

GW - 107

**GENERAL  
CORRESPONDENCE**

**YEAR(S):**

2007-1997

~~2004-1997~~



One West 10th Street, Suite 100  
Tulsa, OK 74107

Telephone 918/487-1000  
Fax 918/487-1007

Info@benham.com  
www.benham.com

March 20, 2007

Mr. Edwin E. Martin  
New Mexico Oil Conservation Division  
1220 St. Francis Drive  
Santa Fe, New Mexico 87504

**Re: Delay in Submittal of 2006 Annual Groundwater Remediation Report  
Jal No. 4 Plant  
Lea County, New Mexico**

Dear Mr. Martin:

On January 23, 2007, Mr. Scott Pope with El Paso Natural Gas Company (EPNG) submitted to the New Mexico Oil Conservation Division a written notice that there would be a delay in EPNG's submittal of the 2006 Annual Groundwater Remediation Report for the Jal No. 4 Plant. This delay occurred because EPNG identified substantive quality issues within the laboratory analytical data for the Q4/2006 sampling event. These problems required EPNG to resample the wells and have the second set of samples analyzed; this time by another laboratory. In this letter, EPNG stated that the annual report would be submitted on or before March 30, 2007.

EPNG will be unable to meet this submittal date because of adverse weather and staff health issues. EPNG did resample the wells on March 5 through 8, 2007, and the data is currently being received and evaluated. The Benham Companies, LLC, on behalf of our client EPNG, respectfully requests that the submittal data now be extended until May 14, 2007.

If you have questions concerning this delay in submittal of the 2006 Annual Groundwater Remediation Report, please do not hesitate to contact Mr. Scott Pope at 719-520-4433, or myself at 918-599-4382.

Sincerely,  
**The Benham Companies, LLC**



George H. (Buddy) Richardson, P.G.  
Senior Project Manager

xc: Scott Pope, EPNG, Colorado Springs, CO

**Olson, William**

---

**From:** Campbell, Darrell G [Darrell.Campbell@ElFaso.com]  
**Sent:** Friday, August 13, 2004 11:36 AM  
**To:** wolson@state.nm.us  
**Cc:** Whitney, Mark P; Pope, Scott T  
**Subject:** Jal #4 - 3rd Quarter Sampling

Bill,

We intend to conduct the Jal #4 3rd Quarter sampling starting on August 24 and hopefully finishing on August 25, 2004.

If you have any questions or need additional information, please call me at 915-587-3728 (office) or 915-526-8434 (Cell).

Thanks  
Darrell Campbell  
Laboratory Superintendent

\*\*\*\*\*  
This email and any files transmitted with it from the ElPaso Corporation are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this email in error please notify the sender.  
\*\*\*\*\*

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This email has been scanned by the MessageLabs Email Security System. For more information please visit <http://www.messagelabs.com/email>

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**Olson, William**

---

**From:** Campbell, Darrell G [Darrell.Campbell@EIPaso.com]  
**Sent:** Tuesday, February 17, 2004 2:18 PM  
**To:** Olson, William  
**Cc:** Pope, Scott T; Whitney, Mark P  
**Subject:** Jal #4 1st Quarter Sampling

Bill,

We intend to conduct the Jal #4 1st Quarter sampling starting on February 23 and hopefully finishing on February 24, 2004.

If you have any questions or need additional information, please call me at 915-587-3728 (office) or 915-526-8434 (Cell).

Thanks  
Darrell Campbell  
Laboratory Superintendent

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



The Benham Companies, Inc.  
One West 3rd Street, Suite 100  
Tulsa, OK 74103

Telephone 918.492.1600  
Fax 918.496.0132

info@benham.com  
www.benham.com

February 13, 2004

Mr. William C. Olson  
New Mexico Oil Conservation Division  
1220 St. Francis Drive  
Santa Fe, New Mexico 87504

**RECEIVED**

**FEB 16 2004**

**Oil Conservation Division  
Environmental Bureau**

**Re: 2003 Annual Groundwater Remediation Report  
Jal No. 4 Plant  
Lea County, New Mexico**

Dear Mr. Olson:

On February 12, 2004 El Paso Natural Gas Company (EPNG) submitted to the New Mexico Oil Conservation Division (NMOCD) a document titled "**2003 Annual Groundwater Remediation Report**" for the above-referenced facility that was prepared by The Benham Companies, Inc. (Benham). Regrettably in preparing this document Benham failed to acknowledge that the NMOCD, in your letter of April 14, 2003, had approved the modifications to the groundwater sampling program that were recommended in Benham's 2002 annual report. In failing to recognize these approved modifications Benham stated erroneously that during EPNG's fourth quarter 2003 sampling event "the groundwater samples taken from the program monitor wells were inadvertently not submitted to the analytical laboratory for calcium, hardness, alkalinity, magnesium, sulfate, bromide, fluoride, nitrate-N, nitrate as NO<sub>3</sub>, boron, iron, manganese, potassium and silica" and that "the groundwater samples taken from all of the program monitor wells except monitor well ACW-11 were inadvertently not submitted for total arsenic." In actuality all the groundwater samples taken throughout the 2003 monitoring program were analyzed for the complete list of approved parameters.

To correct Benham's error, please find enclosed a complete copy of the text portion of this document in which these incorrect statements have been removed. Please accept my apology for any inconvenience that this error may have caused.

Sincerely,  
**BENHAM**  
Infrastructure & Environment

George H. Richardson, P.G.  
Senior Project Manager

xc: Mr. Chris Williams, NMOCD/Hobbs, w/ enclosure  
Mr. Scott Pope, EPNG/Farmington, w/ enclosure  
Mr. Darrell Campbell, EPNG/EI Paso, w/ enclosure  
Mr. Ed Nichols, EPNG/EI Paso, w/o enclosure



RECEIVED

FEB 13 2004

Oil Conservation Division  
Environmental Bureau

Via Federal Express

February 12, 2004

Mr. William C. Olson  
New Mexico Oil Conservation Division  
1220 St. Francis Dr.  
Santa Fe, NM 87504

**RE: 2003 Annual Groundwater Remediation Report Jal No. 4 Plant Lea County,  
New Mexico**

Dear Mr. Olson:

El Paso Natural Gas Company hereby submits the enclosed "2003 Annual Groundwater Remediation Report Jal No. 4 Plant Lea County, New Mexico". The Annual Report details remediation efforts for the year 2003

If you have any questions concerning the Annual Report please call me (505) 599-2124 or Buddy Richardson at (918) 492-1600.

Sincerely,

Scott T. Pope, P.G.  
Senior Environmental Scientist

xc: Mr. Chris Williams, NMOCD, Hobbs - w / enclosures; **Via Federal Express**  
Mr. Darrell Campbell, EPNG - w / enclosures  
Mr. Buddy Richardson, BI - w / enclosures  
Mr. Ed Nichols, EPNG - ROW - w / o enclosures  
Jal 4 file - w / enclosures

12279

**Olson, William**

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**From:** Cindy Crain [cindy@laenvironmental.com]  
**Sent:** Monday, February 09, 2004 4:01 PM  
**To:** Sheeley, Paul  
**Cc:** Olson, William; Rodney Bailey  
**Subject:** ChevronTexaco Buckeye Vacuum Field Unit, Lea County, NM Groundwater Monitoring

Dear Paul:

Larson and Associates will begin groundwater monitoring activities at the ChevronTexaco Buckeye Vacuum Field Unit on Wednesday, February 11, 2004. The Buckeye Vacuum Field is located in Section 1, Township 18 South, Range 34 East.

If you have any questions, or need additional information, please do not hesitate to call me at (432) 687-0901.

Thank you,  
Cindy Crain

6W107

**Olson, William**

---

**From:** Campbell, Darrell G [Darrell.Campbell@EIPaso.com]  
**Sent:** Friday, October 24, 2003 10:35 AM  
**To:** wolson@state.nm.us  
**Cc:** Whitney, Mark P  
**Subject:** 4th Quarter Jal #4 Sampling

Bill,

We intend to conduct the Jal #4 4th Quarter sampling starting on November 3 and hopefully finishing on November 7, 2003.

If you have any questions or need additional information, please call me at 915-587-3728 (office) or 915-526-8434 (Cell).

Thanks  
Darrell Campbell  
Laboratory Superintendent

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



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Lori Wrotenbery**

Director

**Oil Conservation Division**

July 17, 2003

Mr. Scott T. Pope  
El Paso Natural Gas Company  
614 Reilly Ave.  
Farmington, NM 87401

**RE: RECOVERY WELL WORK PLAN  
CASE # GW-107R  
JAL #4 PLANT  
LEA COUNTY, NEW MEXICO**

Dear Mr. Pope:

The New Mexico Oil Conservation Division (OCD) has reviewed El Paso Natural Gas Company's (EPNG) June 13, 2003 "WORK PLAN FOR INSTALLATION OF RECOVERY WELL RW-3, JAL NO. 4 GAS PLANT, LEA COUNTY, NEW MEXICO". This document contains EPNG's work plan for installation of an additional recovery well for remediation of contaminated ground water at the Jal No. 4 Plant.

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

1. The cement-bentonite grout used for completion of the recovery well shall contain 3-5% bentonite.
2. All below grade lines used to convey recovered fluids between recovery wells and water treatment facilities shall be tested to demonstrate mechanical integrity prior to operation by pressure testing to 3 pounds per square inch above normal operating pressure or another means acceptable to the OCD.
3. All wastes generated shall be disposed of at an OCD-approved facility.
4. EPNG shall notify the OCD at least 48 hours in advance of all scheduled activities such that the OCD has the opportunity to witness the events and split samples.

Mr. Scott T. Pope

July 17, 2003

Page 2

Please be advised that OCD approval does not limit EPNG to the proposed plan should the plan fail to adequately remediate contamination at the site, or if contamination exists which is outside the scope of the plan. In addition, OCD approval does not relieve EPNG of responsibility for compliance with any other federal, state or local laws and regulations.

If you have any questions, please call 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: Chris Williams, OCD Hobbs District Supervisor



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Lori Wrotenbery**

Director

**Oil Conservation Division**

April 14, 2003

Mr. Scott T. Pope  
El Paso Natural Gas Company  
614 Reilly Ave.  
Farmington, NM 87401

**RE: ANNUAL REMEDIATION REPORT  
CASE # GW-107R  
JAL #4 PLANT  
LEA COUNTY, NEW MEXICO**

Dear Mr. Pope:

The New Mexico Oil Conservation Division (OCD) has reviewed El Paso Natural Gas Company's (EPNG) February 14, 2003 "2002 ANNUAL GROUNDWATER REMEDIATION REPORT, JAL NO. 4 PLANT, LEA COUNTY, NEW MEXICO" and February 6, 2003 "GROUNDWATER MODELING REPORT JAL NO. 4 PLANT LEA COUNTY, NEW MEXICO". These documents contain the results of EPNG's remediation and monitoring of contaminated ground water at the Jal No. 4 Plant during the 2001 calendar year and the modeled results of existing and hypothetical ground water recovery wells. The documents also recommend changes to the sampling program and installation of additional recovery wells at the facility.

The recommendations contained in the above-referenced documents are approved on the condition that EPNG submit a work plan to the OCD by June 14, 2003 for the installation of the recommended additional recovery wells. The work plan shall be submitted to the OCD Santa Fe Office with a copy provided to the OCD Hobbs District Office.

Please be advised that OCD approval does not limit EPNG to the proposed plan should the plan fail to adequately monitor or remediate contamination at the site, or if contamination exists which is outside the scope of the plan. In addition, OCD approval does not relieve EPNG of responsibility for compliance with any other federal, state or local laws and regulations.

Mr. Scott T. Pope  
April 14, 2003  
Page 2

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

Sincerely,

A handwritten signature in black ink, appearing to read "Will Olson". The signature is written in a cursive style with a large initial "W" and a long, sweeping tail.

William C. Olson  
Hydrologist  
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Supervisor



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**  
Cabinet Secretary

**Lori Wrotenbery**

Director

**Oil Conservation Division**

March 10, 2003

Mr. Scott T. Pope  
El Paso Natural Gas Company  
614 Reilly Ave.  
Farmington, NM 87401

**RE: SPILL REMEDIAL ACTION REPORT FOR CHLORIDE IMPACTED SOILS  
CASE # GW-107R  
JAL #4 PLANT  
LEA COUNTY, NEW MEXICO**

Dear Mr. Pope:

The New Mexico Oil Conservation Division (OCD) has reviewed El Paso Natural Gas Company's (EPNG) November 26, 2002 "REMEDIAL ACTION REPORT FOR CHLORIDE IMPACTED GROUNDWATER SPILL AT THE JAL NO. 4 GAS PLANT LOCATED IN LEA COUNTY, NEW MEXICO". This document contains the results of EPNG's remediation of contaminated soil from a November 28, 2001 flowline spill of chloride contaminated ground water associated with the Jal No. 4 Plant ground water remediation system. The document also requests final approval of the remedial actions and recommends no further remedial actions related to the spill.

The soil remedial actions conducted are satisfactory. The above-referenced requests and recommendations are approved. Please be advised that OCD approval does not relieve EPNG of responsibility if remaining contaminants are found to pose a future threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve EPNG of responsibility for compliance with any other federal, state or local laws and regulations.

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

Sincerely,

William C. Olson  
Hydrologist  
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Supervisor



RECEIVED

NOV 27 2002

ENVIRONMENTAL BUREAU  
OIL CONSERVATION DIVISION

Via Federal Express

November 26, 2002

Mr. William C. Olson  
New Mexico Oil Conservation Division  
1220 St. Francis Dr.  
Santa Fe, NM 87504

**RE: Remedial Action Report for Chloride Impacted Groundwater Spill at the Jal No. 4 Gas Plant Located in Lea County, New Mexico**

Dear Mr. Olson:

El Paso Natural Gas Company (EPNG) hereby submits the enclosed "Remedial Action Report for Chloride Impacted Soil Jal No. 4 Gas Plant Lea County, New Mexico". The above mentioned report details the remedial action performed October 21 through 29, 2002. Based on the conclusion that remediation objectives were met, EPNG recommends no further action at the spill area.

EPNG requests written approval of the Remedial Action Report and EPNG's recommendation of no further action in the spill area. If you have any questions concerning the Remedial Action Report, please call me at (505) 599-2124.

Sincerely,

Scott T. Pope P.G.  
Senior Environmental Scientist

xc: Mr. Chris Williams, NMOCD, Hobbs - w / enclosures; **Via Federal Express**  
Mr. Jimmy Doom, Landowner - w / enclosures  
Mr. Darrell Campbell, EPNG - w / enclosures  
Mr. Buddy Richardson, ABI - w / o enclosures  
Mr. Ed Nichols, EPNG - ROW - w / o enclosures  
Jal 4 file - w / enclosures

**Olson, William**

---

**From:** Pope, Scott [Scott.Pope@ElPaso.com]  
**Sent:** Monday, October 14, 2002 1:40 PM  
**To:** 'Bill Olson'  
**Cc:** 'Buddy Richardson'; Campbell, Darrell; Nichols, Edwin O.; Towe, Roger; Lesniak, Kim  
**Subject:** Remediation at Jal #4

Bill,

Pursuant to our Phone conversation on October 9, 2002, we have finally come to terms on access with the land owner at the spill site of remediation water near RW-1 at the Jal #4 project site. As we discussed the land owner has requested that the chloride impacted soils be transport to Becky Jo Doom's land farm and the back fill will be from her barrow pit as well. El Paso Natural Gas Company (EPNG) is planning to comply with the request pending confirmation of proper permitting and background sampling of the barrow soils. The Doom's have also requested that the site not be reseeded until spring. Given the fact that access to perform the remediation was just obtained, we will not be able to meet the October 31, 2002 deadline for the remediation report. As we discussed November 30, 2002 should be attainable barring any unforeseen difficulties with the remediation effort. We are hoping to mobilize some time during the week of October 21st or 28th. I will let you know as soon as we have a firm date.

If you have any questions regarding the change in schedule or scope of work, please call.

Thanks,

Scott T. Pope P.G.  
Senior Environmental Scientist  
Environmental Remediation Department  
(505) 599-2124  
(505) 599-2119 Fax

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



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**  
Governor  
**Betty Rivera**  
Cabinet Secretary

**Lori Wrotenberg**  
Director  
Oil Conservation Division

July 30, 2002

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. 7001-1940-0004-7923-0483**

Mr. Scott T. Pope  
El Paso Natural Gas Company  
614 Reilly Ave.  
Farmington, NM 87401

**RE: SPILL REMEDIAL ACTION PLAN FOR CHLORIDE IMPACTED SOILS  
CASE # GW-107R  
JAL #4 PLANT  
LEA COUNTY, NEW MEXICO**

Dear Mr. Pope:

The New Mexico Oil Conservation Division (OCD) has reviewed El Paso Natural Gas Company's (EPNG) June 12, 2002 "REMEDIAL ACTION PLAN FOR CHLORIDE IMPACTED GROUNDWATER SPILL AT THE JAL NO. 4 GAS PLANT LOCATED IN LEA COUNTY, NEW MEXICO". This document contains EPNG's work plan for remediation of contaminated soil from a November 28, 2001 flowline spill of chloride contaminated ground water associated with the Jal No. 4 Plant ground water remediation system.

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

1. All final excavation bottom and backfill soil samples taken for laboratory analysis shall also be analyzed for concentrations of chloride.
2. All samples shall be obtained and analyzed using EPA approved methods and quality assurance/quality control (QA/QC) procedures.

Mr. Scott T. Pope  
July 30, 2002  
Page 2

3. The final closure report shall be submitted to the OCD Santa Fe Office by October 31, 2002 with a copy provided to the OCD Hobbs District Office. The report shall contain:
  - a. A description of the remediation activities which occurred including conclusions and recommendations.
  - b. A map showing the location of the release, sample locations, excavations pipelines, monitor wells, private water wells 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.
  - d. The disposition of all wastes generated.
4. EPNG shall notify the OCD at least 48 hours in advance of all 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 EPNG to the proposed work plan should the plan fail to remediate contamination at the site, or if contamination exists which is outside the scope of the plan. In addition, OCD approval does not relieve EPNG of responsibility for compliance with any other federal, state or local laws and regulations.

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

Sincerely,



William C. Olson  
Hydrologist  
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Supervisor



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**

Governor  
**Betty Rivera**  
Cabinet Secretary

**Lori Wrotenbery**  
Director  
Oil Conservation Division

July 30, 2002

**CERTIFIED MAIL**

**RETURN RECEIPT NO. 7001-1940-0004-7923-0483**

Mr. Scott T. Pope  
El Paso Natural Gas Company  
614 Reilly Ave.  
Farmington, NM 87401

**RE: ANNUAL REMEDIATION REPORT  
CASE # GW-107R  
JAL #4 PLANT  
LEA COUNTY, NEW MEXICO**

Dear Mr. Pope:

The New Mexico Oil Conservation Division (OCD) has reviewed El Paso Natural Gas Company's (EPNG) February 14, 2002 "REPORT SUBMITTAL, 2001 ANNUAL GROUNDWATER REMEDIATION REPORT, JAL NO. 4 PLANT, LEA COUNTY, NEW MEXICO". This document contains the results of EPNG's remediation and monitoring of contaminated ground water at the Jal No. 4 Plant during the 2001 calendar year and recommends changes to the sampling program.

The recommended changes to the ground water sampling and monitoring program, as contained in the above-referenced document, are approved.

Please be advised that OCD approval does not limit EPNG to the proposed work plan should the plan fail to adequately monitor contamination at the site, or if contamination exists which is outside the scope of the plan. In addition, OCD approval does not relieve EPNG of responsibility for compliance with any other federal, state or local laws and regulations.

Mr. Scott T. Pope  
July 30, 2002  
Page 2

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

Sincerely,

A handwritten signature in black ink that reads "William C. Olson". The signature is written in a cursive style with a large, prominent "W" and "O".

William C. Olson  
Hydrologist  
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Supervisor



**Certified Mail: #7001 1940 0003 1553 8698**

June 12, 2002

Mr. William C. Olson  
New Mexico Oil Conservation Division  
1220 St. Francis Dr.  
Santa Fe, NM 87504

**RECEIVED**

**JUN 17 2002**

ENVIRONMENTAL BUREAU  
OIL CONSERVATION DIVISION

**RE: Remedial Action Plan for Chloride Impacted Groundwater Spill at the Jal No. 4 Gas Plant Located in Lea County, New Mexico**

Dear Mr. Olson:

El Paso Natural Gas Company (EPNG) hereby submits the enclosed "Remedial Action Plan for Chloride Impacted Soil Jal No. 4 Gas Plant Lea County, New Mexico" for your approval. The above mentioned report is in response to the chloride impacted groundwater spill that resulted from a frozen discharge line on a recovery well located at the Jal No. 4 site. The enclosed plan details the proposed remediation of the soil impacted by the spill.

