trace ICP	BS	ug/g	201	1000	1186	98.5	1000	1184	98.3	0.2	01/02/1997	263	176
Cadmium, Trace ICP		ug/g	0.6	100	84.4	83.8	100	85.2	84.6	1.0	01/02/1997	263	176
Chromium, Trace ICP		ug/g	7.1	100	93.4	86.3	100	94.0	86.9	0.7	01/02/1997	263	176
Lead, Trace ICP		ug/g	11.0	100	100	89.0	100	101	90.0	1.1	01/02/1997	263	176
Mercury, CVAA		ug/g	<0.02	0.50	0.58	116.0	0.50	0.60	120.0	3.4	12/27/1996		1002
Selenium, Trace ICP		ug/g	5.5	100	101	95.5	100	102	96.5	1.0	01/02/1997	263	176
Silver, Trace ICP		ug/g	0.6	100	94.5	93.9	100	95.0	94.4	0.5	01/02/1997	263	176
EPA-8020 AQ (PRESERVED)													
Benzene		ug/L	<2	20	21	105.0	20	23	115.0	9.1	12/26/1996		2679
Ethylbenzene		ug/L	<2	20	20	100.0	20	22	110.0	9.5	12/26/1996		2679
Toluene		ug/L	<2	20	20	100.0	20	20	100.0	0.0	12/26/1996		2679
Xylenes, Total		ug/L	<2	40	40	100.0	40	46	115.0	14.0	12/26/1996		2679
VOA 8240 NONAQ.													
Benzene		ug/kg	<5	20.0	22.27	111.4	20.0	23.71	118.6	6.3	12/28/1996		465
Chlorobenzene		ug/kg	<5	20.0	24.70	123.5	20.0	23.04	115.2	7.0	12/28/1996		465
1,1-Dichloroethene		ug/kg	<5	20.0	25.17	125.9	20.0	23.55	117.8	6.6	12/28/1996		465
Toluene		ug/kg	<5	20.0	22.81	114.1	20.0	21.22	106.1	7.3	12/28/1996		465
Trichloroethene		ug/kg	<5	20.0	21.42	107.1	20.0	19.13	95.7	11.1	12/28/1996		465

NOTE: The Quality Control data in this report reflects the batch in which your sample was prepped and/or analyzed.  
The sample selected for QA may not necessarily be your sample.

BS - MS/MSD outside acceptance criteria, bench spike was 85-115%.

# QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

George Robinson  
ENRON CORPORATION  
Env. Affairs, Rm 3 AC 3142  
P.O. Box 1188  
Houston, TX 77251

01/03/1997

EPIC Job Number: 96.09138

Project Description:  
Job Description: Enron/TWP Roswell Station

Analyte	Prep Batch No.	Run Batch No.	LCS True Conc	Units	LCS Conc Found	LCS % Rec.	LCS Dup Conc. Found	LCS Dup % Rec	LCS % RPD	Flag	Date Analyzed
TPH-418.1 (Nonaqueous)		1263	2660	ug/g	3160	118.8					01/02/1997
Arsenic, Trace ICP	263	176	100	ug/g	100	100.0					01/02/1997
Barium, Trace ICP	263	176	100	ug/g	101	101.0					01/02/1997
Cadmium, Trace ICP	263	176	100	ug/g	104	104.0					01/02/1997
Chromium, Trace ICP	263	176	100	ug/g	104	104.0					01/02/1997
Lead, Trace ICP	263	176	100	ug/g	105	105.0					01/02/1997
Mercury, CVAA		1002	0.50	ug/g	0.57	114.0					12/27/1996
Selenium, Trace ICP	263	176	100	ug/g	105	105.0					01/02/1997
Silver, Trace ICP	263	176	100	ug/g	100	100.0					01/02/1997
EPA-8020 AQ (PRESERVED)											
Benzene		2679	20	ug/L	20	100.0	20	100.0	0.0		12/26/1996
Ethylbenzene		2679	20	ug/L	20	100.0	20	100.0	0.0		12/26/1996
Toluene		2679	20	ug/L	18	90.0	19	95.0	5.4		12/26/1996
Xylenes, Total		2679	40	ug/L	41	102.5	43	107.5	4.8		12/26/1996
PCB/PEST-NONAQ. (8080)											
PCB-1260	244	555	0.05	ug/kg	0.052	104.0	0.037	74.0	33.6		12/27/1996
VOA 8240 NONAQ.											
Benzene		465	20.0	ug/kg	20.64	103.2					12/28/1996
Chlorobenzene		465	20.0	ug/kg	19.44	97.2					12/28/1996
1,1-Dichloroethene		465	20.0	ug/kg	11.56	57.8					12/28/1996
Toluene		465	20.0	ug/kg	18.19	91.0					12/28/1996
Trichloroethene		465	20.0	ug/kg	18.69	93.5					12/28/1996

LCS - Laboratory Control Standard

For samples with insufficient sample volume, an LCS/LCS duplicate is reported instead of an MS/MSD.



**1548 VALWOOD PARKWAY, SUITE 118  
CARROLLTON, TEXAS 75006  
DALLAS (972) 406-8100  
AUSTIN (512) 928-8905**

COMPANY CYPRESS ENGINEERING - Houston, TX 77251-1188  
ADDRESS c/o Enron Operations Corp POB 1188, RM 3AC-3142  
PHONE 713-646-7327 FAX 713-646-7867  
PROJECT NAME/LOCATION Enron/Tulsa Roswell Station  
PROJECT NUMBER \_\_\_\_\_

COMPANY CYPRESS ENGINEERING - Houston, TX 77251-1188 REPORT TO: MR. George Robinson  
ADDRESS C/O Enron Operations Corp POB 1188, RM 3AL-3142  
PHONE 713-646-7327 FAX 713-646-7867 INVOICE TO: \_\_\_\_\_  
PROJECT NAME/LOCATION Enron/Twp Roswell Station P.O. NO. \_\_\_\_\_  
PROJECT NUMBER \_\_\_\_\_  
PROJECT MANAGER MR. George Robinson, P.E. EPIC QUOTE NO. \_\_\_\_\_

**SAMPLED BY**

(PRINT NAME)

(PRINT NAME)

**SIGNATURE**

**SIGNATURE**

## ANALYSES

To assist us in selecting the proper method

Is this work being conducted for regulatory compliance monitoring? Yes \_\_\_\_\_ No \_\_\_\_\_

Is this work being conducted for regulatory enforcement action? Yes \_\_\_\_\_ No \_\_\_\_\_

Which regulations apply: RCRA \_\_\_\_\_ NPDES Wastewater  
UST \_\_\_\_\_ Drinking Water  
Other \_\_\_\_\_ None

## COMMENTS

[illegible]

CONDITION OF SAMPLE: BOTTLES INTACT? YES / NO  
FIELD FILTERED? YES / NO

COC SEALS PRESENT AND INTACT? YES / NO  
VOLATILES FREE OF HEADSPACE? YES / NO

TEMPERATURE UPON RECEIPT: \_\_\_\_\_  
Bottles supplied by EPIC? YES / NO

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA \_\_\_\_\_  
I REQUEST EPIC TO DISPOSE OF ALL SAMPLE REMAINDERS

DATE 12/19/90

RELINQUISHED BY:

DATE \_\_\_\_\_

TIME

RECEIVED BY:

RELINQUISHED BY:

DATE \_\_\_\_\_

TIME

RECEIVED FOR EPIC BY:

**METHOD OF SHIPMENT**

REMARKS:

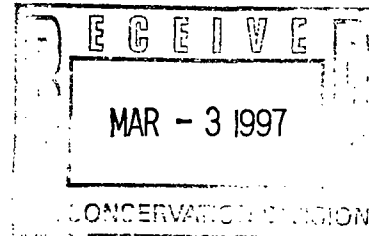
FED-EX



Enron Gas  
Pipeline Group  
P. O. Box 1188  
Houston, TX 77251-1188

February 28, 1997

Mr. William C. Olson  
Environmental Bureau  
New Mexico Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, New Mexico 87505



RE: Phase III Soil and Ground Water Assessment Plan  
Roswell Compressor Station  
Transwestern Pipeline Company

Dear Bill,

Enclosed for your review and approval is the Phase III Soil and Ground Water Assessment Plan for the subject facility. Included in this plan are provisions for routine ground water monitoring.

The content of this plan, in general, is identical to the Phase III soil and ground water assessment plan incorporated into the Corrective Action Plan (CAP) which Transwestern recently submitted to the NMED (a copy of which was also submitted to your office).

If you have any questions or comments regarding this work plan, please contact me at (713) 646-7644 or George Robinson at (713) 646-7327.

Sincerely,

Bill Kendrick  
Manager, Environmental Affairs

gcr/BK

xc w/attachment: Benito Garcia NMED HRMB



# ENRON OPERATIONS CORP.

P. O. Box 1188 Houston, Texas 77251-1188 (713) 853-6161

February 13, 1997

Mr. William C. Olson  
Environmental Bureau  
New Mexico Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, New Mexico 87505

FEB 17 1997

RE: Corrective Action Plan  
Roswell Compressor Station  
Transwestern Pipeline Company

Dear Bill,

Enclosed is a copy of the Corrective Action Plan (CAP) which Transwestern recently submitted to the NMED. Included in the CAP is a Phase III soil and ground water assessment plan to complete the delineation of affected soil and ground water at the site. Also included in the CAP is a plan for routine ground water monitoring. We are currently in the process of extracting the provisions of the assessment and monitoring plans and incorporating them into a separate document which will be submitted to your office for review and approval. We anticipate that this document will be delivered to your office by March 1, 1997.

If you have any questions regarding the enclosed report, please contact me at (713) 646-7644 or George Robinson at (713) 646-7327.

Sincerely,



Bill Kendrick  
Manager, Environmental Affairs

gcr/BK

xc w/o enclosure:

Tim Gum  
Benito Garcia

NMOCD Artesia District Office  
NMED HRMB



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO  
SANTA FE, NEW MEXICO 87505  
(505) 827-7131

February 5, 1997

Mr. Bill Kendrick  
ENRON Operations Corp.  
P.O. Box 1188  
Houston, Texas 77251-1188

**RE: MONITOR WELL SAMPLING  
ROSWELL COMPRESSOR STATION  
TRANSWESTERN PIPELINE CO.**

Dear Mr. Kendrick:

Enclosed you will find the laboratory analytical results of the New Mexico Oil Conservation Division's (OCD) September 24, 1996 monitor well sampling at the ENRON Roswell Compressor Station.

If you have any questions, please call me at (505) 827-7154.

Sincerely,

William C. Olson  
Hydrogeologist  
Environmental Bureau

xc w/enclosure:

Tim Gum, OCD Artesia District Supervisor  
George Robinson, Cypress Engineering Services  
Benito Garcia, NMED Hazardous and Radioactive  
Materials Bureau

**Transwestern Pipeline Company**  
TECHNICAL OPERATIONS  
6381 North Main • Roswell, New Mexico 88201

JAN 23 1997

January 17, 1997

Mr. Pat Sanchez  
Oil Conservation Division  
2048 Pacheco St.  
Santa Fe, New Mexico 87502

Re: Land Ownership Status, Transwestern Pipeline Company Facilities

Dear Mr. Sanchez:

As per your request in January of this year, presented below are the land ownership designations for those Transwestern facilities which are covered under the Oil Conservation Division's (OCD) groundwater discharge plans:

<u>Facility</u>	<u>Discharge Plan No.</u>	<u>Ownership</u>
C/S No. 5, Thoreau	GW- 80	Transwestern
Bloomfield C/S	GW- 84	Transwestern
C/S No. 6, Laguna	GW- 95	Luguna Reservation
C/S No. 7, Mountainair	GW-110	Transwestern
C/S No. 8, Corona	GW- 89	Transwestern
C/S No. 9, Roswell	GW- 52	Transwestern
Portales (P-1) C/S	GW- 90	Transwestern
Carlsbad (Wt-1) C/S	GW-109	Transwestern
Monument Turbine C/S	GW-197	Transwestern
Eunice C/S	GW-113	Transwestern

Should you require additional information concerning the above listed facilities, contact the undersigned at our Roswell Technical Operations office at (505) 625-8022.

Sincerely,



Larry Campbell  
Division Environmental Specialist

RECEIVED

JAN 23 1997

Environmental Bureau  
Oil Conservation Division

file

ACKNOWLEDGEMENT OF RECEIPT  
OF CHECK/CASH

I hereby acknowledge receipt of check No. [REDACTED] dated 10/2/95  
or cash received on 10/12/95 in the amount of \$ 690.00  
from ENRON

for Roswell Comp Sta. 6W-052  
(Facility Name) (DP No.)

Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_

Submitted to ASD by: T. J. [Signature] Date: 10/13/95

Received in ASD by: AC Date: 10/13/95

Filing Fee \_\_\_\_\_ New Facility \_\_\_\_\_ Renewal X

Modification \_\_\_\_\_ Other \_\_\_\_\_  
(specify)

Organization Code 521.07 Applicable FY 96

To be deposited in the Water Quality Management Fund.

Full Payment X or Annual Increment \_\_\_\_\_

**ENRON  
CORP**

P. O. Box 1188  
Houston, TX 77251-1188

62-20  
311

CHECK  
NO. [REDACTED]

CHECK DATE 10-02-95

PAY EXACTLY SIX HUNDRED AND NINETY AND NO/100---- DOLLARS  
THIS CHECK IS VOID UNLESS PRINTED ON BLUE BACKGROUND

**\$690.00**

NOT VALID AFTER 90 DAYS

PAY TO THE  
ORDER OF NMED-WATER QUALITY MANAGEMENT

NOT VALID OVER \$5000.00 UNLESS COUNTERSIGNED

**FIELD DISBURSEMENT ACCOUNT**

CITIBANK DELAWARE

Enron Corp.  
P. O. Box 1188  
Houston, TX 77251-1188

OIL CONSERVATION DIVISION  
RECEIVED

**ENRON  
CORP**

**RECEIVED**  
OCT 12 1995  
Environmental Bureau  
Oil Conservation Division

CHECK NO. 617 852  
CHECK DATE 10/02/95

PAGE 1 OF 1

VENDOR NO:  
REMITTANCE STATEMENT

VOUCHER NO.	INVOICE DATE	INVOICE NO.	PURCHASE ORDER	AMOUNT		
				GROSS	DISCOUNT	NET
	10/2/95 617-52	MISC1100295		\$690.00		
					TOTAL	

SPECIAL INSTRUCTIONS:

DETACH AND RETAIN THIS STUB FOR YOUR RECORDS.

# ENRON OPERATIONS CORP.

P. O. Box 1188 Houston, Texas 77251-1188 (713) 853-6161

November 27, 1996

Mr. William C. Olson  
Environmental Bureau  
New Mexico Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, New Mexico 87505

**RECEIVED**

DEC 02 1996

Environmental Bureau  
Oil Conservation Division

RE: Phase II Soil and Ground Water Assessment Report  
Roswell Compressor Station  
Transwestern Pipeline Company

Dear Bill,

Enclosed is one copy of the subject report. We are currently in the process of developing a Phase III Soil and Ground Water Assessment Plan to complete the delineation of affected soil and ground water at the site. In addition, we are in the process of developing a ground water monitoring plan for the site. We anticipate that both plans will be submitted to your office for review and approval no later than January 31, 1997.

If you have any questions regarding the enclosed report, please contact me at (713) 646-7644 or George Robinson at (713) 646-7327.

Sincerely,



Bill Kendrick  
Manager, Projects Group

gcr/BK

xc w/enclosure:

Tim Gum  
Benito Garcia

NMOCD Artesia District Office  
NMED HRMB

Mr. William C. Olson  
Roswell Compressor Station

November 27, 1996  
Page 2

---

bc w/enclosure:

Larry Campbell  
Lou Soldano  
Richard Virtue  
G. Robinson

Transwestern Pipeline Co.  
EOC Legal  
Taichert, Wiggins, Virtue, & Najjar  
Cypress Engineering Services

Roswell, NM  
EB-4779  
Santa Fe, NM  
3AC-3142



**ENRON  
OPERATIONS CORP.**

P. O. Box 1188 Houston, Texas 77251-1188 (713) 853-6161

October 31, 1996

Mr. William C. Olson  
Environmental Bureau  
New Mexico Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, New Mexico 87505

RE: Phase II Soil and Ground Water Assessment Report  
Transwestern Pipeline Company Roswell Compressor Station

Dear Bill,

Transwestern has completed the field activities which were outlined in the "Phase II Soil and Ground Water Assessment Plan" which was approved by your office. We are currently in the process of evaluating the information obtained in the course of these assessment activities and preparing a report which will summarize the results of field observations and laboratory analyses. We anticipate that a report for these activities will be submitted to your office by November 27, 1996.

If you have any questions or comments regarding this issue, please contact me at (713) 646-7644 or George Robinson at (713) 646-7327.

Sincerely,



Bill Kendrick  
Environmental Affairs

gcr/BK

xc: Benito Garcia  
Larry Campbell  
George Robinson

NMED HRMB  
TW Technical Operations  
Cypress Engineering Services

Santa Fe, NM  
Roswell, NM  
3AC-3142

IN THE DISTRICT COURT OF THE UNITED STATES  
FOR THE DISTRICT OF NEW MEXICO

FILED  
at Santa Fe NM

SEP 02 1996

TRANSWESTERN PIPELINE COMPANY,  
a Delaware corporation,

Plaintiff,

v.

Civil No.  
ROBERT L. GARCIA, Clerk  
UNITED STATES DISTRICT COURT  
DISTRICT OF NEW MEXICO

NEW MEXICO ENVIRONMENT DEPARTMENT,  
an agency of the State of New Mexico,  
and MARK E. WEIDLER, Secretary,

Defendants.

CIV 93-01203 MV

LORENZO F. GARCIA

COMPLAINT FOR DECLARATORY JUDGMENT AND  
PETITION FOR INJUNCTION

JURISDICTIONAL ALLEGATIONS

1. Plaintiff, Transwestern Pipeline Company ("Transwestern"), is a corporation duly incorporated under the laws of the State of Delaware with its headquarters and principal place of business in Houston, Texas.

2. Transwestern owns and operates an interstate natural gas pipeline transmission system in the states of California, Arizona, New Mexico, Colorado, Texas and Oklahoma. Transwestern is subject to the federal Natural Gas Act (15 USC §717 et seq.), the federal Natural Gas Pipeline Safety Act of 1968 (49 USCA §1071 et seq.), the New Mexico Oil and Gas Act (§70-2-1 et seq. NMSA 1978), and the New Mexico Water Quality Act (§74-6-1 et seq. NMSA 1978). As part of its operations, Transwestern owns and operates a compressor station located approximately nine miles north of Roswell in Chaves County, New Mexico (the "Roswell

Compressor Station").

3. Defendant New Mexico Environment Department ("NMED") is the agency of the State of New Mexico primarily responsible for administering the federal Resource Conservation and Recovery Act, (42 U.S.C. § 6901 et seq.) ("RCRA"), the New Mexico Hazardous Waste Act ("New Mexico Act"), §74-4-1 et seq., NMSA 1978 and the regulations adopted pursuant to those acts.

4. Defendant Mark E. Weidler is sued in his individual capacity as the person who currently serves as the Secretary of NMED. Upon information and belief, Secretary Weidler resides in Santa Fe County, New Mexico.

5. An actual controversy exists among the parties concerning the applicability of RCRA, as applied through the New Mexico Act and the regulations adopted under those acts, to the remediation of contaminated soil and groundwater related to past operations of the Roswell Compressor Station.

6. The amount in controversy exceeds, exclusive of interest and costs, the sum of \$50,000.

7. Under 42 U.S.C. §6926, the United States Environmental Protection Agency ("EPA") may delegate its authority to administer and enforce RCRA to the NMED pursuant to the New Mexico Act and the regulations adopted thereunder.

8. NMED administers and enforces RCRA pursuant to a hazardous waste program authorized by the EPA on January 25, 1985. (50 Fed. Reg. 1515).

9. Effective January 2, 1996, the authority of NMED was expanded to include administration and enforcement of the Hazardous and Solid Waste Amendments of 1984 to RCRA, which includes authority to administer and enforce a RCRA corrective action program. (61 Fed. Reg. 2450).

10. Pursuant to its authority to administer and enforce its hazardous waste program, New Mexico has adopted by reference regulations of the EPA providing for the administration and enforcement of RCRA set forth in 40 CFR Parts 260, et seq. (the "RCRA Regulations"). (20 NMAC 4.1 §§ 101, 500, 600).

11. Transwestern's claims arise under federal law in that the actions of NMED and the Secretary exceed the authority delegated to them by USEPA under RCRA.

12. This Court has jurisdiction of the parties and of the controversy which is the subject matter of this action pursuant to 28 U.S.C. §§ 1331, 1332 and 1367, and has power to enter declaratory judgment relief pursuant to 28 USC §2201.

#### GENERAL ALLEGATIONS

13. Prior to November 1983, maintenance activities at the Roswell Compressor Station involved the use and disposal at two surface impoundments of solutions containing mixtures of certain halogenated solvents used to clean equipment at the Roswell Compressor Station.

14. Prior to January 30, 1986, the waste halogenated solvents at issue were "listed" as hazardous under RCRA only if they were spent in 100%, commercial grade concentrations.

15. Effective January 30, 1996, the EPA promulgated new regulations, including the "solvent mixture rule" codified at 40 CFR §261.31(a) ("Mixture Rule") which classified as hazardous, for purposes of RCRA, mixtures or wastes containing solvents in 10 percent or greater concentration.

16. Except in limited circumstances not present in this case, the New Mexico Act authorizes NMED to implement RCRA by identifying and listing wastes as hazardous only if designated hazardous in the RCRA Regulations of EPA. § 74-4-4A(1), NMSA 1978.

17. One of the surface impoundments receiving small quantities of mixed solvents was backfilled before February, 1977, prior to adoption of regulations under RCRA concerning solvents; the second was closed in 1983, prior to the adoption of the Mixture Rule, and was backfilled in June, 1986.

18. Since Transwestern ceased using the surface impoundments, it has stored wastes generated from operations in above-ground storage tanks, and removed the stored wastes from the site.

19. The Roswell Compressor Station wastes that give rise to the dispute in this matter are those wastes deposited in the surface impoundments prior to adoption of the Mixture Rule.

20. RCRA applies to owners and operators of facilities that engage in the treatment, storage and disposal ("TSD") of hazardous waste identified or listed under RCRA. 42 U.S.C. § 6924.

21. NMED asserts that certain remediation activities related to two former surface impoundments at the Roswell Compressor Station must be undertaken pursuant to RCRA, because the past use of certain cleaning solutions containing halogenated solvents constitutes a release or "disposal" of "hazardous waste" under RCRA.

22. As the result of a voluntary investigation by Transwestern concluded in 1991, Transwestern apprised the NMED the fact that mixed solvents had been released into the surface impoundments at the Roswell Compressor Station.

23. Under the mistaken assumption that the solvent mixtures and other compounds constituted hazardous wastes, Transwestern submitted a RCRA Part A permit application at the request of NMED in January, 1993.

24. In February, 1993, NMED requested that Transwestern submit a closure plan in accordance with 40 CFR §265.112(a) of the RCRA Regulations and requested that a new or amended Part A application under RCRA be submitted. Transwestern submitted an amended Part A application in April, 1993.

25. In July, 1993, Transwestern delivered a closure plan to NMED as requested by NMED; that closure plan was rejected by NMED.

26. Beginning in May, 1994, Transwestern raised questions with NMED concerning the regulatory status of the surface impoundments at the Roswell Station. Transwestern subsequently met with NMED on a number of occasions in an attempt to negotiate with NMED on the remediation of soil and groundwater contamination at the Roswell Compressor Station, including, but not limited to, submitting two revised closure plans, the second of which was submitted on January 16, 1995, and was deemed incomplete by NMED in a letter from NMED to Transwestern dated April 28, 1995.

27. Additional investigation by Transwestern subsequent to filing the Part A Application and submittal of its closure plans led it to the conclusion that the Roswell Compressor Station is not a TSD facility because Transwestern could find no evidence it ever treated, stored or disposed of waste which was classified as hazardous under RCRA at the time of disposal.

28. Transwestern's additional investigation revealed that there was no evidence that 100 percent concentrations of the RCRA-listed solvents were discharged into the Roswell Compressor Station surface impoundments.

29. The additional investigation also revealed that the other contaminants identified in Transwestern's RCRA Part A application were neither listed nor properly classified as hazardous waste during the period the surface impoundments were in use. (40 CFR § 261.24).

30. On October 11, 1995, Transwestern submitted a letter to NMED presenting the results of Transwestern's additional investigation regarding the regulatory status of the facility, including Transwestern's belief that RCRA closure and post-closure requirements do not apply to the Roswell Compressor Station and documentation supporting Transwestern's position. A copy of the October 11, 1995 letter is attached to this complaint as Exhibit 1.

31. NMED, in a letter dated December 21, 1995, responded to Transwestern's October 11, 1995 letter by stating that the position of NMED is that closure is required pursuant to RCRA as implemented by the New Mexico Act. A copy of the December 21, 1995 letter is attached to this complaint as Exhibit 2.

32. On January 19, 1996, Transwestern withdrew its RCRA Part A application and all previously submitted closure plans. A copy of the January 19, 1996 letter of Transwestern withdrawing the application and closure plans is attached to this complaint as Exhibit 3.

33. Further written and oral negotiations between NMED and Transwestern followed, and on June 28, 1996, Transwestern submitted a proposed settlement agreement and alternative closure plan to NMED proposing a closure process and reiterating Transwestern's position that NMED had no jurisdiction under RCRA to demand a RCRA compliant closure plan.



34. On July 22, 1996, Mr. Larry Campbell, a Division Environmental Specialist employed by Transwestern, received a telephone call from Mr. Edward Kelly, Director of the NMED Water and Waste Management Division, informing Mr. Campbell that NMED planned to issue a compliance order against Transwestern which would include penalties of up to \$10,000 per day for alleged violations and that NMED would possibly seek criminal penalties against Transwestern personnel.

35. On August 9, 1996, Secretary Weidler sent a letter (the "August 9 Letter") to Transwestern rejecting the June 28, 1996 proposed alternative closure plan, describing it as, "completely unacceptable" and demanding resubmission of the RCRA Closure Plan that Transwestern had withdrawn on January 19, 1996 by September 3, 1996 and notifying Transwestern that NMED believes Transwestern may be subject to potential liability for civil penalties. A copy of the August 9, 1996 letter is attached to this complaint as Exhibit 4.

36. Laboratory analysis of tests conducted as part of Transwestern's investigation indicate that over 99.9% of the volume of the contaminants present at the Roswell Compressor Station surface impoundments are petroleum hydrocarbons, the remediation of which is under the jurisdiction of the New Mexico Oil Conservation Division ("OCD") pursuant to the New Mexico Oil and Gas Act, the New Mexico Water Quality Act, and the OCD Guidelines for Remediation of Leaks, Spills and Releases adopted under to §70-2-12(B)22 NMSA 1978 ("OCD Remediation Guidelines").

37. Transwestern has submitted Phase I and Phase II remediation assessment plans to the OCD pursuant to the authority of OCD under the New Mexico Oil & Gas Act, and the New Mexico Water Quality Act, and the OCD Remediation Guidelines.

38. Transwestern is implementing a phased investigative plan and pilot remediation plan under the authority of the OCD pursuant to the New Mexico Oil and Gas Act, the New Mexico Water Quality Act and the OCD Remediation Guidelines to remediate soil and groundwater contamination at the Roswell Compressor Station.

39. The OCD has authority to approve the remediation of all of the wastes at issue in this matter, and closure under the authority of OCD as proposed by Transwestern will result in remediation of all such wastes, including halogenated solvent wastes.

COUNT I  
FOR DECLARATORY JUDGMENT

40. An actual controversy arising under federal law exists between the parties as to whether NMED has authority to require Transwestern to comply with the closure and remediation requirements of RCRA, as implemented by the New Mexico Act, and the RCRA Regulations.

41. NMED does not have legal authority to require Transwestern to comply with RCRA closure requirements, as implemented by the New Mexico Act, or the RCRA Regulations,

because the Roswell Compressor Station is not a TSD facility.

42. Defendant Weidler has acted in excess of his authority as Secretary of NMED under federal and state law by attempting to require Transwestern to comply with RCRA closure requirements, as implemented by the New Mexico Act, and the RCRA Regulations.

43. RCRA, the New Mexico Act and RCRA Regulations do not apply retroactively to the mixed wastes that were released at the Roswell Compressor Station.