EPNG requests written approval of the Remedial Action Plan so work can begin as soon as possible. If you have any questions concerning the Remedial Action Plan, please call me at (505) 599-2124.

Sincerely,

Scott T. Pope P.G.  
Senior Environmental Scientist

xc: Mr. Chris Williams, NMOCD, Hobbs - w / enclosures; **Certified Mail # 7001 1940 0003 1553 8681**  
Mr. Buddy Richardson, ABI - w / o enclosures  
Mr. Darrell Campbell, EPNG - w / o enclosures  
Mr. Ed Nichols, EPNG - ROW - w / o enclosures  
Jal 4 file - w / enclosures

**NOTICE OF PUBLICATION**

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

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

**(GW-107) – Sid Richardson Energy Services, Co., Mr. Wayne J. Farley, 201 Main Street, Suite 3000, Fort Worth, Texas 76102-3131, has submitted a discharge plan renewal application for their Jal#4 Compressor Station located in the SE/4 of Section 31, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico. Any potential discharge at the facility will be stored on site in closed top bermed tanks. Groundwater most likely to be affected by an accidental discharge is at a depth of 105 feet with a total dissolved solids concentrations of approximately 331 mg/l. The discharge plan addresses how spill, leaks, and other accidental discharges to the surface will be managed.**

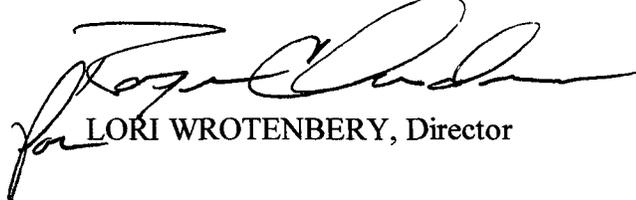
Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above.

The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday thru 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. 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 20th day of March, 2002.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
LORI WROTENBERY, Director

SEAL

**NOTICE OF PUBLICATION**

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

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

**(GW-107) – Sid Richardson Energy Services, Co., Mr. Wayne J. Farley, 201 Main Street, Suite 3000, Fort Worth, Texas 76102-3131, has submitted a discharge plan renewal application for their Jal #4 Compressor Station located in the SE/4 of Section 31, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico. Any potential discharge at the facility will be stored on site in closed top bermed tanks. Groundwater most likely to be affected by an accidental discharge is at a depth of 105 feet with a total dissolved solids concentrations of approximately 331 mg/l. The discharge plan addresses how spill, leaks, and other accidental discharges to the surface will be managed.**

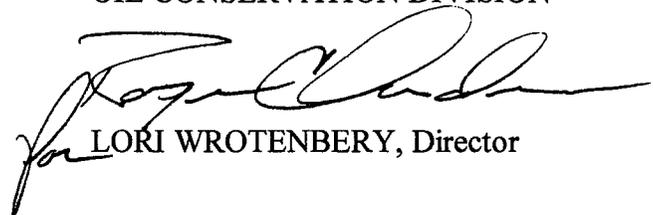
Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above.

The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday thru 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. 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 20th day of March, 2002.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
LORI WROTENBERY, Director

SEAL

**SID RICHARDSON**  
**ENERGY SERVICES CO. - JAL**

201 MAIN STREET, SUITE 3000  
FORT WORTH, TEXAS 76102-3131  
817 / 390-8685  
FAX 817/339-7394  
EMAIL: rlkawlik@sidrich.com

**Certified Mail – Return Receipt**  
**7000 1670 0005 7285 7940**

Mr. Roger Anderson  
Oil Conservation Division  
New Mexico Energy, Minerals, and Natural Resources Department  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

**Subject: Groundwater Discharge Plan GW-107**  
**Jal #4 Compressor Station**  
**Application for Renewal**

Dear Mr. Anderson:

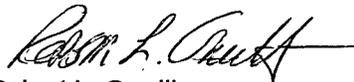
On June 23, 2002, Discharge Plan GW-107 as approved for our Jal #4 Compressor Station, will expire. In accordance with New Mexico Water Quality Control Commission regulations, a Renewal Application of the referenced discharge plan is being submitted for your review.

Please find attached two copies of the Groundwater Discharge Plan (GW-107) Renewal Application for the Jal #4 Compressor Station located in Lea County, New Mexico. Also attached, is the revised discharge plan for the site and the filing fee check (#800314) for the sum of \$740.00.

Revisions to the plan include the change of the Company name and responsible parties. Sid Richardson Gasoline Co. has changed its name to Sid Richardson Energy Services Co. - Jal. Also, there were a few minor changes made within the body of the attached plan.

If there are any questions, please do not hesitate to give me a call at the number indicated above.

Sincerely,



Robert L. Gawlik  
Manager, Environmental Health and Safety

C: MRR/WJF/CPO/HH  
David Maness - Jal #3 Plant Manager  
Chris Williams @  
New Mexico Oil Conservation Division  
Hobbs District Office  
1625 French Drive  
Hobbs, New Mexico 88240

**ROBERT L. GAWLIK**  
Manager, Environmental  
Health & Safety

March 15, 2002  
RLG-22-02

**RECEIVED**  
**MAR 19 2002**  
Environmental Bureau  
Oil Conservation Division

**SID RICHARDSON**  
**ENERGY SERVICES CO.**

201 MAIN STREET, SUITE 3000  
FORT WORTH, TEXAS 76102-3131  
817 / 390-8685  
FAX 817/339-7394  
EMAIL: [rlgawlik@sidrich.com](mailto:rlgawlik@sidrich.com)

**ROBERT L. GAWLIK**  
Manager, Environmental  
Health & Safety

**CERTIFIED MAIL – Return Receipt**  
**7000 0520 0024 3418 7232**

May 29, 2002  
RLG-39-02

New Mexico Oil Conservation Division  
Environmental Bureau  
Attn: Roger Anderson  
1220 South St. Francis Drive  
Santa Fe, NM 87505

**Re: Storm Water Run-Off Plan**  
**Jal #4 Compressor Station GW-107**

Dear Mr. Anderson:

This letter is in response to the Discharge Plan Renewal Approval GW-107. In the letter of approval the Oil Conservation Division (OCD) requested that Sid Richardson Energy Services Co. submit a storm water run-off plan for approval by OCD.

Oil and gas exploration and production facilities are exempt from the Clean Water Act (CWA) Storm Water Phase I regulations under most conditions. Specifically this facility is exempt from these regulations and as such has determined that it is not necessary to apply to the Environmental Protection Agency for a Multi-Sector General Permit nor is it necessary to develop a Storm Water Pollution Prevention Plan under the CWA.

At this facility storm water does not come into contact with any sources that may contaminate the storm water runoff except for the rain that falls onto the compressor engines that are not under cover. Storm water that falls onto these compressors is collected either on the compressor skids or is contained within the curbed concrete compressor pads and does not run-off from the facility.

If you have any questions about this application determination please contact me.

Sincerely,

  
Robert L. Gawlik

cc: MRR/WJF/CPO/HH  
David Maness

**SID RICHARDSON**  
**ENERGY SERVICES CO. - JAL**

201 MAIN STREET, SUITE 3000  
FORT WORTH, TEXAS 76102-3131  
817 / 390-8685  
FAX 817/339-7394  
EMAIL: [rlgawlik@sidrich.com](mailto:rlgawlik@sidrich.com)

**ROBERT L. GAWLIK**  
Manager, Environmental  
Health & Safety

May 31, 2002  
RLG-38-02

**Certified Mail – Return Receipt**  
**7000 0520 0024 3418 7225**

Mr. Roger Anderson  
Oil Conservation Division  
New Mexico Energy, Minerals, and Natural Resources Department  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

**Subject: Groundwater Discharge Plan GW-107**  
**Jal #4 Compressor Station**  
**Renewal fee balance**

Dear Mr. Anderson:

Please find attached the Groundwater Discharge Plan (GW-107) Renewal Application fee balance for the Jal #4 Compressor Station located in Lea County, New Mexico. The filing fee and flat rate for this site is set at \$1,800.00 of which \$740.00 was paid in March 2002. The flat rate fee balance due is for the amount of \$1,060.00. Attached is check (#800340) for the sum of \$1,060.00.

If there are any questions, please do not hesitate to give me a call at the number indicated above.

Sincerely,



Robert L. Gawlik  
Manager, Environmental Health and Safety

cc: MRR/WJF/CPO/HH  
David Maness - Jal #3 Plant Manager  
Chris Williams @  
New Mexico Oil Conservation Division  
Hobbs District Office  
1625 French Drive  
Hobbs, New Mexico 88240



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Betty Rivera

Cabinet Secretary

May 22, 2002

Lori Wrotenbery

Director

Oil Conservation Division

**CERTIFIED MAIL**

**RETURN RECEIPT NO. 3929 7853**

Mr. Wayne J. Farley  
Sid Richardson Energy Services Co.  
201 North Main Street  
Fort Worth, Texas 76102

**RE: Discharge Plan Fees  
Jal #4 Compressor Station GW-107  
Lea County, New Mexico**

Dear Mr. Farley:

The New Mexico Oil Conservation Division (OCD) is in receipt of your letter, dated May 13, 2002, regarding the fees required for the above captioned facility. A \$100.00 filing fee is required together with a flat fee in an amount that is determined by the horsepower rating at the site. The correct flat fee amount for this facility is \$1,700.00. This amount is required, under the new fee schedule (copy enclosed), for facilities with horsepower rating greater than 1001 horsepower. The renewal discharge plan application indicates that the total site horsepower rating is 11,450. The amount shown for the flat fee in the approved discharge plan renewal was in error.

The OCD records and your letter of May 13, 2002 indicates that a total amount paid by Sid Richardson Energy Services Co. is \$740.00. The total amount required for renewal of this facility is \$100.00 filing fee plus a flat fee of 1,700.00 for a total of \$1,800.00. With \$100.00 for the filing fee credited from the \$740.00 the balance due is \$1,700.00 less \$640.00 or \$1,060.00. Please remit the balance to **Water Quality Management Fund** c/o OCD, Santa Fe office.

The OCD regrets the confusion created by the error in the approved discharge plan document. If you have any questions contact me at (505) 476-3489.

Sincerely,

W. Jack Ford, C.P.G.  
Environmental Bureau  
Oil Conservation Division

Enclosure

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

7853 7001 1940 0004 3929 7853

**OFFICIAL USE**

|   |    |  |                  |
|---|----|--|------------------|
| Postage   | \$ |  | Postmark<br>Here |
| Certified Fee                                     | \$ |  |                  |
| Return Receipt Fee<br>(Endorsement Required)      | \$ |  |                  |
| Restricted Delivery Fee<br>(Endorsement Required) | \$ |  |                  |
| Total Postage & Fees                              | \$ |  |                  |

Santa Fe, NM 87505

Street, Apt. No.,  
or PO Box No. *101*

City, State, ZIP+ 4 *Santa Fe, NM 87505-101*

PS Form 3800, January 1997 See Reverse for Instructions

**SID RICHARDSON**  
**ENERGY SERVICES CO. - JAL**

201 MAIN STREET, SUITE 3000  
FORT WORTH, TEXAS 76102-3131  
817 / 390-8685  
FAX 817/339-7394  
EMAIL: [rlgawlik@sidrich.com](mailto:rlgawlik@sidrich.com)

**ROBERT L. GAWLIK**  
Manager, Environmental  
Health & Safety

May 13, 2002  
RLG-34-02

Certified Mail – Return Receipt  
7000 0520 0024 3418 7140

Mr. Roger Anderson  
Oil Conservation Division  
New Mexico Energy, Minerals, and Natural Resources Department  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

**Subject: Groundwater Discharge Plan GW-107**  
**Jal #4 Compressor Station**  
**Discharge Plan Approval Conditions**

Dear Mr. Anderson:

Please find attached one signed copy of the Discharge Plan Approval Conditions for the Jal #4 (GW-107) Compressor Station located in Lea County, New Mexico. Please note that a copy of this letter has also been sent to Mr. Chris Williams in the Hobbs OCD office.

In your letter dated May 2, 2002, in which you indicated that plan GW-107 was approved, you also indicated that the application fee was received and the filing fee was not received. Please find attached, a copy of the letter sent concerning the renewal application, a copy of the application/filing fee check (#800314) with stub for the sum of \$740.00 and a copy of the cancelled check. My understanding was that the fees had increased is the reason for the overpayment of \$240.00 to the OCD. Please reimburse Sid Richardson Gas - Jal the overpayment amount.

If there are any questions, please do not hesitate to give me a call at the number indicated above.

Sincerely,



Robert L. Gawlik  
Manager, Environmental Health and Safety

c: MRR/WJF/CPO/HH  
David Maness - Jal #3 Plant Manager  
Chris Williams @  
New Mexico Oil Conservation Division  
Hobbs District Office  
1625 French Drive  
Hobbs, New Mexico 88240

**SID RICHARDSON**  
**ENERGY SERVICES CO. - JAL**

201 MAIN STREET, SUITE 3000  
FORT WORTH, TEXAS 76102-3131  
817 / 390-8685  
FAX 817/339-7394  
EMAIL: [rlgawlik@sidrich.com](mailto:rlgawlik@sidrich.com)

**Certified Mail – Return Receipt**  
**7000 1670 0005 7285 7940**

Mr. Roger Anderson  
Oil Conservation Division  
New Mexico Energy, Minerals, and Natural Resources Department  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

**Subject: Groundwater Discharge Plan GW-107**  
**Jal #4 Compressor Station**  
**Application for Renewal**

Dear Mr. Anderson:

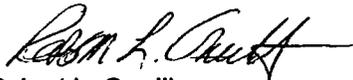
On June 23, 2002, Discharge Plan GW-107 as approved for our Jal #4 Compressor Station, will expire. In accordance with New Mexico Water Quality Control Commission regulations, a Renewal Application of the referenced discharge plan is being submitted for your review.

Please find attached two copies of the Groundwater Discharge Plan (GW-107) Renewal Application for the Jal #4 Compressor Station located in Lea County, New Mexico. Also attached, is the revised discharge plan for the site and the filing fee check (#800314) for the sum of \$740.00.

Revisions to the plan include the change of the Company name and responsible parties. Sid Richardson Gasoline Co. has changed its name to Sid Richardson Energy Services Co. - Jal. Also, there were a few minor changes made within the body of the attached plan.

If there are any questions, please do not hesitate to give me a call at the number indicated above.

Sincerely,



Robert L. Gawlik  
Manager, Environmental Health and Safety

C: MRR/WJF/CPO/HH  
David Maness - Jal #3 Plant Manager  
Chris Williams @  
New Mexico Oil Conservation Division  
Hobbs District Office  
1625 French Drive  
Hobbs, New Mexico 88240

**ROBERT L. GAWLIK**  
Manager, Environmental  
Health & Safety

March 15, 2002  
RLG-22-02

# Affidavit of Publication

STATE OF NEW MEXICO )  
 ) ss.  
COUNTY OF LEA )

Joyce Clemens being first duly sworn on oath deposes and says that she is Advertising Director of **THE LOVINGTON DAILY LEADER**, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled

Legal Notice

was published in a regular and entire issue of **THE LOVINGTON DAILY LEADER** and not in any supplement thereof, for one (1) day, beginning with the issue of March 27, 2002 and ending with the issue of March 27, 2002.

And that the cost of publishing said notice is the sum of \$49.72 which sum has been (Paid) as Court Costs.

Joyce Clemens

Subscribed and sworn to before me this 27th day of March 2002

Debbie Schilling

Debbie Schilling  
Notary Public, Lea County, New Mexico  
My Commission Expires June 22, 2002

## LEGAL NOTICE NOTICE OF PUBLICATION

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

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

(GW-107) - Sid Richardson Energy Services, Co., Mr. Wayne J. Farley, 201 Main Street, Suite 3000, Fort Worth, Texas 76102-3131, has submitted a discharge plan renewal application for their Jal #4 Compressor Station located in the SE/4 of Section 31, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico. Any potential discharge at the facility will be stored on site in closed top bermed tanks. Groundwater most likely to be affected by an accidental discharge is at a depth of 105 feet with a total dissolved solids concentration of approximately 331 mg/l. The discharge plan addresses how spill, 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 thru 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. 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 20th day of March, 2002.

STATE OF  
NEW MEXICO  
OIL CONSERVATION  
DIVISION  
LORI WROTENBERY,  
Director

SEAL

Published in the Lovington Daily Leader March 27, 2002.

THE SANTA FE  
**NEW MEXICAN**  
Founded 1849

NM OIL CONSERVATION DIVISION

AD NUMBER: 253599      ACCOUNT: 56689  
LEGAL NO: 71147      P.O.#: 02199000249  
178 LINES      1 time(s) at \$ 78.47  
AFFIDAVITS:      5.25  
TAX:      5.23  
TOTAL:      88.95

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 #71147 a copy of which is hereto attached was published in said newspaper 1 day(s) between 04/02/2002 and 04/02/2002 and that the notice was published in the newspaper proper and not in any supplement; the first publication being on the 2 day of April, 2002 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

/s/ K. Voorhees  
LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this  
2 day of April A.D., 2002

Notary Janet L. Montoya  
Commission Expires 12/30/03

en above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday thru 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. 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 20th day of March, 2002.

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

SEAL

LORI WROTENBERY, Director  
Legal #71147  
Pub. April 2, 2002



OFFICIAL SEAL  
Janet L. Montoya  
NOTARY PUBLIC - STATE OF NEW MEXICO  
MY COMMISSION EXPIRES 12/30/03

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

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

(GW-107) - Sid Richardson Energy Services, Co., Mr. Wayne J. Farley, 201 Main Street, Suite 3000, Fort Worth, Texas 76102-3131 has submitted a discharge plan renewal application for their Jal #4 Compressor Station located in the SE/4 of Section 31, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico. Any potential discharge at the facility will be stored on site in closed top bermed tanks. Groundwater most likely to be affected by an accidental discharge is at a depth of 105 feet with a total dissolved solids concentration of approximately 331 mg/l. The discharge plan addresses how spill, 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.

OIL CONSERVATION DIV.  
APR 4 AM 11:55

## Ford, Jack

---

**From:** Martin, Ed  
**Sent:** Tuesday, March 26, 2002 7:51 AM  
**To:** Lovington Daily Leader  
**Cc:** Ford, Jack; Anaya, Mary  
**Subject:** Legal Notice

Please publish the attached legal notice, one time only, on or before Tuesday, April 2, 2002.  
Upon publication, forward to this office:

1. Publisher's affidavit
2. Invoice. Our purchase order number is **02199000250**

If you have any questions, please contact me.

Thank you.



Publ. Notice  
GW-107.doc

*Ed Martin*

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

## Ford, Jack

---

**From:** Martin, Ed  
**Sent:** Tuesday, March 26, 2002 7:46 AM  
**To:** Santa Fe New Mexican (E-mail)  
**Cc:** Ford, Jack; Anaya, Mary; Bruce S. Garber; Chris Shuey; Colin Adams; Director, State Parks; Don Neeper; Gerald R. Zimmerman; Jack A. Barnett; James Bearzi; Jay Lazarus; Lee Wilson & Associates; Marcy Leavitt; Mike Matush; Mike Schultz; Ned Kendrick; Regional Forester; Ron Dutton; Secretary, NMED  
**Subject:** Legal Notices

Please publish the attached legal notices, one time only, on or before Tuesday, April 2, 2002.

Upon publication, forward to this office:

1. Publisher's affidavit
2. Invoice. Our purchase order number is **02199000249**

If you have any questions, please contact me.

Thank you.



Publ. Notice  
GW-120,281.doc



Publ. Notice  
GW-107.doc

*Ed Martin*

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

**Ford, Jack**

---

**From:** Ford, Jack  
**Sent:** Friday, March 22, 2002 3:08 PM  
**To:** Martin, Ed  
**Subject:** Public Notice for GW-107



107PUB.DOC



TULSA OFFICE  
2488 East 81st Street  
Suite 7000  
Tulsa, OK 74137  
telephone 918/496-0059  
fax 918/496-0132

ENVIRONMENTAL DIVISION  
FORMERLY ROBERTS / SCHORNICK & ASSOCIATES

February 14, 2002

Mr. William C. Olson  
Hydrogeologist, Environmental Bureau  
State of New Mexico  
Energy, Minerals and Natural resources Department  
Oil Conservation Division  
1220 South St Francis Dr  
Santa Fe, New Mexico 87505

RECEIVED

FEB 15 2002

Re: **Report Submittal**  
**2001 Annual Groundwater Remediation Report**  
**Jal No. 4 Plant**  
**Lea County, New Mexico**

ENVIRONMENTAL BUREAU  
OIL CONSERVATION DIVISION

Dear Mr. Olson:

Atkins Benham, Inc. Environmental Division (ABI), has been retained by El Paso Corporation (EPC) to compile the 2001 Annual Groundwater Remediation Report (Report) for the Jal No. 4 Plant in Lea County, New Mexico. Please find enclosed one (1) copy of this Report. As directed, one (1) copy of this Report is also being submitted to the Hobbs District Supervisor.

If you have any questions or comments concerning this Report, please do not hesitate to contact Scot Pope with EPC/Farmington at (505) 599-2124, or myself at (918) 496-0059.

Sincerely,  
**Atkins Benham, Inc, Environmental Division**

for George H. Richardson, P.G.  
Senior Project Manager

GHR/pps

xc: Darrell G. Campbell (EPNG/El Paso)  
Marc R. Ferris (EPC/Houston)(w/o encl)  
Scott Pope (EPC/Farmington)  
Bob St. John (EPNG/Midland)(w/o encl)  
Christopher J. Williams (NMOCD/Hobbs)

**Olson, William**

---

**From:** Brisbin, Steven D. [Steven.Brisbin@ElPaso.com]  
**Sent:** Wednesday, January 09, 2002 9:22 AM  
**To:** William C. Olson (E-mail)  
**Cc:** Darrell Campbell (E-mail); Scott Pope (E-mail); Robbin Spoon (E-mail)  
**Subject:** Jal #4 Monitor Wells

Listed below is the schedule for sampling wells at Jal #4 Plant. If a problem should arise that would change this schedule I will notify you. If you have any question's please call me at (915)333-5511 or (915) 638-6330.  
The week of February 19, 2002  
The week of May 6, 2002  
The week of August 5, 2002  
The week of October 21, 2002

Thank You, Steve Brisbin

\*\*\*\*\*  
This email and any files transmitted with it from the ElPaso Corporation are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this email in error please notify the sender.  
\*\*\*\*\*

District I - (505) 393-6161

P. O. Box 1940  
Hobbs, NM 88241-1980

District II - (505) 748-1283

811 S. First  
Artesia, NM 88210

District III - (505) 334-6178

1000 Rio Brazos Road  
Aztec, NM 87410

District IV - (505) 827-7131

# State of New Mexico

Energy Minerals and Natural Resources Departments  
Oil Conservation Division

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

Form C-141

Originated 2/13/97

Submit 2 Copies to  
Appropriate District  
Office in accordance  
with Rule 116

## Release Notification and Corrective Action

### OPERATOR

Initial Report

Final Report

|   |  |
|---|--|
| Name<br>El Paso Natural Gas                     | Contact<br>Scott Pope                              |
| Address<br>614 Reilly Ave, Farmington, NM 87401 | Telephone No.<br>(505) 599-2124                    |
| Facility Name<br>Jal 4 Remediation Project      | Facility Type<br>Pump and Treat Remediation system |

|  |                      |                  |
|--|----------------------|------------------|
| Surface Owner<br>Jimmy and Becky Dooms | Mineral Owner<br>N/A | Lease No.<br>N/A |
|--|----------------------|------------------|

### LOCATION OF RELEASE

|                  |              |                  |               |               |                             |               |                            |               |
|------------------|--------------|------------------|---------------|---------------|-----------------------------|---------------|----------------------------|---------------|
| Unit Letter<br>C | Section<br>5 | Township<br>24 S | Range<br>37 E | Feet from the | North/South Line<br>600 FNL | Feet from the | East/West Line<br>1980 FWL | County<br>Lea |
|------------------|--------------|------------------|---------------|---------------|-----------------------------|---------------|----------------------------|---------------|

### NATURE OF RELEASE

|   |  |  |
|---|--|--|
| Type of Release<br>Frozen valve on discharge line ruptured spilling, water high in chlorides.   | Volume released<br>approximately 71 barrels                    | Volume Recovered<br>None                           |
| Source of Release<br>Groundwater remediation pumping well discharge line form ENSR-2. ENSR-2 line ties to line from RW - 2, which goes from RW -2 under Highway to disposal well. | Date and Hour of Occurrence<br>11/28/01 Approx. 12:00 midnight | Date and Hour of Discovery<br>11/28/01, 12:00 noon |
| Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required   | If YES, To Whom?<br>Bill Olson                                 |  |
| By Whom?<br>Scott Pope  | Date and Hour<br>11/28/01 approximately 3:00 pm                |  |
| Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  | If YES, Volume Impacting Watercourse.                          |  |

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

Valve on discharge line froze and ruptured at RW-2. Water being removed from ENSR-2 escaped at the ruptured valve on RW-2. Valve and line have been repaired. We are getting costs for the installation of electrical supply to provide a heat source to keep lines from freezing in the future. We are also looking into installing back flow preventers in discharge lines.

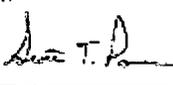
Describe Area Affected and Cleanup Action Taken.\*

Area affected by spill was approximately 8-10 feet wide by 30 - 40 feet long. See attached pictures of affected area. Soil samples were collected for TPH and chlorides. Remedial action will depend on results of soil samples. Sample results are expected within the next week.

Describe General Conditions Prevailing (Temperature, Precipitation, etc.)\*

Freezing temperatures, snowy and windy.

I hereby certify that the information given is true and correct to the best of my knowledge and belief:

Signature: 

Printed Name: Scott T. Pope

Title: Senior Environmental Scientist

Date: 12/7/01

Phone: (505) 599-2124

### OIL CONSERVATION DIVISION

Approved by  
District Supervisor:

Approval Date:

Expiration Date:

Conditions of Approval:

Attached:

\*Attach Additional Sheets If Necessary

**IMPORTANT MESSAGE**

FOR \_\_\_\_\_

DATE 11/28 TIME 2:48 A.M.  
P.M.

M Scott Pizer

OF \_\_\_\_\_

PHONE 599-2124  
AREA CODE NUMBER EXTENSION

FAX

MOBILE \_\_\_\_\_  
AREA CODE NUMBER TIME TO CALL

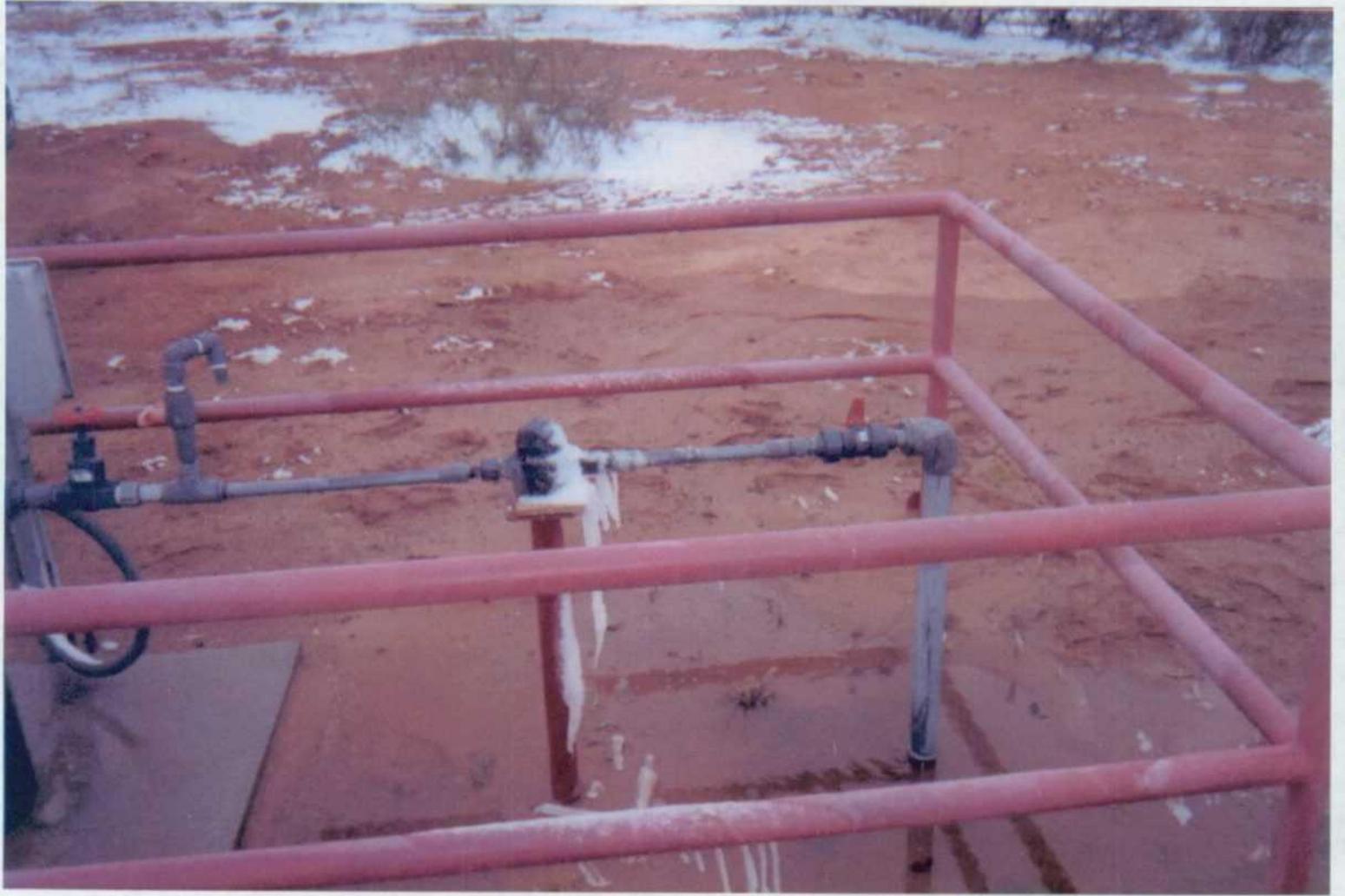
|                    |  |                   |  |
|--------------------|--|-------------------|--|
| TELEPHONED         |  | PLEASE CALL       |  |
| CAME TO SEE YOU    |  | WILL CALL AGAIN   |  |
| WANTS TO SEE YOU   |  | RUSH              |  |
| RETURNED YOUR CALL |  | SPECIAL ATTENTION |  |

MESSAGE \_\_\_\_\_

Truck #4 line broke (frost)  
spilled contents into  
car from property.  
8' diameter 30 long

SIGNED Noted Pizer

Collect samples BTEX, PAH, etc















# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

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

December 31, 2001

**Lori Wrotenbery**  
Director  
Oil Conservation Division

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. 3929 6993**

Mr. Wayne J. Farley  
Sid Richardson Energy Services, Ltd.  
201 Main Street, Suite 3000  
Fort Worth, Texas 76102

**RE: Discharge Plan Renewal Notice for the Sid Richardson Energy Services, Ltd.  
Facility**

Dear Mr. Farley:

Sid Richardson Energy Services, Ltd. has the following discharge plan which expires in 2002.

**GW-107 expires 6/23/2002 – Jal #4 Compressor Station**

**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]

The discharge plan renewal application for each of the above facilities is subject to WQCC Regulation 20NMAC 6.2.3114. Every billable facility submitting a discharge plan renewal will be assessed a fee equal to the filing fee of \$100.00. Renewal discharge plans require a flat fee equal to the flat fee schedule for gas processing facilities dependent upon the horsepower rating.

Please make all checks payable to: **NMED-Water Quality Management** and addressed to the OCD Santa Fe Office. Please submit the original discharge plan renewal application and one copy to the OCD Santa Fe Office and one copy to the OCD Hobbs District Office. **Note that the completed and signed application form must be submitted with your discharge plan renewal request.** A complete copy of the regulations is also available on NMED's website at [www.nmenv.state.nm.us](http://www.nmenv.state.nm.us).

Mr. Wayne J. Farley  
December 31, 2001  
Page 2

If any of the above-sited facility no longer has any actual or potential discharges and a discharge plan is not needed, please notify this office. If the Sid Richardson Energy Services, Ltd. has any questions, please do not hesitate to contact Mr. Jack Ford at (505) 476-3489.

Sincerely,



Roger C. Anderson  
Oil Conservation Division

cc: OCD Hobbs District Office

| U.S. Postal Service<br>CERTIFIED MAIL RECEIPT<br>(Domestic Mail Only; No Insurance Coverage Provided) |                              |
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| W. Farley   |                              |
| Street, Apt. No.;<br>or PO Box No.  |                              |
| S. Richardson   |                              |
| City, State, ZIP+ 4   |                              |
| GW-107  |                              |
| PS Form 3800, January 2001  | See Reverse for Instructions |

7001 1940 0004 3929 6993



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

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

**Lori Wrotenbery**  
Director  
Oil Conservation Division

January 8, 2001

Sid Richardson Gasoline Company  
Attn: Randall Dunn  
P.O. Box 1226  
Jal, New Mexico 88252

Re: Request to move contaminated soil  
Dated January 3, 2001  
Sec 2-T25S-R37E  
Site # 00022

Dear Mr. Dunn:

The New Mexico Oil Conservation Division (NMOCD) is in receipt of Sid Richardson Gasoline Company's (Sid Richardson) request to move contaminated soil dated January 3, 2001. Chris Williams, District I Supervisor, granted approval to move contaminated soil from section 2, Township 25 South, and Range 37 East, to section 31, Township 23 South, and Range 37 East where the depth to groundwater increases to over 100 feet. The NMOCD has the following conditions placed on the above approval given by Chris Williams:

1. Sid Richardson sampled the following: 00022 Rock Stockpile Blend, Soil Stockpile Composite, 60/40 Mix, and 00022 Blend #4 all collected on December 28, 22, 29 (respectively) of 2000 for BTEX levels. The levels reported on the above referenced location are above the levels required in the New Mexico Guidelines. This confirmation shall be performed with laboratory analysis.
2. Sid Richardson shall be aware that this is only a one time approval to haul contaminated soil to Sid Richardson's Plant # 4. If Sid Richardson hauls more contaminated soil to the Plant # 4, Sid Richardson shall obtain a 711 permit, for a commercial landfarm in accordance with Rule 711.
3. Sid Richardson shall submit, to the NMOCD District I Hobbs Office, a closure report by February 16, 2001.

Please be advised that OCD approval and request for more information does not limit Sid Richardson to the proposed work if the plan fails to adequately remediate or determine the extent of contamination related to Sid Richardson's activities, or if contamination exists which is outside the scope of the plan. In addition, OCD approval does not relieve Sid Richardson of responsibility for compliance with any other federal, state or local laws and regulations.

If you have any questions, please contact Donna Williams at (505) 393-6161 ext. 113.

Sincerely,

Donna Williams  
Environmental Engineer Specialist  
cc: Roger Anderson-Environmental Bureau Chief  
Chris Williams - District I Supervisor



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

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

**Lori Wrotenbery**  
Director  
Oil Conservation Division

December 28, 2000

**CERTIFIED MAIL 7099 3220 0002 3948 3373**  
**RETURN RECEIPT REQUESTED**

Sid Richardson Gasoline Company  
Attn: Randall Dunn  
P.O. Box 1226  
Jal, New Mexico 88252

Re: Sam Cooper Ranch Remediation Project

Dear Mr. Dunn:

The New Mexico Oil Conservation Division (NMOCD) has become aware that Sid Richardson Gasoline Company (Sid Richardson) is remediating past spill sites and hauling and disposing of contaminated soil into an un-permitted landfarm, without the approval of the NMOCD. The NMOCD contacted Sid Richardson on December 27, 2000, concerning this matter. Sid Richardson requested information as to the NMOCD's authority of notification and approval of their activities.

Pursuant to NMOCD Rule 116.D CORRECTIVE ACTION: *The responsible person must complete Division approved corrective action for releases which endanger public health or the environment. Releases will be addressed in accordance with a remediation plan submitted to and approved by the Division or with an abatement plan submitted in accordance with Rule 19 (19 NMAC 15.A.19).* The NMOCD requires that Sid Richardson submit a remediation plan for these spill remediation sites that includes:

1. The status of the wastes at each site. Sid Richardson must demonstrate that all waste would be Exempt or is classified as RCRA Non-Hazardous per EPA CFR 40 part 261.
2. A legal survey and plot plan for each proposed spill remediation site(s). Include on each plot plan the location of all spills, excavated areas, buried pipelines and other significant surface equipment or features.
3. All prior site assessment and closure information conducted at each proposed remediation site(s) including copies of all laboratory analytical results demonstrating that the extent of contamination has been delineated, the contamination has been remediated and information on how Sid Richardson determined the appropriate soil remediation levels for TPH and BTEX at each site.
4. A proposed plan for completing an investigation of the extent of contamination and remediation for each site.

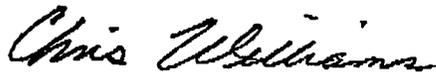
In addition, the NMOCD has the following requirements and requests for information regarding the landfarm sites for remediation of contaminated soils:

1. Please provide a legal survey and plot plan for each landfarm site(s). Include on each plot plan the physical location of the landfarms, the location and/or distance to any buried pipeline and any other significant surface equipment or features.
2. Please provide a list of the origin and type of wastes placed in each landfarm site and information on how the landfarms are being operated.
3. Please provide copies of all laboratory analytical results conducted to date of soils from each landfarm site
4. Sid Richardson shall not cover or close any landfarm site without first notifying the NMOCD District office.

**Sid Richardson is hereby notified that, pursuant to NMOCD Rule 116, Sid Richardson is required to submit for NMOCD approval a remediation plan or an abatement plan for any future sites and/or cleanup projects.**

If you have any questions, please contact Donna Williams at (505) 393-6161 ext. 113.

Sincerely,



Chris Williams - District I Supervisor

cc: Roger Anderson-Environmental Bureau Chief  
Donna Williams-Environmental Engineer Specialist  
Martyne Kieling-Environmental Geologist  
File



TULSA OFFICE  
2488 East 81st Street  
Suite 610  
Tulsa, OK 74137  
telephone 918/496-0059  
fax 918/496-0132

ENVIRONMENTAL DIVISION FORMERLY ROBERTS / SCHORNICK & ASSOCIATES

November 28, 2001

Mr. Roger Anderson  
Bureau Chief, Environmental Bureau  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Mr. Christopher Williams  
District Supervisor, Hobbs District  
Oil Conservation Division  
1625 French Dr  
Hobbs, NM 88240



**FOIA Request**  
**Jal #4 Gas Plant Sections 32 and 33 T23S-R37E and Sections 5 and 6 T24S-R37E**  
**Lea County, New Mexico**

Dear Messrs. Anderson and Williams:

In accordance with the Freedom of Information Act (FOIA) found in 5 U.S.C. Section 552, as amended, Atkins Benham, Inc. Environmental Division (ABI) seeks to identify all records within the possession of the New Mexico Oil Conservation Division (OCD) for the Jal #4 Gas Plant located in Lea County, New Mexico. ABI requests to review any and all records that may be present within the files of the OCD.

The Jal #4 Gas Plant facility is located approximately 11 miles north of Jal, New Mexico on Hwy 18.

ABI requests a complete and thorough search of all filing systems and locations for all records pertaining to and/or captioned as Jal #4 Gas Plant. These records could also be found under the past and/or current operators of the plant including El Paso Natural Gas Corporation and Christie Gas Corporation.



Messrs. Roger Anderson and Christopher Williams  
November 28, 2001

Page 2

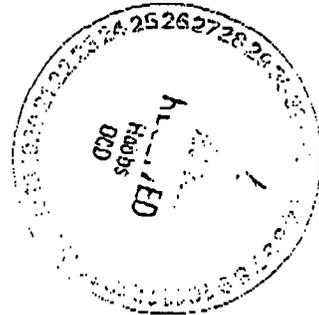
ABI will guarantee payment of fees for research and/or reproduction/shipping; ABI's Taxpayer Identification Number (TIN) is 73-0790103. If you have any questions or need additional information, please call me at 918/496-0059 extension 188. Correspondence should be directed to me at the address shown above.

Sincerely,

**Atkins Benham, Inc., Environmental Division**



Patrick P. Steffanelli, P.E.  
Project Engineer





# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

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

**Lori Wrotenberg**  
Director  
Oil Conservation Division

FAX

TO: Bill Olson

FROM: Paul Sweeney  
Energy, Minerals and Natural Resources Department,  
Oil Conservation Division

RE: Record search letter per (phone conv.)

DATE: 12-27-01

Hi Bill,

Letter follows.