44. NMED's attempt to apply the Mixture Rule retroactively to the mixed wastes released at the Roswell Compressor Station prior to the effective date of the Mixture Rule creates a controversy arising under federal law in that application of the Mixture Rule to Transwestern violates RCRA, the New Mexico Act, and the RCRA Regulations.

## COUNT II

### FOR PRELIMINARY INJUNCTION

45. The allegations of paragraphs 1 through 44 are incorporated by reference and realleged as though fully set forth.

46. NMED and Secretary Weidler are acting beyond their authority under RCRA and the New Mexico Act and contrary to law in attempting to apply RCRA closure and remediation requirements to Transwestern.

47. The actions of NMED and Secretary Weidler threaten Transwestern with irreparable harm by: (1) threatening to impose criminal and civil penalties on Transwestern should Transwestern refuse to comply with their demands by September 3, 1996; and (2) threatening to impose regulatory requirements that may conflict with the ongoing assessment and remediation activities under authority of the OCD and may make compliance with both sets of requirements impossible.

48. There is a substantial likelihood that Transwestern will succeed on the merits of the claims alleged herein.

49. NMED, Secretary Weidler, and the public interest will not suffer any prejudice by the issuance of an injunction because the OCD remediation is ongoing and will include remediation of wastes at issue here and all contaminants of concern at the Roswell Compressor Station.

WHEREFORE, Transwestern requests that the Court:

1. Declare that RCRA, the New Mexico Act, and the regulations adopted pursuant to those Acts do not apply to the soil and groundwater remediation at the Roswell Compressor Station;

2. Issue a permanent injunction enjoining NMED and Secretary Weidler from taking any enforcement action against Transwestern under RCRA, the New Mexico Act, or the RCRA Regulations; and

3. Award Transwestern such other and further relief as the Court deems proper.

VIRTUE, NAJJAR & BARTELL  
A Partnership of Professional  
Corporations

By 

Randy S. Bartell  
Richard L.C. Virtue  
Laura A. Ward  
300 Paseo de Peralta  
Suite 200  
Santa Fe, New Mexico 87501  
(505) 986-5850 or  
(505) 983-6101

Attorneys of Transwestern  
Pipeline Company

enron\plead\complain.t

filecom

TAICHERT, WIGGINS, VIRTUE & NAJJAR

A PARTNERSHIP OF PROFESSIONAL CORPORATIONS

LAWYERS

ROBERT D. TAICHERT  
BRUCE E. WIGGINS  
LORNA M. WIGGINS  
RICHARD L.C. VIRTUE  
DANIEL A. NAJJAR  
CHARLOTTE LAMONT  
THOMAS E. BROWN III  
NANETTE M. LANDERS

OF COUNSEL  
BOB D. BARBEROUSSE

ALBUQUERQUE OFFICE  
20 FIRST PLAZA  
SUITE 710 (87102)  
P.O. BOX 1308  
ALBUQUERQUE, NEW MEXICO  
87103-1308  
(505) 764-8400  
FAX: (505) 764-8585

SANTA FE OFFICE:  
119 EAST MARCY STREET  
SUITE 100 (87501)  
P.O. BOX 4265  
SANTA FE, NEW MEXICO  
87502-4265  
(505) 983-6101  
FAX: (505) 983-6304

TOLL FREE: (505) 867-0960  
(ALBUQUERQUE TO SANTA FE)

October 11, 1995

BY HAND-DELIVERY

Tracy Hughes, Esq.  
General Counsel  
New Mexico Environment Department  
Harold Runnels Building  
1190 St. Francis Drive  
P. O. Box 26110  
Santa Fe, NM 87502



Transwestern Pipeline Company  
("TW"), Roswell Compressor Station  
("Roswell Station")

Dear Ms. Hughes:

This letter follows the August, 1995 meeting between representatives of TW and representatives of the New Mexico Environment Department ("NMED") concerning TW's Roswell Compressor Station. This confirms the information provided orally by TW to NMED at the meeting, and provides additional information as requested by the NMED.

Summary of TW's Analysis

For legal, technical and policy reasons, the proper regulatory path for the closure of this site is through the New Mexico Oil Conservation Division ("OCD") rather than NMED. TW remains committed to remedial goals that are fully protective of human health and the environment. Closure under the OCD authority will expedite the remediation and avoid the difficulties inherent under a RCRA Subtitle C closure, which is ill-suited for this type of facility. Moreover, closure under the OCD will not only achieve the same remediation goals as those prescribed under RCRA, but also place oversight authority with the state agency that has primary authority and expertise over remediation of soil and groundwater contaminated with petroleum hydrocarbons which comprise nearly all of the contaminants at the Roswell Station.

Since the meeting held between TW and NMED in March, 1995, TW has conducted a comprehensive review and analysis of the status of

Tracy Hughes, Esq.  
October 11, 1995  
Page -2-

the Roswell Station and the regulatory approach imposed upon this facility. The results of TW's analysis show that the Part A application filed by TW in 1993 at the request of NMED contained fundamentally erroneous information and should be withdrawn. TW's investigation of its past practices at both the Roswell Station and other sites indicates that the wastes generated at the Roswell Station were never "hazardous" waste within the meaning of RCRA for a number of reasons. First, the wastes were in insufficient amounts or concentrations to qualify as hazardous under the regulations then in effect. Second, some of the materials released were not even classified as hazardous wastes under the then existing regulations. Finally, the application assumed the presence of certain wastes for which no evidence has been found to exist. Moreover, facility wastes were released during the time period prior to clarification of the "petroleum" exemption and were generally considered to be exempt pursuant to the petroleum exemption at the time of disposal.

Although the OCD is the appropriate oversight authority, TW can provide NMED with copies of documentation related to the OCD remediation process so that NMED may assure itself that the process is adequate to protect human health and the environment.

#### General Description of Roswell Station Operations and Potential Waste Streams

The Roswell Station is located on approximately 80 acres of land just north of the City of Roswell. The natural gas compressor station has been in operation since 1960, and the station operates subject to a discharge plan issued by the OCD. TW filed a RCRA Part A application in January, 1993, at the request of NMED for the purpose of gathering information concerning closure of former surface impoundments at the facility.

TW's investigation indicates that two surface impoundments were used at the facility from 1960 through 1983. One of these surface impoundments was backfilled before February, 1977, and the second was closed in 1983 and backfilled in June, 1986. These surface impoundments were used by TW to contain pipeline condensate. The surface impoundments have been replaced by above-ground storage tanks. All wastes generated from operations are now stored in the surface tanks and then removed from the site and handled in such a manner so that no treatment, storage or disposal facility ("TSDF") status is triggered. Thus, the surface impoundments that are the subject of the Part A application and subsequent negotiations with NMED have not been in use since at least 1983 and have been replaced by above-ground storage facilities.

TW's Roswell Station, like hundreds of similar facilities located within the State of New Mexico, serves the function of compressing natural gas for transportation through a pipeline. A secondary function of the Roswell Station is to serve as a location where pipeline liquids are removed from the pipeline. These liquids collect in low spots in the pipeline or in flow-through vessels designed to knock out the liquids ("scrubbers"). Liquids are also periodically removed from the pipeline during "pigging" operations. During pigging operations, plugs or "pigs" are shoved through the pipeline to push out the liquids. The liquids collected at a compressor station from "pigging" operations and the scrubbers are called pipeline liquids or "condensate".

In general, pipeline liquids are a mixture of produced water and petroleum hydrocarbons. The petroleum hydrocarbons are a mixture of predominantly aliphatic hydrocarbon compounds in the C6 to C14 range and a much smaller fraction (on the order of 10%) of aromatic hydrocarbon compounds. Historically, pipeline liquids were either placed in surface impoundments where the water and petroleum hydrocarbons presumably would evaporate, or the liquids were sold as a product where they would be blended with crude oil or fuel oil. Today, pipeline liquids are almost exclusively sold as a product and therefore are not classified as a waste.

In general, the only other potential waste streams which are of any significance at natural gas compressor stations are those generally associated with the operation and maintenance of internal combustion engines: used lube oil, oil filters, and wash water. The management of wastes produced at these facilities is regulated by the OCD, with the exception of hazardous wastes which are regulated by NMED. However, very little hazardous wastes, if any, are produced at natural gas compressor stations and therefore most compressor stations qualify as conditionally exempt small quantity generators under 40 C.F.R. §261.5.

#### Description of Contaminants Used in the Past at the Roswell Station

The vast majority of the contaminants (greater than 99.9%) present at the former Roswell Station surface impoundments are petroleum hydrocarbons. For example, the attached lab data shows chlorinated compounds to be present in concentrations that total less than 20 mg/kg (ppm). See Laboratory Analysis and Summary (Attachment A). In the past, these contaminants were inadvertently released into soil and groundwater as a result of waste management practices for pipeline liquids which were common at the time. However, the contaminants which have confused the issue of regulatory oversight at this site are the cleaning solutions (chlorinated solvent compounds) which were once used



Tracy Hughes, Esq.  
October 11, 1995  
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during maintenance activities but are no longer used at the Roswell Station. These compounds represent a small fraction of the contaminants present in soil and groundwater. The use of these small amounts of diluted chlorinated solvents prior to the present solvent rule which was adopted on December 31, 1985 does not give rise to RCRA jurisdiction.

Prior to the adoption of the present solvent rule in 1985, the waste generated by chlorinated solvent products containing less than 100% of a specific listed solvent were not "hazardous" within the meaning of RCRA. See 50 Fed. Reg. 53315. Solutions containing 100% solvent concentrations were not used at the Roswell Facility prior to the adoption of the solvent rule, so the rule does not apply to the generation of those wastes. After the adoption of the present solvent rule, there were no releases to the surface impoundments.

In a recent sample collected from the recovered hydrocarbon liquids tank, the concentration of chlorinated compounds was not even above laboratory detection levels. See Attachment A. In order to put this into perspective, if we were to assume that all potentially identifiable chlorinated volatile organic compounds were present at their respective detection levels, then the total concentration of these compounds in the recovered hydrocarbon liquid would be less than 0.000000023% of the liquid sample. Furthermore, during prior investigation activities conducted at the site, the highest concentration measured of 1,1,1-trichloroethane, the most prevalent solvent detected at the site, was just 19.0 mg/kg (or ppm). See Attachment A. This concentration is far below the RCRA 40 C.F.R. 264 proposed Subpart S action level of 7000 mg/kg. 55 Fed. Reg. 30867

Thus, remediation efforts at this site will focus almost exclusively on the reduction of hydrocarbons in the form of total petroleum hydrocarbon ("TPH") concentrations in soil, the removal of phase separated hydrocarbon from above the uppermost aquifer, and a reduction in the concentration of BTEX compounds (benzene, toluene, ethylbenzene, and xylenes) present in groundwater. These objectives are typical of other oil and gas related remediation activities which the OCD staff work with on a daily basis. As NMED has no action level or cleanup criteria for TPH, NMED has already indicated to TW that the establishment of this criteria would be coordinated with the OCD.

#### Analysis of Applicability of RCRA to TW's Roswell Station

When TW originally submitted its RCRA Part A application at the request of NMED, both TW and NMED were under a series of erroneous assumptions with regard to the use of the former surface impoundments and the applicability of RCRA regulations.

First, it was assumed that F-listed and D-listed wastes were placed in the surface impoundment. (These are wastes listed as hazardous under 40 C.F.R. §§261.24 and 261.31(a)).

There were five F-listed and D-listed waste codes listed in the RCRA Part A application. The inapplicability of RCRA regulations to each of these wastes is discussed below.

1. F001 (halogenated solvents) - Prior to the solvent rule which was finalized December 31, 1985, the F001 listing applied only to commercially pure grades of spent halogenated solvents used in degreasing (e.g. 100% trichloroethane). The 1985 solvent rule modified this definition to include spent solvent mixtures containing 10% or greater by volume of one or more of those solvents listed in F001, F002, F004, and F005.

The last remaining surface impoundment at the Roswell Station was taken out of service well before the 1985 solvent rule. See attached aerial photo dated June 19, 1983 showing surface impoundments no longer in use and storage tanks in place (Attachment B). Once storage tanks were placed into service, the surface impoundments were no longer used.

Furthermore, TW has conducted an investigation of past practices at the Roswell Station and similar facilities and has found no indication that a commercially pure grade spent halogenated solvent was either used at this facility during the applicable time frame or released to the impoundment, nor is it even likely that a commercially pure grade spent halogenated solvent would have been in use at the facility due to cost. A mixture of chlorinated solvents and non-chlorinated solvents (e.g., mineral spirits) is equally effective and much less costly. Laboratory reports of liquid solvent samples collected at other TW stations in 1989 show chlorinated solution concentrations of less than 100%. See the attached laboratory results (Attachment C). All available information shows no F001 wastes were ever disposed of at the Roswell Station.

TW has identified only two past uses of halogenated solvents at the Roswell Station. The first involved placing the solvents on rags for cleaning parts where the solvents were completely used or the unused portion(s) were allowed to evaporate. The second identified use was for cleaning compressor engine crankcases during oil changes. In this case, some residual solvent may have remained in the crankcase

entrained in residual lube oil (it is generally accepted that one can not remove 100% of the lube oil within an engine during an oil change). When new lube oil would be added to the crankcase, a solvent/oil mixture should result. Therefore, during subsequent oil changes the lube oil removed from the engine would contain very low concentrations of solvents. This is the likely mechanism by which solvent compounds were released to the former surface impoundments. Because the surface impoundments were removed from service prior to adoption of the present solvent rule, the pre-1985 releases of the solvents to these surface impoundments are not subject to RCRA jurisdiction.

2. F005 (non-halogenated solvents) - Prior to the December 31, 1985 solvent rule, the F005 listing applied only to commercially pure grades of spent non-halogenated solvents (e.g., 100% toluene, methyl ethyl ketone, benzene, etc.). Again, TW's investigation of past practices found no information that these solvents, or their associated wastes, were used, stored, or disposed of at the Roswell Station. The available evidence suggests that the source of most of these types of compounds is the petroleum substances in the pipeline. Therefore, the F005 waste code should not have been included in the Part A application.
3. D004 (arsenic) - A small amount of arsenic (as trimethylarsine) is produced with natural gas from the Abo formation located just north of the Roswell Station. As a result, a small concentration of arsenic is occasionally present in pipeline liquid samples collected at the Roswell Station. Although production from this formation began in 1979, arsenic was not identified as a natural contaminant of the gas until 1987. Nor would TW or any other pipeline have any reason to suspect arsenic might be present in the gas since this is a very rare occurrence. The pipeline liquids tank was installed at the Roswell Station in 1983, therefore, the duration in which pipeline liquids potentially containing arsenic were released to the former surface impoundment was limited (approximately four years). The duration in which pipeline liquids may have been subject to evaluation by the EP Toxicity procedure for arsenic was even shorter, less than 3 years. Therefore, the evidence available to TW indicates that the EP Toxicity procedure was never used to assess the toxicity characteristic of the waste for arsenic since the presence of arsenic was unknown to TW. Even if the EP toxicity test had been conducted

for arsenic, the results would most certainly have been below threshold levels.

Moreover, the concentrations currently measured are well below those levels at which the waste stream might fail the former EP Toxicity procedure used at the time in question. See Attachment A. Based on this information, TW has no information that wastes placed in the former surface impoundment at the Roswell Station were characteristically hazardous due to arsenic. Therefore, RCRA does not apply and the D004 waste code should not have been included on the Part A application.

4. D005 (barium) - Although a small concentration of barium can be present in used engine oil collected at the Roswell Station, the concentration present is well below those levels where one might expect the waste stream to fail the former EP Toxicity procedure. 40 C.F.R. §261.24. Furthermore, TW has no information that wastes placed in the former surface impoundment at the Roswell Station would have failed the EP Toxicity procedure for barium. Therefore, RCRA does not apply and the D005 waste code should not have been included on the Part A application. Finally, the level of barium at the surface impoundments is within the range of background levels.
5. D018 (benzene) - Prior to the TC Rule effective March 29, 1990, benzene was not listed as a "Characteristic of EP Toxicity" contaminant. 55 Fed. Reg. 11798. Therefore, during the time frame that the surface impoundment was in use, there was no such thing as a D018 waste, and thus, RCRA does not apply and this waste code should not have been listed on the Part A application. Based upon all available evidence, the source of benzene was the petroleum substances in the pipeline.

The Part A Application and associated information also omitted information critical to a correct analysis of RCRA jurisdiction. For example, the "Treatment Process Design Capacity" indicated on the Part A application is 3,061,487 gallons. This figure was not based on the design capacity of the surface impoundment but rather on an inaccurate estimate of the volume of potentially affected groundwater. The estimated capacity of the surface impoundment now referred to as "Pit 1" (the only surface impoundment at the facility operated after November 19, 1980) is only 202,000 gallons. This revised estimate is based on more accurate information: dimensions obtained from historic air

Tracy Hughes, Esq.  
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photos of the facility.

Information submitted with the application indicated that only a single surface impoundment was in use from August 1960 through June 1986. Information obtained from historic air photos and facility diagrams indicates that two impoundments were used at the facility between mid-1960 and December 1983. From a closer review of the information, it appears that the first impoundment at the facility was replaced by the second impoundment sometime prior to October 1972. Therefore, only the second impoundment was operated post RCRA. Furthermore, although the second impoundment was not back-filled until June 1986, wastes were not received by this impoundment after November 1983 when the final above ground storage tanks ("ASTs") were placed in service to collect the station's waste streams. See the attached chronology of events for a more detailed description of the time frame for installation of ASTs. (Attachment D). Completion reports dated June 25, 1982, November 18, 1983 and January 25, 1984 show that the final storage tank was installed and operational by November 11, 1983. See Attachment E. Aerial photos dated June 19, 1983 show surface impoundments and in-place storage tanks. See Attachment B.

RCRA Does Not Apply Retroactively to Newly Classified Hazardous Wastes

As discussed above, the type of wastes found at the Roswell Station are almost solely petroleum hydrocarbons which do not fall under the definition of "hazardous" so as to invoke RCRA. All of the wastes listed on TW's RCRA Part A application should never have been listed: they were insufficient amounts or concentrations (e.g. arsenic, barium), the solvent products used were in diluted solutions of much less than 100% concentration, (e.g. F001 and F005 wastes), the waste category did not exist at the time the wastes were released, or they were not classified as wastes under RCRA at the time they were released (e.g., Benzene).

Any wastes that were not defined as hazardous when released do not fall under RCRA, unless characteristically hazardous and actively managed after the date the rule changed to classifying the waste as hazardous. See 54 Fed. Reg. 36592, 36597 (in narrowing the exemption for mineral processing wastes, the EPA stated that the new, narrower, definition would "not impose Subtitle C requirements on . . . wastes that were released prior to the effective date of today's rule, unless they are actively managed after the effective date"). EPA has a longstanding policy of not regulating wastes under RCRA that were released prior to the effective date of the rule governing those wastes. Id. EPA took the same position in 1992 when it added new wastes

Tracy Hughes, Esq.  
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to the hazardous list. 57 Fed. Reg. 37284<sup>1</sup>.

Inapplicability of RCRA Closure Requirements to Natural Gas  
Compressor Stations

Finally, TW and the NMED have also seen several examples which indicate the RCRA closure process simply does not apply to this type of location. One example is the provisions for "waste characterization" and volume estimates of remaining waste. 40 C.F.R. §264.552(e)(4)(iii). Because the last remaining surface impoundment was backfilled nearly ten years ago, there is no "waste" remaining to characterize.

Another example is that NMED required TW to analyze impacted soil samples for constituents listed under the "petroleum refining" category found within the RCRA Facility Investigation guidance documents. This list was selected for identifying potential waste constituents of concern because, of all the categories contained within the guidance, "petroleum refining" was the only category that was even remotely related to the operations at a natural gas compressor station. However, the operations at a natural gas compressor station, in particular a mainline transmission station such as the Roswell Station, are completely different from the operations at a petroleum refinery in both the types of activities involved and the materials utilized. In petroleum refining, crude oil is refined into various fractions of petroleum, including gasoline, through the use of chemical and physical processes. By contrast, the operation of a natural gas compressor station is simple. At a compressor station, the pressure within a natural gas pipeline is increased so that natural gas may move through the pipeline. No chemical reactions are involved in the process, and far fewer waste streams are generated than at petroleum refineries. Most natural gas compressor stations are classified as either small quantity generators or conditionally exempt small quantity generators of hazardous waste.

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<sup>1</sup>Much of TW's waste was also exempt from RCRA under the exemption for oil and gas set forth in 42 U.S.C. §6921(b)(2)(A) (1983) (wastes associated with the exploration, development, or production of crude oil or natural gas). Before July 6, 1988, the scope of this exemption was unclear. At that point, the EPA finally issued guidelines for the exemption. 53 Fed. Reg. 25446. As TW used its last surface impoundment in 1983, the waste should fall under the exemption for oil and gas wastes. Any narrowing of that exemption as set forth on July 6, 1988, would not be retroactively applied to wastes deposited before that date unless they were actively managed. 54 Fed. Reg. at 36597.

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OCD Oversight is Fully Protective of NMED and New Mexico Standards

Remediation activities at the Roswell Station can proceed much more rapidly and cost effectively for the state and TW with oversight authority by the OCD. This is true primarily because the OCD is not bound by the lengthy procedural requirements typical of RCRA closures. Attached to this letter are flow charts which depict two process scenarios for assessment and cleanup at the Roswell Station. See Attachment F. The first chart was prepared by NMED Hazardous Radioactive Materials Bureau ("HRMB") and presented to TW during a March, 1995 meeting with TW. The second chart illustrates the process TW has undergone for assessment and clean-up under the OCD oversight. The charts demonstrate the efficiency and relative straight forwardness of a clean-up plan pursuant to the OCD system as compared to the NMED system.

As the NMED has no action level or clean up criteria for total petroleum hydrocarbons (nearly 100% of the contaminants of concern) and is establishing this criteria in coordination with the OCD, there will be no difference between clean up criteria for soil established by NMED versus that under the OCD oversight. With respect to groundwater contamination, the OCD enforces the New Mexico Water Quality Control Commission ("NMWQCC") standards. The NMED HRMB uses the lower of the NMWQCC standards, the federal Safe Drinking Water Act MCLS, or the RCRA action level. The NMWQCC standards are as a rule the lowest, so cleanup under the OCD should satisfy NMED. The SDWA MCL standard for benzene is 5ug/l which is lower than that used by the OCD. The NMWQCC standard is 10ug/l but, considering the limited potential use of affected groundwater at the Roswell Station, from a practical standpoint, clean up to either standard is equally protective of human health and the environment.

Clean Up Under OCD Authority is Consistent With Proposed EPA Regulations

There is new proposed authority for allowing remediation activities to proceed under the authority and oversight of the OCD. The EPA drafted new proposed regulations entitled the Hazardous Waste Identification Rule-Media ("the Proposed Rule") to be published in the Federal Register later this year. The Proposed Rule addresses the need to focus on results instead of inflexible compliance with rules. The Proposed Rule recognizes that one-time cleanup of contaminated media is best accomplished with a plan tailored to cleanup. Under the Proposed Rule, a Remediation Management Plan ("RMP") will take the place of the current post-closure permitting requirements. See Proposed Rule at 63 et. seq. It will achieve closure in a much shorter time

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frame and avoid difficulties that arise in attempting to work within the framework of RCRA Subtitle C closure.

The closure requirements contained in 40 C.F.R. Part 265 Subpart G were developed with the clear intention that they would apply to closure of waste management units of operational TSDFs where hazardous wastes were intentionally treated, stored, or disposed (not a site such as Roswell which was never operated as a TSDF). This problem is well recognized by EPA as evidenced by their recent efforts to create a distinction between management of contaminated media during remediation activities and "as generated" hazardous wastes. Proposed Rule at 7. In the proposed rule, the EPA recognizes that current regulations are not tailored toward purely remedial activity which is what is involved at the Roswell Station. Proposed Rule at 7. The EPA recognizes that there are fundamental differences in the objectives and incentives of prevention oriented programs like RCRA and remediation oriented programs like the proposed rule. Proposed Rule at 6. Remediation activity is highly site-specific and not as amenable to stringent, inflexible standards. Id. at 8.

#### TW's Proposed Regulatory Path

Although it is obvious that a compressor station was never intended nor contemplated to be a TSDF, much time and energy has been spent in an attempt to apply TSDF standards to the Roswell Station. It is unfortunate that both TW and NMED have devoted almost all of their efforts to the closure of the location rather than scrutinizing the circumstances under which these substances of concern were released and the regulatory framework that was in effect at the time of the releases. The Proposed Rule provides a solution, and should be used by NMED as a guide to resolving the regulatory issues presented in this situation.

Remediation activities at the Roswell Station must proceed under the authority of the OCD for three reasons. First and most significantly, the waste should never have been classified as hazardous under RCRA; therefore, RCRA simply does not apply. Second, the OCD is experienced in overseeing the cleanup of sites with similar petroleum hydrocarbon contamination and the OCD and TW have a proven history of cooperation in accomplishing efficient, timely cleanup. Third, allowing remediation activities to proceed under the authority of the OCD is the best regulatory policy because RCRA is prevention oriented not remediation oriented.

Within this framework, TW proposes to withdraw its Part A application, and negotiate an appropriate procedure with NMED and the OCD to keep NMED informed about the OCD remediation.




Tracy Hughes, Esq.  
October 11, 1995  
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If you have any questions or need additional information, please  
contact me at (505) 983-6101.

Very truly yours,

TAICHERT, WIGGINS, VIRTUE & NAJJAR

By

  
Richard L. C. Virtue  
Santa Fe Office

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laura\hughes1.ltr

cc by hand-delivery:

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Ed Kelley

Benito Garcia

Susan McMichael, Esq.

Secretary of the New Mexico  
Environment Department  
Director, Water & Waste Management  
Division of the New Mexico  
Environment Department  
Chief, Hazardous & Radioactive  
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MARK E. WEIDLER  
SECRETARY

EDGAR T. THORNTON, III  
DEPUTY SECRETARY

December 21, 1995

Mr. Richard Virtue, Esq.  
Taichert, Wiggins, Virtue & Najjar  
119 East Marcy Street, Suite 100  
P.O. Box 4265  
Santa Fe, New Mexico 87502-4265

Re: Transwestern Pipeline Company (TPC)

Dear Mr. Virtue:

This letter responds to the position of Transwestern Pipeline Company (TPC) that the New Mexico Environment Department (NMED) is not the proper regulatory authority for closure of the surface impoundments at the Roswell Compressor Station. We have carefully considered your position and have concluded that at this time closure is required pursuant to the New Mexico Hazardous Waste Act (HWA). Further, as discussed below, we do not believe that closure under the authority of the New Mexico Oil Conservation Division (OCD) will achieve the same remediation goals or adequately protect human health and the environment.

As you are aware, TPC submitted three RCRA closure plans for the surface impoundments in question which NMED staff concluded were either incomplete or inaccurate. ( see attached letters from NMED regarding Notices of Deficiencies). Based upon the available information, we must conclude that hazardous wastes were disposed of at the facility during the time period in question (including 100% 1,1,1 TCA) and that proper closure can only be accomplished pursuant to the HWA's requirements. Further, there is substantial ground water contamination at this site. Solvents have been detected at 22,400 times the New Mexico Water Quality Control Commission (WQCC) standard for 1,1 DCA and three times the WQCC standard for 1,1,1 TCA.

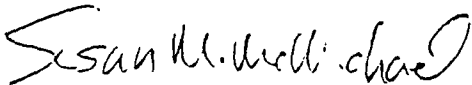
As a technical, legal or practical matter, we do not agree that cleanup under OCD standards would be equally protective of human health and the environment. TPC's position appears to be premised upon an assumption that no hazardous wastes or constituents were

disposed of at the surface impoundments in question. As stated, the facts of this site do not support this conclusion. Contrary to your position, there are significant differences between the cleanup criteria and goals under OCD and NMED. For example, cleanup required by NMED under the HWA involves health based standards and other media not addressed by OCD. Further, OCD does not oversee solvent plume characterization and cleanup of hazardous waste sites or other RCRA concerns.

This letter will confirm that NMED intends to issue the modified closure plan for public comment no later than January 31, 1996. If you have any additional information which supports the position of TPC, we would appreciate receiving it as soon as possible and prior to January 31, 1996. Specifically, we request any information such as manifests or other documentation which demonstrate that no hazardous wastes were disposed of at this facility. Further, we would appreciate any area photos of the surface impoundments taken during the time period in question.

If we do not receive any further information from TPC, we will proceed with public comment to avoid any further delay with cleanup at this site. We are confident that proper cleanup may be achieved through the regulatory oversight of NMED with, as necessary, the coordination of OCD. If you have any questions, do not hesitate to call.

Sincerely,



SUSAN M. McMICHAEAL  
Assistant General Counsel

Enclosure(s)

cc: Ed Kelley  
Benito Garcia  
Barbara Hoditscheck  
Ron Kern  
Bill Kendrick  
Rodger Anderson  
David Neleigh, EPA Region 6 (PD-N)

# Transwestern Pipeline Company

J. A. "Joe" Hulscher  
Vice President  
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Direct (505) 260-4001  
Houston (713) 853-7794

January 19, 1996

## VIA FEDERAL EXPRESS

Mr. Mark E. Weidler  
Cabinet Secretary  
New Mexico Environment Department  
Harold Runnels Bldg.  
P. O. Box 26110  
Santa Fe, NM 87502

Transwestern Pipeline Company-  
Roswell Compressor Station - Notice  
of Withdrawal of RCA Part A  
Application and Closure Plans

Dear Mr. Weidler:

In January, 1993, Transwestern Pipeline Company ("Transwestern") filed a RCRA Part A permit application with the State of New Mexico Environment Department ("NMED") Hazardous and Radioactive Materials Bureau ("HRMB") at the request of the HRMB. After extensive investigation and analysis, Transwestern has recently concluded that much of the information included on the RCRA Part A Permit application form was incorrect. Furthermore, Transwestern has determined that the underlying factual and legal assumptions upon which the application was submitted were also incorrect.

By this letter, Transwestern is formally notifying the NMED that the RCRA Part A permit application submitted for the Roswell Compressor Station is withdrawn. In addition, Transwestern is formally notifying the NMED that all closure plans submitted to the NMED HRMB for this facility are withdrawn, because the Roswell Compressor Station is not subject to RCRA closure requirements and will be remediated under the regulatory authority of the New Mexico Oil Conservation Division ("OCD").

Attached to this letter is a brief description of why the RCRA Part A permit application was originally submitted and why the application form contained incorrect information. Also included is a detailed description of the inaccuracies included in the application form and the reasons for the withdrawal.

The following summary of the history of this matter will be of additional assistance in understanding the basis for Transwestern's decision to withdraw the RCRA Part A application and closure plans.

During the latter half of 1991, Transwestern implemented a purely voluntary, self-directed subsurface investigation in the vicinity of a former surface impoundment at the Roswell Compressor Station. In the course of this investigation, Transwestern discovered the presence of certain organic compounds contained in soil and ground water which potentially could have originated from an F-listed RCRA regulated waste. In February 1992, Transwestern brought the results of the initial investigation to the attention of the NMED HRMB and the OCD in an effort to insure that New Mexico regulatory authorities were apprised of the situation and to initiate the proper regulatory process for the continued assessment and remediation of affected soil and ground water. A number of meetings were held between the concerned parties. Subsequently, the NMED HRMB requested that Transwestern file a RCRA Part A permit application as the initial step toward a RCRA closure. That application was submitted in January, 1993. Since then, Transwestern has worked diligently to proceed with the assessment and remediation of the site within the RCRA framework at considerable cost. Unfortunately, until recently, Transwestern's efforts have been entirely focused on closure rather than on whether or not closure under both OCD and RCRA framework was appropriate.

Early last year Transwestern engaged the services of local counsel to analyze the regulatory path that Transwestern had been following. An initial review indicated that Transwestern had made several erroneous assumptions concerning both the operational history at the site and the applicability of RCRA regulations that have been adopted by the New Mexico Environmental Improvement Board pursuant to the New Mexico Hazardous Waste Act. After consulting with the NMED HRMB and apprising them of the situation, Transwestern conducted a complete review of the matter. The review confirmed the inaccuracy of many of Transwestern's underlying assumptions and verified the lack of any evidence that "hazardous waste" within the meaning of the New Mexico Hazardous Waste Act Regulations was disposed of at the Roswell Compressor Station.


At the completion of the review, Transwestern submitted a detailed letter and considerable supporting documentation to the NMED Office of General Counsel presenting Transwestern's position on the matter. All available evidence indicates that for legal, technical, and practical reasons, the proper regulatory avenue for the closure of this site is through the OCD rather than the NMED HRMB.

On December 21, 1995 the NMED Office of General Counsel responded to our October 11, 1995 letter. The response did not present any additional facts or legal analysis that would change the results of Transwestern's extensive factual investigation and legal review. Further, the response highlighted a persistent trend of disproportionate concern over the potential threat posed by conditions at the site. After reviewing the response, it became clear that the only appropriate action was to withdraw the RCRA Part A application and closure plan.

Transwestern requests that you and your staff meet with representatives of Transwestern at your earliest convenience for the purpose of answering any questions you or your staff may have. Transwestern has previously suggested that, at the OCD's discretion, the NMED could be allowed limited oversight of the closure in order that any NMED concerns can be satisfied. Although these suggestions have been rejected by the NMED, Transwestern is still willing to consider approaching the OCD in this manner.

If you have any questions or comments, please contact Lou Soldano, ENRON Operations Corp. Legal, at (713) 853-7237.

Sincerely,



Joe Hulscher  
Vice President, Operations  
Transwestern Pipeline Company

xc:	Lou Soldano, Esq.	ENRON Operations Corp. Legal
	Frank Smith, Esq.	ENRON Corp. Legal
	Dave Nutt, Esq.	ENRON Corp. Legal
	Bill Kendrick	ENRON Operations Corp.
		Environmental Affairs
	Roger Anderson	New Mexico Oil Conservation Division
	Ed Kelley	NMED Hazardous and Radioactive
		Materials Bureau
	Susan McMichaels, Esq.	NMED (Via Hand Delivery)
	Richard L. C. Virtue, Esq.	

LtrS/Weidler1.doc



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August 9, 1996

Joe Hulscher, Vice President  
Transwestern Pipeline Company  
4001 Indian School Rd. N.E.  
Albuquerque, New Mexico 87110

**RE: PROPOSED SETTLEMENT AGREEMENT AND ALTERNATE CLOSURE PLAN**

Dear Mr. Hulscher:

This letter is in response to your letter and proposed settlement agreement date June 28, 1996. Following our March meeting, I requested in writing that Transwestern Pipeline Company (TPC) submit the technical closure plan which our staff had approved or an acceptable alternate to that closure plan as required by law. Upon request from TPC, I provided TPC with an extension to submit entitled "Settlement Agreement and Alternative Closure Plan." We cannot recall any discussion authorizing TPC to undertake the drafting of a "settlement agreement." Further, we do not believe the Texas Risk Reduction Standard referred to in the proposal is appropriate under the circumstances.

Nevertheless, our staff has reviewed your proposal and regrettably, has concluded that it is completely unacceptable and not in compliance with the regulatory requirements under either the New Mexico Hazardous Waste Act (HWA) or the Resource Conservation and Recovery Act (RCRA). We fully expected a technical closure plan substantially similar to the plan which NMED approved pursuant to the HWA. To the extent that TPC has chosen to apply for approval of closure and remediation with the Oil Conservation Division (OCD), we would like to clarify that OCD has neither authority nor jurisdiction to approve closure or cleanup of hazardous waste disposal sites. Our conclusion that TPC must close and remediate under the HWA and RCRA is based upon our environmental expertise and fully supported by the United States Environmental Protection Agency (see attached letter).

For these reasons, we would hope that TPC determines to avoid unnecessary future delay and costs by coming into compliance with the law as soon as possible. We hereby request that TPC resubmit the previously developed closure plan that was proposed for

EXHIBIT 4  
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Joe Hulscher, Vice President  
August 9, 1996  
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approval and public comment which was withdrawn by TPC on January 19, 1996. This letter also serves to notify TPC that it may be liable for civil penalties under the HWA and RCRA for each day that it determines to fail to comply with the requirements to submit a closure plan. If we do not receive the submittal of the previously withdrawn closure plan prior to September 3, 1996, we will take appropriate actions.

If you wish to discuss this matter in more detail, please contact either me or Ed Kelley to arrange a meeting. We look forward to hearing from you.

Sincerely,



MARK E. WEIDLER

cc: Robert E. Hanneschlager, USEPA  
Jennifer Salisbury, Secretary, Energy & Minerals  
Richard Virtue, Esq.  
Lou Soldano, Esq.  
Bill Kendrick, Enron Operations Corp.  
Ed Kelley, NMED  
Benito Garcia, NMED  
Susan McMichael, OGC NMED

EXHIBIT 4  
Page 2 of 2



OIL CONSERVATION DIVISION  
RECEIVED

SEP 23 1996 8 52

# *American Environmental Network, Inc.*

AEN I.D. 609361

**September 30, 1996**

NM OIL CONSERVATION DIVISION  
2040 SOUTH PACHECO  
SANTA FE, NM 87505

Project Name ENRON-ROSWELL  
Project Number (none)

Attention: BILL OLSON

On 9/25/96 American Environmental Network (NM), Inc. (ADHS License No. AZ0015), received a request to analyze **aqueous** samples. The samples were analyzed with EPA methodology or equivalent methods. The results of these analyses and the quality control data, which follow each set of analyses, are enclosed.

If you have any questions or comments, please do not hesitate to contact us at (505)344-3777.



Kimberly D. McNeill  
Project Manager

MR: mt

Enclosure



H. Mitchell Rubenstein, Ph. D.  
General Manager

*American Environmental Network, Inc.*

CLIENT	: NM OIL CONSERVATION DIVISION	AEN I.D.	: 609361
PROJECT #	: (none)	DATE RECEIVED	: 9/25/96
PROJECT NAME	: ENRON-ROSWELL	REPORT DATE	: 9/30/96

---

AEN			DATE
ID. #	CLIENT DESCRIPTION	MATRIX	COLLECTED
01	(MW-12) 9609241200	AQUEOUS	9/24/96
02	(MW-14) 9609241425	AQUEOUS	9/24/96
03	(MW-17) 9609241620	AQUEOUS	9/24/96
04	TRIP BLANK 9609231410	AQUEOUS	9/23/96

*American Environmental Network, Inc.*

GAS CHROMATOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS / AROMATICS (EPA 8010/8020)  
 CLIENT : NM OIL CONSERVATION DIVISION AEN I.D.: 609361  
 PROJECT # : (none)  
 PROJECT NAME : ENRON-ROSWELL

SAMPLE ID. #	CLIENT I.D.	MATRIX	DATE SAMPLED	DATE EXTRACTED	DATE ANALYZED	DIL. FACTOR
01	(MW-12) 9609241200	AQUEOUS	9/24/96	NA	9/27/96	1
02	(MW-14) 9609241425	AQUEOUS	9/24/96	NA	9/27/96	1
03	(MW-17) 9609241620	AQUEOUS	9/24/96	NA	9/27/96	1

PARAMETER	DET. LIMIT	UNITS	01	02	03
BENZENE	0.5	UG/L	590 D(50)	< 0.5	< 0.5
BROMODICHLORMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
BROMOFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5
BROMOMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
CARBON TETRACHLORIDE	0.2	UG/L	< 0.2	< 0.2	< 0.2
CHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROFORM	0.5	UG/L	< 0.5	< 0.5	< 0.5
CHLOROMETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
DIBROMOCHLOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
1,2-DIBROMOETHANE (EDB)	0.2	UG/L	< 0.2	< 0.2	< 0.2
1,2-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,3-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,4-DICHLOROBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHANE	0.3	UG/L	< 0.3	< 0.3	< 0.3
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1-DICHLOROETHENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
cis-1,2-DICHLOROETHENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
trans-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0	< 1.0	< 1.0
1,2-DICHLOROPROPANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
cis-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
trans-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2	< 0.2	< 0.2
ETHYLBENZENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
METHYL-t-BUTYL ETHER	2.5	UG/L	< 2.5	< 2.5	< 2.5
METHYLENE CHLORIDE	2.0	UG/L	< 2.0	< 2.0	< 2.0
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5	< 0.5	< 0.5
TETRACHLOROETHENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
TOLUENE	0.5	UG/L	< 0.5	< 0.5	< 0.5
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 1.0	< 1.0	< 1.0
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
TRICHLOROETHENE	0.3	UG/L	< 0.3	< 0.3	< 0.3
TRICHLOROFLUOROMETHANE	0.2	UG/L	< 0.2	< 0.2	< 0.2
VINYL CHLORIDE	0.5	UG/L	< 0.5	< 0.5	< 0.5
TOTAL XYLENES	0.5	UG/L	54	< 0.5	< 0.5

SURROGATE:  
 BROMOCHLOROMETHANE (%) 88 112 97  
 SURROGATE LIMITS (73 - 117)  
 TRIFLUOROTOLUENE (%) 83 108 86  
 SURROGATE LIMITS (69 - 117)

CHEMIST NOTES:  
 D(50)=DILUTED 50X, ANALYZED 9/27/96.

*American Environmental Network, Inc.*

GAS CHROMATOGRAPHY RESULTS

TEST : PURGEABLE HALOCARBONS / AROMATICS (EPA 8010/8020)  
 CLIENT : NM OIL CONSERVATION DIVISION AEN I.D.: 609361  
 PROJECT # : (none)  
 PROJECT NAME : ENRON-ROSWELL

SAMPLE			DATE	DATE	DATE	DIL.
ID. #	CLIENT I.D.	MATRIX	SAMPLED	EXTRACTED	ANALYZED	FACTOR
04	TRIP BLANK 9609231410	AQUEOUS	9/23/96	NA	9/27/96	1

PARAMETER	DET. LIMIT	UNITS	04
BENZENE	0.5	UG/L	< 0.5
BROMODICHLORMETHANE	0.2	UG/L	< 0.2
BROMOFORM	0.5	UG/L	< 0.5
BROMOMETHANE	1.0	UG/L	< 1.0
CARBON TETRACHLORIDE	0.2	UG/L	< 0.2
CHLOROBENZENE	0.5	UG/L	< 0.5
CHLOROETHANE	0.5	UG/L	< 0.5
CHLOROFORM	0.5	UG/L	< 0.5
CHLOROMETHANE	1.0	UG/L	< 1.0
DIBROMOCHLOROMETHANE	0.2	UG/L	< 0.2
1,2-DIBROMOETHANE (EDB)	0.2	UG/L	< 0.2
1,2-DICHLOROBENZENE	0.5	UG/L	< 0.5
1,3-DICHLOROBENZENE	0.5	UG/L	< 0.5
1,4-DICHLOROBENZENE	0.5	UG/L	< 0.5
1,1-DICHLOROETHANE	0.3	UG/L	< 0.3
1,2-DICHLOROETHANE (EDC)	0.5	UG/L	< 0.5
1,1-DICHLOROETHENE	0.2	UG/L	< 0.2
cis-1,2-DICHLOROETHENE	0.2	UG/L	< 0.2
trans-1,2-DICHLOROETHENE	1.0	UG/L	< 1.0
1,2-DICHLOROPROPANE	0.2	UG/L	< 0.2
cis-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2
trans-1,3-DICHLOROPROPENE	0.2	UG/L	< 0.2
ETHYLBENZENE	0.5	UG/L	< 0.5
METHYL-t-BUTYL ETHER	2.5	UG/L	< 2.5
METHYLENE CHLORIDE	2.0	UG/L	< 2.0
1,1,2,2-TETRACHLOROETHANE	0.5	UG/L	< 0.5
TETRACHLOROETHENE	0.5	UG/L	< 0.5
TOLUENE	0.5	UG/L	< 0.5
1,1,1-TRICHLOROETHANE	1.0	UG/L	< 1.0
1,1,2-TRICHLOROETHANE	0.2	UG/L	< 0.2
TRICHLOROETHENE	0.3	UG/L	< 0.3
TRICHLOROFLUOROMETHANE	0.2	UG/L	< 0.2
VINYL CHLORIDE	0.5	UG/L	< 0.5
TOTAL XYLENES	0.5	UG/L	< 0.5

SURROGATE:  
 BROMOCHLOROMETHANE (%) 102  
 SURROGATE LIMITS ( 73 - 117 )  
 TRIFLUOROTOLUENE (%) 110  
 SURROGATE LIMITS ( 69 - 117 )

CHEMIST NOTES:  
 N/A

*American Environmental Network, Inc.*

GAS CHROMATOGRAPHY RESULTS

REAGENT BLANK

TEST	: PURGEABLE HALOCARBONS / AROMATICS (EPA 8010/8020)		
BLANK I.D.	: 092596	AEN I.D.	: 609361
CLIENT	: NM OIL CONSERVATION DIVISION	DATE EXTRACTED	: NA
PROJECT #	: (none)	DATE ANALYZED	: 9/25/96
PROJECT NAME	: ENRON-ROSWELL	SAMPLE MATRIX	: AQUEOUS

PARAMETER	UNITS	
BENZENE	UG/L	<0.5
BROMODICHLORMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.3
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
cis-1,2-DICHLOROETHENE	UG/L	<0.2
trans-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
cis-1,3-DICHLOROPROPENE	UG/L	<0.2
trans-1,3-DICHLOROPROPENE	UG/L	<0.2
ETHYLBENZENE	UG/L	<0.5
METHYL -t-BUTYL ETHER	UG/L	<2.5
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.5
TETRACHLOROETHENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.3
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5
TOTAL XYLENES	UG/L	<0.5

SURROGATE:		
BROMOCHLOROMETHANE (%)		92
SURROGATE LIMITS	( 73 - 117 )	
TRIFLUOROTOLUENE (%)		95
SURROGATE LIMITS	( 69 - 117 )	

CHEMIST NOTES:  
N/A

*American Environmental Network, Inc.*

GAS CHROMATOGRAPHY RESULTS  
REAGENT BLANK

TEST	: PURGEABLE HALOCARBONS / AROMATICS (EPA 8010/8020)		
BLANK I.D.	: 092696	AEN I.D.	: 609361
CLIENT	: NM OIL CONSERVATION DIVISION	DATE EXTRACTED	: NA
PROJECT #	: (none)	DATE ANALYZED	: 9/26/96
PROJECT NAME	: ENRON-ROSWELL	SAMPLE MATRIX	: AQUEOUS

PARAMETER	UNITS	
BENZENE	UG/L	<0.5
BROMODICHLORMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.3
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
cis-1,2-DICHLOROETHENE	UG/L	<0.2
trans-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
cis-1,3-DICHLOROPROPENE	UG/L	<0.2
trans-1,3-DICHLOROPROPENE	UG/L	<0.2
ETHYLBENZENE	UG/L	<0.5
METHYL -t-BUTYL ETHER	UG/L	<2.5
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.5
TETRACHLOROETHENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.3
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5
TOTAL XYLENES	UG/L	<0.5

SURROGATE:		
BROMOCHLOROMETHANE (%)		97
SURROGATE LIMITS	( 73 - 117 )	
TRIFLUOROTOLUENE (%)		93
SURROGATE LIMITS	( 69 - 117 )	

CHEMIST NOTES:  
N/A

*American Environmental Network, Inc.*

GAS CHROMATOGRAPHY RESULTS

REAGENT BLANK

TEST	: PURGEABLE HALOCARBONS / AROMATICS (EPA 8010/8020)		
BLANK I.D.	: 092796	AEN I.D.	: 609361
CLIENT	: NM OIL CONSERVATION DIVISION	DATE EXTRACTED	: NA
PROJECT #	: (none)	DATE ANALYZED	: 9/27/96
PROJECT NAME	: ENRON-ROSWELL	SAMPLE MATRIX	: AQUEOUS

PARAMETER	UNITS	
BENZENE	UG/L	<0.5
BROMODICHLORMETHANE	UG/L	<0.2
BROMOFORM	UG/L	<0.5
BROMOMETHANE	UG/L	<1.0
CARBON TETRACHLORIDE	UG/L	<0.2
CHLOROBENZENE	UG/L	<0.5
CHLOROETHANE	UG/L	<0.5
CHLOROFORM	UG/L	<0.5
CHLOROMETHANE	UG/L	<1.0
DIBROMOCHLOROMETHANE	UG/L	<0.2
1,2-DIBROMOETHANE (EDB)	UG/L	<0.2
1,2-DICHLOROBENZENE	UG/L	<0.5
1,3-DICHLOROBENZENE	UG/L	<0.5
1,4-DICHLOROBENZENE	UG/L	<0.5
1,1-DICHLOROETHANE	UG/L	<0.3
1,2-DICHLOROETHANE (EDC)	UG/L	<0.5
1,1-DICHLOROETHENE	UG/L	<0.2
cis-1,2-DICHLOROETHENE	UG/L	<0.2
trans-1,2-DICHLOROETHENE	UG/L	<1.0
1,2-DICHLOROPROPANE	UG/L	<0.2
cis-1,3-DICHLOROPROPENE	UG/L	<0.2
trans-1,3-DICHLOROPROPENE	UG/L	<0.2
ETHYLBENZENE	UG/L	<0.5
METHYL -t-BUTYL ETHER	UG/L	<2.5
METHYLENE CHLORIDE	UG/L	<2.0
1,1,2,2-TETRACHLOROETHANE	UG/L	<0.5
TETRACHLOROETHENE	UG/L	<0.5
TOLUENE	UG/L	<0.5
1,1,1-TRICHLOROETHANE	UG/L	<1.0
1,1,2-TRICHLOROETHANE	UG/L	<0.2
TRICHLOROETHENE	UG/L	<0.3
TRICHLOROFLUOROMETHANE	UG/L	<0.2
VINYL CHLORIDE	UG/L	<0.5
TOTAL XYLENES	UG/L	<0.5

SURROGATE:		
BROMOCHLOROMETHANE (%)		112
SURROGATE LIMITS	( 73 - 117 )	
TRIFLUOROTOLUENE (%)		112
SURROGATE LIMITS	( 69 - 117 )	

CHEMIST NOTES:

N/A

*American Environmental Network, Inc.*

GAS CHROMATOGRAPHY QUALITY CONTROL  
MSMSD

TEST	: PURGEABLE HALOCARBONS / AROMATICS (EPA 8010/8020)		
MSMSD #	: 609349-01	AEN I.D.	: 609361
CLIENT	: NM OIL CONSERVATION DIVISION	DATE EXTRACTED	: NA
PROJECT #	: (none)	DATE ANALYZED	: 9/25-26/96
PROJECT NAME	: ENRON-ROSWELL	SAMPLE MATRIX	: AQUEOUS
		UNITS	: UG/L

PARAMETER	SAMPLE RESULT	CONC SPIKE	SPIKED SAMPLE	% REC	DUP SPIKE	DUP % REC	RPD	REC LIMITS	RPD LIMITS
BENZENE	<0.5	10.0	9.6	96	10.5	105	9	( 82 -128 )	20
TOLUENE	<0.5	10.0	9.8	98	10.9	109	11	( 87 -128 )	20
1,1-DICHLOROETHENE	<0.2	10.0	9.6	96	9.0	90	6	( 44 - 99 )	20
TRICHLOROETHENE	<0.3	10.0	12.1	121	11.7	117	3	( 89 - 127 )	20
CHLOROBENZENE	<0.5	10.0	10.7	107	11.2	112	5	( 87 - 124 )	20

CHEMIST NOTES:  
N/A

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$



DATE: 9/25/96 PAGE: 1 OF 1

60936

DATE: 9/25/96 PAGE: 1 OF 1

**PLEASE FILL THIS FORM IN COMPLETELY.**

PROJECT INFORMATION		PRIOR AUTHORIZATION IS REQUIRED FOR RUSH PROJECTS		RELINQUISHED BY:		RELINQUISHED BY:	
				1.		2.	
PROJ. NO.:		(RUSH) <input type="checkbox"/> 24hr <input type="checkbox"/> 48hr <input type="checkbox"/> 72hr <input type="checkbox"/> 1 WEEK	(NORMAL) <input checked="" type="checkbox"/>	Signature:	Time:	Signature:	Time:
PROJ. NAME:	ENRON - Rowell	CERTIFICATION REQUIRED: <input type="checkbox"/> NM <input type="checkbox"/> SDWA <input type="checkbox"/> OTHER		Printed Name:	Date:	Printed Name:	Date:
P.O. NO.:		METHANOL PRESERVATION <input type="checkbox"/>		Company:		Company:	
SHIPPED VIA:		COMMENTS: FIXED FEE <input type="checkbox"/>		RECEIVED BY:		RECEIVED BY: (LAB)	
SAMPLE RECEIPT				1.		2.	
NO. CONTAINERS	10			Signature:	Time:	Signature:	Time:
CUSTODY SEALS	Y/N (NA)			Printed Name:	Date:	Printed Name:	Date:
RECEIVED INTACT	Yes			Company:		Company:	
BLUE ICE	6° Field					American Environmental Network (NM), Inc.	

08/09/96 16:11

5052550790

TRANSWESTERN

001



GARY E. JOHNSON  
GOVERNOR

*State of New Mexico*  
**ENVIRONMENT DEPARTMENT**

*Harold Runnels Building*  
*1190 St. Francis Drive, P.O. Box 26110*  
*Santa Fe, New Mexico 87502*

**OFFICE OF GENERAL COUNSEL**

PHONE: 505-827-2990  
FAX: 505-827-1628

MARK E. WEIDLER  
SECRETARY

EDGAR T. THORNTON, III  
DEPUTY SECRETARY

August 9, 1996

Joe Hulscher, Vice President  
Transwestern Pipeline Company  
4001 Indian School Rd. N.E.  
Albuquerque, New Mexico 87110

**RE: PROPOSED SETTLEMENT AGREEMENT AND ALTERNATE CLOSURE PLAN**

Dear Mr. Hulscher:

This letter is in response to your letter and proposed settlement agreement date June 28, 1996. Following our March meeting, I requested in writing that Transwestern Pipeline Company (TPC) submit the technical closure plan which our staff had approved or an acceptable alternate to that closure plan as required by law. Upon request from TPC, I provided TPC with an extension to submit entitled "Settlement Agreement and Alternative Closure Plan." We cannot recall any discussion authorizing TPC to undertake the drafting of a "settlement agreement." Further, we do not believe the Texas Risk Reduction Standard referred to in the proposal is appropriate under the circumstances.

Nevertheless, our staff has reviewed your proposal and regrettably, has concluded that it is completely unacceptable and not in compliance with the regulatory requirements under either the New Mexico Hazardous Waste Act (HWA) or the Resource Conservation and Recovery Act (RCRA). We fully expected a technical closure plan substantially similar to the plan which NMED approved pursuant to the HWA. To the extent that TPC has chosen to apply for approval of closure and remediation with the Oil Conservation Division (OCD), we would like to clarify that OCD has neither authority nor jurisdiction to approve closure or cleanup of hazardous waste disposal sites. Our conclusion that TPC must close and remediate under the HWA and RCRA is based upon our environmental expertise and fully supported by the United States Environmental Protection Agency (see attached letter).

For these reasons, we would hope that TPC determines to avoid unnecessary future delay and costs by coming into compliance with the law as soon as possible. We hereby request that TPC resubmit the previously developed closure plan that was proposed for

AUG 09 '96 17:16

P.02/04

5052550790  
AUG 20 '96 17:54 FR EDC LHM 713-646-2738713 646 2738 TO 915058278177

Joe Hulscher, Vice President  
August 9, 1996  
Page 2

approval and public comment which was withdrawn by TPC on January 19, 1996. This letter also serves to notify TPC that it may be liable for civil penalties under the HWA and RCRA for each day that it determines to fail to comply with the requirements to submit a closure plan. If we do not receive the submittal of the previously withdrawn closure plan prior to September 3, 1996, we will take appropriate actions.

If you wish to discuss this matter in more detail, please contact either me or Ed Kelley to arrange a meeting. We look forward to hearing from you.

Sincerely,



MARK E. WEIDLER

cc: Robert E. Hanneschlager, USEPA  
Jennifer Salisbury, Secretary, Energy & Minerals  
Richard Virtue, Esq.  
Lou Soldano, Esq.  
Bill Kendrick, Enron Operations Corp.  
Ed Kelley, NMED  
Benito Garcia, NMED  
Susan McMichael, OGC NMED



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO  
SANTA FE, NEW MEXICO 87505  
(505) 827-7131

July 25, 1996

**CERTIFIED MAIL**  
**RETURN RECEIPT NO: P-269-269-176**

Mr. Bill Kendrick  
ENRON Operations Corp.  
P.O. Box 1188  
Houston, Texas 77251-1188

**RE: TRANSWESTERN PIPELINE CO. ROSWELL COMPRESSOR STATION**

Dear Mr. Kendrick:

The New Mexico Oil Conservation Division (OCD) has completed a review of Transwestern Pipeline Company's (TPC) April 24, 1996 "FINAL DISPOSITION OF INVESTIGATION DERIVED WASTES, TRANSWESTERN PIPELINE COMPANY ROSWELL COMPRESSOR STATION". This document contains TPC's request to dispose of soils from soil borings and ground water monitor wells onsite at the Roswell Compressor Station. The disposal requests are based upon laboratory analytical sampling results.