Pauls  
Paul

Pages (Including Transmittal)



ENVIRONMENTAL DIVISION FORMERLY ROBERTS / SCHORNICK & ASSOCIATES

TULSA OFFICE  
2488 East 81st Street  
Suite 6100  
Tulsa, OK 74137  
telephone 918/496-0059  
fax 918/496-0132

February 13, 2001

Mr. William C. Olson  
Hydrogeologist, Environmental Bureau  
State of New Mexico  
Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505

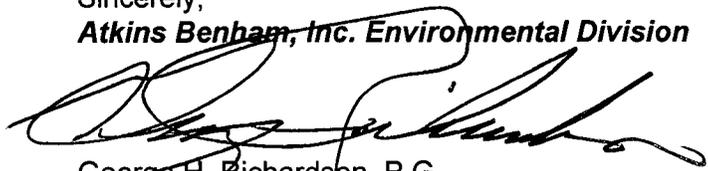
**RE: Report Submittal  
2000 Annual Groundwater Remediation Report  
Jal No. 4 Plant  
Lea County, New Mexico**

Dear Mr. Olson:

Atkins Benham, Inc. Environmental Division (ABI), formerly Roberts/Schornick & Associates, Inc., has been retained by El Paso Corporation (EPC) to compile the 2000 Annual Groundwater Remediation Report (Report) for the Jal No. 4 Plant in Lea County, New Mexico. Please find enclosed one (1) copy of this Report. As directed, one (1) copy of this Report is also being submitted to the Hobbs District Supervisor.

If you have questions or comments concerning this Report, please do not hesitate to contact Gerry Garibay with EPC/Houston at (713) 420-3827, or myself at (918) 496-0059.

Sincerely,  
**Atkins Benham, Inc. Environmental Division**



George H. Richardson, P.G.  
Senior Project Manager

GHR/bem

xc: Darrell G. Campbell (EPNG/El Paso)  
Marc R. Ferries (EPC/Houston)(w/o encl)  
Gerry Garibay (EPC/Houston)  
Tom J. Martinez (EPNG/Midland)(w/o encl)  
Chris Williams (NM OCD/Hobbs)

H:\1997\97171\9717101\Corresp\L006.wpd

**Olson, William**

**From:** Brisbin, Steven D. [SMTP:Brisbin.Steven@EPEnergy.com]  
**Sent:** Friday, February 02, 2001 1:04 PM  
**To:** William C. Olson (E-mail)  
**Cc:** Darrell Campbell (E-mail)  
**Subject:** FW: JAL #4 MONITOR WELL SAMPLING

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

)  
**Subject:** JAL #4 MONITOR WELL SAMPLING

Mr Olson,

Listed below are the dates I have scheulde for sampling wells at Jal#4  
Plant

Febuary 20-23, 2001  
May 7-11, 2001  
August 6-10, 2001  
October 22-26, 2001

If I have to change these date for any reasons I will let you know.  
Thank You, Steve Brisbin  
(915)333-5511 (915)664-5074

.....  
This email and any files transmitted with it from El Paso Energy Corporation are confidential and  
intended solely for the use of the individual or entity to whom they are addressed. If you have  
received this email in error please notify the sender.  
.....

February 14, 1999



environmental  
consultants

2488 East 81st Street  
Suite 610  
Tulsa, OK 74137  
918/496-0059  
FAX 918/496-0132

A Benham Company

Mr. William C. Olson  
Hydrogeologist, Environmental Bureau  
State of New Mexico  
Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505

RECEIVED

FEB 15 2000

ENVIRONMENTAL BUREAU  
OIL CONSERVATION DIVISION

**RE: Report Submittal  
1999 Annual Groundwater Remediation Report  
Jal No. 4 Plant  
Lea County, New Mexico**

Dear Mr. Olson:

Roberts/Schornick & Associates, Inc. (RSA) has been retained by El Paso Energy Corporation (EPEC) to compile the 1999 Annual Groundwater Remediation Report for the Jal No. 4 Plant in Lea County, New Mexico. Please find enclosed one (1) copy of this report. As you directed, a copy of this report is also being submitted to the Hobbs District Supervisor.

If you have questions or comments on this report, please do not hesitate to contact Gerry Garibay with EPEC/Houston at (713) 420-3827, or myself at (918) 496-0059.

Sincerely,  
**Roberts/Schornick & Associates, Inc.**

George H. Richardson, P.G.  
Senior Project Manager

GHR/me

xc: Darrell G. Campbell (EPNG/El Paso)  
Marc R. Ferries (EPEC/Houston)(w/o encl)  
Gerry Garibay (EPEC/Houston)  
Tom J. Martinez (EPNG/Midland)(w/o encl)  
Chris Williams (NM OCD/Hobbs)

TO: William C. Olson  
FROM: Steven Brisbin

DATE: February 5, 2000  
PLACE: Technical Services Division

**SUBJECT: JAL #4 MONITOR WELLS**

Listed below is the schedule for sampling Jal#4 monitor wells. If a problem should arise that would change this schedule I will notify you. If you have any question's please call me at (915)333-5511 or (915) 664-5074.

FEBRUARY 22, 2000

MAY 8 THRU 12,2000

AUGUST 7, 2000

OCTOBER 23THRU 27,2000

Thank You, Steve Brisbin



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 18, 1999

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. Z-274-520-698**

Mr. Gerry Garibay  
El Paso Energy Corporation  
P.O. Box 2511  
Houston, Texas 77252-2511

**RE: MONITORING WELL WORK PLAN  
EPNG JAL #4  
LEA COUNTY, NEW MEXICO**

Dear Mr. Garibay:

The New Mexico Oil Conservation Division (OCD) has completed a review of El Paso Energy Corporation's (EPEC) June 24, 1999 "MONITORING WELL INSTALLATION WORK PLAN, EPNG JAL NO. 4, LEA COUNTY, NEW MEXICO". This document contains EPEC's work plan for installation of an additional monitoring well to determine the extent of ground water contamination related to the Jal #4 gas plant.

The work plan for additional investigations as contained in the above referenced document is **approved.**

Please be advised that OCD approval does not limit EPEC to the proposed work plan should the investigation actions fail to adequately define the extent of contamination, or if contamination exists which is outside the scope of the work plan. In addition, OCD approval does not relieve EPEC of responsibility for compliance with any other federal, state or local laws and regulations.

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

Sincerely,

A handwritten signature in black ink, appearing to read "William C. Olson".

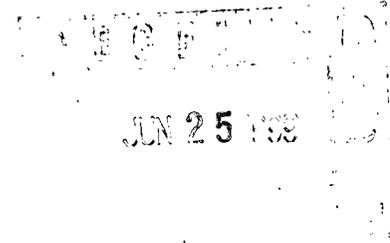
William C. Olson  
Hydrologist  
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Supervisor



June 24, 1999

Mr. William C. Olson  
Hydrogeologist, Environmental Bureau  
Energy, Mineral and Natural Resources Department  
New Mexico Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, New Mexico 87505



**RE: Monitoring Well Installation Work Plan  
EPNG Jal No. 4  
Lea County, New Mexico**

Dear Mr. Olson:

As requested in your letter dated April 26, 1999, EPEC is submitting for approval a work plan for installation of an additional off-site monitoring well adjacent to the Jal No. 4 site. EPEC is negotiating an access agreement with the landowner on whose property the monitoring well will be installed. Installation of the monitoring well will occur once OCD has approved the submitted work plan and the landowner has approved the access agreement.

Please contact me at (713) 420-3827, if you have questions or need additional information.

Sincerely,

A handwritten signature in cursive script that reads 'Gerry Garibay'.

Gerry Garibay  
Principal Environmental Scientist  
Environmental Remediation

Enclosure

cc: Chris Williams  
Hobbs District Supervisor  
New Mexico Oil Conservation Division  
P.O. Box 1980  
Hobbs, NM 88240

**PROJECT WORK PLAN**

**JAL No.4 FACILITY  
LOCATED  
NEAR JAL, NEW MEXICO**

**June 24, 1999**

**EL PASO NATURAL GAS COMPANY  
P.O. Box 2511  
Houston, Texas 77252-2511**

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**PROJECT WORK PLAN**  
**Jal No. 4 Facility**  
**Located Near Jal, New Mexico**

**1.0 INTRODUCTION**

El Paso Natural Gas Company (EPNG) hereby submits this work plan to the New Mexico Oil Conservation Division (OCD) for the installation of an additional parameter monitoring well as part of the groundwater extraction, investigation and monitoring project at the Jal No. 4 Plant located approximately 10 miles north of Jal, New Mexico.

In 1989, EPNG detected a leak in the liner of a water-storage pond associated with the Jal No. 4 facility. The release consisted of high salinity water (brine) produced by the facility. At the request of the OCD, EPNG initiated a subsurface investigation of the leak in 1989. In response to this request, EPNG hired K.W. Brown & Associates, Inc. to perform a two-phased hydrogeologic study of the release. Based upon the results of these studies, a potential for off-site contamination was established; therefore, the OCD requested that EPNG further evaluate the potential vertical and horizontal extent of the contaminant plume. EPNG contracted Burlington Environmental Inc. and Philip Environmental Services Corporation to further evaluate and remediate the contaminant plume.

The eight reports, which have been prepared since the leak was discovered, are:

- Expanded Hydrogeology Study for the El Paso Natural Gas Company Jal 4 Facility (K.W. Brown & Associates, Inc., 1990);
- Expanded Hydrogeology Study for the El Paso Natural Gas Company Jal 4 Facility: Phase II (K.W. Brown & Associates, Inc., 1991);
- Terrain Conductivity Survey Report (Burlington Environmental Inc., 1992);
- Phase III Groundwater Study EPNG Jal No. 4 Plant (Burlington Environmental Inc., 1992);
- Phase IV Groundwater Study EPNG Jal No. 4 Plant (Philip Environmental Services Corporation., 1993);
- Jal No.4 Groundwater Delineation Report (Philip Environmental Services Corporation, 1996);
- 1997 Annual Groundwater Remediation Report EPNG Jal No. 4 (El Paso Natural Gas, 1998) and;
- 1998 Annual Groundwater Remediation Report EPNG Jal No. 4 (Roberts/Schornick and Associates, Inc., 1999)

According to K. W. Brown (1990), the principle water-bearing unit at the site is the Tertiary Ogallala Formation. The Ogallala unconformably overlies water-bearing red-bed sediments of the Dockum Group of the Triassic Chinle Formation. Groundwater at the site is unconfined. Locally, the saturated thickness of the Ogallala is approximately 60 feet and the potentiometric surface ranges from approximately 100 feet to 110 feet below surface. Based on February 1998 data, the groundwater gradient is approximately 0.002 ft/ft with a southeasterly flow direction.

## **2.0 WORK PLAN**

EPNG proposes the following work plan.

### **2.1 Project Set-up**

Work schedules and coordination between Christie Gas, EPNG, and an approved EPNG contractor. The contractor will be selected by EPNG.

### **2.2 Site Work**

Fieldwork for this project will include installation of a groundwater monitoring well (MW-15), and continued groundwater monitoring. Other tasks include chemical analyses, evaluation of the data gathered, and reporting of the results.

#### **2.2.1 Installation of Downgradient Monitoring Well**

One off-site soil boring will be converted to a permanent monitoring well, MW-15. The approximate location of MW-15 is shown on the attached drawing. The soil boring will be completed using a truck mounted drill rig equipped with a hollow stem auger and split spoon sampling tool. The boring will be continuously sampled and logged by the on-site geologist. Soil samples will not be collected for laboratory analysis. The well casing will be 4 inches in diameter, flush threaded, schedule 40 PVC, with a 20 foot long 0.01 inch factory slotted screen. The screen for the well will be placed from approximately 150 to 170 feet below the ground surface. The bottom of the screened interval will be at the red clay contact.

The monitoring well will be completed with a steel protective brightly painted surface riser, a four by four-foot square four-inch thick concrete pad, and a locking cap on the outer protective casing. The monitoring well will be completed with a flush mount manhole cover. The monitoring well will have a rust proof lock installed on the inner casing. The monitoring well lock will be keyed to match the monitoring wells that have been previously installed at the site.

The monitoring well will be developed by pumping a minimum of three well volumes or until conductivity, pH, and temperature have stabilized within 5% for three consecutive readings, and turbidity is less than 5 nephelometry turbidity units (NTU). The monitoring well will not be developed sooner than 24 hours after installation and no later than one week after installation. All parameters and volumes of water produced during development will be documented.

EPNG personnel will collect and analyze groundwater samples for Chloride, Total Dissolved Solids (TDS) and conductivity, follow all established chain-of-custody protocols, collect one duplicate sample per day of sampling, and analyze one trip blank for the sampling event.

The soils generated during drilling activities will be spread out adjacent to the proposed monitoring well since no hydrocarbon impacts were found during previous investigations at the site.

If necessary, the groundwater generated from the proposed monitoring well (MW-15) will be placed in the southern saltwater retention pond at the Christie Jal No.4 gas plant.

### **2.2.2 Groundwater Monitoring Program**

EPNG proposes that the new off-site monitoring well (MW-15) be installed and sampled in conjunction with the already existing groundwater monitoring schedule. Monitoring well MW-15 will be added to the current quarterly groundwater-monitoring schedule. In addition, groundwater elevations will continue to be taken at all monitoring well locations.

### **2.3 Project Reporting**

EPNG will continue to submit annual reports to the OCD. The proposed monitoring well MW-15 will be added to the annual report. Each annual report will include the following:

- a table summarizing the present and past analytical results from the wells sampled during the year;
- a table showing past and present groundwater elevations for all the wells on and off-site site; and
- a potentiometric surface map showing groundwater elevations and hydraulic gradient per quarter.

## **3.0 QUALITY ASSURANCE/QUALITY CONTROL**

### **3.1 Collection of Samples**

EPNG or its contractor will follow the sampling protocols and procedures as outlined in United States Environmental Protection Agency (USEPA) Test Methods for Evaluating Solid Waste (SW-846). Quality Assurance/Quality Control (QA/QC) procedures will be maintained so that the water samples collected and analyzed provide accurate and reliable information. QA/QC procedures for the project will include the use of the following items to prevent cross contamination between the samples:

- a decontaminated submersible pump for each sampling location purged;
- disposable latex gloves when collecting and handling the groundwater samples; and
- disposable polyethylene bailers or a decontaminated submersible pump when collecting the groundwater samples.

Field QA/QC procedures will consist of collecting a duplicate sample and an equipment rinsate blank at a frequency of 5 percent of the samples collected in the field or one of each per sampling event. In addition, a trip blank will be analyzed for BTEX.

### **3.2 Sample Identification and Control**

All samples will be identified by a unique numbering system. The sample number will be referenced to the unique monitoring well name.

#### Sample Labeling

A sample identification code will be used to identify each sample on the chain-of-custody form. The sampler is responsible for verifying that each sample is put in the appropriate sample container. At the

time of sampling, this person will fill in the time sampled, the date sampled, sign and complete the sample labels, and affix to the container jar. The label will then be covered by clear tape to protect the label.

### Sample Control

Strict chain-of-custody procedures will be followed. Sample containers and coolers for shipping, supplied by the laboratory, will be used to store all samples. The samples will be under the direct observation of EPNG or its contractor's personnel at all times or secured with custody seals to detect tampering. All samples will be preserved on ice or blue ice packs immediately after collection. The water samples will be shipped directly from the field to the laboratory accompanied by the chain-of-custody forms.

### **3.3 Analytical Methods**

The groundwater samples collected will be analyzed for concentrations of benzene, toluene, ethylbenzene, xylene (BTEX), major cations and anions, heavy metals, and polynuclear aromatic hydrocarbons (PAHs) using EPA approved test methods.

### **3.4 Cross - Contamination Controls**

All drilling and sampling tools will be decontaminated before and after each use to prevent cross-contamination. The decontamination procedure for sampling equipment will consist of cleaning with a brush and Alconox™ solution followed by a potable water rinse and a distilled water rinse. Drilling equipment will be steam cleaned. All equipment will be decontaminated prior to use and before removal from each location.

### **3.5 Documentation of Sampling Activities**

All information pertinent to fieldwork will be recorded in a field logbook during performance of that activity. The field logbook will be a bound book that has consecutively numbered pages. Information pertinent to the work performed will be recorded in the field logbook and on field forms for sampling events and daily activities. Entries in the field logbook will contain three basic categories of information including, but not limited to:

- site activities;
- photo/survey data: and sampling data.
- sampling data.

Site activity entries will be completed daily to record all relevant site investigation information. The photograph/survey and sampling logs will be completed on an "as performed" basis.

The field logbook will be kept throughout the field sampling operations to document relevant information concerning sample generation, preparation and field data. All sampling activities and data will be recorded on specified forms.

#### **4.0 HEALTH AND SAFETY PLAN**

The existing site - specific Health and Safety Plan will be used for this project. This plan was prepared in compliance with 29 CFR 1910 and provides for the protection of personnel in the field. Prior to initiating field work each morning, there will be a "tailgate" safety meeting to discuss safety issues. All personnel involved with the field operations will attend.



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 26, 1999

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. Z-274-520-643**

Mr. Gerry Garibay  
El Paso Energy Corporation  
P.O. Box 2511  
Houston, Texas 77252-2511

**RE: GROUND WATER MONITORING  
EPNG JAL #4  
LEA COUNTY, NEW MEXICO**

Dear Mr. Garibay:

The New Mexico Oil Conservation Division (OCD) has completed a review of El Paso Energy Company's (EPEC) February 12, 1999 "REPORT SUBMITTAL, 1998 ANNUAL GROUNDWATER REMEDIATION REPORT, JAL NO. 4 PLANT, LEA COUNTY, NEW MEXICO" which was submitted on behalf of EPEC by their consultant Roberts/Schornick & Associates. This document contains the results of EPEC's ground water remediation and monitoring activities at the EPNG Jal #4 gas plant.

Upon a review of the above referenced document the OCD notes that the furthest downgradient monitor well ACW-12 has chloride and total dissolved solids (TDS) in ground water in excess of New Mexico Water Quality Control Commission (WQCC) standards and that the concentrations of these constituents have been increasing over time. This data shows that the chloride and TDS contamination of the ground water in this area is migrating past ACW-12 and that EPEC no longer has downgradient monitoring wells capable of demonstrating that the contamination is contained to EPEC's monitoring and remediation system. Therefore, the OCD requires that:

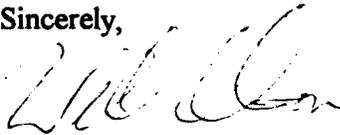
1. EPEC shall commence operation of the recovery wells by May 14, 1999. If future monitoring continues to show that the contaminant migration is not contained to the remediation system, the OCD will require installation of additional recovery wells to achieve this purpose.

Mr. Gerry Geribay  
April 26, 1999  
Page 2

2. EPEC shall submit for approval a work plan for installation of additional ground water monitoring wells to determine the extent of ground water contamination. The work plan shall be submitted to the OCD Santa Fe Office by June 25, 1999 with a copy provided to the OCD Hobbs District Office.

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

Sincerely,



William C. Olson  
Hydrologist  
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Supervisor  
George H. Richardson, Roberts/Schornick & Associates

Z 274 520 643

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PS Form 3800, April 1995

February 12, 1999

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FEB 15 1999

Mr. William C. Olson  
Hydrogeologist, Environmental Bureau  
State of New Mexico  
Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505

ENVIRONMENTAL BUREAU  
OIL CONSERVATION DIVISION



environmental  
consultants

**RE: Report Submittal  
1998 Annual Groundwater Remediation Report  
Jal No. 4 Plant  
Lea County, New Mexico**

Dear Mr. Olson:

Roberts/Schornick & Associates, Inc. (RSA) has been retained by El Paso Energy Corporation (EPEC) to compile the 1998 Annual Groundwater Remediation Report for the Jal No. 4 Plant in Lea County, New Mexico. Please find enclosed one (1) copy of this report. As you directed, a copy of this report is also being submitted to the Hobbs District Supervisor.

If you have questions or comments on this report, please do not hesitate to contact Gerry Garibay with EPEC/Houston at (713) 420-3827, or myself at (918) 496-0059.

2488 East 81st Street  
Suite 610  
Tulsa, OK 74137  
918/496-0059  
FAX 918/496-0132

A Benham Company

Sincerely,  
**Roberts/Schornick & Associates, Inc.**

A handwritten signature in black ink, appearing to read 'George H. Richardson', is written over a horizontal line. The signature is fluid and cursive.