The above referenced request is approved.

Please be advised that OCD approval does not relieve TPC of liability should their disposal actions result in actual pollution of ground water, surface water, or the environment. In addition, OCD approval does not relieve TPC of responsibility for compliance with any other federal, state or local laws and/or regulations.

If you have any questions, please contact me at (505) 827-7154.

Sincerely,

William C. Olson  
Hydrogeologist  
Environmental Bureau

xc: OCD Artesia District Office  
George Robinson, Cypress Engineering Services, Inc.

P 269 269 176

US Postal Service

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<b>TOTAL Postage &amp; Fees</b>	<b>\$</b>
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PS Form 3800, April 1995

08/09/96 16:12

5052350790

TRANSWESTERN

003



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6  
1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX 75202-2733

JUN 1 19 1996

RECEIVED

JUN 2 7 1996

Mr. Ed Kelley, Director  
Water and Waste Management Division  
New Mexico Environment Department  
P.O. Box 26110  
Santa Fe, NM 87502

NM ENVIRONMENT DEPARTMENT  
OFFICE OF THE SECRETARY

Dear Mr. Kelley:

As discussed in the April meeting between Mark Weidler and Allyn M. Davis, the Environmental Protection Agency (EPA) has reviewed the circumstances concerning Transwestern Pipeline Company's (TPC) allegation that it does not need to comply with the requirements for closure or permitting under the Resource Conservation and Recovery Act (RCRA).

The EPA fully supports the position of the New Mexico Environment Department (NMED) and its analysis that RCRA is applicable to TPC. This decision is based on our review of the situation and a letter dated February 1, 1996, from NMED's Susan McMichael to Richard Virtue of TPC's legal counsel, which addresses each of TPC's assertions. Also, I have enclosed some guidance from the RCRA permit compendium pertaining to the petroleum waste exclusion.

Please keep us informed of the regulatory status in this matter. If you have any further questions, do not hesitate to call Mr. David Neleigh at (214) 665-6785.

Sincerely yours,

A handwritten signature in dark ink, appearing to read "Robert E. Hanneschlager", is written over the typed name.

Robert E. Hanneschlager, P.E.  
Acting Division Director  
Multimedia Planning  
and Permitting Division

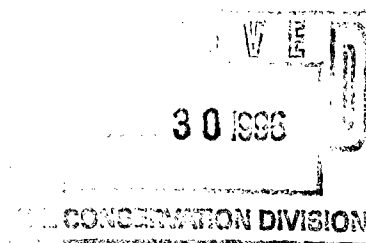
Enclosure

# ENRON OPERATIONS CORP.

P. O. Box 1188 Houston, Texas 77251-1188 (713) 853-6161

April 24, 1996

Mr. William C. Olson  
Environmental Bureau  
New Mexico Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, New Mexico 87505



RE: Final Disposition of Investigation Derived Wastes  
Transwestern Pipeline Company Roswell Compressor Station

Dear Bill,

During the course of the August, 1995, subsurface assessment activities at the subject facility, several drums of potentially contaminated soil and ground water were collected from soil borings and ground water monitor wells. Subsequently, Transwestern submitted a proposal to your office for final disposition of the investigation derived wastes. Your office responded with an approval of the proposed disposition for all but a selected few waste sources.

Approval for the proposed disposition was deferred for drums containing soil cuttings from the off-site soil borings MW-7, MW-7A, MW-8, and MW-9 due to a concern over the measured concentration of metals in soil samples from these four borings. In response, Transwestern has collected a composite sample from these soil cuttings and delivered the sample to a laboratory for metals analyses on a TCLP extract of the sample. The lab results are presented in the table below. A copy of the lab results is enclosed with this letter.

Analyte	Concentration (mg/L)	NMWQCC Standard (mg/L)
TCLP-Arsenic	< 0.03	0.1
TCLP-Barium	0.10	1.0
TCLP-Chromium	< 0.01	0.05
TCLP-Lead	< 0.03	0.05
TCLP-Mercury	< 0.0002	0.002

A copy of Tables 2a, 2b, and 2c from Transwestern's Phase I Soil and Ground Water Assessment report is also enclosed with this letter. These tables present a summary of constituents detected in soil samples collected from the off-site soil borings. Transwestern is confident that the metal constituents detected in these soil samples represent background concentrations of naturally occurring metals. In consideration of the information presented here, Transwestern requests your office to reconsider the original proposed disposition of the soil cuttings from the four off-site soil borings. Table 1 from the original proposal is reproduced below. This table presents the source, quantity, and proposed disposition of the soil cuttings in question.

Table 1. Source, quantity, and proposed disposition of remaining investigation derived waste.

Source	Quantity	Proposed Disposition
Cuttings from off-site soil boring MW-7	five 55 gallon drums	Non-detect for VOCs and SVOCs; proposed disposition is to spread cuttings on ground surface within the facility fenceline
Cuttings from off-site soil boring MW-7A	four 55 gallon drums	Non-detect for VOCs and SVOCs; proposed disposition is to spread cuttings on ground surface within the facility fenceline
Cuttings from off-site soil boring MW-8	five 55 gallon drums	Non-detect for VOCs and SVOCs; proposed disposition is to spread cuttings on ground surface within the facility fenceline
Cuttings from off-site soil boring MW-9	five 55 gallon drums	Non-detect for VOCs and SVOCs; proposed disposition is to spread cuttings on ground surface within the facility fenceline

Transwestern, as operator of the subject facility, will implement the proposed disposition of these investigation derived wastes upon review and approval by your office. If you have any questions regarding this proposal, please contact me at (713) 646-7644 or George Robinson at (713) 646-7327.

Sincerely,



Bill Kendrick  
Environmental Affairs

gcr/BK

xc: Larry Campbell  
George Robinson

TW Technical Operations  
Cypress Engineering Services

Roswell, NM  
3AC-3142





**Table 2a. Summary of Detected Compounds for Soil Samples  
Roswell Compressor Station No. 9  
Off-Site Soil Boring MW-7ABD**

Analyte	Sample No. and Depth (Sample Date)		
	MW-7ABD 5-10' (08/15/95)	MW-7ABD 40-42' (08/15/95)	MW-7ABD 60-62' (08/15/95)
<b>Volatile Organic Compounds (µg/kg) by EPA Method 8240</b>			
Methylene chloride (dichloromethane)	<5	<5	<5
<b>Metals (mg/kg) by EPA Methods 6010 and 7471 (for Mercury)</b>			
Arsenic (As)	<5	8	5
Barium (Ba)	319	210	165
Chromium (Cr)	7	16	14
Lead (Pb)	<5	18	8
Mercury (Hg)	<0.10	<0.10	0.42

**Table 2b. Summary of Detected Compounds for Soil Samples  
Roswell Compressor Station No. 9  
Off-Site Soil Boring MW-7**

Analyte	Sample No. and Depth (Sample Date)				
	MW-7 10-12' (08/22/95)	MW-7 30-32' (08/22/95)	MW-7 40-42' (08/22/95)	MW-7 50-52' (08/22/95)	MW-7 70-72' (08/22/95)
<b>Volatile Organic Compounds (µg/kg) by EPA Method 8240</b>					
Methylene chloride (dichloromethane)	6 B	7 B	8 B	8 B	9 B
<b>Metals (mg/kg) by EPA Methods 6010 and 7471 (for Mercury)</b>					
Arsenic (As)	<5	<5	<5	7	12
Barium (Ba)	301	48	30	157	102
Chromium (Cr)	6	11	9	19	16
Lead (Pb)	<5	6	5	6	11
Mercury (Hg)	<0.10	<0.10	<0.10	<0.10	<0.10

B = Analyte also present in method blank

Notes: These tables list only those analytes that were detected in at least one of the soil samples from off-site soil borings.  
Bold values highlight concentrations above reporting limits.



**Table 2c. Summary of Detected Compounds for Soil Samples  
Roswell Compressor Station No. 9  
Off-Site Soil Borings MW-8 and MW-9**

Analyte	Sample No. and Depth (Sample Date)				
	MW-8 10' (08/16/95)	MW-8 65' (08/16/95)	MW-9 10' (08/16/95)	MW-9 40-42' (08/16/95)	MW-9 60-62' (08/22/95)
<b><i>Volatile Organic Compounds (µg/kg) by EPA Method 8240</i></b>					
Methylene chloride (dichloromethane)	<5	<5	<5	<5	10 B
<b><i>Metals (mg/kg) by EPA Methods 6010 and 7471 (for Mercury)</i></b>					
Arsenic (As)	<5	<5	8	12	14
Barium (Ba)	95	8	151	176	76
Chromium (Cr)	8	5	7	13	15
Lead (Pb)	<5	<5	<5	5	5
Mercury (Hg)	0.12	<0.10	<0.10	<0.10	<0.10

B = Analyte also present in method blank

Notes: These tables list only those analytes that were detected in at least one of the soil samples from off-site soil borings.  
Bold values highlight concentrations above reporting limits.



NATIONAL  
ENVIRONMENTAL  
TESTING, INC.

Dallas Division  
1548 Valwood Parkway  
Suite 118  
Carrollton, TX 75006  
Tel: (214) 406-8100  
Fax: (214) 484-2969

## ANALYTICAL AND QUALITY CONTROL REPORT

George Robinson  
ENRON CORPORATION  
Env. Affairs, Rm 3 AC 3142  
P.O. Box 1188  
Houston, TX 77251

12/12/1995

NET Job Number: 95.09169

Enclosed is the Analytical and Quality Control report for the following samples submitted to the Dallas Division of NET, Inc. for analysis. Reproduction of this analytical report is permitted only in its entirety.

<u>Sample Number</u>	<u>Sample Description</u>	<u>Date Taken</u>	<u>Date Received</u>
286851	COMPOSITE OF MW-7A, MW-8, MW-9,	12/05/1995	12/06/1995

National Environmental Testing, Inc. certifies that the analytical results contained herein apply only to the specific samples analyzed.

**Holding Times:** All holding times were within method criteria.

**Method Blanks:** All method blanks were within quality control criteria.

**Instrument calibration:** All calibrations were within method quality control criteria.

**Analysis Comments:** No Unusual Comments

  
Gregory K. Horton  
Project Manager





## ANALYTICAL REPORT

George Robinson  
ENRON CORPORATION  
Env. Affairs, Rm 3 AC 3142  
P.O. Box 1188  
Houston, TX 77251

12/12/1995  
Job No.: 95.09169  
Page: 2

Project Name: TRANSWESTERN PIPELINE ROSWELL FACILITY

Date Received: 12/06/1995

286851 COMPOSITE OF MW-7A, MW-8, MW-9, MW-7  
Taken: 12/05/1995 11:50

TCLP-Arsenic, ICP	<0.03	mg/L
TCLP-Barium, ICP	0.10	mg/L
TCLP-Chromium, ICP	<0.01	mg/L
TCLP-Lead, ICP	<0.03	mg/L
TCLP-Mercury, CVAA	<0.0002	mg/L



QUALITY CONTROL REPORT  
Continuing Calibration Verification  
(CCV)

JOB NUMBER: 95.09169

PARAMETER	ANALYST	DATE	METHOD	CCV	CCV TRUE	# REC.	FLAG
		ANALYZED		RESULT	CONCENTRATION		
TCLP-Arsenic, ICP	des	12/11/1995	S-6010A	1.04	1.00	104	NA
TCLP-Barium, ICP	des	12/11/1995	S-6010A	1.00	1.00	100	NA
TCLP-Chromium, ICP	des	12/11/1995	S-6010A	1.01	1.00	101	NA
TCLP-Lead, ICP	des	12/11/1995	S-6010A	0.98	1.00	98	NA
TCLP-Mercury, CVAA	cbw	12/12/1995	S-7470A	0.51	0.50	102	NA

Method References and Codes

The Quality Control report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

E-100 through 493: "Methods for Chemical Analysis of Water & Wastes",  
U.S. EPA, 600/4-79-020, rev. 1983.

E-601 through 625: "Guidelines Establishing Test Procedures for the  
Analysis of Pollutants", U.S. EPA, 40CFR, Part 136,  
rev. 1990.

S-1000 through 9999: "Test Methods for Evaluating Solid Waste", U.S. EPA  
SW-846, 3rd Edition, 1986.

A: "Standard Methods for the Examination of Water and  
Wastewater", 16th Edition, APHA, 1985.

SM: "Standard Methods for the Examination of Water and  
Wastewater", 18th Edition, APHA, 1992.

D: ASTM Method

M: Method has been modified

\*: Other Reference



QUALITY CONTROL REPORT  
BLANKS

JOB NUMBER: 95.09169

PARAMETER	DATE ANALYZED	BLANK	UNITS	REPORTING LIMIT	FLAG
TCLP-Arsenic, ICP	12/11/1995	<0.03	mg/L	0.03	NA
TCLP-Barium, ICP	12/11/1995	<0.01	mg/L	0.01	NA
TCLP-Chromium, ICP	12/11/1995	<0.01	mg/L	0.01	NA
TCLP-Lead, ICP	12/11/1995	<0.03	mg/L	0.03	NA
TCLP-Mercury, CVAA	12/12/1995	<0.0002	mg/L	0.0002	NA

Advisory Control Limits for Blanks

Metals/Wet Chemistry/Conventionals/GC - All compounds should be less than the Reporting Limit.

GC/MS Semi-Volatiles - All compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the Reporting Limit.

GC/MS Volatiles - Toluene, Methylene chloride, Acetone and Chloroform should be less than 5 times the Reporting Limit. All other volatile compounds should be less than the Reporting Limit.



QUALITY CONTROL REPORT  
Laboratory Control Sample  
(LCS)

JOB NUMBER: 95.09169

PARAMETER	LCS RESULT	TRUE CONC.	LCS % REC.	FLAG
TCLP-Arsenic, ICP	1.02	1.00	102	
TCLP-Barium, ICP	1.02	1.00	102	
TCLP-Chromium, ICP	1.03	1.00	103	
TCLP-Lead, ICP	1.02	1.00	102	
TCLP-Mercury, CVAA	0.51	0.50	102	

Advisory Control Limits for LCS

Inorganic Parameters - The LCS recovery should be 80-120%.



QUALITY CONTROL REPORT  
Matrix Spike / Matrix Spike Duplicate  
(MS / MSD)

JOB NUMBER: 95.09169

PARAMETER	SAMPLE RESULT	MS RESULT	MSD RESULT	SPIKE AMOUNT	MS % REC.	MSD % REC.	MS/MSD RPD	FLAG
TCLP-Arsenic, ICP	<0.03	1.09	1.14	1.00	109	114	4.5	
TCLP-Arsenic, ICP	0.04	1.04	1.08	1.00	100	104	3.9	
TCLP-Barium, ICP	0.10	1.05	1.07	1.00	95	97	2.1	
TCLP-Barium, ICP	0.92	1.87	1.87	1.00	95	95	0	
TCLP-Chromium, ICP	<0.01	0.95	0.97	1.00	95	97	2.1	
TCLP-Chromium, ICP	<0.01	0.94	0.95	1.00	94	95	1.1	
TCLP-Lead, ICP	<0.03	0.99	0.99	1.00	99	99	0	
TCLP-Lead, ICP	<0.03	0.95	0.96	1.00	95	96	1	
TCLP-Mercury, CVAA	<0.0002	0.52	0.58	0.50	104	116	11	
TCLP-Mercury, CVAA	<0.0002	0.49	0.49	0.50	98	98	0	

Advisory Control Limits for MS/MSDs

Inorganic Parameters - The spike recovery should be 75-125% if the spike amount value is greater than or equal to one fourth of the sample result value. The RPD for the MS/MSD should be less than 20.

NOTE: Matrix Spike Samples may not be samples from this job.





NATIONAL  
ENVIRONMENTAL  
TESTING, INC.

# CHAIN OF CUSTODY RECORD

COMPANY ENRON OPERATIONS CORP. ENVIRONMENTAL AFFAIRS  
ADDRESS Room 3AC-3142 PO Box 1188 Houston, TX 77251-1188  
PHONE 713-646-7327 FAX 713-646-7867  
PROJECT NAME/LOCATION TRANSWESTERN Pipeline Roswell Facility  
PROJECT NUMBER \_\_\_\_\_  
PROJECT MANAGER MR. George Robinson

REPORT TO: MR. George Robinson  
INVOICE TO: ENRON OPERATIONS CORP.  
P.O. NO. \_\_\_\_\_  
NET QUOTE NO. \_\_\_\_\_

SAMPLED BY: CLAYTON M BARNHILL  
(PRINT NAME) SIGNATURE [Signature]  
SIGNATURE \_\_\_\_\_  
(PRINT NAME)

## ANALYSES

To assist us in selecting the proper method

Is this work being conducted for regulatory compliance monitoring? Yes ☒ No ☐

Is this work being conducted for regulatory enforcement action? Yes ☐ No ☐

Which regulations apply: RCRA ☐ NPDES Wastewater ☐  
UST ☐ Drinking Water ☐  
Other ☐ None ☐

## COMMENTS

DATE	TIME	SAMPLE ID/DESCRIPTION	MATRIX	GRAB	COMP	HCl	NaOH	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	OTHER	ANALYSES
12/5/99	11:50am	JARS (402)									
12/5/99	11:50am	234 Bot H <sub>2</sub> O, Soil (1100gms)	X	X	X	X	X	X	X	X	X
12/5/99	11:50am	(2 separate) 1/2 Grab Sample	X	X	X	X	X	X	X	X	X
		MW-7A, MW-8, MW-9									
		MW-7, Soil Cuttings									
		TRANSWESTERN Pipeline									
		ROSWELL FACILITY									

CONDITION OF SAMPLE: BOTTLES INTACT? YES / NO  
FIELD FILTERED? YES / NO

COC SEALS PRESENT AND INTACT? YES / NO  
VOLATILES FREE OF HEADSPACE? YES / NO

TEMPERATURE UPON RECEIPT: 44  
Bottles supplied by NET? YES / NO

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA \_\_\_\_\_  
I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS \_\_\_\_\_

DATE \_\_\_\_\_

RELINQUISHED BY: <u>[Signature]</u>	DATE: <u>12/5/99</u>	TIME: <u>3:50pm</u>	RECEIVED BY: _____	RELINQUISHED BY: _____	DATE: <u>12/6/99</u>	TIME: <u>10:00 AM</u>	RECEIVED FOR NET BY: <u>[Signature]</u>
METHOD OF SHIPMENT _____	REMARKS: <u>Please send copy of Report To George Robinson, PE, 713-646-7327, Fax: 713-646-7867</u>						





STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 S. PACHECO  
SANTA FE, NEW MEXICO 87505  
(505) 827-7131

July 24, 1996

**CERTIFIED MAIL**  
**RETURN RECEIPT NO: P-269-269-174**

Mr. Bill Kendrick  
ENRON Operations Corp.  
P.O. Box 1188  
Houston, Texas 77251-1188

**RE: PHASE II INVESTIGATION WORK PLAN  
ROSWELL COMPRESSOR STATION  
TRANSWESTERN PIPELINE CO.**

Dear Mr. Kendrick:

The New Mexico Oil Conservation Division (OCD) has completed a review of Transwestern Pipeline Company's (TPC) December 20, 1995 "WORK PLAN FOR PHASE II SOIL AND GROUND-WATER ASSESSMENT FOR ROSWELL COMPRESSOR STATION NO. 9 SURFACE IMPOUNDMENTS" and November 8, 1995 "PHASE I SOIL AND GROUND-WATER ASSESSMENT FOR ROSWELL COMPRESSOR STATION NO. 9 SURFACE IMPOUNDMENTS". These documents contain the results of TPC's Phase I investigations and TPC's proposed work plan for additional (Phase II) soil and ground water contamination investigations at the Roswell Compressor Station.

The above referenced proposed Phase II work plan is approved with the following conditions:

1. The OCD is concerned about the lack of actual background soil metals concentrations at the site. Actual concentrations will need to be determined either during this phase of the investigation or at a later date.
2. Soil samples from all borings and monitor wells will be taken from the interval with the highest field PID readings and the bottom of the boring. The soils will be sampled and analyzed for aromatic and halogenated volatile organics, semi-volatile organics, polychlorinated biphenyls, New Mexico Water Quality Control Commission (WQCC) metals and total petroleum hydrocarbons using appropriate EPA methods and quality assurance/quality control.

Mr. Bill Kendrick  
July 24, 1996  
Page 2

3. In order to develop a comprehensive ground water quality assessment of the site, TPC will sample ground water from all proposed and pre-existing site monitor wells during the proposed sampling program. Ground water samples from all wells will be sampled for aromatic and halogenated volatile organics, semi-volatile organics, polychlorinated biphenyls, metals, total dissolved solids and cations and anions regulated by the WQCC. All samples will be analyzed using appropriate EPA methods and quality assurance/quality control.
4. All wastes generated will be analyzed for hazardous characteristics, benzene, toluene, ethylbenzene, xylene and total petroleum hydrocarbons and submitted to the OCD for approval prior to disposal.
5. All boreholes will be properly plugged and abandoned upon completion by grouting the hole to the surface with cement containing 5% bentonite.
6. TPC will submit a report on the investigation to the OCD by November 1, 1996. The report will contain:
  - a. A description of all activities which occurred during the investigation including conclusions and recommendations. The recommendations will include a proposed long term ground water monitoring program.
  - b. Lithologic logs and as built well construction diagrams for each soil boring, monitor well and soil vapor extraction well.
  - c. Summary tables listing all soil laboratory analytic results including copies of the laboratory analyses and quality assurance/quality control data.
  - d. Summary tables listing all past and present laboratory analytic results of all water quality sampling for each monitoring point including copies of the current laboratory analyses and quality assurance/quality control data.
  - e. Soil and ground water isoconcentration maps for contaminants of concern (COC). In addition to the COC's proposed, COC's will include all contaminants which either are in excess of or have the potential to cause an exceedance of WQCC standards.
  - f. A water table elevation map using the water table elevation of the ground water in all monitor wells.

Mr. Bill Kendrick  
July 24, 1996  
Page 3

- g. A product thickness map based on the thickness of free phase product in all monitor wells.
  - h. The recommended disposition of any wastes generated during the investigations.
7. TPC will notify the OCD at least one week in advance of all scheduled activities such that an OCD representative has the opportunity to witness the events and/or split samples.
8. All documents submitted for approval will be submitted to the OCD Santa Fe Office with copies provided to the OCD Artesia District Office.

Please be advised that OCD approval does not relieve TPC of liability if contamination exists which is beyond the scope of the work plan, or if the activities fail to adequately determine the extent of contamination related to TPC's activities. In addition, OCD approval does not relieve TPC of responsibility for compliance with RCRA hazardous waste regulations or any other federal, state or local laws and/or regulations.

If you have any questions, please call me at (505) 827-7154.

Sincerely,



William C. Olson  
Hydrogeologist  
Environmental Bureau

xc: OCD Artesia District Office  
Mark Weidler, Secretary NMED  
Benito Garcia, NMED Hazardous and Radioactive Materials Bureau  
George Robinson, Cypress Engineering Services, Inc.

PS Form 3800, April 1995

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No Insurance Coverage Provided.	
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Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	

P 269 269 174

# **Transwestern Pipeline Company**

J. A. "Joe" Hulscher  
Vice President  
Operations

Summit Office Bldg., Ste. 250  
4001 Indian School Rd., NE  
Albuquerque, NM 87110  
Direct (505) 260-4001  
Houston (713) 853-7794

June 28, 1996

**RECEIVED**

JUN 28 1996

Oil Conservation Division

## **VIA HAND DELIVERY**

Honorable Mark E. Weidler, Secretary  
New Mexico Environment Department  
Runnels Building  
1190 St. Francis Drive  
Santa Fe, New Mexico

**Re: Transwestern Pipeline Company Roswell Compressor Station**

Dear Mr. Secretary:

On behalf of Transwestern Pipeline Company (Transwestern) please find enclosed a copy of a proposed settlement agreement between Transwestern and the State of New Mexico Environment Department (NMED) which covers former surface impoundments at the Roswell Compressor Station. As promised, the settlement agreement includes a detailed alternative closure plan for the former surface impoundments. The plan is similar to the prior plan but it is both simpler and more comprehensive.

The original plan devoted considerable discussion to a description of the compressor station and the numerous investigations voluntarily conducted both prior to and subsequent to the time when Transwestern brought conditions at the station to the attention of the State of New Mexico. The descriptive and historical material has essentially been left unchanged. Further, much of the QA/QC section has remained unchanged.

The present plan has been updated to include the results of the 1995 Phase I assessment and proposed Phase II assessment at the former surface impoundments. The plan has been expanded by including: a proposed remedial technology to remove contaminants from the soil and groundwater at the former impoundments, target cleanup levels for the contaminants in the soil and the groundwater and a proposed schedule.

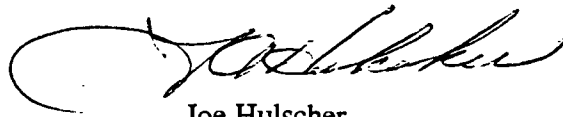
The cleanup levels are derived from several sources. First, soil cleanup standards for the majority of compounds other than petroleum hydrocarbons are based upon cleanup standards developed by the State of Texas for both RCRA and non-RCRA sites. These standards, known as Tier II standards, are based upon a conservative generic risk assessment and are considerably more conservative than the EPA proposed RCRA Subpart S standards for cleanup of the soil. Second, the groundwater cleanup standards are primarily based upon New Mexico Water Quality Control Commission standards. Finally, the hydrocarbon related compounds, Total Petroleum Hydrocarbons (TPH), Benzene, Toluene, Ethyl benzene, and Xylene (BTEX) concentrations are based upon New Mexico Oil Conservation Division (OCD) guidance. These standards are fully protective of human health and the environment and are based upon a combination of existing New Mexico standards and conservative risk based standards developed for similar RCRA programs. Transwestern proposes these standards despite the naturally poor quality of the groundwater at the station. In light of the conditions at the site and the conservative nature of the target cleanup levels Transwestern has included the opportunity to demonstrate by acceptable risk assessment methods that less conservative standards may be appropriate.

In recent correspondence provided by the NMED it appears that there may still be some confusion over exactly why Transwestern has taken the position that no hazardous waste was ever disposed of in the surface impoundments. It is Transwestern's understanding that the only issue in dispute is whether any 100% concentration chlorinated solvents were disposed of in the surface impoundments. Transwestern's position is based upon the fact there is no evidence that any chlorinated solvents in 100% concentrations were ever disposed of in the former surface impoundments. During the period that the former impoundments were in operation, no later than November 1983, there is no evidence that any 100% concentration chlorinated solvents were placed in the impoundments. The only information that is available is that during this time frame such compounds were used in less than 100% solutions. Under the regulations in effect at the time such compounds were considered non-hazardous. Solvent mixtures were defined by the EPA as hazardous effective January 30, 1986, many years after the use of the surface impoundments had ceased. For the purposes of this analysis, Transwestern is not relying on the oil and gas exclusion found under 40 C.F.R. §261.4(b)(5).

The enclosed plan is consistent with our discussion at the March 3rd meeting and subsequent discussions by counsel. The intent of the settlement and the plan is to minimize the transactional time for both parties to finish the assessments and implement full remediation. Under the agreement the NMED will be kept fully apprised of all Transwestern actions and have full opportunity to observe field activities. The plan and the settlement agreement provide a reasonable, balanced approach to resolving the disputed issues between the NMED and Transwestern in the hopes of avoiding further delay and legal proceedings. Transwestern's proposal preserves both the NMED's statutory responsibilities and Transwestern's position. Most importantly, the settlement agreement and alternative closure plan provide a sensible, efficient and effective approach to conducting the remaining assessments and remediation both on and off the station in a timely manner.

Once you and your staff have had a chance to review the enclosed materials, please contact us. In the event there are any questions, I would suggest counsel for the NMED contact their counterparts for Transwestern, either Richard Virtue (505/983-6101) or Lou Soldano (713/853-7237) and technical issues be directed to either Bill Kendrick (713/646-7644) or Larry Campbell (505/625-8022). Transwestern looks forward to hearing from you soon and resolving this matter in an expeditious and mutually cooperative fashion.

Sincerely,

A handwritten signature in cursive script, appearing to read "Joe Hulscher".

Joe Hulscher

cc: Benito Garcia - NMED  
Susan McMichael, Esq. - NMED  
Louis P. Soldano, Esq.  
Richard L. C. Virtue, Esq.  
Bill Kendrick  
Larry Campbell

cc: w/out attachments  
Roger Anderson - OCD

## NEW MEXICO ENVIRONMENT DEPARTMENT

MULTI-PARTY

## FACSIMILE MESSAGE COVER SHEET

TO

FROM

ATTENTION:	DATE: June 24, 1996
Jennifer Salisbury	438-3855
Roger Anderson, OCD	438-3855
Richard Virtue	983-8304
Joe Hulscher, TPC	255 0790
SUBJECT:	NAME: Ed Kelley
DIVISION:	DIVISION: Office of General Counsel
TOTAL PAGES:	FAX PHONE NO. 827-1628 - NOTE NEW #

MESSAGE:

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Santa Fe, New Mexico 87502  
PHONE: (505) 827-2990  
FAX: (505) 827-1628





## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6  
1445 ROSS AVENUE, SUITE 1200  
DALLAS, TX 75202-2733

JUN 19 1996

**RECEIVED**

JUN 21 1996

Mr. Ed Kelley, Director  
Water and Waste Management Division  
New Mexico Environment Department  
P.O. Box 26110  
Santa Fe, NM 87502

NM ENVIRONMENT DEPARTMENT  
OFFICE OF THE SECRETARY

Dear Mr. Kelley:

As discussed in the April meeting between Mark Weidler and Allyn M. Davis, the Environmental Protection Agency (EPA) has reviewed the circumstances concerning Transwestern Pipeline Company's (TPC) allegation that it does not need to comply with the requirements for closure or permitting under the Resource Conservation and Recovery Act (RCRA).

The EPA fully supports the position of the New Mexico Environment Department (NMED) and its analysis that RCRA is applicable to TPC. This decision is based on our review of the situation and a letter dated February 1, 1996, from NMED's Susan McMichael to Richard Virtue of TPC's legal counsel, which addresses each of TPC's assertions. Also, I have enclosed some guidance from the RCRA permit compendium pertaining to the petroleum waste exclusion.

Please keep us informed of the regulatory status in this matter. If you have any further questions, do not hesitate to call Mr. David Neleigh at (214) 665-6785.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Robert E. Hanneschlager", is written over the typed name.

Robert E. Hanneschlager, P.E.  
Acting Division Director  
Multimedia Planning  
and Permitting Division

Enclosure



141.1992(03)

RCRA/Superfund/OUST Hotline Monthly Report Question

January 1992

. Regulatory Status of Waste from Oil Gathering Pipelines

An oil production facility uses gathering pipelines to transport oil from its production site to a site owned by another facility. The oil has already undergone initial oil/water separation. Waste forms in the gathering lines during the transportation of the oil. Is the waste that forms subject to the hazardous waste exclusion as 40 CFR 261.4(b)(5)?

The answer depends on the ownership of the oil at the time the waste forms. Section 261.4(b)(5) excludes drilling fluids, produced waters, and other wastes associated with the exploration, development, or production of crude oil, natural gas, or geothermal energy from the definition of hazardous waste. Waste generated after legal custody of the oil changes hands during transportation will not meet the exclusion because it is not intrinsic to the exploration, development, or production of crude oil.

The July 6, 1988, Federal Register (53 FR 25446, footnote 1) defines associated wastes as those wastes other than produced water, rigwash, and drilling muds and cuttings that are intrinsic to exploration, development, and production of crude oil and natural gas. The Report to Congress: Management of Wastes from the Exploration, Development and Production of Crude Oil, Natural Gas, and Geothermal Energy, Vol. 1 of 3 (EPA/530-SW-88-003-A, Dec. 1987) states on page II-17 that "the phrase 'intrinsically derived from the primary field operations' is intended to differentiate exploration, development, and production operations from transportation (from the point of custody transfer or of production separation and dehydration) and manufacturing operations." Accordingly, any waste generated after a change in the custody of the oil or, in the absence of the change in custody after the initial oil/water separation, is not subject to the 261.4(b)(5) hazardous waste exclusion because it is not intrinsic to the exploration, development or production of crude oil.

9441.1988(42)

RCRA/SUPERFUND HOTLINE MONTHLY SUMMARY

P. 04/08

SEPTEMBER 88

## Oil and Gas Exclusion Applicability

cavern beneath the earth's surface is used to store natural gas that is later consumed for home heating during winter months. Several compression stations that require movement of the natural gas are operated at ground level. A RCRA hazardous waste is generated at each compression station. Is this waste exempt from regulation as a hazardous waste?

Waste associated with and unique to the exploration, development, or production of natural gas are excluded from regulation as a hazardous waste as per 40 CFR Section 261.4(b)(5). The natural gas stored in this specific instance must be retrieved from storage in much the same manner as when it was originally produced prior to storage, and the wastes generated in both cases will be nearly identical. In EPA's "Regulatory determination for Oil and Gas and Geothermal Exploration, Development and Production Wastes," 53 FR 25446 (July 6, 1988), the Agency determined that wastes from subsurface gas storage and retrieval are exempt from hazardous waste regulation under RCRA, except for such of those wastes which are not intrinsically associated with the removal of the gas; the Regulatory Determination also lists some of these wastes. See 53 FR at 25454. In addition, wastes associated with manufacturing or transportation, including movement by pipeline off-site, are not exempt from hazardous waste regulation, nor are wastes generated at the gas storage facility that are not uniquely associated with the gas retrieval process.

Source: Mike Fitzpatrick  
Research: George Kleevic

(202) 475-6783

JUN-24-96 MON 10:22

NMED OGC

FAX NO. 505 8271628

9441.1987(04)

JAN 13 1987

Mr. James E. (Jim) Nugent, Chairman  
Railroad Commission of Texas  
Capitol Station, P.O. Drawer 12967  
Austin, Texas 78711

Dear Mr. Chairman:

Thank you for your letter dated October 21, 1986. As discussed below, the Agency has made some decisions concerning issues you raised in your letter. Because these tentative determinations are preliminary, however, we invite further discussion on them.

The legislative history of Section 3001(b)(2)(A) of the Resource Conservation and Recovery Act (RCRA) sheds some light on the identity of oil and gas and geothermal energy wastes subject to exemption: 1

the term "other wastes associated" is specifically included to designate waste materials intrinsically derived from the primary field operations associated with the exploration, development, or production of crude oil, natural gas, or geothermal energy. It would cover such substances as hydrocarbon-bearing soil in and around facilities; drill cuttings; materials (such as hydrocarbon, water, sand and emulsion) produced from a well in conjunction with crude oil, natural gas, or geothermal energy; and the accumulated material (such as hydrocarbon, water, sand, and emulsion) from production separators, fluid treating vessels, storage vessels, and production impoundments.

The phrase "intrinsically derived from the primary field operation ..." is intended to differentiate exploration, development, and production operations from transportation (from the point of custody transfer or of production separation and dehydration) and manufacturing operations.

-2-

Given the above background, EPA intends to employ four criteria to assist in determining whether a waste is exempt, pending completion of our Report to Congress next year:

1. Only waste streams intrinsic to the exploration for, or development and production of, crude oil, natural gas, or geothermal energy are subject to exemption. Waste streams generated at oil, gas, and geothermal energy facilities that are not uniquely associated with exploration, development, or production activities are not exempt (one example would be spent solvents from equipment cleanup).
2. Exempt waste must be associated with "extraction"<sup>2</sup> processes, which include measures (1) to remove oil, natural gas, or geothermal energy from the ground or (2) to remove impurities from such substances, provided that the purification process is an integral part of normal field operations.<sup>3</sup>
3. The proximity of waste streams to primary field operations is another factor in determining the scope of the exemption. Process operations that are distant from the exploration, development, or production operations may not be subject to exemption.
4. Wastes associated with transportation are not exempt. The point of custody transfer, or of production separation and dehydration, may be used as evidence in making this determination.

As shown on the enclosed table, EPA has used these criteria to tentatively designate various wastes as exempt or not exempt. This table was taken from our October 31, 1986 Technical Report on wastes from the extraction of oil, gas and geothermal energy (copy enclosed). The Agency is aware that this list does not include all waste streams found at oil, gas, or geothermal energy extraction facilities. Therefore, EPA invites commenters to specifically describe other pertinent waste streams and to articulate, in terms of the above criteria, whether they believe these additional streams are exempted by Section 3001(b)(2)(A). EPA also invites comment on these criteria themselves and on the appropriateness of the tentative classification shown on

- 2 The term extraction is defined to include exploration, development, and production activities for oil, gas, and geothermal energy.
- 3 Thus, wastes associated with such processes as oil refining, petrochemical-related manufacturing, or electricity

generation from geothermal energy are not exempt.

-3-

the table. However, we believe this interpretation is consistent with the final "Small Quantity Generator" regulation promulgated on March 24, 1986 (51 FR 10146, copy enclosed); see especially page 10162 for a discussion of the applicability of that rule to offshore oil rigs).

Consistent with the Small Quantity Generator regulation, EPA's Region 6 office in Dallas has distributed "notices of hazardous waste registration requirements". They are being distributed only as a result of inquiries or requests in order to aid parties in fulfilling responsibilities which they consider to be theirs under the law. Because EPA did not seek data from these facilities requesting information on our Small Quantity rule, we are unable to determine whether their waste streams meet the four criteria discussed above.

I trust this clarifies the Agency's current assessment of the scope of the exemption. If I can be of any further assistance, please let me know.

Sincerely,

Original Document signed  
"Jack W. McGraw for"

J. Winston Porter  
Assistant Administrator

Enclosures (3)

Part 2

## NEW MEXICO ENVIRONMENT DEPARTMENT

## MULTI-PARTY

## FACSIMILE MESSAGE COVER SHEET

TO

FROM

ATTENTION:	DATE: June 24, 1996
Jennifer Salisbury	438-3855
Roger Anderson, OCD	438-3855
Richard Virtue	983-8304
Joe Hulscher, TPC	265 0790
SUBJECT:	NAME: Ed Kelley
DIVISION:	DIVISION: Office of General Counsel
TOTAL PAGES:	FAX PHONE NO. 827-1628 - NOTE NEW #

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Part 2

NEW MEXICO ENVIRONMENT DEPARTMENT

MULTI-PARTY

FACSIMILE MESSAGE COVER SHEET

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Compliance Monitoring/Enforcement  
Office of Waste Management  
Division of Environmental Protection  
1356 Hansford Street  
Charleston, West Virginia 25301-1401

Dear Mr. Dorsey:

I am responding to your August 30, 1993, request to clarify certain issues regarding oil and gas wastes. I understand that you have corresponded and have had extensive conversations with Mike Fitzpatrick of my staff regarding the March 22, 1993, Federal Register (FR) notice that clarifies the scope of the Resource Conservation and Recovery Act (RCRA) Subtitle C hazardous waste exemption for oil and gas exploration and production wastes. I further understand that, at the invitation of David Flannery (representing the Appalachian producers), Mike visited certain sites in West Virginia with you and industry representatives to gather information relative to the issues you have raised. I am responding to the issues that were raised in your letters and conversations with him. I believe that you have raised three principal issues, which I will address below.

The first issue concerns the application of the language in the March 22, 1993, FR notice that addresses gas plants to natural gas compressor stations in West Virginia. The scenario used for defining the scope of the exemption in the regulatory determination and subsequent FR clarification does not precisely correspond to the typical natural gas production process used in Appalachian States. It has been our position that, while natural gas exploration and production (E&P) occurs at the wellhead, up through the gas plant, and at natural gas storage fields, E&P does not include transportation of gas once it has left the gas plant, compressor stations located downstream from the gas plant, or manufacturing activities. Since the Subtitle C exemption applies only to E&P activities, solid wastes generated from these transportation, compression or manufacturing activities would not be exempt from subtitle C regulation.

The FR notice did not intend to imply, however, that wastes from all compressor stations are outside the E&P exemption; only those wastes from compressor stations that are part of transportation are subject to Subtitle C. In EPA's opinion, those compressor stations on main trunk pipelines handling any natural gas produced outside the state (or produced outside of "local

JUN-24-96 MON 10:40

NMED OGC

FAX NO. 505 8271628

P. 02/05

The third issue concerns the regulatory status of certain oil and gas wastes, including unused commercial chemical products. In the FR clarification notice, EPA stated a general "rule of thumb" that, in order for a waste to be considered exempt, it must either come from "down-hole," or come in contact with the production stream for the purpose of removing produced water or some other contaminant. (Generally, when a product is used in E&P and becomes a uniquely associated waste, it has either been sent down-hole or has come in contact with the production stream.) The Agency stopped short of saying this rule of thumb was more binding than a general guideline. However, we believed that it was useful to provide the rule of thumb as a general, easy-to-understand guideline that can be used by operators as a first step in determining if a waste is exempt or not.

The industry view is that the rule of thumb limiting exempt wastes to those that have come from down-hole is too narrow in that it does not include unused materials spilled or left as residuals on site. The Agency disagrees, however, with the view that discarded unused materials are, or should be, exempt wastes. First, EPA does not believe that placing excess and unused materials that exhibit one or more of the hazardous characteristics in a reserve pit is an environmentally sound practice. Moreover, it continues to be the Agency's position that, in general, a waste must either have come from down-hole or have otherwise come in contact with the production stream for the purpose of removing contaminants in order to be considered uniquely associated with efforts to locate or remove oil or gas from the ground. Regardless of the intent in preparing the material, only used, and therefore uniquely associated, wastes are exempt.

Although this interpretation may cause a shift in some previous industry practices that have routinely placed some unused materials in reserve pits, it may also encourage operators to practice waste minimization and pollution prevention by planning more carefully for the volumes needed, looking for ways to conserve resources and increase recycling of unused materials, improving housekeeping procedures, and selecting less toxic ingredients for formulations whenever possible. We recognize that it will not, however, eliminate all excess materials since not all contingencies can be planned for when mixing drilling and workover fluids.

Nonetheless, the Agency continues to assert that unused chemical products, if disposed of, are not exempt from hazardous waste regulation. This position is consistent with the language of

the Regulatory Determination (53 FR 25454, July 6, 1988) and subsequent clarification notice (58 FR 15286, March 22, 1993). Only a reopening of the Regulatory Determination, through a new rulemaking process, could change the Agency's position on unused material. Such an effort is not being contemplated by EPA.

To the extent that unused materials are hazardous only because of their corrosivity (e.g., completion and workover fluids), these unused acids can be treated (neutralized) by "totally enclosed treatment" (in the same tanks used to hold the workover fluids prior to use) without subjecting operators to Subtitle C jurisdiction. In that case, the neutralized waste likely would not exhibit a hazardous characteristic. There are no federal prohibitions on placing non-hazardous unused products in the reserve pit.

If you have any additional questions concerning these matters, please call Mike Fitzpatrick at (703) 308-8411.

Sincerely,  
Bruce R. Weddle, Acting Director  
Office of Solid Waste

- 1 As discussed in the FR notice, operations to recover natural gas stored in underground natural geological formations (not underground tanks) are considered part of production, not transportation. This is because these facilities are operated in the same way as if the gas were being produced for the first time. Therefore, uniquely associated wastes from compressor stations dedicated solely to the retrieval of natural gas from underground storage facilities are exempt regardless of the origin of that gas.

cc: David M. Flannery, Robinson & McElwee; Ramona Trovato, Director, Ground Water Protection Division, Headquarters; Randy Hill, Office of General Counsel; Water Management Division Directors, Regions I - X; Hazardous Waste Management Division Directors, Regions I - X; Theodore M. Streit, Chief, Office of Oil and Gas, West Virginia Division of Environmental Protection

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d ex- moved from the ground as part of the  
ologies extraction process.

this (6) Pulping liquors (i.e., black liquor)  
exclu- that are reclaimed in a pulping liquor  
have recovery furnace and then reused in  
l con- the pulping process, unless it is accu-  
beral- mulated speculatively as defined in  
quire- § 261.1(c) of this chapter.

68 of (7) Spent sulfuric acid used to  
imin- produce virgin sulfuric acid, unless it is  
f con- accumulated speculatively as defined  
s no in § 261.1(c) of this chapter.

rdous (8) Secondary materials that are re-  
claimed and returned to the original  
process or processes in which they were  
generated where they are reused in the  
production process provided:

June 1, (i) Only tank storage is involved, and  
1, 1992; the entire process through completion  
3, Oct. of reclamation is closed by being en-  
R 7848, tirely connected with pipes or other  
comparable enclosed means of convey-  
ance;

1, Feb. (ii) Reclamation does not involve  
2) was controlled flame combustion (such as  
is end occurs in boilers, industrial furnaces,  
"or", and incinerators);  
3, 1995.

solid (iii) The secondary materials are  
is not never accumulated in such tanks for  
this over twelve months without being re-  
claimed; and

(iv) The reclaimed material is not  
used to produce a fuel, or used to  
produce products that are used in a  
manner constituting disposal.

(9)(i) Spent wood preserving solutions  
that have been reclaimed and are re-  
used for their original intended pur-  
pose; and

(ii) Wastewaters from the wood pre-  
serving process that have been re-  
claimed and are reused to treat wood.

(10) EPA Hazardous Waste Nos. K060,  
K087, K141, K142, K143, K144, K145, K147,  
and K148, and any wastes from the coke  
by-products processes that are hazard-  
ous only because they exhibit the Tox-  
icity Characteristic (TC) specified in  
section 261.24 of this part when, subse-  
quent to generation, these materials  
are recycled to coke ovens, to the tar  
recovery process as a feedstock to  
produce coal tar, or mixed with coal  
tar prior to the tar's sale or refining.  
This exclusion is conditioned on there  
being no land disposal of the wastes  
from the point they are generated to  
the point they are recycled to coke

ovens or tar recovery or refining pro-  
cesses, or mixed with coal tar.

(11) Nonwastewater splash condenser  
dross residue from the treatment of  
K061 in high temperature metals recov-  
ery units, provided it is shipped in  
drums (if shipped) and not land dis-  
posed before recovery.

(12) Recovered oil from petroleum re-  
fining, exploration and production, and  
from transportation incident thereto,  
which is to be inserted into the petro-  
leum refining process (SIC Code 2911)  
along with normal process streams  
prior to crude distillation or catalytic  
cracking. This exclusion applies to re-  
covered oil stored or transported prior  
to insertion, except that the oil must  
not be stored in a manner involving  
placement on the land, and must not be  
accumulated speculatively, before  
being so recycled. Recovered oil is oil  
that has been reclaimed from second-  
ary materials (such as wastewater)  
generated from normal petroleum re-  
fining, exploration and production, and  
transportation practices. Recovered oil  
includes oil that is recovered from re-  
finery wastewater collection and treat-  
ment systems, oil recovered from oil  
and gas drilling operations, and oil re-  
covered from wastes removed from  
crude oil storage tanks. Recovered oil  
does not include (among other things)  
oil-bearing hazardous wastes listed in  
40 CFR part 261 D (e.g., K048-K052, F037,  
F038). However, oil recovered from such  
wastes may be considered recovered  
oil. Recovered oil also does not include  
used oil as defined in 40 CFR 279.1.

(b) Solid wastes which are not hazard-  
ous wastes. The following solid wastes  
are not hazardous wastes:

(1) Household waste, including house-  
hold waste that has been collected,  
transported, stored, treated, disposed,  
recovered (e.g., refuse-derived fuel) or  
reused. "Household waste" means any  
material (including garbage, trash and  
sanitary wastes in septic tanks) de-  
rived from households (including single  
and multiple residences, hotels and  
motels, bunkhouses, ranger stations,  
crew quarters, campgrounds, picnic  
grounds and day-use recreation areas).  
A resource recovery facility managing  
municipal solid waste shall not be  
deemed to be treating, storing, dispos-  
ing of, or otherwise managing hazard-

ous wastes for the purposes of regula-  
tion under this subtitle, if such facil-  
ity:

(i) Receives and burns only

(A) Household waste (from single and  
multiple dwellings, hotels, motels, and  
other residential sources) and

(B) Solid waste from commercial or  
industrial sources that does not con-  
tain hazardous waste; and

(ii) Such facility does not accept haz-  
ardous wastes and the owner or opera-  
tor of such facility has established con-  
tractual requirements or other appro-  
priate notification or inspection proce-  
dures to assure that hazardous wastes  
are not received at or burned in such  
facility.

(2) Solid wastes generated by any of  
the following and which are returned  
to the soils as fertilizers:

(i) The growing and harvesting of ag-  
ricultural crops.

(ii) The raising of animals, including  
animal manures.

(3) Mining overburden returned to  
the mine site.

(4) Fly ash waste, bottom ash waste,  
slag waste, and flue gas emission con-  
trol waste, generated primarily from  
the combustion of coal or other fossil  
fuels, except as provided by § 266.112 of  
this chapter for facilities that burn or  
process hazardous waste.

(5) Drilling fluids, produced waters,  
and other wastes associated with the  
exploration, development, or produc-  
tion of crude oil, natural gas or geo-  
thermal energy.

(6)(i) Wastes which fail the test for  
the Toxicity Characteristic because  
chromium is present or are listed in  
subpart D due to the presence of chro-  
mium, which do not fail the test for  
the Toxicity Characteristic for any  
other constituent or are not listed due  
to the presence of any other constitu-  
ent, and which do not fail the test for  
any other characteristic, if it is shown  
by a waste generator or by waste gen-  
erators that:

(A) The chromium in the waste is ex-  
clusively (or nearly exclusively) tri-  
valent chromium; and

(B) The waste is generated from an  
industrial process which uses trivalent  
chromium exclusively (or nearly exclu-  
sively) and the process does not gen-  
erate hexavalent chromium; and

production", as described below) would be considered to be part of transportation and would be regulated. In Appalachia, those compressor stations handling only "local production" would qualify for the exemption as the equivalent of gas plants (see footnote 1).

As used in this letter, the term "local production" refers to gas produced from a single nearby gas field or several nearby fields, as determined by the state oil and gas regulatory agency. Once gas from outside the local production area (again, as defined by the state regulatory agency) is commingled with gas from within the local area, then the pipeline facilities and compressor stations beyond that point would no longer be E&P operations, and wastes generated are no longer considered exempt wastes (with the footnoted exception for gas storage fields) even if additional local production feeds into the system downstream from the point of commingling. Similarly, once gas leaves the gathering system for transportation or sale to a consumer, it would no longer be part of E&P and any wastes generated would be subject to Subtitle C if they exhibited one or more hazardous characteristics.

The second issue concerns exempt wastes that are mismanaged and that may pose an environmental threat. You have expressed your desire that the environmentally unsound handling or disposal of exempt wastes should result in the loss of the exemption for these wastes since there are no other regulatory schemes designed to address the hazardous nature of these wastes.

In light of Congressional intent, EPA does not classify a waste as exempt or not exempt based on the way in which that particular waste is managed (or mismanaged), nor does EPA base its definition of what constitutes an exempt waste on whether or not the waste is managed in compliance with state regulations. As far as Federal regulations are concerned, once a particular exempt waste was generated, that waste would remain exempt regardless of the treatment or disposal method employed (unless mixed with certain regulated hazardous wastes). The mishandling of exempt wastes is a state regulatory and enforcement issue. States are free to develop regulations which are more stringent or broader in scope than Federal Subtitle C regulations. Also, state requirements may be developed to address the mismanagement of wastes which are exempt from Subtitle C -- that is, the state's solid waste or hazardous waste regulations can be used to regulate the management of federally exempt wastes, if the state's legislation provides such authority.

JUN-24-96 MON 10:43

NMED OGC

FAX NO. 505 8271628

P. 05/05

**Transwestern  
Pipeline Company**

7 1996

J. A. "Joe" Hulscher  
Vice President  
Operations

Summit Office Bldg., Ste. 250  
4001 Indian School Rd., NE  
Albuquerque, NM 87110  
Direct (505) 260-4001  
Houston (713) 853-7794

June 4, 1996

Mr. Mark Weidler, Secretary  
New Mexico Environmental Department  
Post Office Box 26110  
Santa Fe, New Mexico 87502-6110

Transwestern Pipeline Company - Roswell

Dear Secretary Weidler:

This letter is intended to report to you on the progress made since our meeting in March:

Transwestern is in the process of preparing an alternative to the RCRA closure plan pursuant to your letter to me following our meeting. The process of developing an alternative has been ongoing since the meeting. On April 1 our attorneys met with Susan McMichael of your legal staff to discuss potential approaches to this site. At the meeting Ms. McMichael requested that we prepare a comparison of the OCD assessment plan with the modified closure plan that Transwestern has submitted to NMED and withdrew in January. The comparison was submitted to NMED by letter dated April 23.

Our respective attorneys have discussed possible guidelines to use in drafting a remediation agreement. Ms. McMichael has provided Transwestern's attorneys with some citations to EPA proposals that may be of assistance, and our attorneys are now analyzing potential formats. In addition, our technical staff is preparing a remediation plan to address NMED's concerns.

We hope to present a proposal to NMED in the near future. Please contact me if you would like to discuss the status of this matter further.

Very truly yours,

A handwritten signature in black ink, appearing to read "Joe A. Hulscher", written over a faint circular outline.

Joe A. Hulscher  
Vice President, Operations

cc: Benito Garcia, HRMB  
Susan McMichael, Esq.  
Roger Anderson, OCD ✓  
Lou Soldano, Esq.  
Richard Virtue, Esq.

**ENRON  
OPERATIONS CORP.**

P. O. Box 1188 Houston, Texas 77251-1188 (713) 853-6161

April 23, 1996

Mr. Benito Garcia  
Hazardous and Radioactive Materials Bureau  
New Mexico Environment Department  
Harold Runnels Bldg.  
P. O. Box 26110  
Santa Fe, NM 87502

**RE: Transwestern Pipeline Company  
Roswell Compressor Station**

Dear Mr. Garcia:

During a recent meeting on April 1, 1996, between counsel for Transwestern and the NMED, it was agreed that Transwestern would prepare a brief description of the technical differences between the NMED HRMB modified closure plan (Closure Plan) assessment activities and the Phase II Soil and Ground Water Assessment Plan (Phase II Plan) currently under review by the OCD.

It is important to note that there are many more similarities than there are differences between the assessment activities described in the Closure Plan and those described in the Phase II Plan. However, for the purposes of this comparison, the more significant differences between the two plans are highlighted.

In general, the two plans differ in breadth of scope, that is, the Closure Plan attempts to prescribe all assessment activities from start to finish, whereas, the Phase II Plan is intended to supplement the Phase I assessment activities completed in August, 1995, and any additional assessment activities necessary to effectively characterize the site. In other words, the Phase I activities, plus the Phase II Plan activities, plus additional assessment activities, if any, have been developed to accomplish the same objectives set out by the Closure Plan. Therefore, for the purpose of making the attached comparison, the Phase I activities along with the Phase II Plan activities will be considered together when compared to the Closure Plan, which will be considered the basis for this comparison.

It should be noted that compared to the complexity of the modified Closure Plan document, the Phase II Plan document is relatively simple and straight forward. As was discussed at our last meeting in early March, Transwestern is interested in obtaining comments from your office prior to proceeding with the Phase II Plan activities to avoid any unnecessary duplication of efforts and delay in remediation. I hope the attached



Mr. Benito Garcia  
April 23, 1996  
Page 2

comparison is helpful to that end.

Transwestern is continuing its work on a remediation plan for the site that will be satisfactory to both the NMED and OCD and hopes to provide that to your department in the near future.

Sincerely,



Bill Kendrick  
Environmental Affairs

xc:	Hon. Mark E. Weidler	NMED Cabinet Secretary
	Roger Anderson	NMOCD
	Richard Virtue, Esq.	Taichert, Wiggins, Virtue & Najjar
	Larry Campbell	Transwestern Pipeline Company
	Lou Soldano, Esq.	EOC Legal Counsel
	George Robinson, PE	Cypress Engineering Services, Inc.

## **Attachment**

### **Brief description of the technical differences between the Closure Plan and the Phase II Plan assessment activities.**

#### **Waste and Unit Characterization Strategy (Section 4.0 of the Closure Plan)**

Although this phase of assessment within the Closure Plan is assigned the misleading heading "Waste and Unit Characterization Strategy" (misleading because there is neither waste or a waste unit at this site to characterize), its primary objectives are: 1) to confirm the presence of the four potential source areas identified by historical reviews and prior assessments; and 2) to identify constituents of concern in affected soil.