George H. Richardson, P.G.  
Senior Project Manager

GHR/me

xc: Darrell G. Campbell (EPNG/EI Paso)  
Marc R. Ferris (EPEC/Houston)(w/o encl)  
Gerry Garibay (EPEC/Houston)  
Tom J. Martinez (EPNG/Midland)(w/o encl)  
Chris Williams (NM OCD/Hobbs)



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 26, 1999

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. Z-274-520-643**

Mr. Gerry Garibay  
El Paso Energy Corporation  
P.O. Box 2511  
Houston, Texas 77252-2511

**RE: GROUND WATER MONITORING  
EPNG JAL #4  
LEA COUNTY, NEW MEXICO**

Dear Mr. Garibay:

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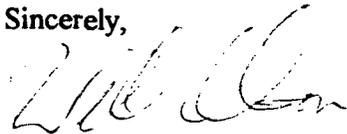
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Mr. Gerry Geribay  
April 26, 1999  
Page 2

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

Sincerely,



William C. Olson  
Hydrologist  
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Supervisor  
George H. Richardson, Roberts/Schornick & Associates

PS Form 3800, April 1995

|  |    |
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Z 274 520 643



February 13, 1998

Mr. William C. Olson  
 Hydrogeologist, Environmental Bureau  
 Energy, Mineral and Natural Resources Department  
 New Mexico Oil Conservation Division  
 2040 S. Pacheco St.  
 Santa Fe, New Mexico 87505

**RECEIVED**

**FEB 16 1998**

Environmental Bureau  
 Oil Conservation Division

**RE: Phase IV Ground Water Contamination Study  
 EPNG Jal No. 4, Lea County New, Mexico  
 1997 Annual Report**

Dear Mr. Olson:

This annual report documents the sampling and analysis conducted at Jal No. 4 in 1997. The report includes quarterly water table maps and monitoring well sampling results. Specific monitor well sampling frequency and analysis is described below.

- Quarterly ground water samples were collected from monitor wells ACW-12, ACW-13 and ACW-14 and analyzed for concentrations of benzene, toluene, ethylbenzene, xylene (BTEX), total dissolved solids and major cations and anions using EPA approved methods and quality assurance/quality control (QA/QC).
- Annual ground water samples were collected from monitoring wells ACW-1, ACW-2A, ACW-4, ACW-5, ACW-6, ACW-7, ACW-8, ACW-9, ACW-10, ACW-11, ACW-12, ACW-13 and ACW-14 and analyzed for concentrations of BTEX, total dissolved solids, major cations and anions and New Mexico Water Quality Control Commission (WQCC) metals using EPA approved methods and QA/QC.

Quarterly groundwater samples were collected in February, May and August. Annual ground water samples were collected in October and November.

Water recovery system start-up has not occurred. Right-of-way issues have not been resolved and negotiations with a third party to obtain electrical power to one of the recovery wells is continuing. EPNG has, however, obtained a permit, for each recovery well, to supplement the underground waters of the State of New Mexico from the State Engineer office in Roswell. EPNG will submit, on a quarterly basis, the amount of water

Mr. William C. Olson  
New Mexico Oil Conservation Division  
February 13, 1998  
Page 2

pumped from each recovery well to the State Engineer office once the system is in operation. Ground water monitoring has continued at the site. The recovery system is not presently in operation; therefore, the proposed remediation activities have not taken place. The recovery system is expected to be operating in 1998. Once the system is in operation, the generated ground water monitoring data will be used to evaluate the efficiency of the recovery system. Project recommendations will be made based on this system evaluation in future annual reports.

If you have any questions or need additional information, please contact me at (713) 757-3827.

Sincerely,



Gerry Garibay  
Senior Environmental Scientist  
Environmental Remediation Department

Attachments

cc: Jerry Sexton,  
Hobbs District Supervisor  
New Mexico Oil Conservation Division  
P.O. Box 1980  
Hobbs, NM 88240

February 12, 1999

RECEIVED

FEB 15 1999

ENVIRONMENTAL BUREAU  
OIL CONSERVATION DIVISION



Mr. William C. Olson  
Hydrogeologist, Environmental Bureau  
State of New Mexico  
Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505

environmental  
consultants

**RE: Report Submittal  
1998 Annual Groundwater Remediation Report  
Jal No. 4 Plant  
Lea County, New Mexico**

Dear Mr. Olson:

Roberts/Schornick & Associates, Inc. (RSA) has been retained by El Paso Energy Corporation (EPEC) to compile the 1998 Annual Groundwater Remediation Report for the Jal No. 4 Plant in Lea County, New Mexico. Please find enclosed one (1) copy of this report. As you directed, a copy of this report is also being submitted to the Hobbs District Supervisor.

2488 East 81st Street  
Suite 610  
Tulsa, OK 74137  
918/496-0059  
FAX 918/496-0132

If you have questions or comments on this report, please do not hesitate to contact Gerry Garibay with EPEC/Houston at (713) 420-3827, or myself at (918) 496-0059.

A Benham Company

Sincerely,  
**Roberts/Schornick & Associates, Inc.**

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George H. Richardson, P.G.  
Senior Project Manager

GHR/me

xc: Darrell G. Campbell (EPNG/EI Paso)  
Marc R. Ferries (EPEC/Houston)(w/o encl)  
Gerry Garibay (EPEC/Houston)  
Tom J. Martinez (EPNG/Midland)(w/o encl)  
Chris Williams (NM OCD/Hobbs)



February 13, 1998

Mr. William C. Olson  
 Hydrogeologist, Environmental Bureau  
 Energy, Mineral and Natural Resources Department  
 New Mexico Oil Conservation Division  
 2040 S. Pacheco St.  
 Santa Fe, New Mexico 87505

**RECEIVED**

FEB 16 1998

Environmental Bureau  
 Oil Conservation Division

**RE: Phase IV Ground Water Contamination Study  
 EPNG Jal No. 4, Lea County New, Mexico  
 1997 Annual Report**

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Mr. William C. Olson  
New Mexico Oil Conservation Division  
February 13, 1998  
Page 2

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If you have any questions or need additional information, please contact me at (713) 757-3827.

Sincerely,

Handwritten signature of Gerry Garibay in cursive script, with the letters 'G' and 'M' being particularly large and stylized.

Gerry Garibay  
Senior Environmental Scientist  
Environmental Remediation Department

Attachments

cc: Jerry Sexton,  
Hobbs District Supervisor  
New Mexico Oil Conservation Division  
P.O. Box 1980  
Hobbs, NM 88240

TO: William C. Olson  
FROM: Steven Brisbin

DATE: JANUARY 5, 1998  
PLACE: Technical Services Division

**SUBJECT: JAL #4 MONITOR WELLS**

.Listed below is the schedule for sampling Jal#4 monitor wells. If a problem should arise that would change this schedule I will notify you. If you have any question's please call me at (915)759-2329.

FEBRUARY 23 THRU 25, 1998

MAY 11 THRU 15, 1998

AUGUST 10 THRU 12, 1998

OCTOBER 19 THRU 23, 1998

Thank You, Steve Brisbin



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 8, 1997

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. P-410-431-189**

Mr. Gerry Garibay  
El Paso Energy Corporation  
P.O. Box 2511  
Houston, Texas 77252-2511

**RE: GROUND WATER MONITORING  
EPNG JAL #4  
LEA COUNTY, NEW MEXICO**

Dear Mr. Garibay:

The New Mexico Oil Conservation Division (OCD) has completed a review of El Paso Energy Company's (EPEC) April 29, 1997 "PHASE IV GROUND WATER CONTAMINATION STUDY, EPNG JAL NO. 4, LEA COUNTY, NEW MEXICO, PROPOSED PROJECT CHANGES AND FIRST QUARTER REPORT". This document contains EPEC's proposal to modify the ground water sampling program for the EPNG Jal #4 gas plant and to change the reporting frequency of ground water monitoring reports from quarterly to annually.

The monitoring and reporting proposal as contained in the above referenced document is approved with the following conditions:

1. By August 8, 1997, EPEC will provide the OCD with the investigation report which was required as a condition of approval in OCD's August 10, 1995 approval of EPEC's ground water remediation and investigation work plan. *ready submitted 11/23/96*
2. Ground water from monitor wells ACW-12, ACW-13 and ACW-14 will be sampled and analyzed on a quarterly basis for concentrations of benzene, toluene, ethylbenzene, xylene (BTEX), total dissolved solids and major cations and anions using EPA approved methods and quality assurance/quality control (QA/QC).
3. Ground water from monitor wells ACW-1, ACW-2A, ACW-4, ACW-5, ACW-6, ACW-7, ACW-8, ACW-9, ACW-10, ACW-11, ACW-12, ACW-13 and ACW-14 will be sampled and analyzed on an annual basis for concentrations of BTEX, total dissolved solids, major cations and anions and New Mexico Water Quality Control Commission (WQCC) metals using EPA approved methods and QA/QC.

Mr. Gerry Garibay  
July 8, 1997  
Page 2

4. The annual report will be submitted to the OCD by February 15 of each year. The annual report will contain:
  - a. A description of the monitoring and remediation activities which occurred during the year including conclusions and recommendations.
  - b. Summary tables listing past and present laboratory analytic results of all water quality sampling for each monitoring point and plots of concentration vs. time for contaminants of concern from each monitoring point. Copies of the most recent years laboratory analytical data sheets and associated QA/QC data will also be submitted
  - c. A quarterly water table elevation map using the water table elevation of the ground water in all monitor wells.
  - d. The volume of fluids recovered in the remediation/disposal system during each quarter and the total recovered and disposed to date.
5. EPEC will notify the OCD at least one week in advance of all scheduled activities such that the OCD has the opportunity to witness the events and/or split samples.
6. All documents submitted for approval will be submitted to the OCD Santa Fe Office with copies provided to the OCD Hobbs District Office.

Please be advised that OCD approval does not relieve EPEC of liability should their remediation and monitoring program fail to adequately monitor or remediate ground water contamination related to EPEC's operations. In addition, this approval does not relieve EPEC of responsibility for compliance with 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: Chris Williams, OCD Hobbs District Supervisor  
Wayne Price, OCD Hobbs Office



July 21, 1997

JUL 24 1997

Mr. William C. Olson  
Hydrogeologist, Environmental Bureau  
Energy, Mineral and Natural Resources Department  
New Mexico Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, New Mexico 87505

**RE: Requested Ground Water Investigation Report  
EPNG Jal No. 4  
Lea County, New Mexico**

Dear Mr. Olson:

Pursuant to our telephone conversation regarding OCD's letter dated July 8, 1997, item 1, a report was submitted by our consultant, Philip Environmental, on October 14, 1996. The report is entitled *Jal No. 4 Groundwater Delineation Report* and addresses OCD's requested information.

Please contact me at (713) 757-3827, if you have questions or need additional information.

Sincerely,

A handwritten signature in cursive script that reads "Gerry Garibay".

Gerry Garibay  
Senior Environmental Scientist  
Discontinued Operations

Enclosure

cc: Jerry Sexton  
Hobbs District Supervisor  
New Mexico Oil Conservation Division  
P.O. Box 1980  
Hobbs, NM 88240



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 8, 1997

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. P-410-431-189**

Mr. Gerry Garibay  
El Paso Energy Corporation  
P.O. Box 2511  
Houston, Texas 77252-2511

Environmental Affairs  
JUL 14 1997  
Discontinued Operations

**RE: GROUND WATER MONITORING  
EPNG JAL #4  
LEA COUNTY, NEW MEXICO**

Dear Mr. Garibay:

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Mr. Gerry Garibay  
July 8, 1997  
Page 2

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

Sincerely,



William C. Olson  
Hydrogeologist  
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Supervisor  
Wayne Price, OCD Hobbs Office



APR 30 1997

April 29, 1997

Mr. William C. Olson  
Hydrogeologist, Environmental Bureau  
Energy, Mineral and Natural Resources Department  
New Mexico Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, New Mexico 87505

**RE: Phase IV Ground Water Contamination Study  
EPNG Jal No. 4, Lea County, New Mexico  
Proposed Project Changes and First Quarter Report**

Dear Mr. Olson:

El Paso Natural Gas Company (EPNG) proposes to differ the installation of additional ground water monitoring wells, at the above referenced site, as recommended in the submitted *Jal No. 4, Groundwater Delineation Report* dated October 14, 1996. EPNG proposes to operate and monitor the recovery system prior to the installation, if required, of additional monitor wells. EPNG is also proposing to change the monitoring wells sampled quarterly and, in the future, submit annual reports with both quarterly and annual sampling results. The quarterly sampled wells, as shown below, will be analyzed for chlorides, TDS, conductivity, and BTEX. All wells will be sampled annually and analyzed for all previous quarterly parameters, as shown on the attached analytical table. The following monitoring wells and sampling frequency are proposed:

| WELLS  | QUARTER | ANNUAL |
|--------|---------|--------|
| ACW-1  |         | X      |
| ACW-5  |         | X      |
| ACW-6  |         | X      |
| ACW-6  |         | X      |
| ACW-9  |         | X      |
| ACW-10 |         | X      |
| ACW-11 |         | X      |
| ACW-12 | X       | X      |
| ACW-13 | X       | X      |
| ACW-14 | X       | X      |

Also  
2A, 4, 7, 8

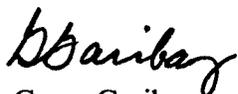
Mr. William C. Olson  
New Mexico Oil Conservation Division  
Page 2

In summary, the three new monitoring wells will be sampled on a quarterly basis and water samples analyzed for chlorides, TDS, conductivity, and BTEX. All of the above listed monitoring wells will be sampled annually and analyzed for the current quarterly parameters. The annual report will be submitted by February 15, 1998.

A summary of historical water quality analytical results for monitor wells ACW-1, ACW-5, ACW-6, ACW-10, ACW-11 and current water quality analytical results for monitor wells ACW-9, ACW-12, ACW-13, ACW-14 along with a current water table elevation map are attached.

Please contact me at (713) 757-3827, if you have any questions or need additional information.

Sincerely,



Gerry Garibay  
Senior Environmental Scientist  
Discontinued Operations

#### Attachments

cc: Jerry Sexton  
Hobbs District Supervisor  
New Mexico Oil Conservation Division  
P.O. Box 1980  
Hobbs, NM 88240

**SAMPLE KEY**

SAMPLE NUMBER: S97-0037 LOCATION: JAL #4 PLANT  
MATRIX: WATER  
SAMPLE DESCRIPTION: FIELD BLANK  
S D CONTINUED:  
S D CONTINUED:  
SAMPLE TIME: 16:00 SAMPLE DATE: 02/18/97

**SAMPLE KEY**

SAMPLE NUMBER: S97-0038 LOCATION: JAL #4 PLANT  
MATRIX: WATER  
SAMPLE DESCRIPTION: BAILER BLANK BEFORE SAMPLING  
S D CONTINUED:  
S D CONTINUED:  
SAMPLE TIME: 16:20 SAMPLE DATE: 02/18/97

**MAR 24 1997**

RECEIVED IN  
ENVIRONMENTAL AFFAIRS

**SAMPLE KEY**

SAMPLE NUMBER: S97-0039 LOCATION: JAL #4 PLANT  
MATRIX: WATER  
SAMPLE DESCRIPTION: PUMP BLANK BEFORE SAMPLING  
S D CONTINUED:  
S D CONTINUED:  
SAMPLE TIME: 16:50 SAMPLE DATE: 02/18/97

**SAMPLE KEY**

SAMPLE NUMBER: S97-0040 LOCATION: JAL #4 PLANT  
MATRIX: WATER  
SAMPLE DESCRIPTION: PRODUCTION WELL # DOOME WATER WELL  
S D CONTINUED:  
S D CONTINUED:  
SAMPLE TIME: 13:30 SAMPLE DATE: 02/19/97

**SAMPLE KEY**

SAMPLE NUMBER: S97-0041 LOCATION: JAL #4 PLANT  
MATRIX: WATER  
SAMPLE DESCRIPTION: MONITOR WELL # ACW9  
S D CONTINUED:  
S D CONTINUED:  
SAMPLE TIME: 15:39 SAMPLE DATE: 02/19/97

**SAMPLE KEY**

SAMPLE NUMBER: S97-0042 LOCATION: JAL #4 PLANT  
MATRIX: WATER  
SAMPLE DESCRIPTION: MONITOR WELL # ACW12  
S D CONTINUED:  
S D CONTINUED:  
SAMPLE TIME: 17:55 SAMPLE DATE: 02/19/97

**SAMPLE KEY**

SAMPLE NUMBER: S97-0043 LOCATION: JAL #4 PLANT  
MATRIX: WATER  
SAMPLE DESCRIPTION: MONITOR WELL # ACW12 DUP.  
S D CONTINUED:  
S D CONTINUED:  
SAMPLE TIME: 17:55 SAMPLE DATE: 02/19/97

**SAMPLE KEY**

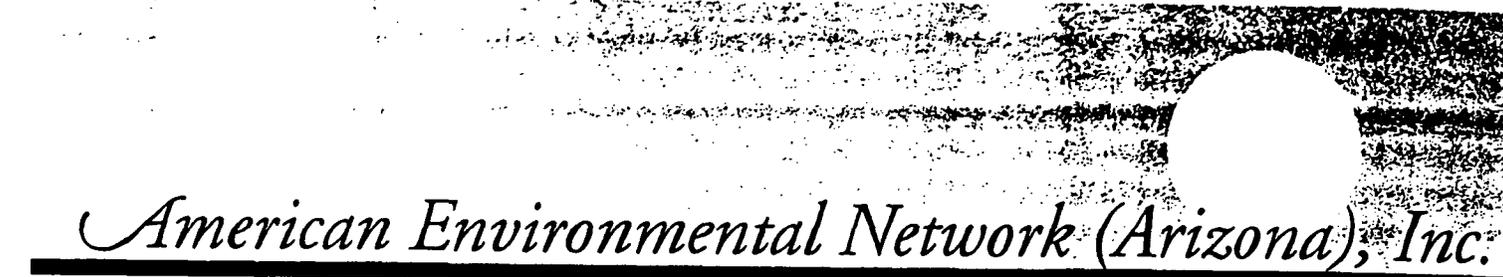
SAMPLE NUMBER: S97-0044 LOCATION: JAL #4 PLANT  
MATRIX: WATER  
SAMPLE DESCRIPTION: PRODUCTION WELL #OXY  
S D CONTINUED:  
S D CONTINUED:  
SAMPLE TIME: 17:30 SAMPLE DATE: 02/19/97

**SAMPLE KEY**

SAMPLE NUMBER: S97-0045 LOCATION: JAL #4 PLANT  
MATRIX: WATER  
SAMPLE DESCRIPTION: MONITOR WELL # ACW13  
S D CONTINUED:  
S D CONTINUED:  
SAMPLE TIME: 11:45 SAMPLE DATE: 02/20/97

**SAMPLE KEY**

SAMPLE NUMBER: S97-0046 LOCATION: JAL #4 PLANT  
MATRIX: WATER  
SAMPLE DESCRIPTION: MONITOR WELL #ACW15  
S D CONTINUED:  
S D CONTINUED:  
SAMPLE TIME: 10:25 SAMPLE DATE: 02/26/97



*American Environmental Network (Arizona), Inc.*

AEN I.D. 702277

March 7, 1997

El Paso Natural Gas Company  
8645 Railroad Drive  
El Paso, TX 79904

Project Name/Number: Jal #4

Attention: Darrell Campbell

On 02/22/97, American Environmental Network (Arizona), Inc., received a request to analyze aqueous sample(s). The sample(s) 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 160.1-total dissolved solids analysis was added on 02/26/97 for all samples. Per the clients request, run analysis past holding time.

If you have any questions or comments, please do not hesitate to contact us at (602) 496-4400.