Two of the four potential source areas (identified in the Closure Plan as the Pit 1 and Pit 2 areas) were assessed in August, 1995, in the course of the "at risk" assessment activities completed as described in the Phase I Soil and Ground Water Assessment report dated November 8, 1995. These activities mirrored those described in the Closure Plan with the exception that soil samples were not analyzed by EPA method 8040. Method 8040 is a method for the detection of phenol compounds and was excluded for several reasons: 1) Transwestern has no reason to suspect phenol compounds to be constituents of concern; 2) the more common phenol compounds could be detected by EPA method 8270 which was included in the Phase I analytical program; and 3) very few laboratories, including CORE Lab's laboratory in Denver (Transwestern's contract lab for this assessment), are set up to run EPA method 8040 because it is only rarely used.

The other two potential source areas (identified in the Closure Plan as the Pit 3 and SG 86 areas) are scheduled to be addressed by the Phase II Plan. The only deviations from the Closure Plan are: 1) the collection of one soil sample from each potential source area for laboratory analysis rather than two samples; and 2) the use of EPA method 8270 to detect phenol compounds rather than EPA method 8040 as previously described.

#### **Soil Assessment (Section 4.7 of the Closure Plan)**

The objective of this phase of assessment, as stated in the Closure Plan, is the delineation of the lateral and vertical extent of affected soil beneath and adjacent to the former impoundments.

Per the Closure Plan, this would be accomplished by an iterative process beginning with four soil borings advanced 300 feet north, south, east, and west of the center of Pit 1. Additional borings would be drilled contingent on the outcome of the four original borings. Soil samples were to be collected every 10 feet and delivered to a lab for analysis. The analyte list was to be developed subsequent to the "Waste and Unit Characterization".

The Phase II Plan will accomplish the same objective but with a slightly different selection of boring locations. Per the Phase II Plan, six soil borings (one being the MW-7 boring and the

other five the proposed monitor well locations as shown in the attached figure) will define the lateral extent of affected soil. A contingency is planned for the field selection of additional boring locations if needed to meet the objective. Soil samples will be collected every 10 feet and screened in the field with two samples from each boring delivered to a lab for analysis for volatile organic compounds (method 8010/8020) and total petroleum hydrocarbons (method 418.1).

#### **Ground Water Assessment Plan (Section 5.0 of the Closure Plan)**

The objective of this phase of assessment is to characterize affected ground water. Per the Closure Plan, this would be accomplished by a two phase process.

The first phase of the Closure Plan process would be to install three monitor wells downgradient of the former impoundments. The locations of these wells are drawn in on the attached figure. One of the three locations is at the same location as the monitor well MW-7 which was installed during the August, 1995, assessment activities. A second location is approximately 25 feet from the Phase II Plan proposed MW-12 location. The third location is approximately 65 feet from the Phase II Plan proposed MW-14 location. Note that the proposed Phase II Plan also includes three additional monitor wells at locations not covered by the Closure Plan activities (proposed monitor well locations MW-10, MW-11, and MW-13 as shown in the attached figure).

The analytical requirements of the first phase of the Closure Plan process included full 40 CFR Appendix IX constituents plus any additional constituents identified from the soil assessment activities. The Phase II Plan analytical program includes VOCs (method 8010/8020), PAHs (method 8100), major ions, total dissolved solids, and metals regulated by the NMWQCC.

The second phase of the Closure Plan ground water assessment process (Section 5.8 of the Closure Plan) called for the installation of additional monitor wells to be located 200 feet downgradient and lateral of any Phase I (that is, Phase I of the Closure Plan) monitor well for which a ground water sample indicates a constituent of concern above an action level. The proposed Phase II Plan does not attempt to prescribe further assessment in the event a Phase II monitor well location proves to be affected, rather, this is deferred to either a decision to be made in the field during the Phase II assessment activities or to a Phase III Plan which would be carried out soon after the completion and evaluation of Phase II information.

The second phase of the Closure Plan ground water assessment also called for the installation of a deeper aquifer ground water monitor well located downgradient of the former surface impoundments. The proposed Phase II Plan has deferred this activity to a Phase III Plan which would be carried out soon after the completion and evaluation of Phase II information.

#### **Other (Activities not defined in the Closure Plan)**

Although the Closure Plan makes reference that a corrective measures study (CMS) would be

Mr. Benito Garcia  
April 23, 1996  
Attachment - Page 3

incorporated into the closure process, no specifics are defined in the plan. Based on Transwestern's experience with similar petroleum hydrocarbon release sites, it can be fairly certain that soil vapor extraction (SVE) will be an integral part of any corrective measures proposal developed for this site. Therefore, Transwestern has included in the Phase II Plan provisions for a limited duration SVE pilot test to be completed. Information obtained from a pilot test early in the closure process will give Transwestern a considerable jump on development and evaluation of more specific corrective measures options.

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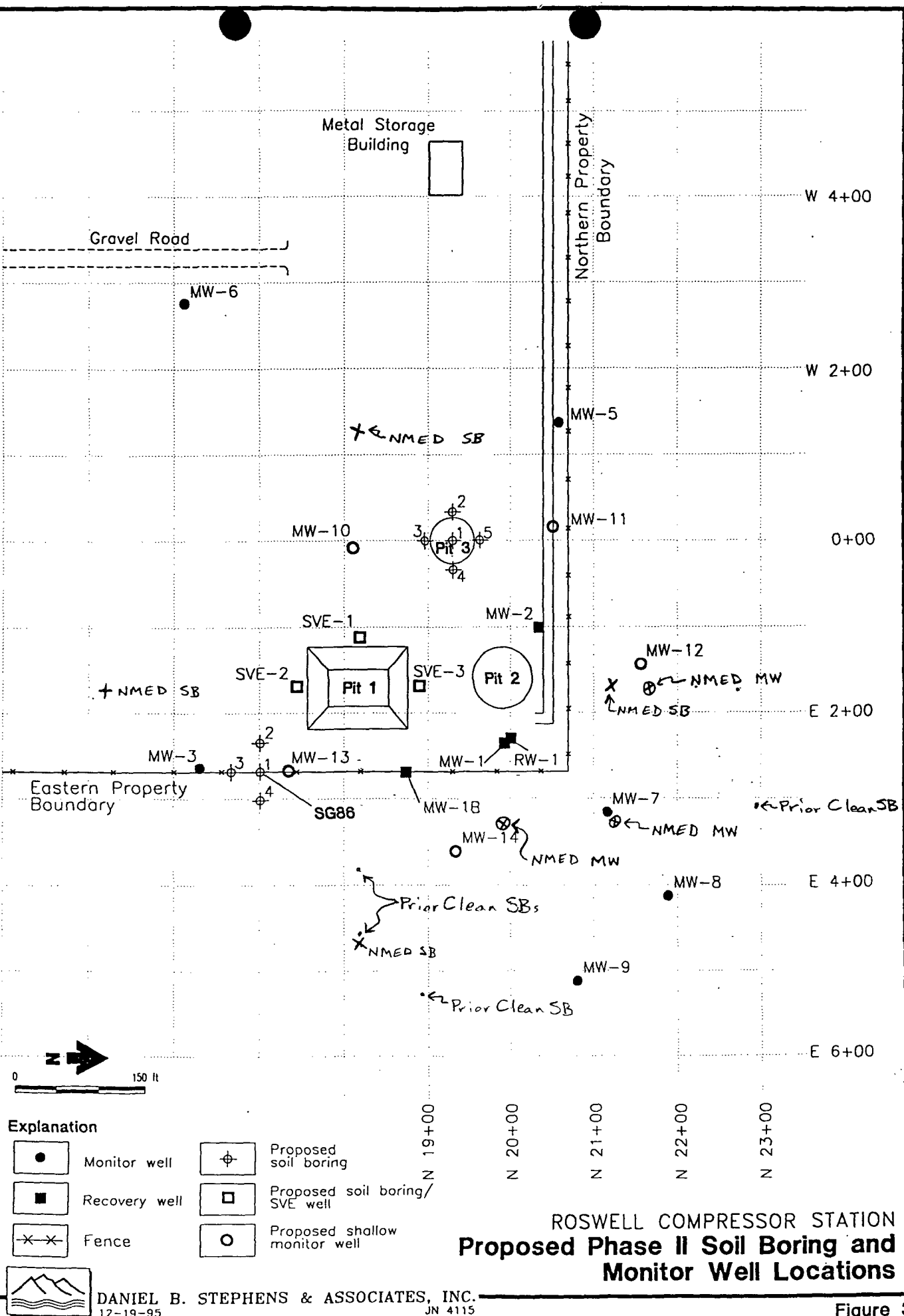


Figure 3

March 14, 1996

MEMORANDUM

TO: Jennifer Salisbury, Bill LeMay, Lyn Hebert,  
Rand Carroll and Roger Anderson

FROM: Carol Leach 

SUBJECT: Transwestern and ED

Tuesday I received a call from Lou Soldano, an attorney for Transwestern (TW). He told me about the meeting TW had with ED. He was concerned because Secretary Weidler seemed to think that OCD only had authority to clean up hydrocarbons. My recollection was that at our meeting with ED, Mark specifically asked Roger about this and asked about the standard for the specific solvent in question and was told we clean up everything at the site to the WQCC standard, or a more stringent one.

Anyway, the meeting was confusing to Lou because ED still wants a closure plan from TW as indicated in the attached letter. Lou was not sure if the plan was to meet all RCRA requirements or not. In Lou's view, most of the meeting was devoted to ED scolding TW.

Roger says his recent conversations with Benito also indicate some differing understandings about how we are to proceed. Benito indicates that they will review our workplan for TW, but will also proceed on their own track.

I had really thought we were making some progress, but it does not appear to be the case. I have several calls into ED's attorney, but have not reached her.

We may need a meeting for additional clarification.



GARY E. JOHNSON  
GOVERNOR

*State of New Mexico*  
**ENVIRONMENT DEPARTMENT**

*Harold Runnels Building*  
1190 St. Francis Drive, P.O. Box 26110  
Santa Fe, New Mexico 87502-0110  
Telephone (505) 827-2855  
Fax (505) 827-2836



MARK E. WEIDLER  
SECRETARY

EDGAR T. THORNTON  
DEPUTY SECRETARY

Mr. J. A. Hulscher  
Vice President Operations  
Transwestern Pipeline Co.  
Summitt Office Bldg., Ste. 250  
4001 Indian School Rd., NE  
Albuquerque, NM 87110

Dear Joe:

We appreciate that you and various staff came to our office to visit about the jurisdictional issues and the contaminant problems at the No. 9 Station north of Roswell.

As mentioned we cannot abrogate our statutory responsibilities. However, we want to minimize duplication of efforts that can result from response to two agencies. We trust that the briefing I gave will help you understand these matters from our perspective. TPL needs to move forward with the Closure Plan submitted over a year ago and amended and annotated by our staff, or, submit an alternate plan that is acceptable to us and adequately addresses the RCRA waste(s) at the site.

We look forward to your response.

Sincerely,

Mark E. Weidler  
Secretary

CC: Benito Garcia, Chief, HRMB  
Susan McMichael

**ENRON  
OPERATIONS CORP.**

P. O. Box 1188 Houston, Texas 77251-1188

(713) 853-1818

OIL CONSERVATION DIVISION  
RECEIVED

AM 8 52

March 13, 1996

**VIA FEDERAL EXPRESS**

Mr. Benito Garcia  
Hazardous and Radioactive Materials Bureau  
New Mexico Environment Department  
Harold Runnels Bldg.  
P. O. Box 26110  
Santa Fe, NM 87502

**RE: Transwestern Pipeline Company  
Roswell Compressor Station**

*Dear Benito:*

As you may recall, a great deal of discussion at our meeting last week centered around a shallow soil gas survey conducted for Transwestern in 1990. Concerns were raised as to whether or not Transwestern's proposed Phase II assessment plan, which Transwestern provided to the HRMB staff in December, 1995, adequately addressed possible TCA contamination identified in the survey (see attached Figure 3-2 from the January, 1995, closure plan). Because a considerable amount of time had passed since the soil gas survey, recalling the details of that event during our meeting was difficult at best. However, as I indicated during the meeting, the soil gas survey issue had been addressed with soil borings and soil sample analysis. That information has been made available to the HRMB and the OCD for review as presented below.

The first soil borings drilled to assess the apparent TCA soil gas plume were drilled during Spring 1990 by HLA. During this assessment, three soil borings were advanced near the center of the soil gas plume and two borings were advanced at the perimeter (see attached Figure 3-3 from the January, 1995, closure plan). Soil sample analyses for halocarbons were completed in an on-site lab on samples from two of the five soil borings, SB9-6 and P9-OS-349. The soil sample analysis results from these two borings indicated the samples were non-detect for 1,1,1-TCA (see attached Table 3-2 pages 1 & 2 from the January, 1995, closure plan).

The second set of soil borings drilled to assess the apparent TCA soil gas plume were drilled during mid-1991 by Metric Corporation. One of the primary objectives of this assessment was to re-evaluate the apparent TCA soil gas plume due to questionable analytical methods and quality assurance measures utilized by the on-site lab used during the previous assessment program. During the Metric assessment, three soil borings were advanced near the center of the soil gas plume and one boring was advanced at the perimeter (see attached Figure 3-4 from the January,



Mr. Benito Garcia

March 13, 1996

Page 2

1995, closure plan). Soil sample analyses were completed for 22 soil samples collected from these four soil borings. The soil sample analysis results indicated the samples were all non-detect for 1,1,1-TCA (see attached Table 3-2 pages 3-5 from the January, 1995, closure plan). Note that seven of the soil samples analyzed were obtained from a boring, SG-349, which was located adjacent to the location of the highest soil gas measurement.

Although it appears to Transwestern that the issue of adequate characterization of the apparent soil gas plume has been properly addressed, Transwestern is taking another close look at the entire plan and would appreciate any comments or suggestions you or your staff may have with respect to the proposed Phase II assessment plan, including any issues related to the soil gas surveys.

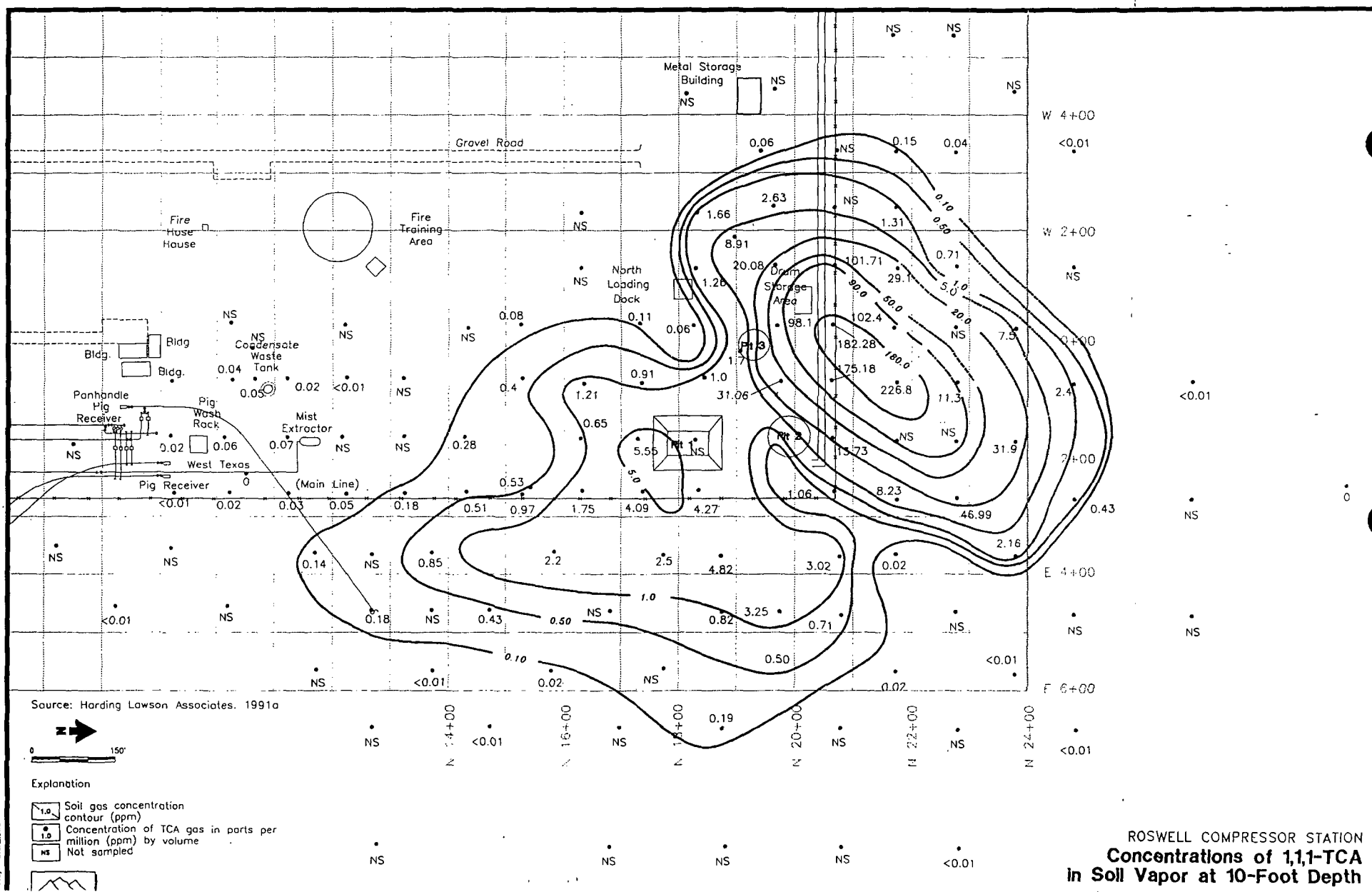
Please contact me at your earliest convenience at (713) 853-7644 so that we may discuss this specific issue in greater detail.

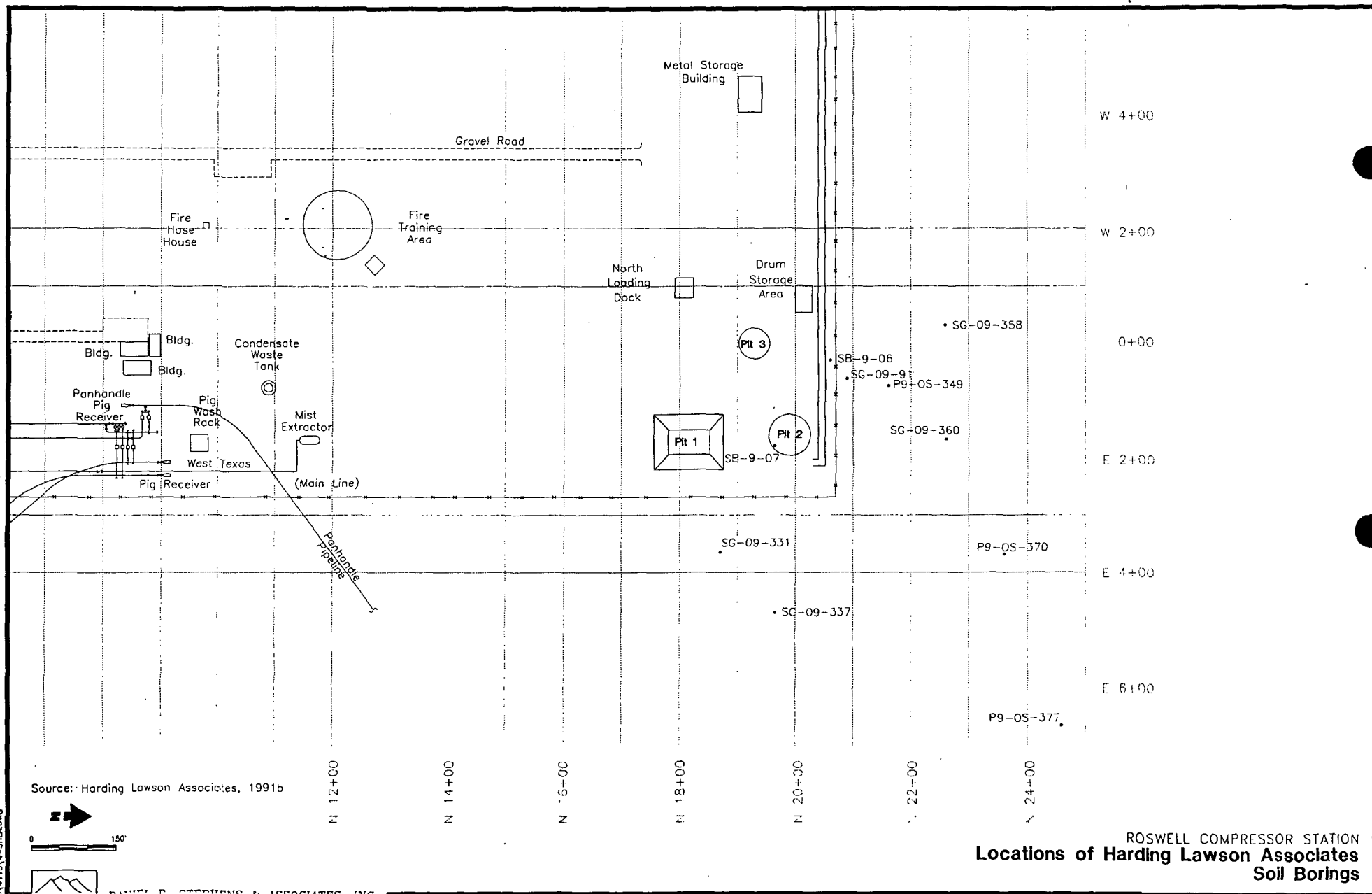
Sincerely,



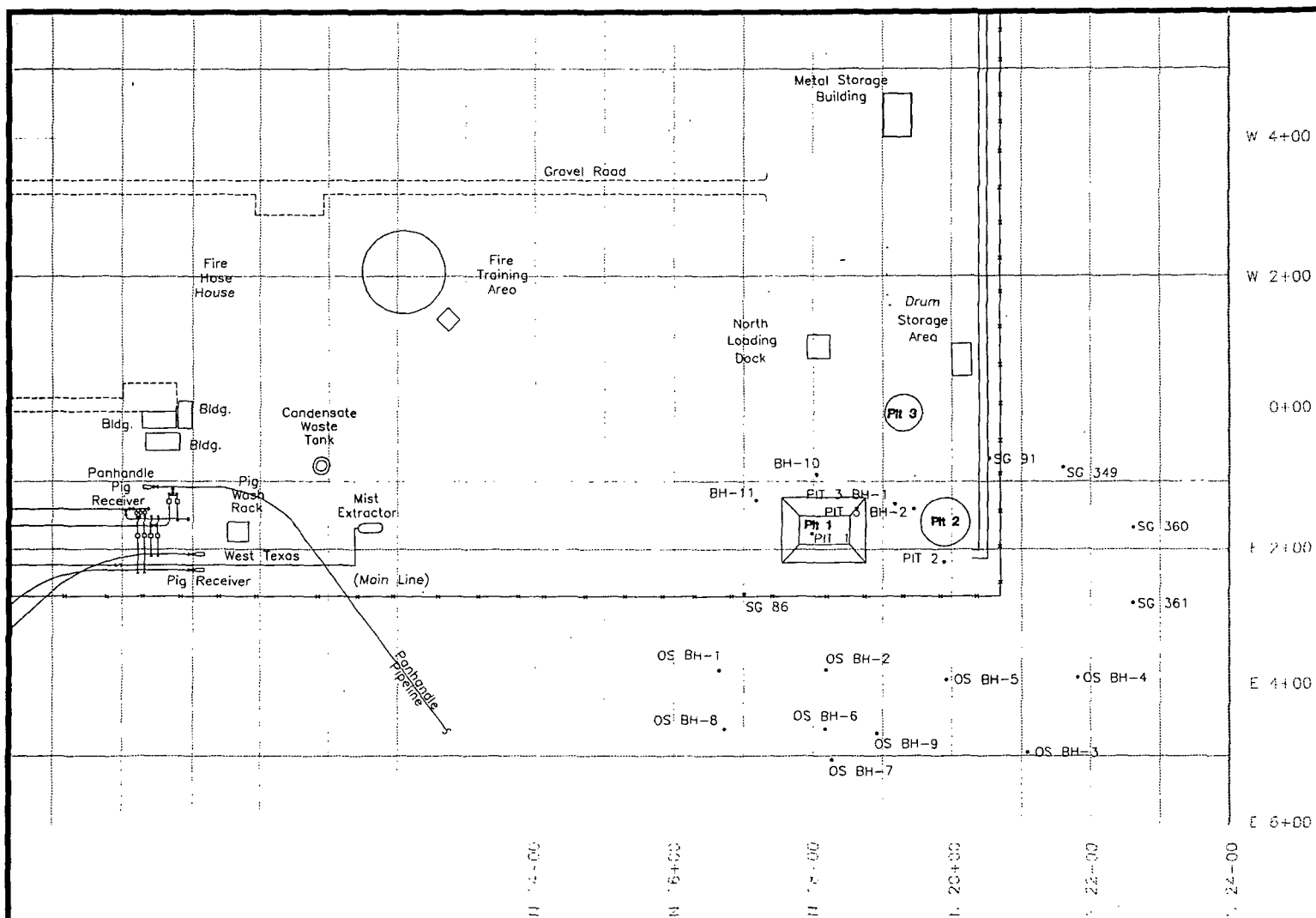
Bill Kendrick  
Manager, Projects Group  
Environmental Affairs Dept.

xc:	Mark Weidler	NMED Secretary
	Susan McMichaels, Esq.	NMED Office of the General Counsel
	Roger Anderson	NMOCD
	Joe Hulscher	Transwestern Pipeline Company
	Larry Campbell	Transwestern Pipeline Company
	George Robinson, P.E.	Cypress Engineering Services
	Lou Soldano, Esq.	ENRON Operations Corp.
	Richard L. C. Virtue, Esq.	Taichert, Wiggins, Virtue & Najjar

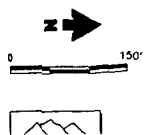




ROSWELL COMPRESSOR STATION  
 Locations of Harding Lawson Associates  
 Soil Borings



Source: Metric Corporation, 1991



ROSWELL COMPRESSOR STATION  
Locations of Metric Corporation  
Soil Borings



Table 3-2. Summary of Organic Compounds Detected in Soil Samples  
Roswell Compressor Station No. 9  
Page 1 of 6

Sample ID	Source <sup>2</sup>	Concentration <sup>1</sup>													
		1,1,1-TCA	1,1-DCA	Acetone	Chloro- benzene	Chloro- form	PCA	PCE	Freon- 113	Methylene chloride	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TPH (mg/kg)
SB9-6 @ 8-11'	HLA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<20
SB9-6 @ 18-20'	HLA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<20
SB9-6 @ 20-23'	HLA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	120
SB9-6 @ 26-28'	HLA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<20
SB9-6 @ 26-28' Tube #5	HLA	<5	ND	<10	<5	ND	<5	ND	6	16	ND	ND	<5	<5	<20
SB9-6 @ 26-28' Tube #6	HLA	<7	ND	<14	<7	ND	<7	ND	23*	9*	ND	ND	<7	<7	<20
SB9-7 @ 9-12'	HLA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1100
SB9-7 @ 21.5-24'	HLA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2000
SB9-7 @ 25.5-28'	HLA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2500
SB9-7 @ 29-32'	HLA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11000
SB9-7 @ 29-32' Tube #7	HLA	<1300	ND	<2600	<1300	ND	<1300	ND	5100	<1300	ND	ND	720	1800	5000
SB9-7 @ 35-37'	HLA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4600
SB9-7 @ 35-37' Tube #8	HLA	<640	ND	<1300	<640	ND	<640	ND	<640	<640	ND	ND	1800	4200	13000
SB9-7 @ 35-37' Tube #9	HLA	2000	ND	<1300	<670	ND	2100	ND	<670	<670	ND	ND	2800	6500	30000
P9-OS-349 @ 5'	HLA	<5	ND	<11	<5	ND	<5	ND	26*	6*	ND	ND	<5	<5	<20
P9-OS-349 @ 10'	HLA	<6	ND	<11	<6	ND	<6	ND	18	9	ND	ND	<6	<6	100
P9-OS-349 @ 20'	HLA	<5	ND	<11	<5	ND	<5	ND	45*	<5*	ND	ND	<5	<5	<20
P9-OS-349 @ 25'	HLA	<5	ND	<11	<5	ND	<5	ND	21	10	ND	ND	<5	<5	100

<sup>1</sup> Concentrations are in µg/kg unless otherwise noted

<sup>2</sup> HLA = Harding Lawson Associates (1991a)