Linda Eshelman  
Project Manager

LE/jk

Enclosure

ADHS License No. AZ0061  
Sherman McCutcheon, General Manager

*American Environmental Network (Arizona), Inc.*

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4

DATE RECEIVED : 02/22/97  
REPORT DATE : 03/07/97

ATI I.D. : 702277

| ATI # | CLIENT DESCRIPTION | MATRIX  | DATE COLLECTED |
|-------|--------------------|---------|----------------|
| 01    | S97-0037           | AQUEOUS | 02/18/97       |
| 02    | S97-0038           | AQUEOUS | 02/18/97       |
| 03    | S97-0039           | AQUEOUS | 02/18/97       |
| 04    | S97-0040           | AQUEOUS | 02/19/97       |
| 05    | S97-0041           | AQUEOUS | 02/19/97       |
| 06    | S97-0042           | AQUEOUS | 02/19/97       |
| 07    | S97-0043           | AQUEOUS | 02/19/97       |
| 08    | S97-0044           | AQUEOUS | 02/19/97       |
| 09    | S97-0045           | AQUEOUS | 02/20/97       |

----- TOTALS -----

|         |           |
|---------|-----------|
| MATRIX  | # SAMPLES |
| -----   | -----     |
| AQUEOUS | 9         |

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

*American Environmental Network (Arizona), Inc.*

GENERAL CHEMISTRY RESULTS

ATI I.D. : 702277

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4

DATE RECEIVED : 02/22/97

REPORT DATE : 03/07/97

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| PARAMETER                   | UNITS | 01   | 02   | 03  | 04  | 05   |
|-----------------------------|-------|------|------|-----|-----|------|
| CHLORIDE (EPA 325.2)        | MG/L  | <0.5 | <0.5 | 110 | 38  | 1260 |
| CONDUCTIVITY, (UMHOS/CM)    |       | 2    | 2    | 732 | 618 | 4110 |
| T. DISSOLVED SOLIDS (160.1) | MG/L  | <10  | <10  | 460 | 440 | 2500 |

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*American Environmental Network (Arizona), Inc.*

GENERAL CHEMISTRY RESULTS

ATI I.D. : 702277

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4

DATE RECEIVED : 02/22/97

REPORT DATE : 03/07/97

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| PARAMETER                   | UNITS | 06   | 07   | 08  | 09  |
|-----------------------------|-------|------|------|-----|-----|
| CHLORIDE (EPA 325.2)        | MG/L  | 380  | 390  | 70  | 53  |
| CONDUCTIVITY, (UMHOS/CM)    |       | 1610 | 1630 | 659 | 681 |
| T. DISSOLVED SOLIDS (160.1) | MG/L  | 950  | 960  | 440 | 440 |

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*American Environmental Network (Arizona), Inc.*

GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT : EL PASO NATURAL GAS  
 PROJECT # : (NONE)  
 PROJECT NAME : JAL #4

ATI I.D. : 702277

| PARAMETER               | UNITS | ATI I.D. | SAMPLE RESULT | DUP. RESULT | RPD | SPIKED SAMPLE | SPIKE CONC | % REC |
|-------------------------|-------|----------|---------------|-------------|-----|---------------|------------|-------|
| CHLORIDE                | MG/L  | 70218004 | 15            | 14          | 7   | 68            | 50         | 106   |
| CHLORIDE                | MG/L  | 70227702 | <0.5          | <0.5        | NA  | 9             | 10         | 90    |
| CHLORIDE                | MG/L  | 70231401 | 150           | 150         | 0   | 350           | 200        | 100   |
| CONDUCTIVITY (UMHOS/CM) |       | 70228804 | 316           | 314         | 0.6 | NA            | NA         | NA    |
| TOTAL DISSOLVED SOLIDS  | MG/L  | 70227701 | <10           | <10         | NA  | NA            | NA         | NA    |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

*American Environmental Network (Arizona), Inc.*

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 70227701

TEST : BTEX + MTBE (EPA METHOD 8020)

|               |                       |                 |            |
|---------------|-----------------------|-----------------|------------|
| CLIENT        | : EL PASO NATURAL GAS | DATE SAMPLED    | : 02/18/97 |
| PROJECT #     | : (NONE)              | DATE RECEIVED   | : 02/22/97 |
| PROJECT NAME  | : JAL #4              | DATE EXTRACTED  | : N/A      |
| CLIENT I.D.   | : S97-0037            | DATE ANALYZED   | : 02/24/97 |
| SAMPLE MATRIX | : AQUEOUS             | UNITS           | : UG/L     |
|               |                       | DILUTION FACTOR | : 1        |

| COMPOUNDS            | RESULTS |
|----------------------|---------|
| BENZENE              | <0.5    |
| TOLUENE              | <0.5    |
| ETHYLBENZENE         | <0.5    |
| TOTAL XYLENES        | <1.0    |
| METHYL-t-BUTYL ETHER | <2.5    |

SURROGATE PERCENT RECOVERIES

|                        |    |
|------------------------|----|
| BROMOFLUOROBENZENE (%) | 96 |
|------------------------|----|

*American Environmental Network (Arizona), Inc.*

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 70227702

TEST : BTEX + MTBE (EPA METHOD 8020)

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4  
CLIENT I.D. : S97-0038  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 02/18/97  
DATE RECEIVED : 02/22/97  
DATE EXTRACTED : N/A  
DATE ANALYZED : 02/24/97  
UNITS : UG/L  
DILUTION FACTOR : 1

| COMPOUNDS            | RESULTS |
|----------------------|---------|
| BENZENE              | <0.5    |
| TOLUENE              | <0.5    |
| ETHYLBENZENE         | <0.5    |
| TOTAL XYLENES        | <1.0    |
| METHYL-t-BUTYL ETHER | <2.5    |

SURROGATE PERCENT RECOVERIES

BROMOFLUOROBENZENE (%) 98

*American Environmental Network (Arizona), Inc.*

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 70227703

TEST : BTEX + MTBE (EPA METHOD 8020)

|               |                       |                 |            |
|---------------|-----------------------|-----------------|------------|
| CLIENT        | : EL PASO NATURAL GAS | DATE SAMPLED    | : 02/18/97 |
| PROJECT #     | : (NONE)              | DATE RECEIVED   | : 02/22/97 |
| PROJECT NAME  | : JAL #4              | DATE EXTRACTED  | : N/A      |
| CLIENT I.D.   | : S97-0039            | DATE ANALYZED   | : 02/24/97 |
| SAMPLE MATRIX | : AQUEOUS             | UNITS           | : UG/L     |
|               |                       | DILUTION FACTOR | : 1        |

| COMPOUNDS            | RESULTS |
|----------------------|---------|
| BENZENE              | <0.5    |
| TOLUENE              | <0.5    |
| ETHYLBENZENE         | <0.5    |
| TOTAL XYLENES        | <1.0    |
| METHYL-t-BUTYL ETHER | <2.5    |

SURROGATE PERCENT RECOVERIES

|                        |     |
|------------------------|-----|
| BROMOFLUOROBENZENE (%) | 100 |
|------------------------|-----|

*American Environmental Network (Arizona), Inc.*

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 70227704

TEST : BTEX + MTBE (EPA METHOD 8020)

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4  
CLIENT I.D. : S97-0040  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 02/19/97  
DATE RECEIVED : 02/22/97  
DATE EXTRACTED : N/A  
DATE ANALYZED : 02/24/97  
UNITS : UG/L  
DILUTION FACTOR : 1

| COMPOUNDS            | RESULTS |
|----------------------|---------|
| BENZENE              | <0.5    |
| TOLUENE              | <0.5    |
| ETHYLBENZENE         | <0.5    |
| TOTAL XYLENES        | <1.0    |
| METHYL-t-BUTYL ETHER | <2.5    |

SURROGATE PERCENT RECOVERIES

BRCMOFLUOROBENZENE (%) 92

*American Environmental Network (Arizona), Inc.*

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 70227705

TEST : BTEX + MTBE (EPA METHOD 8020)

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4  
CLIENT I.D. : S97-0041  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 02/19/97  
DATE RECEIVED : 02/22/97  
DATE EXTRACTED : N/A  
DATE ANALYZED : 02/24/97  
UNITS : UG/L  
DILUTION FACTOR : 1

| COMPOUNDS            | RESULTS |
|----------------------|---------|
| BENZENE              | 1.3     |
| TOLUENE              | 4.0     |
| ETHYLBENZENE         | 10      |
| TOTAL XYLENES        | 4.2     |
| METHYL-t-BUTYL ETHER | 8.0     |

SURROGATE PERCENT RECOVERIES

BROMOFLUOROBENZENE (%) 103

*American Environmental Network (Arizona), Inc.*

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 70227706

TEST : BTEX + MTBE (EPA METHOD 8020)

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4  
CLIENT I.D. : S97-0042  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 02/19/97  
DATE RECEIVED : 02/22/97  
DATE EXTRACTED : N/A  
DATE ANALYZED : 02/24/97  
UNITS : UG/L  
DILUTION FACTOR : 1

-----  
COMPOUNDS

RESULTS  
-----

|                      |      |
|----------------------|------|
| BENZENE              | <0.5 |
| TOLUENE              | <0.5 |
| ETHYLBENZENE         | 1.5  |
| TOTAL XYLENES        | <1.0 |
| METHYL-t-BUTYL ETHER | <2.5 |

SURROGATE PERCENT RECOVERIES

BROMOFLUOROBENZENE (%) 93

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 70227707

TEST : BTEX + MTBE (EPA METHOD 8020)

|               |                       |                 |            |
|---------------|-----------------------|-----------------|------------|
| CLIENT        | : EL PASO NATURAL GAS | DATE SAMPLED    | : 02/19/97 |
| PROJECT #     | : (NONE)              | DATE RECEIVED   | : 02/22/97 |
| PROJECT NAME  | : JAL #4              | DATE EXTRACTED  | : N/A      |
| CLIENT I.D.   | : S97-0043            | DATE ANALYZED   | : 02/24/97 |
| SAMPLE MATRIX | : AQUEOUS             | UNITS           | : UG/L     |
|               |                       | DILUTION FACTOR | : 1        |

| COMPOUNDS            | RESULTS |
|----------------------|---------|
| BENZENE              | 2.9     |
| TOLUENE              | <0.5    |
| ETHYLBENZENE         | <0.5    |
| TOTAL XYLENES        | <1.0    |
| METHYL-t-BUTYL ETHER | 8.1     |

SURROGATE PERCENT RECOVERIES

|                        |    |
|------------------------|----|
| BROMOFLUOROBENZENE (%) | 98 |
|------------------------|----|

*American Environmental Network (Arizona), Inc.*

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 70227708

TEST : BTEX + MTBE (EPA METHOD 8020)

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4  
CLIENT I.D. : S97-0044  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 02/19/97  
DATE RECEIVED : 02/22/97  
DATE EXTRACTED : N/A  
DATE ANALYZED : 02/24/97  
UNITS : UG/L  
DILUTION FACTOR : 1

-----  
COMPOUNDS

RESULTS  
-----

|                      |      |
|----------------------|------|
| BENZENE              | <0.5 |
| TOLUENE              | <0.5 |
| ETHYLBENZENE         | 1.4  |
| TOTAL XYLENES        | <1.0 |
| METHYL-t-BUTYL ETHER | <2.5 |

SURROGATE PERCENT RECOVERIES

|                        |    |
|------------------------|----|
| BROMOFLUOROBENZENE (%) | 98 |
|------------------------|----|

*American Environmental Network (Arizona), Inc.*

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 70227709

TEST : BTEX + MTBE (EPA METHOD 8020)

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4  
CLIENT I.D. : S97-0045  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 02/20/97  
DATE RECEIVED : 02/22/97  
DATE EXTRACTED : N/A  
DATE ANALYZED : 02/24/97  
UNITS : UG/L  
DILUTION FACTOR : 1

-----  
COMPOUNDS

RESULTS  
-----

|                      |      |
|----------------------|------|
| BENZENE              | <0.5 |
| TOLUENE              | <0.5 |
| ETHYLBENZENE         | 1.5  |
| TOTAL XYLENES        | <1.0 |
| METHYL-t-BUTYL ETHER | <2.5 |

SURROGATE PERCENT RECOVERIES

BROMOFLUOROBENZENE (%) 98

*American Environmental Network (Arizona), Inc.*

GAS CHROMATOGRAPHY - RESULTS

REAGENT BLANK

TEST : BTEX + MTBE (EPA METHOD 8020)

|              |                       |                 |            |
|--------------|-----------------------|-----------------|------------|
| CLIENT       | : EL PASO NATURAL GAS | ATI I.D.        | : 702277   |
| PROJECT #    | : (NONE)              | DATE EXTRACTED  | : N/A      |
| PROJECT NAME | : JAL #4              | DATE ANALYZED   | : 02/24/97 |
| CLIENT I.D.  | : REAGENT BLANK       | UNITS           | : UG/L     |
|              |                       | DILUTION FACTOR | : N/A      |

| COMPOUNDS            | RESULTS |
|----------------------|---------|
| BENZENE              | <0.5    |
| TOLUENE              | <0.5    |
| ETHYLBENZENE         | <0.5    |
| TOTAL XYLENES        | <1.0    |
| METHYL-t-BUTYL ETHER | <2.5    |

SURROGATE PERCENT RECOVERIES

|                        |     |
|------------------------|-----|
| BRCMOFLUOROBENZENE (%) | 103 |
|------------------------|-----|

*American Environmental Network (Arizona), Inc.*

QUALITY CONTROL DATA

TEST : BTEX + MTBE (EPA METHOD 8020)

ATI I.D. : 702277

CLIENT : EL PASO NATURAL GAS  
 PROJECT # : (NONE)  
 PROJECT NAME : JAL #4  
 REF I.D. : 70227709

DATE ANALYZED : 02/24/97  
 SAMPLE MATRIX : AQUEOUS  
 UNITS : UG/L

| COMPOUNDS            | SAMPLE CONC. |        | SPIKED SAMPLE | DUP. SPIKED |      | RPD |
|----------------------|--------------|--------|---------------|-------------|------|-----|
|                      | RESULT       | SPIKED |               | REC.        | REC. |     |
| BENZENE              | <0.5         | 20     | 18            | 90          | 18   | 0   |
| TOLUENE              | <0.5         | 20     | 18            | 90          | 19   | 5   |
| ETHYLBENZENE         | 1.5          | 20     | 18            | 82          | 19   | 5   |
| TOTAL XYLENES        | <0.5         | 60     | 55            | 92          | 55   | 0   |
| METHYL-t-BUTYL ETHER | <2.5         | 40     | 45            | 112         | 45   | 0   |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spiked Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

*American Environmental Network (Arizona), Inc.*

DATE OF ANALYSIS

ACCESSION #: 702277

| SAMPLE ID | TEST AND METHOD NUMBER      | DATE OF ANALYSIS | ANALYST |
|-----------|-----------------------------|------------------|---------|
| 70227701  | CHLORIDE (EPA 325.2)        | 03/05/97         | CM      |
| 70227702  | CHLORIDE (EPA 325.2)        | 03/05/97         | CM      |
| 70227703  | CHLORIDE (EPA 325.2)        | 03/05/97         | CM      |
| 70227704  | CHLORIDE (EPA 325.2)        | 03/05/97         | CM      |
| 70227705  | CHLORIDE (EPA 325.2)        | 03/06/97         | CM      |
| 70227706  | CHLORIDE (EPA 325.2)        | 03/06/97         | CM      |
| 70227707  | CHLORIDE (EPA 325.2)        | 03/06/97         | CM      |
| 70227708  | CHLORIDE (EPA 325.2)        | 03/05/97         | CM      |
| 70227709  | CHLORIDE (EPA 325.2)        | 03/06/97         | CM      |
| 70227701  | CONDUCTIVITY, (UMHOS/CM)    | 02/25/97         | PS      |
| 70227702  | CONDUCTIVITY, (UMHOS/CM)    | 02/25/97         | PS      |
| 70227703  | CONDUCTIVITY, (UMHOS/CM)    | 02/25/97         | PS      |
| 70227704  | CONDUCTIVITY, (UMHOS/CM)    | 02/25/97         | PS      |
| 70227705  | CONDUCTIVITY, (UMHOS/CM)    | 02/25/97         | PS      |
| 70227706  | CONDUCTIVITY, (UMHOS/CM)    | 02/25/97         | PS      |
| 70227707  | CONDUCTIVITY, (UMHOS/CM)    | 02/25/97         | PS      |
| 70227708  | CONDUCTIVITY, (UMHOS/CM)    | 02/25/97         | PS      |
| 70227709  | CONDUCTIVITY, (UMHOS/CM)    | 02/25/97         | PS      |
| 70227701  | T. DISSOLVED SOLIDS (160.1) | 02/27/97         | DH      |
| 70227702  | T. DISSOLVED SOLIDS (160.1) | 02/27/97         | DH      |
| 70227703  | T. DISSOLVED SOLIDS (160.1) | 02/27/97         | DH      |
| 70227704  | T. DISSOLVED SOLIDS (160.1) | 02/27/97         | DH      |
| 70227705  | T. DISSOLVED SOLIDS (160.1) | 02/27/97         | DH      |
| 70227706  | T. DISSOLVED SOLIDS (160.1) | 02/27/97         | DH      |
| 70227707  | T. DISSOLVED SOLIDS (160.1) | 02/27/97         | DH      |
| 70227708  | T. DISSOLVED SOLIDS (160.1) | 02/27/97         | DH      |
| 70227709  | T. DISSOLVED SOLIDS (160.1) | 02/27/97         | DH      |

REFERENCES:

Methods for Chemical Analysis of Water and Wastes, March 1983, EPA-600 4-79-020



# *American Environmental Network (Arizona), Inc.*

AEN I.D. 702384

March 18, 1997

El Paso Natural Gas Company  
8645 Railroad Drive  
El Paso, TX 79904

Project Name/Number: JAL #4

Attention: Darrell Campbell

On 02/28/97, American Environmental Network (Arizona), Inc., received a request to analyze **aqueous** sample(s). The sample(s) 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 (602) 496-4400.



Linda Eshelman  
Project Manager

LE/jk

Enclosure

ADHS License No. AZ0061  
Sherman McCutcheon, General Manager

*American Environmental Network (Arizona), Inc.*

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4

DATE RECEIVED : 02/28/97

REPORT DATE : 03/17/97

ATI I.D. : 702384

| ATI # | CLIENT DESCRIPTION | MATRIX  | DATE COLLECTED |
|-------|--------------------|---------|----------------|
| 01    | S97-0046           | AQUEOUS | 02/26/97       |

----- TOTALS -----

| MATRIX  | # SAMPLES |
|---------|-----------|
| AQUEOUS | 1         |

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

*American Environmental Network (Arizona) Inc*  
GENERAL CHEMISTRY RESULTS

ATI I.D. : 702384

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4

DATE RECEIVED : 02/28/97

REPORT DATE : 03/17/97

---

| PARAMETER                   | UNITS | 01  |
|-----------------------------|-------|-----|
| CHLORIDE (EPA 325.2)        | MG/L  | 86  |
| CONDUCTIVITY, (UMHOS/CM)    |       | 830 |
| T. DISSOLVED SOLIDS (160.1) | MG/L  | 570 |

---

CLIENT : EL PASO NATURAL GAS  
 PROJECT # : (NONE)  
 PROJECT NAME : JAL #4

ATI I.D. : 702384

| PARAMETER              | UNITS | ATI I.D. | SAMPLE RESULT | DUP. RESULT | RPD | SPIKED SAMPLE | SPIKE CONC | % REC |
|------------------------|-------|----------|---------------|-------------|-----|---------------|------------|-------|
| CHLORIDE               | MG/L  | 70317003 | 7             | 7           | 0   | 17            | 10         | 100   |
| CONDUCTIVITY(UMHOS/CM) |       | 70231501 | 920           | 917         | 0.3 | NA            | NA         | NA    |
| TOTAL DISSOLVED SOLIDS | MG/L  | 70236301 | 290           | 290         | 0   | NA            | NA         | NA    |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

*American Environmental Network (Arizona), Inc.*

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 70238401

TEST : BTEX + MTBE (EPA METHOD 8020)

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4  
CLIENT I.D. : S97-0046  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 02/26/97  
DATE RECEIVED : 02/28/97  
DATE EXTRACTED : N/A  
DATE ANALYZED : 03/06/97  
UNITS : UG/L  
DILUTION FACTOR : 1

-----  
COMPOUNDS

RESULTS  
-----

|                      |      |
|----------------------|------|
| BENZENE              | <0.5 |
| TOLUENE              | <0.5 |
| ETHYLBENZENE         | <0.5 |
| TOTAL XYLENES        | <1.0 |
| METHYL-t-BUTYL ETHER | <2.5 |

SURROGATE PERCENT RECOVERIES

BROMOFLUOROBENZENE (%) 86

American Environmental Services (AET) - RESULTS

REAGENT BLANK

TEST : BTEX + MTBE (EPA METHOD 8020)

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4  
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 702384  
DATE EXTRACTED : N/A  
DATE ANALYZED : 03/06/97  
UNITS : UG/L  
DILUTION FACTOR : N/A

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| COMPOUNDS            | RESULTS |
|----------------------|---------|
| BENZENE              | <0.5    |
| TOLUENE              | <0.5    |
| ETHYLBENZENE         | <0.5    |
| TOTAL XYLENES        | <1.0    |
| METHYL-t-BUTYL ETHER | <2.5    |

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SURROGATE PERCENT RECOVERIES

BROMOFLUOROBENZENE (%) 99

*American Environmental Network (Arizona), Inc.*

QUALITY CONTROL DATA

ATI I.D. : 702384

TEST : BTEX + MTBE (EPA METHOD 8020)

CLIENT : EL PASO NATURAL GAS  
 PROJECT # : (NONE)  
 PROJECT NAME : JAL #4  
 REF I.D. : 70238401

DATE ANALYZED : 03/06/97  
 SAMPLE MATRIX : AQUEOUS  
 UNITS : UG/L

| COMPOUNDS            | SAMPLE RESULT | CONC. SPIKED | SPIKED SAMPLE | % REC. | DUP.          |        | RPD |
|----------------------|---------------|--------------|---------------|--------|---------------|--------|-----|
|                      |               |              |               |        | SPIKED SAMPLE | % REC. |     |
| BENZENE              | <0.5          | 20           | 19            | 95     | 19            | 95     | 0   |
| TOLUENE              | <0.5          | 20           | 19            | 95     | 19            | 95     | 0   |
| ETHYLBENZENE         | <0.5          | 20           | 21            | 105    | 20            | 100    | 5   |
| TOTAL XYLENES        | <1.0          | 60           | 65            | 108    | 63            | 105    | 3   |
| METHYL-t-BUTYL ETHER | <2.5          | 40           | 37            | 92     | 38            | 95     | 3   |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

*American Environmental Network (Arizona), Inc.*

DATE OF ANALYSIS

ACCESSION #: 702384

| SAMPLE ID | TEST AND METHOD NUMBER      | DATE OF ANALYSIS | ANALYST |
|-----------|-----------------------------|------------------|---------|
| 70238401  | CHLORIDE (EPA 325.2)        | 3/13/97          | CM      |
| 70238401  | CONDUCTIVITY. (UMHOS/CM)    | 2/28/97          | PS      |
| 70238401  | T. DISSOLVED SOLIDS (160.1) | 2/28/97          | DH      |

REFERENCES: Methods for Chemical Analysis of Water and Wastes, March 1983, EPA-600 4-79-020



JAL #4 MONITOR WELL

4/29/97

| SAMPLE DATE | SAMPLE NUMBER | SAMPLE DESCRIPTION   | Chloride mg/l | Residue, Filterable (TDS) mg/l | Specific Conductance umho/cm | pH  | Fluoride mg/l | Nitrate mg/l | Boron mg/l | Calcium mg/l | Copper mg/l | Iron mg/l | Magnesium mg/l | Manganese mg/l | Potassium mg/l | Sodium mg/l | Zinc mg/l | Benzene ug/l | Toluene ug/l | Ethylbenzene ug/l | Total Xylene ug/l | Alkalinity (as CaCO3) mg/l | Hardness (as CaCO3) mg/l | Bromide mg/l | Sulfate mg/l | Silica mg/l |  |
|-------------|---------------|----------------------|---------------|--------------------------------|------------------------------|-----|---------------|--------------|------------|--------------|-------------|-----------|----------------|----------------|----------------|-------------|-----------|--------------|--------------|-------------------|-------------------|----------------------------|--------------------------|--------------|--------------|-------------|--|
| 3/5/93      | S93-0100      | Monitor Well ACW #01 | 4045          | 8505                           | 14350                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 9/15/93     | S93-0531      | Monitor Well ACW #01 | 2915          | 8016                           | 10380                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 11/10/93    | S93-0683      | Monitor Well ACW #01 | 3683          | 7340                           | 11780                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 4/20/94     | S94-0377      | Monitor Well ACW #01 | 5400          | 8430                           | 16520                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 10/27/94    | S94-0717      | Monitor Well ACW #01 | 3700          | 8440                           | 14630                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 5/16/95     | S95-0231      | Monitor Well ACW #01 | 4100          | 8200                           | 14000                        | 8.3 | 25            | <2.0         | 0.9        | 86           | <0.025      | 0.38      | 72             | 0.062          | 12             | 2800        | 0.020     | <5           | <10          | <5                | 0                 | 700                        | 470                      | 1.8          | 240          | 33          |  |
| 6/27/95     | S95-0383      | Monitor Well ACW #01 | 6700          | 8400                           | 1400                         | 8.4 | 22            | <2.0         | 1.0        | 74           | <0.025      | 0.59      | 92             | 0.077          | 15             | 3200        | <0.02     | 4.8          | 4.8          | <2.5              | 140               | 710                        | 510                      | 1.9          | 260          | 35          |  |
| 8/29/95     | S95-0448      | Monitor Well ACW #01 | 3300          | 12000                          | 21000                        | 8.2 | 18            | <2.0         | 0.8        | 67           | <0.025      | 0.18      | 78             | 0.069          | 11             | 2400        | <0.02     | 6            | <10          | <5                | <15               | 820                        | 590                      | 2.2          | 210          | 28          |  |
| 2/8/96      | S96-0063      | Monitor Well ACW #01 | 5200          | 9700                           | 18000                        | 8.3 | 0.88          | 0.02         | 1.0        | 78           | <0.008      | 0.58      | 100            | 0.069          | 16             | 4300        | 0.010     | 6.1          | 3            | 1.9               | 2.8               | 830                        | 620                      | 2.1          | 280          | 36          |  |
| 2/8/96      | S96-0064 *    | Monitor Well ACW #01 | 5770          | 9440                           | 16170                        | 8.2 | 2.1           | <1.25        | 1.1        | 84           | <0.1        | 0.7       | 102            | 0.1            | 17             | 3900        | <0.1      | 5.6          | 2.7          | 3                 | <7.5              | 759                        | 630                      | 2.06         | 293          | 41          |  |
| 5/8/96      | S96-0263      | Monitor Well ACW #01 | 4130          | 8190                           | 14820                        | 8.2 | 2.2           | <1.25        | 1.0        | 93           | 0.01        | 0.6       | 118            | 0.09           | 18             | 3070        | <0.05     | 6.3          | 2.03         | <1.0              | <3.0              | 310                        | 718                      | <1.25        | 268          | 54          |  |
| 8/13/96     | S96-0381      | Monitor Well ACW #01 | 3500          | 7400                           | 12000                        | 8.1 | 4.9           | <0.05        | 1.1        | 110          | 0.019       | 0.88      | 100            | 0.078          | 8.6            | 2400        | 0.008     | 3.5          | 1.2          | <1.0              | <2.0              | 730                        | 690                      | 1.9          | 270          | 41          |  |
| 11/5/96     | S96-0576      | Monitor Well ACW #01 | 3700          | 7200                           | 11000                        | 8.1 | 4.4           | <0.05        | 1.0        | 81           | <0.007      | 0.59      | 98             | 0.062          | 11             | 3000        | 0.011     | 5.6          | 2.5          | <1.0              | 1.3               | 810                        | 610                      | 2            | 250          | 16          |  |
| 3/10/93     | S93-0114      | Monitor Well ACW #05 | 2544          | 8110                           | 10400                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 6/17/93     | S93-0387      | Monitor Well ACW #05 | 1228          | 323                            | 4480                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 9/16/93     | S93-0538      | Monitor Well ACW #05 | 650           | 3084                           | 4140                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 11/9/93     | S93-0678      | Monitor Well ACW #05 | 720           | 3202                           | 4390                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 4/21/94     | S94-0385      | Monitor Well ACW #05 | 800           | 3300                           | 4131                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 10/28/94    | S94-0749      | Monitor Well ACW #05 | 550           | 3112                           | 4500                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 1/31/95     | S95-0015      | Monitor Well ACW #05 | 499           | 2648                           | 4050                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 5/16/95     | S95-0229      | Monitor Well ACW #05 | 530           | 2800                           | 3900                         | 7.0 | <1.0          | 3.5          | 0.9        | 270          | <0.025      | 0.46      | 39             | 0.028          | 6.6            | 540         | 0.020     | <5           | <10          | <5                | 0                 | 320                        | 980                      | 1.3          | 1100         | 57          |  |
| 6/27/95     | S95-0380      | Monitor Well ACW #05 | 460           | 2800                           | 3800                         | 7.3 | <1.0          | 3.4          | 1.0        | 270          | <0.025      | 0.34      | 40             | 0.02           | 6.9            | 530         | 0.020     | <2.5         | <2.5         | <2.5              | <5.0              | 320                        | 240                      | 1.1          | 800          | 56          |  |
| 8/30/95     | S95-0450      | Monitor Well ACW #05 | 510           | 2700                           | 3900                         | 7.0 | <1.0          | <2.0         | 1.1        | 240          | <0.025      | <0.10     | 36             | <0.015         | 6.7            | 550         | 0.020     | <5           | <10          | <5                | <15               | 310                        | 810                      | 1            | 890          | 44          |  |
| 2/8/96      | S96-0061      | Monitor Well ACW #05 | 510           | 2200                           | 3800                         | 7.5 | 0.12          | 4.7          | 1.4        | 240          | <0.008      | 1.5       | 32             | 0.026          | 6.5            | 580         | 0.015     | <1.0         | <1.0         | <1.0              | <2.0              | 260                        | 740                      | 0.92         | 920          | 64          |  |
| 2/8/96      | S96-0062 *    | Monitor Well ACW #05 | 508           | 2745                           | 3090                         | 7.3 | 0.29          | 4.9          | 1.4        | 240          | <0.1        | 2         | 32             | 0.1            | 6.1            | 580         | <0.1      | <2.5         | <2.5         | <2.5              | <7.5              | 284                        | 730                      | <1.25        | 835          | 66          |  |
| 5/8/96      | S96-0258      | Monitor Well ACW #05 | 519           | 2480                           | 3650                         | 7.2 | 0.42          | 5            | 0.8        | 187          | 0.01        | 0.2       | 24             | <0.05          | 8              | 506         | <0.05     | <1.0         | <1.0         | <1.0              | <3.0              | 190                        | 515                      | 4.5          | 653          | 35          |  |
| 8/13/96     | S96-0385      | Monitor Well ACW #05 | 500           | 2500                           | 3400                         | 7.3 | 0.7           | 5.4          | 2.0        | 200          | <0.006      | 0.024     | 28             | <0.007         | 6.3            | 520         | 0.033     | <1.0         | 1.2          | <1.0              | <2.0              | 320                        | 620                      | 1            | 710          | 58          |  |
| 11/6/96     | S96-0588      | Monitor Well ACW #05 | 500           | 2300                           | 3300                         | 7.5 | 0.57          | <0.05        | 1.9        | 180          | <0.007      | 0.3       | 25             | 0.008          | 6              | 520         | 0.022     | 1.1          | 1.4          | 1.2               | <2.0              | 350                        | 560                      | 1.2          | 710          | 27          |  |

JAL #4 MONITOR WELL

4/29/97

| SAMPLE DATE | SAMPLE NUMBER | SAMPLE DESCRIPTION   | Chloride mg/l | Residue, Filterable (TDS) mg/l | Specific Conductance umho/cm | pH  | Fluoride mg/l | Nitrate mg/l | Boron mg/l | Calcium mg/l | Copper mg/l | Iron mg/l | Magnesium mg/l | Manganese mg/l | Potassium mg/l | Sodium mg/l | Zinc mg/l | Benzene ug/l | Toluene ug/l | Ethylbenzene ug/l | Total Xylene ug/l | Alkalinity (as CaCO3) mg/l | Hardness (as CaCO3) mg/l | Bromide mg/l | Sulfate mg/l | Silica mg/l |
|-------------|---------------|----------------------|---------------|--------------------------------|------------------------------|-----|---------------|--------------|------------|--------------|-------------|-----------|----------------|----------------|----------------|-------------|-----------|--------------|--------------|-------------------|-------------------|----------------------------|--------------------------|--------------|--------------|-------------|
| 8/18/93     | SS3-0398      | Monitor Well ACW #08 | 2108          | 5027                           | 8220                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 9/16/93     | SS3-0537      | Monitor Well ACW #08 | 2737          | 6658                           | 11130                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 11/8/93     | SS3-0677      | Monitor Well ACW #08 | 2154          | 5648                           | 8540                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 4/21/94     | SS4-0384      | Monitor Well ACW #08 | 3800          | 6930                           | 11080                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 10/28/94    | SS4-0750      | Monitor Well ACW #08 | 2100          | 6910                           | 11988                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 1/31/95     | SS5-0016      | Monitor Well ACW #08 | 2873          | 6755                           | 11530                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 5/16/95     | SS5-0230      | Monitor Well ACW #08 | 2800          | 6400                           | 10000                        | 8.1 | 31            | <2.0         | 0.9        | 70           | <0.025      | 3.8       | 19             | 0.079          | <5.0           | 2200        | 0.020     | <5           | <10          | <5                | 0                 | 1300                       | 200                      | 1.4          | 110          | 48          |
| 6/27/95     | SS5-0379      | Monitor Well ACW #08 | 3500          | 6800                           | 10000                        | 9.0 | 44            | <2.0         | 1.1        | 84           | <0.025      | 5.8       | 18             | 0.062          | <5.0           | 3000        | 0.080     | 14           | <2.5         | <2.5              | <5.0              | 1500                       | 130                      | 1.8          | 110          | 44          |
| 8/29/95     | SS5-0449      | Monitor Well ACW #08 | 3000          | 7100                           | 12000                        | 8.4 | 26            | <2.0         | 0.9        | 42           | <0.025      | 0.54      | 18             | 0.04           | <5.0           | 2500        | 0.020     | 7            | <10          | <5                | <15               | 1500                       | 200                      | 1.8          | 110          | 42          |
| 2/6/96      | SS6-0059      | Monitor Well ACW #08 | 2800          | 6600                           | 11000                        | 8.0 | 3.8           | 0.0071       | 1.1        | 91           | <0.008      | 4.8       | 23             | 0.12           | 3.8            | 2700        | 0.029     | 6.6          | 3.2          | <1.0              | <2.0              | 1400                       | 320                      | 1.3          | 72           | 62          |
| 2/6/96      | SS6-0080*     | Monitor Well ACW #08 | 3180          | 5630                           | 10320                        | 7.8 | 10            | <1.25        | 1.3        | 76           | <0.1        | 5         | 21             | 0.1            | 3.8            | 2400        | <0.1      | <2.5         | <2.5         | <2.5              | <7.5              | 1315                       | 275                      | 1.52         | 79           | 50          |
| 5/8/96      | SS6-0257      | Monitor Well ACW #08 | 2880          | 6480                           | 10620                        | 7.7 | 6.4           | <1.25        | 1.3        | 35           | 0.02        | 4.1       | 21             | 0.14           | 4              | 2380        | <0.05     | 4.08         | 1.58         | <1.0              | <3.0              | 1398                       | 175                      | <1.25        | 48           | 40          |
| 8/14/96     | SS6-0321      | Monitor Well ACW #08 | 2900          | 7100                           | 11000                        | 7.9 | 21            | <0.05        | 1.2        | 85           | <0.008      | 4.5       | 23             | 0.13           | 3.4            | 2900        | 0.024     | 4.2          | 2.6          | <2.0              | <2.0              | 1400                       | 310                      | 1.8          | 88           | 60          |
| 11/6/96     | SS6-0585      | Monitor Well ACW #08 | 3400          | 7700                           | 12000                        | 8.6 | 18            | <0.05        | 1.2        | 98           | <0.007      | 5.3       | 27             | 0.16           | 3.8            | 2800        | 0.032     | 4.5          | 1.5          | <1.0              | <2.0              | 1600                       | 360                      | 1.3          | 74           | 32          |
| 11/6/96     | SS6-0586      | Monitor Well ACW #08 | 3600          | 7700                           | 12000                        | 8.6 | 18            | <0.05        | 1.1        | 88           | <0.007      | 4         | 22             | 0.13           | 3.6            | 2400        | 0.019     | 4.8          | 1.5          | <1.0              | <2.0              | 1600                       | 310                      | 1.3          | 62           | 27          |
| 6/17/93     | SS3-0391      | Monitor Well ACW #09 | 2288          | 4435                           | 5900                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 9/14/93     | SS3-0525      | Monitor Well ACW #09 | 915           | 2119                           | 3100                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 11/9/93     | SS3-0679      | Monitor Well ACW #09 | 1184          | 2300                           | 3670                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 4/22/94     | SS4-0387      | Monitor Well ACW #09 | 1150          | 2508                           | 3900                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 12/1/94     | SS4-0795      | Monitor Well ACW #09 | 1650          | 3510                           | 5450                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 1/31/95     | SS5-0017      | Monitor Well ACW #09 | 2083          | 4240                           | 7110                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 5/17/95     | SS5-0233      | Monitor Well ACW #09 | 5600          | 6800                           | 11000                        | 6.8 | <1.0          | <2.0         | 0.4        | 820          | <0.025      | 0.17      | 280            | 1              | 16             | 910         | 0.025     | <5           | 22           | <5                | 0                 | 320                        | 4500                     | 2.1          | 440          | 49          |
| 6/28/95     | SS5-0384      | Monitor Well ACW #09 | 3500          | 6200                           | 9100                         | 7.0 | <1.0          | <2.0         | 0.4        | 770          | <0.025      | 0.28      | 250            | 0.98           | 15             | 1000        | 0.020     | <2.5         | <2.5         | <2.5              | <5.0              | 300                        | 2700                     | 1.9          | 360          | 51          |
| 8/30/95     | SS5-0419      | Monitor Well ACW #09 | 2500          | 4500                           | 7150                         | 6.5 | <1.0          | <2.0         | 0.4        | 640          | <0.025      | 0.19      | 220            | 0.86           | 14             | 880         | 0.040     | <5           | <10          | <5                | <15               | 240                        | 2000                     | 1.5          | 370          | 43          |
| 2/7/96      | SS6-0069      | Monitor Well ACW #09 | 2400          | 5400                           | 7500                         | 7.7 | 0.16          | 0.039        | 0.4        | 570          | <0.008      | 0.48      | 180            | 0.71           | 14             | 810         | 0.010     | 1.8          | <1.0         | <1.0              | <2.0              | 300                        | 2200                     | 1.5          | 320          | 47          |
| 2/7/96      | SS6-0070*     | Monitor Well ACW #09 | 2300          | 4620                           | 7450                         | 6.8 | 0.36          | <1.25        | 0.4        | 600          | <0.1        | 0.4       | 175            | 0.7            | 16             | 810         | <0.1      | <2.5         | <2.5         | <2.5              | <7.5              | 291                        | 2220                     | 1.85         | 341          | 56          |
| 5/8/96      | SS6-0259      | Monitor Well ACW #09 | 2210          | 4210                           | 7530                         | 6.8 | 0.35          | <1.25        | <0.5       | 508          | 0.01        | 0.4       | 183            | 0.49           | 17             | 687         | <0.05     | <1.0         | <1.0         | <1.0              | <3.0              | 209                        | 2020                     | 3            | 322          | 60          |
| 8/14/96     | SS6-0328      | Monitor Well ACW #09 | 1200          | 3600                           | 4400                         | 7.4 | 1.4           | 0.13         | 0.4        | 490          | <0.008      | 0.86      | 180            | 0.65           | 13             | 730         | 0.027     | 1.4          | 1.8          | <1.0              | <2.0              | 220                        | 1900                     | 1.2          | 180          | 53          |
| 11/7/96     | SS6-0590      | Monitor Well ACW #09 | 1200          | 3100                           | 4200                         | 7.3 | 1.1           | 0.055        | 0.3        | 360          | <0.007      | 0.4       | 110            | 0.44           | 10             | 510         | 0.029     | 2.3          | 2.2          | <1.0              | <2.0              |                            |                          |              |              |             |
| 2/19/97     | SS6-0590      | Monitor Well ACW #09 | 1260          | 2500                           | 4110                         |     |               |              |            |              |             |           |                |                |                |             |           | 1.3          | 4.0          | 10                | 4.2               |                            |                          |              |              |             |