Metric = Metric Corporation (1991)

B&R = Brown and Root Environmental (1993)

Note: All HLA analyses performed in on-site mobile laboratory

1,1,1-TCA = 1,1,1-Trichloroethane

1,1-DCA = 1,1-Dichloroethane

PCA = Tetrachloroethane

PCE = Tetrachloroethene

Freon-113 = 1,1,2-Trichloro-1,2,2-trifluoroethane

TPH = Total petroleum hydrocarbons

NA = Not analyzed

ND = Not detected

\* = Compound was also detected in the QC blanks



Table 3-2. Summary of Organic Compounds Detected in Soil Samples  
Roswell Compressor Station No. 9  
Page 2 of 6

Sample ID	Source <sup>2</sup>	Concentration <sup>1</sup>													
		1,1,1-TCA	1,1-DCA	Acetone	Chloro-benzene	Chloro-form	PCA	PCE	Freon-113	Methylene chloride	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH (mg/kg)
P9-OS-349 @ 30'	HLA	<7	ND	<14	<7	ND	<7	ND	45*	<7	ND	ND	<7	<7	<20
P9-OS-349 @ 35'	HLA	<7	ND	<14	<7	ND	<7	ND	39	15	ND	ND	<7	<7	<20
P9-OS-349 @ 40'	HLA	<5	ND	<10	<5	ND	<5	ND	40	8	ND	ND	<5	<5	<20
P9-OS-377 @ 5'	HLA	<6	ND	34*	<6	ND	<6	ND	<6	<6	ND	ND	<6	<6	200
P9-OS-377 @ 10'	HLA	<6	ND	27*	<6	ND	<6	ND	<6	<6	ND	ND	<6	<6	<20
P9-OS-377 @ 15'	HLA	<6	ND	27*	<6	ND	<6	ND	<6	11	ND	ND	<6	<6	<20
P9-OS-377 @ 20'	HLA	<7	ND	37*	<7	ND	<7	ND	<7	7	ND	ND	<7	<7	<20
P9-OS-377 @ 25'	HLA	<6	ND	<12	<6	ND	<6	ND	46	36	ND	ND	<6	<6	<20
P9-OS-377 @ 30'	HLA	<7	ND	<13	<7	ND	<7	ND	69	23	ND	ND	<7	<7	<20
Pit 1 @ 2.8-3.0'	Metric	3200	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	25000
Pit 1 @ 9.2-9.4'	Metric	19000	ND	NA	ND	ND	ND	260	NA	ND	NA	NA	NA	NA	39000
Pit 1 @ 13.5-13.7'	Metric	18000	590	NA	ND	200	ND	330	NA	ND	NA	NA	NA	NA	55000
Pit 1 @ 18.8-19.0'	Metric	330	ND	NA	ND	ND	ND	870	NA	ND	NA	NA	NA	NA	20000
Pit 1 @ 26.8-27.0'	Metric	ND	ND	NA	ND	ND	ND	160	NA	ND	NA	NA	NA	NA	11000
Pit 1 @ 30.6-30.8'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	16
Pit 1 @ 41.6-41.8'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	16
Pit 1 @ 43.5-43.7'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	56

<sup>1</sup> Concentrations are in µg/kg unless otherwise noted

<sup>2</sup> HLA = Harding Lawson Associates (1991a)

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Table 3-2. Summary of Organic Compounds Detected in Soil Samples  
Roswell Compressor Station No. 9  
Page 3 of 6

Sample ID	Source <sup>2</sup>	Concentration <sup>1</sup>													
		1,1,1-TCA	1,1-DCA	Acetone	Chloro-benzene	Chloro-form	PCA	PCE	Freon-113	Methylene chloride	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH (mg/kg)
Pit 2 #1 @ 18.7-18.9'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND
Pit 2 #2 @ 18.7-18.9'	Metric	370	ND	NA	ND	ND	ND	650	NA	ND	NA	NA	NA	NA	13000
Pit 2 @ 26.0-26.2'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	170
Pit 2 @ 29.1-29.3'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND
Pit 2 @ 39.8-39.9'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	2600
Pit 2 @ 44.1-44.3'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	44
Pit 2 @ 57.5-57.8'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	250
Pit 2 @ 69.9-70.1'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
Pit 3 BH-1 @ 30.7-30.9'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
Pit 3 BH-2 @ 25.0-25.2'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
SG 86 @ 13.5-13.7'	Metric	240	ND	NA	ND	ND	ND	1900	NA	ND	NA	NA	NA	NA	18000
SG 86 @ 18.7-18.9'	Metric	ND	ND	NA	ND	ND	ND	230	NA	ND	NA	NA	NA	NA	5200
SG 86 @ 24.9-25.1'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND
SG 86 @ 35.0-35.2'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	8.0
SG 86 @ 40.5-40.7'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
SG 91 @ 28.6-28.8'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
SG 349 @ 0.0-1.8'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND
SG 349 @ 2.9-4.6'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND

<sup>1</sup> Concentrations are in µg/kg unless otherwise noted

<sup>2</sup> HLA = Harding Lawson Associates (1991a)

Metric = Metric Corporation (1991)

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Note: All HLA analyses performed in on-site mobile laboratory

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Roswell Compressor Station No. 9  
Page 4 of 6

Sample ID	Source <sup>2</sup>	Concentration <sup>1</sup>													
		1,1,1-TCA	1,1-DCA	Acetone	Chloro- benzene	Chloro- form	PCA	PCE	Freon- 113	Methylene chloride	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TPH (mg/kg)
SG 349 @ 9.0-10.0'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND
SG 349 @ 14.0-14.8'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND
SG 349 @ 20.3-21.3'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND
SG 349 @ 5.3-26.3'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND
SG 349 @ 29.7-30.4'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
SG 360 @ 0.0-2.5'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND
SG 360 @ 4.0-5.0'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND
SG 360 @ 9.0-9.9'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND
SG 360 @ 14.0-14.7'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND
SG 360 @ 19.0-20.0'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND
SG 360 @ 24.0-25.0'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND
SG 360 @ 29.0-29.4'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	2.0
SG 361 @ 0.0-2.5'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND
SG 361 @ 4.0-5.0'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND
SG 361 @ 9.0-10.0'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND
SG 361 @ 16.0-16.4'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND
SG 361 @ 19.5-19.8'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND
SG 361 @ 24.0-25.0'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND

<sup>1</sup> Concentrations are in µg/kg unless otherwise noted

<sup>2</sup> HLA = Harding Lawson Associates (1991a)

Metric = Metric Corporation (1991)

B&R = Brown and Root Environmental (1993)

Note: All HLA analyses performed in on-site mobile laboratory

1,1,1-TCA = 1,1,1-Trichloroethane

1,1-DCA = 1,1-Dichloroethane

PCA = Tetrachloroethane

PCE = Tetrachloroethene

Freon-113 = 1,1,2-Trichloro-1,2,2-trifluoroethane

TPH = Total petroleum hydrocarbons

NA = Not analyzed

ND = Not detected

\* = Compound was also detected in the QC blanks





Table 3-2. Summary of Organic Compounds Detected in Soil Samples  
Roswell Compressor Station No. 9  
Page 5 of 6

Sample ID	Source <sup>2</sup>	Concentration <sup>1</sup>													
		1,1,1-TCA	1,1-DCA	Acetone	Chloro-benzene	Chloro-form	PCA	PCE	Freon-113	Methylene chloride	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH (mg/kg)
SG 361 @ 38.0-39.3'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND
OS BH-1 @ 18.9-19.1'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	12
OS BH-1 @ 34.3-34.5'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND
OS BH-2 @ 9.9-10.1'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND
OS BH-2 @ 22.5-22.6'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND
OS BH-2 @ 31.1-31.3'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	68
OS BH-2 @ 41.8-42.0'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	24
OS BH-2 @ 55.2-55.4'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	16
OS BH-2 @ 69.0-69.2'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	16
OS BH-3 @ 21.0-21.2'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
OS BH-3 @ 44.1-44.3'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	16
OS BH-3 @ 54.7-55.0'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	16
OS BH-4 @ 27.5-27.7'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND
OS BH-5 @ 14.0-14.2'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND
OS BH-5 @ 19.6-19.9'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	16
OS BH-5 @ 23.4-23.6'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	12
OS BH-6 @ 13.6-13.8'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	12
OS BH-6 @ 47.0-47.2'	Metric	ND	ND	NA	ND	ND	ND	ND	NA	ND	NA	NA	NA	NA	ND

<sup>1</sup> Concentrations are in µg/kg unless otherwise noted

<sup>2</sup> HLA = Harding Lawson Associates (1991a)

Metric = Metric Corporation (1991)

B&R = Brown and Root Environmental (1993)

Note: All HLA analyses performed in on-site mobile laboratory

1,1,1-TCA = 1,1,1-Trichloroethane

1,1-DCA = 1,1-Dichloroethane

PCA = Tetrachloroethane

PCE = Tetrachloroethene

Freon-113 = 1,1,2-Trichloro-1,2,2-trifluoroethane

TPH = Total petroleum hydrocarbons

NA = Not analyzed

ND = Not detected

\* = Compound was also detected in the QC blanks

## **Roger Anderson**

---

**From:** Carol Leach  
**Sent:** Wednesday, February 28, 1996 9:45 AM  
**To:** William Lemay; Jennifer Salisbury; Roger Anderson; Rand Carroll  
**Subject:** ED/OCD

After the Mining Commission yesterday I spent some time with Ed Kelley regarding the Transwestern issue. He will not be at today's meeting. He said he was concerned the OCD rules would not require a clean-up of the vadose zone and therefor no real clean up would be accomplished. Is that true? He went on to say if we could force the vadose zone cleanup then he did not care who supervised it.



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
2040 S. PACHECO  
SANTA FE, NEW MEXICO 87505  
(505) 827-7131

February 28, 1996

Mr. Ed Kelly, Director  
Water and Waste Management Division  
New Mexico Environment Department  
1190 St. Francis Drive  
Santa Fe, New Mexico 87501

Re: Duplication of Enforcement Activities

Dear Mr. Kelly:

It has come to my attention that there is a duplication of effort in enforcement of state laws and regulations relative to the oil and gas industry. With the Governor's programs for reducing the size of state government it becomes incumbent on all of us to become more efficient in the use of our staff to carry out our regulatory responsibilities. The duplication of permitting and regulatory oversight of facilities and activities in the oil and gas industries is, in my opinion, not efficient use of limited resources.

Two cases of duplication have recently come to light. One is the cleanup of contamination resulting from the illegal dumping of a hydrocarbon by unknown persons. The site is adjacent to the Weskem-Hall facility, an Oil Conservation Division (OCD) permitted facility. The other case is the continuing investigation of groundwater contamination at the Dowell Schlumberger facility in Artesia, also an OCD permitted facility.

As a constituent agency of the Water Quality Control Commission (WQCC) and pursuant to WQCC Delegation of Authority dated July 21, 1989, the OCD has been delegated the responsibility of administering and enforcing WQCC Regulations pertaining to the oil and gas industry. The OCD has permitted the above mentioned facilities and many other similar facilities throughout the oil fields in New Mexico.

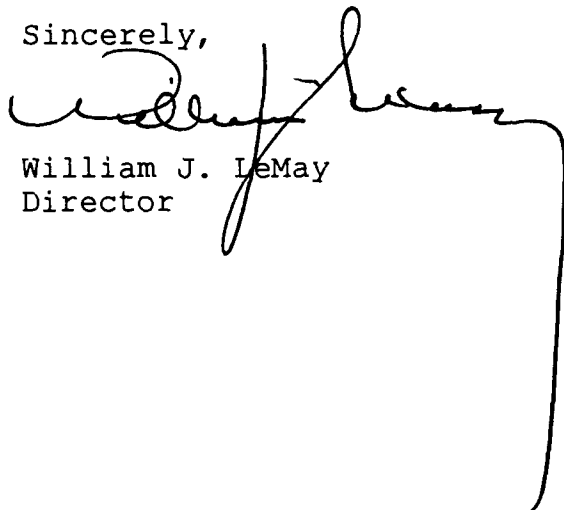
In the past the staffs of both OCD and ED have worked very well together in case referral and consultation in an effort to obtain

Mr. Ed Kelly  
February 28, 1996  
Page -2-

the best possible protection of our environment with the limited resources at our disposal. Both staffs have maintained a mutual respect for each others technical abilities to enforce the rules and regulations of each agency and an appreciation for each other's job.

I believe it would be appropriate for us and our staffs to meet, discuss and try to resolve these issues and make a commitment to eliminate any duplication of efforts.

Sincerely,

A handwritten signature in dark ink, appearing to read 'William J. LeMay', is written over the typed name. The signature is fluid and cursive, with a long, sweeping underline that extends downwards and to the right.

William J. LeMay  
Director

**ENRON**  
**Transwestern Pipeline Company**

P. O. Box 1188 Houston, Texas 77251-1188 (713) 853-6161

February 28, 1996

**VIA FAX (505) 438-3855**

Ms. Jennifer A. Salisbury  
Cabinet Secretary  
Energy, Minerals, and Natural Resources Department  
2040 S. Pacheco  
Santa Fe, New Mexico 87505

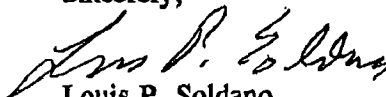
**Re: Roswell Site - Pending Transwestern Pipeline Company Phase II Assessment**

Dear Ms. Salisbury:

At the request of the New Mexico Environment Department, Transwestern Pipeline Company ("Transwestern") respectfully requests that the New Mexico Oil Conservation Division postpone granting approval of the pending "WORK PLAN FOR PHASE II SOIL AND GROUND WATER ASSESSMENT FOR ROSWELL COMPRESSOR STATION NO. 9 SURFACE IMPOUNDMENTS" which was submitted by Transwestern on December 20, 1995 until March 11, 1996.

If you should have any questions, please call me at (713) 853-7237.

Sincerely,



Louis P. Soldano  
Senior Counsel

cc: Mr. Mark Weidler  
Ms. Susan McMichael, Esq.  
Mr. Roger Anderson  
Mr. Richard Virtue, Esq.

Secretary, Environmental Department  
VIA Fax (505) 827-2836  
Office of the General Counsel, NMED  
Via Hand Delivery  
Environmental Bureau Chief, NMOCD  
Via Fax (505) 827-8177  
Via Fax (505) 983-8304

lrs/ocd.1



GARY E. JOHNSON  
GOVERNOR

State of New Mexico  
**ENVIRONMENT DEPARTMENT**  
Harold Runnels Building  
1190 St. Francis Drive, P.O. Box 26110  
Santa Fe, New Mexico 87502  
(505) 827-2850

MARK E. WEIDLER  
SECRETARY

EDGAR T. THORNTON, III  
DEPUTY SECRETARY

ALSO VIA TELEFAX

February 23, 1996

Jennifer Salisbury, Secretary  
Energy & Minerals Department  
2040 S. Pacheco  
Santa Fe, New Mexico 87505

Re: Transwestern Pipeline Co., Roswell Compressor Station

Dear Ms. <sup>JENNIFER</sup> Salisbury:

We were informed that the New Mexico Oil Conservation Division (OCD) is reviewing and may take action on the work plan submitted by Transwestern Pipeline Company (TPC) for cleanup associated with groundwater contamination at the Roswell Compressor Station. This letter is to request that OCD delay any proposed action on this plan for ten (10) days or until March 4, 1996.

TPC previously submitted a RCRA closure plan for this site to NMED, which has been approved by NMED and is ready for public notice. We delayed formal public notice of the plan upon request by TPC. The regulatory issues associated with TPC's proposed remediation are complex and have state-wide and nation-wide implications. We are requesting this delay to allow time to discuss these important issues with you prior to approval by OCD. We hope to resolve this matter as expeditiously as possible and avoid future potential conflict or dispute.

Thank you for your cooperation in this matter. Please contact me if you have any questions.

Sincerely,

MARK WEIDLER  
Secretary

cc: Bill LeMay, OCD  
Roger Anderson, OCD  
Ed Kelley, NMED  
Benito Garcia, NMED

Post-it® Fax Note	7671	Date	2/23/96	# of pages	1
To	Jennifer Salisbury	From	Mark E. Weidler		
Co./Dept.		Co.			
Phone #		Phone #	2834		
Fax #	438 3855	Fax #	1628		

TAICHERT, WIGGINS, VIRTUE & NAJJAR  
A PARTNERSHIP OF PROFESSIONAL CORPORATIONS  
LAWYERS

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BRUCE E. WIGGINS  
LORNA M. WIGGINS  
THOMAS E. BROWN III  
CHARLOTTE LAMONT  
NANETTE M. LANDERS

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FAX: (505) 983-8304

TOLL FREE: (505) 867-0960  
(ALBUQUERQUE TO SANTA FE)

February 19, 1996

BY FACSIMILE TO (505) 827-2836

Ms. Susan McMichael, Esq.  
Assistant General Counsel  
State of New Mexico  
Environment Department  
Harold Runnels Bldg.  
P.O. Box 26110  
Santa Fe, NM 87502

Transwestern Pipeline Company ("TW") -  
Roswell Compressor Station

Dear Ms. McMichael:

This letter responds to your letter dated February 1, 1996 concerning the above-referenced matter. Thank you for setting forth for us some of the analysis that underlies the position of the New Mexico Environment Department ("NMED").

TW has closely reviewed your letter. The conclusions reached by NMED concerning NMED jurisdiction all flow from the assumption that "hazardous waste" within the meaning of the Federal Resource Conservation and Recovery Act ("RCRA") were disposed of at the Roswell Compressor Station. TW's investigation of the matter indicates that no "hazardous waste" under RCRA was "disposed" of at the Roswell Compressor Station; therefore, no basis for closure under RCRA exists. TW continues to believe that NMED concerns can be addressed in the context of the New Mexico Oil Conservation Division ("OCD") remediation process that has been ongoing.

TW continues to emphasize that TW originally called this matter to the attention of NMED, that TW subsequently determined that its original analysis of this matter was likely erroneous and needed to be reviewed, that TW has met with NMED on numerous occasions to discuss this matter in good faith effort to resolve it reasonably, that TW has conducted on its own initiative an

Susan McMichael  
February 19, 1996  
Page -2-

extensive investigation of the site, that TW has pursued and intends to continue pursuing remediation activities under the authority of the OCD, and that OCD has provided NMED with an opportunity for input into that process. Thus, the issue is not whether a remediation will be conducted at the Roswell Compressor Station, but rather, what is the appropriate approach to remediation under all the circumstances including legal, technical and policy matters. TW continues to believe that the approach it is proposing is not only legally correct, but also makes sense as a technical and policy matter.

We believe that it would be helpful to summarize the basic legal authority supporting the position of TW. We will then respond to the major points in your letter.

Two distinct legal issues are presented in your letter. First, NMED asserts that the Roswell Compressor Station is a treatment, storage or disposal ("TSD") facility within the meaning of the New Mexico Hazardous Waste Act ("HWA") and RCRA. Second, your letter asserts that NMED has authority to require corrective action, even if the Roswell Compressor Station is not a TSD facility.

## I. General Legal Analysis

### A. TSD Facility Permit

Section 74-4-4(A), NMSA 1978 authorizes the New Mexico Environmental Improvement Board ("EIB") to adopt regulations for the "management of hazardous waste". Section 74-4-4(A)(6) is the governing provision with respect to when a RCRA permit is required. That section states that "an existing facility...for the treatment, storage or disposal of hazardous waste identified or listed under this subsection" must have a permit. Subsection (1) of Section 74-4-4(A) states:

"the board shall not identify or elect any solid waste or any combination of solid waste as a hazardous waste that has not been listed and designated as a hazardous waste by the Federal Environmental Protection Agency pursuant to the federal Resource Conservation and Recovery Act of 1976 as amended".

TW's analysis is that in order for a facility to be required to obtain a permit as a TSD facility, the facility must be an "existing" facility "for the ... disposal" of "hazardous waste identified or listed" under RCRA. TW's investigation has determined that none of the wastes disposed of at the Roswell



Susan McMichael  
February 19, 1996  
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Compressor Station were "hazardous waste listed or identified" under RCRA at the time of disposal. Therefore, the Roswell Compressor Station is not "an existing facility ... for the treatment, storage or disposal of hazardous waste identified or listed" under RCRA.

#### B. Corrective Action

Section 74-4-4(A)(5)(h) is the provision of the HWA governing corrective action. That section provides that the EIB may adopt performance standards applicable to "owners and operators of facilities for the treatment, storage or disposal of hazardous waste identified or listed under this section" that require the taking of "corrective action for all releases of hazardous waste or constituents from any solid waste management unit at a treatment, storage or disposal facility regardless of the time at which the waste was placed in the unit". Your letter relies heavily on the quoted language to support the assertion that NMED has authority to require corrective action under RCRA and HWA.

Again, disposal of "hazardous waste" must have occurred at a "facility for the treatment, storage or disposal" of hazardous waste for this section to apply. Because the releases which have occurred at the facility were not of "hazardous waste listed or identified" under HWA or RCRA at the time of the disposal, no "hazardous waste" was "disposed of" at the facility. Because the facility was never a TSD facility under the meaning of the HWA, the corrective action requirements of §74-4-4(A)(5)(h) do not apply.

You specifically refer in your letter to the language indicating that hazardous "constituents" are subject to corrective action. We do not agree that this language requires corrective action at a facility where a substance that is currently a "hazardous constituent" was disposed of in the past, but that substance was not a "hazardous waste" at the time of disposal. The lead sentence in subsection 74-4-4(A)(5) specifically makes the corrective action performance standards applicable to the disposal of "hazardous wastes identified or listed" under HWA. If a substance that is a "hazardous waste" at the time of disposal is disposed of, then the "hazardous constituents" of the "hazardous waste" are subject to corrective action. However, if the constituents that were originally disposed of did not constitute "hazardous waste" at the time of disposal, we do not believe subsection (5)(h) applies.

Susan McMichael  
February 19, 1996  
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The NMED position with respect to the RCRA permitting requirement seems to be based upon the premise that the definition term "disposal" includes "leaking" of hazardous waste. In order for this definition to apply, the leak must have occurred from an "existing facility" and the leak must be of "hazardous waste". The only facility from which a "leak" is alleged to have occurred is the surface impoundments at the site. These surface impoundments were taken out of service before adoption of the solvent mixture rule. Because the surface impoundments were taken out of service prior to the adoption of the solvent mixture rule, we do not believe the surface impoundments are "existing facilities" within the meaning of RCRA and its regulations. Moreover, we do not believe that NMED can establish that "leaking" from those impoundments has occurred since the effective date of the solvent mixture rule, because the impoundments were closed long before that date. Finally, we believe the term "leak" does not apply to movement of substances from a surface impoundment.

TW believes that its construction is consistent with a reading of all the provisions of the RCRA permitting requirements, not just the definition of "disposal", to determine the real intent of RCRA. We believe that NMED's interpretation would lead to unreasonable results: the movement of any substance that was previously deposited or released from any type of facility, if the substance was subsequently determined to be "hazardous waste", would automatically make the facility at which the substance was previously released a treatment storage or disposal facility under RCRA. We do not believe this interpretation is supported by the provisions of RCRA when read as a whole.

The solvent mixture rule was adopted by EPA on December 31, 1985 and became effective April 30, 1986. The surface impoundments at issue here were taken out of service prior to adoption of the solvent mixture rule. In short, TW's position is that the solvent mixture rule does not apply retroactively to the Roswell Compressor Station in such a manner that the site is a TSD facility or that corrective action is required, because no hazardous waste (or hazardous constituents) have been disposed of at the facility after the date of adoption of the solvent mixture rule.

## **II. Response to NMED's Factual Analysis**

### **A. Alleged Prior Use of 100% 1,1,1-trichloroethane ("TCA")**

Your letter refers to a statement made on page 8 of the closure plan prepared by Daniel B. Stevens & Associates, Inc., dated

Susan McMichael  
February 19, 1996  
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January 16, 1995. The statement is that "this solvent product contained 100% 1,1,1-TCA". TW does not believe that our October 11, 1995 letter "flatly contradicts data supplied" in the closure plan. The statement in the closure plan simply indicates that a solvent product was used at the facility. That statement was based upon an erroneous assumptions. No statement is made that the solvent product was disposed of or used in 100% solution. In fact, TW's subsequent investigation indicated that the solvent that was used did not contain 100% TCA. The subsequent investigation by TW was conducted for the purpose of determining whether the solvent used at the facility was in fact used in 100% solution and or disposed of in 100% solution. The statement made in the closure plan is not inconsistent with the position taken in the October 11, 1995 letter. In fact, the investigation serves to clarify the statement made in the closure plan.

#### **B. Data Obtained by NMED at the Facility**

Your letter makes reference to objective data in the possession of the NMED that TW disposed of hazardous waste at the site after 1980, but failed to identify the nature of such data other than statements and reports prepared for TW. Such data is public record under §74-4-4.3(D), NMSA 1978. If the NMED will identify what data the NMED believes supports the NMED conclusions, TW will carefully review such data and reevaluate its position.

#### **C. Presence of Low Concentrations of Halogenated Organic Compounds**

Confusion exists over the point TW has been trying to make with respect to low concentrations of halogenated organic compounds at the site. TW's position is simply that the mere presence of such compounds does not necessarily give rise to RCRA jurisdiction. The origin of the compounds, the nature of their use and migration into the environment, and the regulations in effect at the time must all be carefully analyzed to determine if RCRA jurisdiction is applicable. The NMED has not presented a specific analysis of these factors to TW. NMED's focus on the presence of hazardous constituents is merely the first step in the required analysis of the applicability of RCRA. When the nature of the use of the constituents and the law and regulations in effect at the time of release are factored into the analysis, RCRA does not apply.

Susan McMichael  
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#### D. Regulatory Status of Natural Gas Compressor Stations

TW's point is that its position is consistent with the regulatory programs in place with respect to facilities such as the Roswell Compressor Station. The vast majority of petroleum hydrocarbon contamination in the United States is handled as non-hazardous and non-RCRA. Congress provided a specific statutory exemption from RCRA for exploration and production wastes much of which tends to be petroleum hydrocarbons. You attached to your letter documents from EPA asserting EPA's position that the RCRA petroleum exemption does not apply to TW-related wastes. TW's point is that the substances at issue here were not hazardous wastes at the time of disposal. Therefore, the scope of the RCRA petroleum exemption need not be addressed.

The State of New Mexico's Underground Storage Tank Program manages hydrocarbon contamination outside of RCRA's hazardous waste regulations. These are the exact same compounds that comprise nearly 100% of the substances that the NMED is seeking to manage as hazardous wastes. There is no difference in the nature of the compounds themselves; the difference exists only in the regulatory framework which the NMED is seeking to impose on the compounds.

Finally, TW has relied on the proposed Hazardous Waste Identification Rule to point out the EPA has recognized that many compounds, such as the halogenated compounds present which are a fraction of the contamination present at this site, are not appropriately regulated under current RCRA regulations. From a practical point of view the OCD is the appropriate agency to have primary authority over remediation activities at the site.

### III. Alternative Approaches

#### A. OCD Remediation with NMED Input

TW's proposes to enter into discussions with NMED with the goal of reaching an agreement under which the OCD remediation would be the primary remediation at the site with appropriate oversight by NMED to address NMED's concerns with respect to hazardous constituents. OCD has provided NMED an opportunity to comment on the assessment plan. The OCD regulatory process is already underway, and NMED has been invited to participate in that process. Thus, a structure already exists under which remediation of the site can occur pursuant to the existing OCD process, with appropriate input and oversight by NMED.

Susan McMichael  
February 19, 1996  
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#### **B. Further Investigation, and Hearing, If Necessary**

If NMED is not prepared to pursue TW's proposal at this time, then TW proposes that TW and NMED agree to an orderly procedure to address the issues. According to your February 1, 1996 letter NMED possesses information concerning the site that it has not made available to TW, but which is, as a matter of law, public record. NMED would provide that data to TW so that it can reassess its position in view of the data. After such review, NMED and TW would determine whether an additional investigation would be useful.

After completion of the additional review and investigation, TW would request that the Secretary of NMED review this matter, and allow TW to make its representatives available to answer any questions the Secretary may have with respect to the administrative record as it exists.

If issues still remain after the additional investigation and review thereof by the Secretary, TW believes that the Secretary has the authority to appoint a hearing officer to set a hearing on any remaining issues pursuant to Section 74-4-4.2(H) and make recommendations to the Secretary. Section 74-4-4.2(H) provides that no ruling shall be made on "permit issuance" without an opportunity for public hearing. Because of the issues that have been raised with respect to applicability of RCRA, we believe the Secretary could order an initial hearing to address the RCRA issues presented by TW on which TW, NMED and the public would have an opportunity to present evidence on any outstanding issues related to the applicability of RCRA. This process would provide for an orderly and comprehensive development of the facts and issues.

#### **C. Petition to EIB for Clarifying Regulation**

A final option would be for TW to file a petition with the EIB under Section 20 NMAC1.1 Part III of the EIB regulations. Such a petition would request the EIB to adopt a new regulation which would specify the regulatory treatment of facilities such as the Roswell Compressor Station in which jurisdiction resides in the OCD, but hazardous constituents are present. Such a petition would request a clarifying rule to resolve these matters. TW intends to pursue this alternative, if this matter is not resolved through the other options presented.


TW desires to continue to work with NMED to come up with creative, workable solutions to remediation at the Roswell Compressor Station in a manner which will address NMED concerns,

Susan McMichael  
February 19, 1996  
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and at the same time not require TW to embark upon a regulatory process that simply does not apply either legally or practically to the Roswell Compressor Station. We trust that continuing discussions with NMED concerning this matter will result in a creative and satisfactory solution.

Very truly yours,

TAICHERT, WIGGINS, VIRTUE & NAJJAR

By   
Richard L. C. Virtue  
Santa Fe Office

cc: Hon. Mark Weidler	NMED Cabinet Secretary
Ed Kelly	NMED Hazardous and Radioactive Materials Bureau
Lou Soldano, Esq.	ENRON Operations Corp. Legal
Frank Smith, Esq.	ENRON Corp. Legal
Dave Nutt, Esq.	ENRON Corp. Legal
Bill Kendrick	ENRON Operations Corp. Environmental Affairs
Roger Anderson	New Mexico Oil Conservation Division

RLCV:mm  
enron\mcmicha2.1tr



GARY E. JOHNSON  
GOVERNOR

State of New Mexico  
**ENVIRONMENT DEPARTMENT**  
Hazardous & Radioactive Materials Bureau  
2044 Galisteo  
P.O. Box 26110  
Santa Fe, New Mexico 87502  
(505) 827-1557  
Fax (505) 827-1544



MARK E. WEIDLER  
SECRETARY

EDGAR T. THORNTON, III  
DEPUTY SECRETARY

February 14, 1996

Mr. Roger C. Anderson  
Environmental Bureau Chief  
New Mexico Oil Conservation Division  
Energy, Minerals, and Natural Resources Department  
2040 S. Pacheco  
Santa Fe, New Mexico 87505

Dear Mr. Anderson:

Re: **Contaminant Investigation**  
**Transwestern Pipeline Company - Roswell Compressor Station**

The Hazardous and Radioactive Materials Bureau (HRMB) is in receipt of your January 26, 1996 letter. In this letter, the Oil Conservation Division (OCD) requested that HRMB review and provide comments to the OCD on Transwestern Pipeline Company's (TPC) December 20, 1995 document "Work Plan for Phase II Soil and Ground Water Assessment for Roswell Compressor Station No. 9 Surface Impoundments". The OCD requested comments in writing by February 16, 1996.

The New Mexico Environment Department (NMED) maintains that TPC's surface impoundments are subject to closure pursuant to the New Mexico Hazardous Waste Act (HWA) and the Resource Conservation and Recovery Act (RCRA). Because TPC's document addresses investigative activities outside of the RCRA closure process, HRMB does not consider it appropriate to review and comment upon the document at this time.

If you have any questions, please contact me at (505) 827-1557 or Ronald Kern of my staff at (505) 827-1560.

Sincerely,

*Colby Munkelby*

for Benito J. Garcia, Chief  
Hazardous and Radioactive Materials Bureau

cc: Ed Kelley, Division Director, NMED  
Ron Kern, Manager, RCRA Technical Compliance Program  
Barbara Hoditschek, Manager, RCRA Permits Program  
Susan McMichael, Office of General Counsel, NMED  
Larry Campbell, Director, TPC Roswell Compressor Station  
Richard Virtue, Esq.



**State of New Mexico**  
**ENVIRONMENT DEPARTMENT**  
Harold Runnels Building  
1190 St. Francis Drive, P.O. Box 26110  
Santa Fe, New Mexico 87502

RECEIVED  
ENVIRONMENTAL DIVISION  
FEB 1 1996  
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**GARY E. JOHNSON**  
GOVERNOR

**OFFICE OF GENERAL COUNSEL**  
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**MARK E. WEIDLER**  
SECRETARY

**EDGAR T. THORNTON, III**  
DEPUTY SECRETARY

February 1, 1996

**VIA CERTIFIED MAIL, RETURN RECEIPT REQUESTED**

Richard Virtue, Esq.  
Taichert, Wiggins, Virtue & Najjar  
119 East Marcy Street, Suite 100  
P.O. Box 4265  
Santa Fe, New Mexico 87502-4265

**RE: Notice to Comply with RCRA Closure Plan Requirements For  
Transwestern Pipeline Company**

Dear Mr. Virtue:

This letter responds to your letter dated January 22, 1995. As we indicated by letter dated December 21, 1995, the New Mexico Environment Department (NMED) reviewed your legal analysis of October 11, 1995 and determined that closure of Transwestern Pipeline Company's (TPC) surface impoundments in question is required pursuant to the New Mexico Hazardous Waste Act (HWA) and the Resource Conservation and Recovery Act (RCRA). The purpose of this letter is to specifically address some major areas of concern you have raised regarding specific technical and legal analysis for the applicability of RCRA jurisdiction. Further, for the reasons discussed below, we request that TPC reconsider the decision to withdraw its RCRA Part A permit application and closure plan.

In your letters dated October 11, 1995 and January 22, 1996, TPC asserts that the proper regulatory path for cleanup and oversight is through the jurisdiction of the Oil Conservation Division (OCD) because: (1) no "hazardous waste" was disposed at the site or alternatively, the presence of halogenated organic compounds at low concentrations does not give rise to RCRA jurisdiction; (2) information provided to NMED was inaccurate and RCRA closure requirements are "inapplicable" to Natural Gas Compressor Stations and (3) OCD has authority to remediate sufficiently to protect human health and the environment. As discussed below, NMED does not agree with your legal analysis regarding the applicability of HWA or RCRA jurisdiction. The following addresses some major areas of concern regarding this issue:



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1. RCRA and HWA jurisdiction is not triggered by review of the levels or presence of hazardous constituents in groundwater. This issue is irrelevant to whether RCRA jurisdiction exists; the presence of such constituents serves to only bolster the conclusion that RCRA corrective action or a closure plan is required. RCRA and the HWA "requires a permit for the 'treatment,' 'storage,' or 'disposal' of 'hazardous waste' as identified or listed in 40 CFR Part 261." 20 NMAC 4.1.900 (40 CFR §270.1(c)). A permit is required for any such waste disposed of after November 19, 1980. Id. The term "disposal" includes the "discharge, deposit ... leaking or placing of any solid or hazardous waste ... into any waters, including groundwaters." 40 CFR §260.10. "Owners and operators of hazardous waste management units must have permits during the active life (including the closure period) of the unit." 40 CFR §270.1. Hazardous waste management units include surface impoundments in which "hazardous waste" is placed. 40 CFR §260.10.

In addition to permitting authority under RCRA, corrective action may be required regardless of the date waste is disposed of for a facility which has a RCRA permit, was required to obtain such permit (but failed to do so) or pursuant to Section 7003 of RCRA where the release of hazardous constituents may present an imminent and substantial endangerment.<sup>1</sup> See e.g. 40 CFR §264.90. Corrective action authority is broader in scope than permitting activities under RCRA and is required as necessary to "protect human health and the environment for all releases for hazardous wastes or constituents from any solid waste management unit at a facility, regardless of the time at which the waste was placed in such unit." See 40 CFR §264.90.

Based upon the facts and data presented to us by TPC, there are several reasons RCRA jurisdiction exists. There is evidence that TPC "disposed" of "hazardous waste" as identified or listed in 40 CFR Part 261 at the site after 1980. This conclusion is based upon objective data provided to NMED staff from TPC as well as information collected during the Preliminary Review (PR) and the Visual Site Inspection (VSI) conducted as part of the RCRA Facility Assessment (RFA). TPC alleges that "there is no information that [commercially pure grade of spent non-halogenated] solvents, or associated wastes, were used stored or disposed of at the Roswell Station." Letter to NMED from TPC dated October 11, 1995. This statement, however, flatly contradicts data supplied by TPC from Daniel B. Stephens & Associates, Inc. as part of the closure plan

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<sup>1</sup>. New Mexico received authorization from EPA for corrective action on January 2, 1996. 61 FR 2450 (January 26, 1996)

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that states that "most common solvent used was known by the trade name 'TK-1.' This solvent product contained 100% 1,1,1-TCA. The primary degradation product of 1,1,1-TCA is 1,1-DCA." We are unaware of any legal authority that supports the conclusion that halogenated solvents such as TK-1 do not fall under RCRA as a "hazardous waste" even prior to the adoption of the 1985 solvent rule. See e.g., 50 FR 18378 (April 30, 1985). Further, the date waste was disposed of is irrelevant for corrective action authority. Corrective action authority is not dependent upon the time at which hazardous waste or constituents were disposed of. 40 CFR §264.90.

2. Second, TPC consistently confuses the issue of RCRA jurisdiction with alleged "low concentrations" of halogenated organic compounds at the site. TPC's statement that "the presence of halogenated organic compounds at low concentrations does not rise to RCRA jurisdiction" and represent a "tiny fraction" of the total concentration of all regulated compounds" is legally and technically unsubstantiated. As previously stated, the applicability of RCRA jurisdiction is not dependent upon whether "low concentrations" of such wastes exist. Hazardous substances such as "toluene" fall within RCRA because they contain high levels of toxicity even at low concentrations. See e.g., US v. Northeastern Pharmaceutical & Chemical Co., 25 ERC 1385 (8th Cir. 1986). Even the proposed Hazardous Waste Identification Rule (HWIR) would not support TPC under these circumstances.<sup>2</sup> There also appears to be a misunderstanding about the issue of total petroleum hydrocarbons (TPH) and RCRA jurisdiction. RCRA regulates "BTEX" (benzene, toluene, ethylbenzene, and xylenes) constituents as well as other specific constituents that TPC repeatedly refers to as representing "100%" of the regulated compounds at this site. Under the mixture rule, hazardous wastes that are mixed with solid wastes fall under RCRA jurisdiction. (citations omitted). As a technical matter, data supplied to NMED staff from previous sampling investigations, although lacking analysis for complete Appendix IX parameters and inadequate QA/QC in many cases, shows that 1,1,1-TCA and 1,1 DCA to be 3 and 22.4 times the WQCC groundwater standards respectively. Further, several individual constituents detected in the groundwater such as benzene and toluene are 1300 and 20 times the drinking water standard under

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<sup>2</sup>. The proposed HWIR is extremely controversial and has been rejected in numerous states, including the National Association of Attorneys General. Even if the rule was promulgated, it is not binding in New Mexico.

Richard Virtue, Esq.  
February 1, 1996  
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which RCRA regulates. These are not "low concentrations" as asserted by TPC.

3. TPC's legal analysis that RCRA closure requirements are inapplicable to Natural Gas Compressor Stations is unfounded. RCRA jurisdiction is not dependent upon whether the Roswell Station is a "RCRA waste generator." Whether or not the Roswell Station is a RCRA generator or "conditionally exempt small quantity generator" is irrelevant to the issue here. Neither a RCRA waste generator nor a "conditionally exempt small quantity generator" can dispose of hazardous waste on-site without a permit. 40 CFR Part 270 and 40 CFR §262.11. Generators of hazardous waste are required to ship such wastes off-site unless they obtain a disposal permit. *Id.* NMED is unclear as to meaning of your statements regarding the inapplicability of waste characterization requirements. The fact a facility disposed of hazardous waste without a permit and backfilled the surface impoundments in question would not exempt the facility from subtitle C requirements.<sup>3</sup>

4. In your letter dated January 22, 1996, you indicate that there is "no citation to different standards or explanation as to why clean up required by NMED under the HWA differs from groundwater cleanup addressed by OCD." As a legal and technical matter, RCRA closure requirements under the HWA differ significantly from cleanup required by OCD under the WQCC standards. The primary difference between the two is statutory. A person that disposes of "hazardous waste" is required by law to abide by closure or corrective action requirements set forth under the HWA and RCRA. NMSA 1978, §74-4-10. 20 NMAC 4.1.900. NMED is the agency in New Mexico responsible for assuring that the requirements of the HWA are fulfilled. NMED's authorization from EPA for its Hazardous Waste program mandates this and there is no legal authority to vary from these requirements. As a technical matter, the RCRA closure or corrective action process differs from groundwater cleanups under the WQCC. The major technical differences are as follows: (1) RCRA applies to all environmental media while WQCC applies

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<sup>3</sup>. The hazardous wastes at issue here are not subject to RCRA's Bevill exclusion. "The [Bevill] exclusion does not, however, apply to solid wastes, such as spent solvents ... that are not uniquely associated with these operations. ... [such] wastes are hazardous and must be managed in conformance with Subtitle C of these regulations." 45 FR 76619. Spent solvents are specifically described as an example of a waste "not uniquely associated with exploration, development or production activities." See EPA interpretation of Bevill exclusion, attached hereto.

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only to groundwater and water contaminants in the vadose zone; (2) RCRA regulates a larger number of constituents than WQCC; and (3) the standards utilized by RCRA fully encompass WQCC standards as well as federally promulgated standards and risk-based standards (whichever is most protective of human health and the environment). The decision processes are outlined in 20 NMAC 6.2 and 20 NMAC 4.1.

For these reasons, we request that TPC reconsider the decision to withdraw its RCRA permit application and closure plan. NMED staff has spent considerable time reviewing the plan and has discussed these regulatory issues with EPA. NMED determined to approve TPC's plan, with modifications, and was scheduled to provide public notice of the plan this week pursuant to 40 CFR §265.112. Therefore, please let us know as soon as possible, and no later than February 19, 1996 whether you intend to comply with the applicable regulatory requirements for closure. Hopefully, this matter may be resolved expeditiously and without the need for further delay. If you have any questions, do not hesitate to call me at (505) 827-0127.

Sincerely,



SUSAN MCMICHAEL  
Assistant General Counsel

Enclosures

cc: Mark Weidler  
Ed Kelley  
Joe Hulscher ✓  
Lou Soldano  
Rodger Anderson



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

2040 S. PACHECO  
SANTA FE, NEW MEXICO 87505  
(505) 827-7131

January 26, 1996

Mr. Benito Garcia  
Hazardous and Radioactive Materials Bureau  
New Mexico Environment Department  
2044 Galisteo  
Santa Fe, New Mexico 87505

**RE: GROUND WATER INVESTIGATION  
TRANSWESTERN PIPELINE CO. ROSWELL COMPRESSOR STATION**

Dear Mr. Garcia:

The New Mexico Oil Conservation Division (OCD) is in the process of reviewing Transwestern Pipeline Company's (TPC) December 20, 1995 "WORK PLAN FOR PHASE II SOIL AND GROUND WATER ASSESSMENT FOR ROSWELL COMPRESSOR STATION NO. 9 SURFACE IMPOUNDMENTS". This document contains TPC's proposed work plan for additional soil and ground water contamination investigations at the Roswell Compressor Station.

The OCD is the constituent agency delegated by the New Mexico Water Quality Control Commission (WQCC) for enforcement of WQCC regulations and standards at these types of facilities. Therefore, the OCD is required to respond to this document to ensure that soil and ground water investigation and remedial actions conform to WQCC regulations. At a December 8, 1995 meeting between OCD and the New Mexico Environment Department Hazardous and Radioactive Waste Bureau (HRWB), the HRWB expressed concern over the results of prior TPC facility investigations documented in TPC's November 8, 1995 "PHASE I SOIL AND GROUND WATER ASSESSMENT FOR ROSWELL COMPRESSOR STATION NO. 9 SURFACE IMPOUNDMENTS". The OCD requests that the HRWB provide the OCD with any comments and concerns that the HRWB has regarding either the Phase I report or the proposed Phase II work plan. Since the OCD must respond to TPC's work plan in a timely fashion, the OCD requests that the HRWB provide any comments to the OCD in writing by February 16, 1996.

If you have any questions, please contact me at (505) 827-7152 or Bill Olson of my staff at (505) 827-7154.

Sincerely,

A handwritten signature in cursive script, appearing to read "Roger C. Anderson".

Roger C. Anderson  
Environmental Bureau Chief

xc: Tim Gum, OCD Artesia District Supervisor

# **Transwestern Pipeline Company**

J. A. "Joe" Hulscher  
Vice President  
Operations

Summit Office Bldg., Ste. 250  
4001 Indian School Rd., NE  
Albuquerque, NM 87110  
Direct (505) 260-4001  
Houston (713) 853-7794

January 19, 1996

**VIA FEDERAL EXPRESS**

Mr. Mark E. Weidler  
Cabinet Secretary  
New Mexico Environment Department  
Harold Runnels Bldg.  
P. O. Box 26110  
Santa Fe, NM 87502

**RECEIVED**

**JAN 22 1996**

Environmental Bureau  
Oil Conservation Division

Transwestern Pipeline Company-  
Roswell Compressor Station - Notice  
of Withdrawal of RCA Part A  
Application and Closure Plans

Dear Mr. Weidler:

In January, 1993, Transwestern Pipeline Company ("Transwestern") filed a RCRA Part A permit application with the State of New Mexico Environment Department ("NMED") Hazardous and Radioactive Materials Bureau ("HRMB") at the request of the HRMB. After extensive investigation and analysis, Transwestern has recently concluded that much of the information included on the RCRA Part A Permit application form was incorrect. Furthermore, Transwestern has determined that the underlying factual and legal assumptions upon which the application was submitted were also incorrect.

By this letter, Transwestern is formally notifying the NMED that the RCRA Part A permit application submitted for the Roswell Compressor Station is withdrawn. In addition, Transwestern is formally notifying the NMED that all closure plans submitted to the NMED HRMB for this facility are withdrawn, because the Roswell Compressor Station is not subject to RCRA closure requirements and will be remediated under the regulatory authority of the New Mexico Oil Conservation Division ("OCD").

Attached to this letter is a brief description of why the RCRA Part A permit application was originally submitted and why the application form contained incorrect information. Also included is a detailed description of the inaccuracies included in the application form and the reasons for the withdrawal.

The following summary of the history of this matter will be of additional assistance in understanding the basis for Transwestern's decision to withdraw the RCRA Part A application and closure plans.

During the latter half of 1991, Transwestern implemented a purely voluntary, self-directed subsurface investigation in the vicinity of a former surface impoundment at the Roswell Compressor Station. In the course of this investigation, Transwestern discovered the presence of certain organic compounds contained in soil and ground water which potentially could have originated from an F-listed RCRA regulated waste. In February 1992, Transwestern brought the results of the initial investigation to the attention of the NMED HRMB and the OCD in an effort to insure that New Mexico regulatory authorities were apprised of the situation and to initiate the proper regulatory process for the continued assessment and remediation of affected soil and ground water. A number of meetings were held between the concerned parties. Subsequently, the NMED HRMB requested that Transwestern file a RCRA Part A permit application as the initial step toward a RCRA closure. That application was submitted in January, 1993. Since then, Transwestern has worked diligently to proceed with the assessment and remediation of the site within the RCRA framework at considerable cost. Unfortunately, until recently, Transwestern's efforts have been entirely focused on closure rather than on whether or not closure under both OCD and RCRA framework was appropriate.

Early last year Transwestern engaged the services of local counsel to analyze the regulatory path that Transwestern had been following. An initial review indicated that Transwestern had made several erroneous assumptions concerning both the operational history at the site and the applicability of RCRA regulations that have been adopted by the New Mexico Environmental Improvement Board pursuant to the New Mexico Hazardous Waste Act. After consulting with the NMED HRMB and apprising them of the situation, Transwestern conducted a complete review of the matter. The review confirmed the inaccuracy of many of Transwestern's underlying assumptions and verified the lack of any evidence that "hazardous waste" within the meaning of the New Mexico Hazardous Waste Act Regulations was disposed of at the Roswell Compressor Station.

At the completion of the review, Transwestern submitted a detailed letter and considerable supporting documentation to the NMED Office of General Counsel presenting Transwestern's position on the matter. All available evidence indicates that for legal, technical, and practical reasons, the proper regulatory avenue for the closure of this site is through the OCD rather than the NMED HRMB.

On December 21, 1995 the NMED Office of General Counsel responded to our October 11, 1995 letter. The response did not present any additional facts or legal analysis that would change the results of Transwestern's extensive factual investigation and legal review. Further, the response highlighted a persistent trend of disproportionate concern over the potential threat posed by conditions at the site. After reviewing the response, it became clear that the only appropriate action was to withdraw the RCRA Part A application and closure plan.

Transwestern requests that you and your staff meet with representatives of Transwestern at your earliest convenience for the purpose of answering any questions you or your staff may have. Transwestern has previously suggested that, at the OCD's discretion, the NMED could be allowed limited oversight of the closure in order that any NMED concerns can be satisfied. Although these suggestions have been rejected by the NMED, Transwestern is still willing to consider approaching the OCD in this manner.

If you have any questions or comments, please contact Lou Soldano, ENRON Operations Corp. Legal, at (713) 853-7237.

Sincerely,



Joe Hulscher  
Vice President, Operations  
Transwestern Pipeline Company

xc:	Lou Soldano, Esq.	ENRON Operations Corp. Legal
	Frank Smith, Esq.	ENRON Corp. Legal
	Dave Nutt, Esq.	ENRON Corp. Legal
	Bill Kendrick	ENRON Operations Corp.
		Environmental Affairs
	Roger Anderson	New Mexico Oil Conservation Division
	Ed Kelley	NMED Hazardous and Radioactive
		Materials Bureau
	Susan McMichaels, Esq.	NMED (Via Hand Delivery)
	Richard L. C. Virtue, Esq.	



**Attachment - Withdrawal of Part A Permit Application  
Transwestern Pipeline Company, Roswell Compressor Station**

**Why the Part A Permit Application was Submitted**

During the latter half of 1991, Transwestern implemented a purely voluntary, self-directed subsurface investigation in the vicinity of a former surface impoundment at the Roswell Station. In the course of this investigation, Transwestern discovered the presence of certain organic compounds contained in soil and ground water which potentially could have originated from an F-listed RCRA regulated waste. In February 1992, Transwestern brought the situation at the Roswell Station to the attention of the NMED HRMB and the New Mexico Oil Conservation Division (OCD), in an effort to insure that the New Mexico authorities were apprised of the situation and initiate/establish the proper regulatory process for the continued assessment and remediation of affected soil and ground water. A number of meetings were held between the concerned parties. Subsequently, the NMED HRMB requested that Transwestern file a RCRA Part A permit application as the initial step toward a RCRA closure. This application was submitted in January, 1993.

**Why the Part A Permit Application Contained Incorrect Information**

The RCRA Part A application form was originally designed as a mechanism for facilities which treat, store, and/or dispose (TSD) of hazardous waste to enter into the RCRA facility permitting process via interim status. The Roswell Station functions as a natural gas compressor station and has not, nor is ever intended to, operate as anything resembling a TSD facility. Not surprisingly, the information required to complete a RCRA Part A application form was either not applicable or totally inappropriate for the actual facility function and operations. However, in a cooperative effort to fulfill the NMED's request for a completed Part A application, Transwestern completed the application form with information which was intended to present a worst case description of the potential condition of affected soil and ground water at the site.

**Information Included in the Part A Permit Application Which is Incorrect**

Based upon a recent detailed review of the facility's operational history, nearly all of the information presented on the original application form was erroneous with the exception of the facility name, address, location, facility contact, and EPA ID number. The following items identify and describe the incorrect information submitted in the Part A permit application.

1. The "Treatment Process Design Capacity" indicated on the Part A application is 3,061,487 gallons. This figure was not based on the design capacity of the surface impoundment but rather on an inaccurate estimate of the volume of shallow ground water impacted by waste constituents. The estimated capacity of the surface impoundment now referred to as "Pit 1" (the only surface impoundment at the facility operated after November 19, 1980) is only 202,000 gallons. This revised estimate is based on dimensions obtained from historic air photos of the facility.
2. Five waste codes were listed in the application. None of the five waste codes should have been listed for the following reasons:
  - a. F001 (halogenated solvents) - This waste code was originally included in the Part A application form because compounds included in the F001 list (most notably 1,1,1-trichloroethane) were present in soil and ground water samples collected from the former impoundment area. However, merely the presence of these compounds in environmental media (soil and ground water) do not justify the conclusion that these compounds originated from an F001 listed waste. Prior to November 19, 1980, there was no such listing of wastes or the associated regulatory requirements for management of such wastes. Furthermore, prior to the solvent mixture rule which was finalized December 31, 1985, the F001 listing applied only to commercially pure grades of spent halogenated solvents used

in degreasing (e.g. 100% 1,1,1-trichloroethane). The 1985 solvent mixture rule modified this definition to include spent solvent mixtures containing 10% or greater by volume of one or more of those solvents listed in F001, F002, F004, and F005. The last remaining surface impoundment was taken out of service prior to the 1985 rule change. Furthermore, there is no information available to TW to indicate that a commercially pure grade spent halogenated solvent was either used at this facility during the timeframe the impoundment was in use or disposed of in the impoundment. Therefore, the F001 waste code should not have been included on the Part A application form.

b. F005 (non-halogenated solvents) - This waste code was originally included in the Part A application form because compounds included in the F005 list (most notably toluene and benzene) were present in soil and ground water samples collected from the former impoundment area. As previously described, merely the presence of these compounds in environmental media (soil and ground water) do not justify the conclusion that these compounds originated from an F005 listed waste. In regard to toluene and benzene, these compounds are present at the site almost entirely as the result of a discharge of natural gas liquids, not as the result of a discharge of waste solvents. In regard to any other F005 listed compounds that may be present in environmental media at the site, prior to the solvent mixture rule which was finalized December 31, 1985, the F005 listing applied only to commercially pure grades of spent non-halogenated solvents (e.g. 100% methyl ethyl ketone). Again, TW has no information that these solvents, or their associated wastes, were used, stored, and/or disposed of at the Roswell Station. Therefore, the F005 waste code should not have been included on the Part A application.

c. D004 (arsenic) - A small concentration of arsenic (as trimethylarsine) is produced with natural gas from the Abo formation located just north of the Roswell Station. As a result, a small concentration of arsenic is occasionally present in pipeline liquid samples collected at the Roswell Station. For this reason, the D004 waste code was included on the Part A application. Although production from this formation began in 1979, arsenic was not identified as a natural contaminant of the gas until 1987. The pipeline liquids tank was installed at the Roswell Station in 1983, therefore, the duration in which pipeline liquids potentially containing arsenic were placed in the former surface impoundment was very limited (approximately four years). The duration in which pipeline liquids may have been subject to evaluation by the EP Toxicity procedure for arsenic was even shorter, less than three years. During this timeframe, the potential for arsenic to accumulate in pipeline liquids was not known. Furthermore, pipeline liquids were generally considered RCRA exempt. To Transwestern's current knowledge, the EP Toxicity procedure was never used to assess the toxicity characteristic of the pipeline liquids placed in the former impoundment for arsenic. Regardless, the concentrations currently measured are well below those levels which one might expect the waste stream to fail the former EP Toxicity procedure which was in use at the time in question. Based on this information, TW has no knowledge that wastes placed in the former surface impoundment at the Roswell Station were characteristically hazardous due to arsenic, therefore, the D004 waste code should not have been included on the Part A application.

d. D005 (barium) - The D005 waste code was listed primarily because barium is present in small concentrations in used engine oil collected at the Station. The concentration present is well below those levels where one might expect the waste stream to fail the former EP Toxicity procedure. Furthermore, TW has no knowledge that wastes placed in the former surface impoundment at the Roswell Station would have failed the EP Toxicity procedure for barium. Therefore, the D005 waste code should not have been included on the Part A application.

e. D018 (benzene) - The D018 waste code was listed because benzene is a natural constituent of the natural gas liquids which were placed in the former impoundment. However, prior to the TC Rule effective September 25, 1990, benzene was not listed as a "Characteristic of EP Toxicity" contaminant. Therefore, during the time frame that the surface impoundment was in use, there was no such thing as a D018 waste, and thus, this waste code should not have been listed on the Part A application.