JAL #4 MONITOR WELL

4/29/97

| SAMPLE DATE | SAMPLE NUMBER | SAMPLE DESCRIPTION    | Chloride mg/l | Residue, Filterable (TDS) mg/l | Specific Conductance umho/cm | pH  | Fluoride mg/l | Nitrate mg/l | Boron mg/l | Calcium mg/l | Copper mg/l | Iron mg/l | Magnesium mg/l | Manganese mg/l | Potassium mg/l | Sodium mg/l | Zinc mg/l | Benzene ug/l | Toluene ug/l | Ethylbenzene ug/l | Total Xylene ug/l | Alkalinity (as CaCO3) mg/l | Hardness (as CaCO3) mg/l | Bromide mg/l | Sulfate mg/l | Silica mg/l |  |
|-------------|---------------|-----------------------|---------------|--------------------------------|------------------------------|-----|---------------|--------------|------------|--------------|-------------|-----------|----------------|----------------|----------------|-------------|-----------|--------------|--------------|-------------------|-------------------|----------------------------|--------------------------|--------------|--------------|-------------|--|
| 6/18/93     | S93-0392      | Monitor Well ACW #10  | 1027          | 701                            | 1061                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 9/14/93     | S93-0528      | Monitor Well ACW #10  | 421           | 1190                           | 1349                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 11/9/93     | S93-0680      | Monitor Well ACW #10  | 420           | 1238                           | 1800                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 4/22/94     | S94-0388      | Monitor Well ACW #10  | 700           | 1638                           | 2440                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 10/28/94    | S94-0751      | Monitor Well ACW #10  | 600           | 1694                           | 2592                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 2/1/95      | S95-0019      | Monitor Well ACW #10  | 819           | 1426                           | 2660                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 5/17/95     | S95-0234      | Monitor Well ACW #10  | 1600          | 2300                           | 3900                         | 6.9 | <1.0          | 1.1          | 0.3        | 320          | <0.025      | 0.12      | 110            | 0.037          | 8              | 170         | 0.020     | <5           | <10          | <5                | 0                 | 190                        | 1300                     | 1.1          | 300          | 43          |  |
| 6/28/95     | S95-0385      | Monitor Well ACW #10  | 1900          | 2300                           | 3100                         | 7.3 | <1.0          | <2.0         | 0.3        | 280          | <0.025      | 0.28      | 94             | 0.029          | 7.5            | 160         | 0.020     | <2.5         | <2.5         | <2.5              | <5.0              | 190                        | 1200                     | 0.96         | 230          | 48          |  |
| 8/30/95     | S95-0420      | Monitor Well ACW #10  | 790           | 2200                           | 3100                         | 7.0 | <10           | <20          | 0.2        | 280          | <0.025      | <0.20     | 95             | 0.034          | 52             | 150         | 0.040     | <5           | <10          | <5                | <15               | 180                        | 1100                     | 0.9          | 210          | 42          |  |
| 2/7/96      | S95-0071      | Monitor Well ACW #10  | 850           | 2300                           | 3200                         | 7.8 | 0.24          | 0.42         | 0.3        | 320          | <0.008      | 0.24      | 110            | 0.032          | 8.4            | 190         | 0.011     | 3.9          | <1.0         | <1.0              | <2.0              | 200                        | 1200                     | 0.88         | 230          | 38          |  |
| 2/7/96      | S96-0072      | Monitor Well ACW #10  | 829           | 2100                           | 3100                         | 7.1 | 0.44          | <1.25        | 0.3        | 320          | <0.1        | 0.4       | 107            | <0.1           | 9.4            | 190         | <0.1      | 4.3          | <2.5         | <2.5              | <7.5              | 194                        | 1240                     | <1.25        | 242          | 54          |  |
| 5/6/96      | S96-0281      | Monitor Well ACW #10  | 603           | 1290                           | 2322                         | 7.2 | 0.46          | 2.2          | <0.5       | 206          | <0.01       | 0.1       | 92             | <0.05          | 8              | 127         | <0.05     | 1.22         | <1.0         | <1.0              | <3.0              | 137                        | 893                      | 4.5          | 190          | 62          |  |
| 8/14/96     | S96-0327      | Monitor Well ACW #10  | 580           | 1900                           | 2400                         | 7.6 | 1.4           | 0.58         | 0.3        | 210          | <0.008      | 0.14      | 71             | 0.019          | 7              | 140         | 0.037     | <1.0         | <1.0         | <1.0              | <2.0              | 170                        | 810                      | 0.82         | 160          | 47          |  |
| 11/7/96     | S96-0591      | Monitor Well ACW #10  | 610           | 1600                           | 250                          | 7.5 | 1.1           | 0.49         | 0.2        | 200          | <0.007      | 0.22      | 70             | 0.017          | 7.4            | 150         | 0.025     | 1.2          | 1.5          | <1.0              | <2.0              | 170                        | 800                      | 0.83         | 170          | 20          |  |
| 6/19/93     | S93-0393      | Monitor Well ACW #11  | 9737          | 16970                          | 25000                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 9/15/93     | S93-0534      | Monitor Well ACW #11  | 3437          | 6820                           | 10570                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 11/9/93     | S93-0681      | Monitor Well ACW #11  | 3620          | 6592                           | 10160                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 4/21/94     | S94-0382      | Monitor Well ACW #11  | 6400          | 9520                           | 16290                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 10/27/94    | S94-0720      | Monitor Well ACW #11  | 8200          | 13280                          | 20080                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 10/27/94    | S94-0721      | Monitor Well ACW #11  | 6600          | 12900                          | 20550                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 2/1/95      | S95-0020      | Monitor Well ACW #11  | 11582         | 19880                          | 32200                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 5/17/95     | S95-0235      | Monitor Well ACW #11  | 4400          | 7200                           | 12000                        | 6.8 | <1.0          | <2.0         | 0.3        | 740          | <0.025      | 0.36      | 260            | 0.23           | 16             | 1200        | 0.020     | <5           | <10          | <5                | 0                 | 230                        | 3300                     | 1.9          | 250          | 42          |  |
| 6/27/95     | S95-0381      | Monitor Well ACW #11  | 6500          | 7000                           | 11000                        | 7.2 | <1.0          | <2.0         | 0.4        | 720          | <0.025      | 0.29      | 270            | 0.2            | 16             | 980         | 0.020     | 5.1          | <2.5         | <2.5              | <5.0              | 210                        | 2800                     | 1.6          | 210          | 45          |  |
| 8/29/95     | S95-0447      | Monitor Well ACW #11  | 3400          | 8000                           | 10000                        | 6.8 | 6.2           | <2.0         | 0.3        | 550          | <0.025      | 0.17      | 210            | 0.068          | 16             | 880         | 0.020     | 6            | <10          | <5                | <15               | 220                        | 2700                     | 2.2          | 220          | 44          |  |
| 2/7/96      | S96-0085      | Monitor Well ACW #11  | 3400          | 7400                           | 11000                        | 7.8 | 0.15          | 0.067        | 0.3        | 660          | <0.008      | 0.38      | 230            | 0.13           | 26             | 1500        | 0.010     | 6.9          | <1.0         | <1.0              | <2.0              | 210                        | 2600                     | 1.5          | 230          | 47          |  |
| 2/7/96      | S96-0086      | Monitor Well ACW #11  | 3770          | 6740                           | 11030                        | 7.2 | 0.39          | <1.25        | 0.4        | 688          | <0.1        | 0.5       | 224            | 0.1            | 31             | 1400        | <0.1      | 7.6          | <2.5         | <2.5              | <7.5              | 200                        | 2590                     | 1.6          | 248          | 46          |  |
| 5/6/96      | S96-0282      | Monitor Well ACW #11  | 3120          | 5060                           | 9840                         | 7.3 | 0.37          | <1.25        | <0.5       | 484          | 0.02        | 0.3       | 220            | 0.09           | 29             | 1180        | <0.05     | 6.76         | <1.0         | <1.0              | <3.0              | 111                        | 2110                     | <1.25        | 206          | 50          |  |
| 8/13/96     | S96-0383      | Monitor Well ACW #11  | 4200          | 10000                          | 12000                        | 7.3 | 1.0           | 0.18         | 0.4        | 540          | 0.013       | 0.28      | 190            | 0.061          | 24             | 1700        | 0.12      | 7.9          | 2.2          | <1.0              | <2.0              | 160                        | 2100                     | 2            | 230          | 47          |  |
| 11/5/96     | S96-0578      | Monitor Well ACW #11  | 13000         | 25000                          | 29                           | 7.3 | 0.4           | 0.31         | 0.3        | 1200         | <0.007      | 0.25      | 430            | 0.14           | 35             | 5100        | 0.088     | 32           | 1.7          | <1.0              | 1.2               | 170                        | 4700                     | 2.9          | 560          | 21          |  |
| 2/19/97     | S97-0042      | Monitor Well ACW #12  | 380           | 950                            | 1610                         |     |               |              |            |              |             |           |                |                |                |             |           | <0.5         | <0.5         | 1.5               | <1.0              |                            |                          |              |              |             |  |
| 2/19/97     | S97-0043      | Monitor Well ACW #12D | 390           | 960                            | 1630                         |     |               |              |            |              |             |           |                |                |                |             |           | 2.9          | <0.5         | <0.5              | <1.0              |                            |                          |              |              |             |  |
| 2/20/97     | S97-0045      | Monitor Well ACW #13  | 53            | 440                            | 681                          |     |               |              |            |              |             |           |                |                |                |             |           | <0.5         | <0.5         | 1.5               | <1.0              |                            |                          |              |              |             |  |
| 2/20/97     | S97-0046      | Monitor Well ACW #14  | 86            | 570                            | 830                          |     |               |              |            |              |             |           |                |                |                |             |           | <0.5         | <0.5         | <0.5              | <1.0              |                            |                          |              |              |             |  |

TO: William C. Olson  
FROM: Steven Brisbin

DATE: JANUARY 5, 1998  
PLACE: Technical Services Division

**SUBJECT: JAL #4 MONITOR WELLS**

.Listed below is the schedule for sampling Jal#4 monitor wells. If a problem should arise that would change this schedule I will notify you. If you have any question's please call me at (915)759-2329.

FEBRUARY 23 THRU 25, 1998

MAY 11 THRU 15, 1998

AUGUST 10 THRU 12, 1998

OCTOBER 19 THRU 23, 1998

Thank You, Steve Brisbin



July 21, 1997

RECEIVED  
JUL 26 1997

Mr. William C. Olson  
Hydrogeologist, Environmental Bureau  
Energy, Mineral and Natural Resources Department  
New Mexico Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, New Mexico 87505

**RE: Requested Ground Water Investigation Report  
EPNG Jal No. 4  
Lea County, New Mexico**

Dear Mr. Olson:

Pursuant to our telephone conversation regarding OCD's letter dated July 8, 1997, item 1, a report was submitted by our consultant, Philip Environmental, on October 14, 1996. The report is entitled *Jal No. 4 Groundwater Delineation Report* and addresses OCD's requested information.

Please contact me at (713) 757-3827, if you have questions or need additional information.

Sincerely,

A handwritten signature in cursive script that reads 'Gerry Garibay'.

Gerry Garibay  
Senior Environmental Scientist  
Discontinued Operations

Enclosure

cc: Jerry Sexton  
Hobbs District Supervisor  
New Mexico Oil Conservation Division  
P.O. Box 1980  
Hobbs, NM 88240



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 8, 1997

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. P-410-431-189**

Mr. Gerry Garibay  
El Paso Energy Corporation  
P.O. Box 2511  
Houston, Texas 77252-2511

Environmental Affairs  
JUL 14 1997  
Discontinued Operations

**RE: GROUND WATER MONITORING**  
**EPNG JAL #4**  
**LEA COUNTY, NEW MEXICO**

Dear Mr. Garibay:

The New Mexico Oil Conservation Division (OCD) has completed a review of El Paso Energy Company's (EPEC) April 29, 1997 "PHASE IV GROUND WATER CONTAMINATION STUDY, EPNG JAL NO. 4, LEA COUNTY, NEW MEXICO, PROPOSED PROJECT CHANGES AND FIRST QUARTER REPORT". This document contains EPEC's proposal to modify the ground water sampling program for the EPNG Jal #4 gas plant and to change the reporting frequency of ground water monitoring reports from quarterly to annually.

The monitoring and reporting proposal as contained in the above referenced document is approved with the following conditions:

1. By August 8, 1997, EPEC will provide the OCD with the investigation report which was required as a condition of approval in OCD's August 10, 1995 approval of EPEC's ground water remediation and investigation work plan.
2. Ground water from monitor wells ACW-12, ACW-13 and ACW-14 will be sampled and analyzed on a quarterly basis for concentrations of benzene, toluene, ethylbenzene, xylene (BTEX), total dissolved solids and major cations and anions using EPA approved methods and quality assurance/quality control (QA/QC).
3. Ground water from monitor wells ACW-1, ACW-2A, ACW-4, ACW-5, ACW-6, ACW-7, ACW-8, ACW-9, ACW-10, ACW-11, ACW-12, ACW-13 and ACW-14 will be sampled and analyzed on an annual basis for concentrations of BTEX, total dissolved solids, major cations and anions and New Mexico Water Quality Control Commission (WQCC) metals using EPA approved methods and QA/QC.

Mr. Gerry Garibay  
July 8, 1997  
Page 2

4. The annual report will be submitted to the OCD by February 15 of each year. The annual report will contain:
  - a. A description of the monitoring and remediation activities which occurred during the year including conclusions and recommendations.
  - b. Summary tables listing past and present laboratory analytic results of all water quality sampling for each monitoring point and plots of concentration vs. time for contaminants of concern from each monitoring point. Copies of the most recent years laboratory analytical data sheets and associated QA/QC data will also be submitted
  - c. A quarterly water table elevation map using the water table elevation of the ground water in all monitor wells.
  - d. The volume of fluids recovered in the remediation/disposal system during each quarter and the total recovered and disposed to date.
5. EPEC will notify the OCD at least one week in advance of all scheduled activities such that the OCD has the opportunity to witness the events and/or split samples.
6. All documents submitted for approval will be submitted to the OCD Santa Fe Office with copies provided to the OCD Hobbs District Office.

Please be advised that OCD approval does not relieve EPEC of liability should their remediation and monitoring program fail to adequately monitor or remediate ground water contamination related to EPEC's operations. In addition, this approval does not relieve EPEC of responsibility for compliance with any other federal, state or local laws and/or regulations.

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

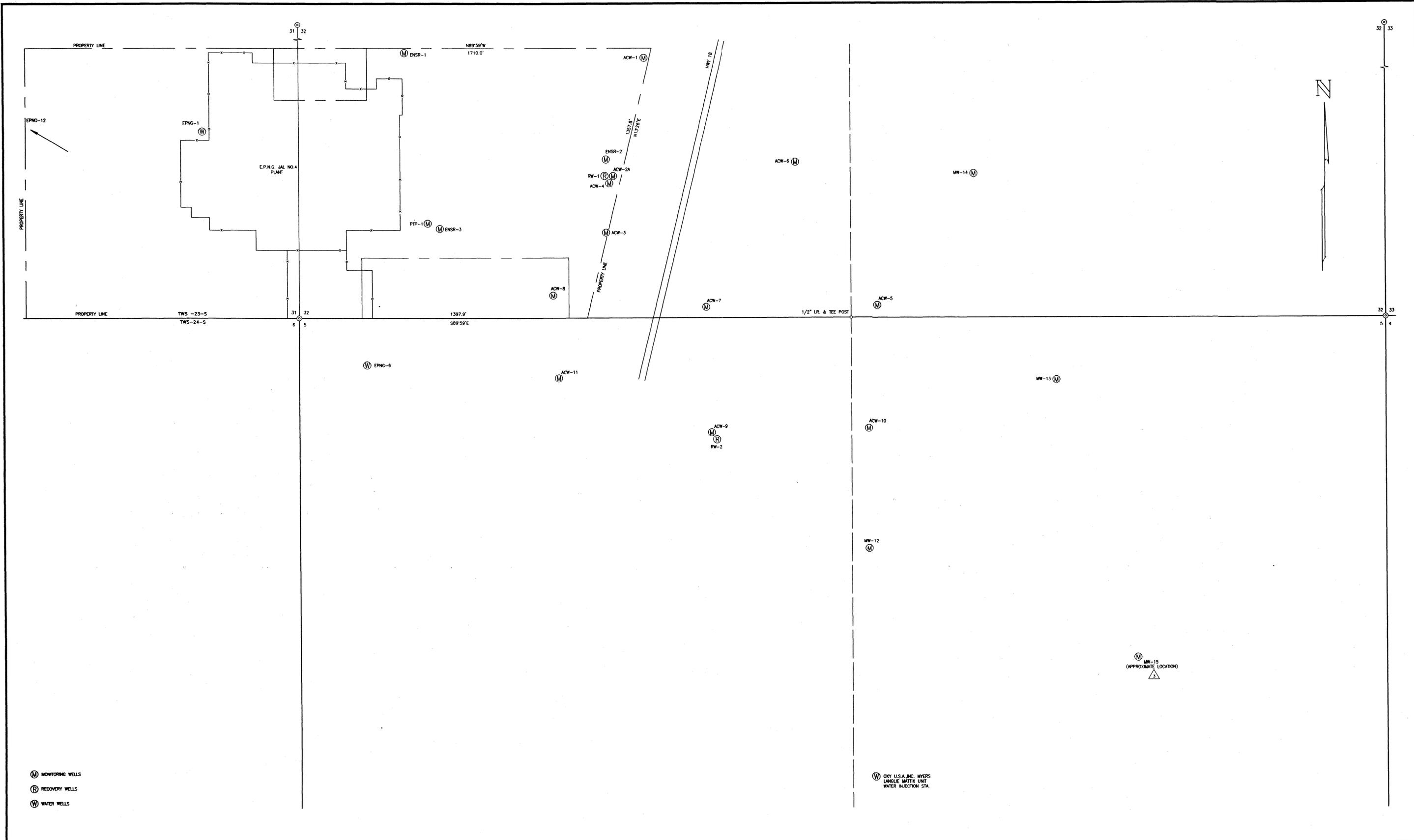
Sincerely,



William C. Olson  
Hydrogeologist  
Environmental Bureau

xc: Chris Williams, OCD Hobbs District Supervisor  
Wayne Price, OCD Hobbs Office





- Ⓜ MONITORING WELLS
- Ⓡ RECOVERY WELLS
- Ⓢ WATER WELLS

Ⓜ OXY U.S.A., INC. MYERS  
 LANGLE MATIIX UNIT  
 WATER INJECTION STA.

|        |  |                    |  |           |  |              |  |                    |  |        |         |  |   |
|--------|--|--------------------|--|-----------|--|--------------|--|--------------------|--|--------|---------|--|---|
| LEGEND |  | REFERENCE DRAWINGS |  | REVISIONS |  | PRINT RECORD |  | ENG. RECORD        |  | DATE   |         | <p><b>JAL NO.4 PLANT</b><br/>         GROUNDWATER MONITORING<br/>         WELL LOCATIONS</p> | SCALE: 1"=200'<br>DWG. NO. J4-1-P62<br>REV. 3 |
|        |  |                    |  |           |  |              |  | DRAFTING DESIGN    |  |        |         |  |   |
|        |  |                    |  |           |  |              |  | CAD DRAFTING       |  | JRM    | 8/30/96 |  |   |
|        |  |                    |  |           |  |              |  | CHECKED            |  | MJ     | 8/30/96 |  |   |
|        |  |                    |  |           |  |              |  | PROJECT APPROVAL   |  |        |         |  |   |
|        |  |                    |  |           |  |              |  | SURVEY DATE        |  |        |         |  |   |
|        |  |                    |  |           |  |              |  | R/W NUMBER         |  |        |         |  |   |
|        |  |                    |  |           |  |              |  | COMPUTER FILE NAME |  | J41P62 |         |  |   |



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 8, 1997

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. P-410-431-189**

Mr. Gerry Garibay  
El Paso Energy Corporation  
P.O. Box 2511  
Houston, Texas 77252-2511

**RE: GROUND WATER MONITORING**  
**EPNG JAL #4**  
**LEA COUNTY, NEW MEXICO**

Dear Mr. Garibay:

The New Mexico Oil Conservation Division (OCD) has completed a review of El Paso Energy Company's (EPEC) April 29, 1997 "PHASE IV GROUND WATER CONTAMINATION STUDY, EPNG JAL NO. 4, LEA COUNTY, NEW MEXICO, PROPOSED PROJECT CHANGES AND FIRST QUARTER REPORT". This document contains EPEC's proposal to modify the ground water sampling program for the EPNG Jal #4 gas plant and to change the reporting frequency of ground water monitoring reports from quarterly to annually.

The monitoring and reporting proposal as contained in the above referenced document is approved with the following conditions:

1. By August 8, 1997, EPEC will provide the OCD with the investigation report which was required as a condition of approval in OCD's August 10, 1995 approval of EPEC's ground water remediation and investigation work plan. *already submitted 7/10/23/96*
2. Ground water from monitor wells ACW-12, ACW-13 and ACW-14 will be sampled and analyzed on a quarterly basis for concentrations of benzene, toluene, ethylbenzene, xylene (BTEX), total dissolved solids and major cations and anions using EPA approved methods and quality assurance/quality control (QA/QC).
3. Ground water from monitor wells ACW-1, ACW-2A, ACW-4, ACW-5, ACW-6, ACW-7, ACW-8, ACW-9, ACW-10, ACW-11, ACW-12, ACW-13 and ACW-14 will be sampled and analyzed on an annual basis for concentrations of BTEX, total dissolved solids, major cations and anions and New Mexico Water Quality Control Commission (WQCC) metals using EPA approved methods and QA/QC.

Mr. Gerry Garibay  
July 8, 1997  
Page 2

4. The annual report will be submitted to the OCD by February 15 of each year. The annual report will contain:
  - a. A description of the monitoring and remediation activities which occurred during the year including conclusions and recommendations.
  - b. Summary tables listing past and present laboratory analytic results of all water quality sampling for each monitoring point and plots of concentration vs. time for contaminants of concern from each monitoring point. Copies of the most recent years laboratory analytical data sheets and associated QA/QC data will also be submitted
  - c. A quarterly water table elevation map using the water table elevation of the ground water in all monitor wells.
  - d. The volume of fluids recovered in the remediation/disposal system during each quarter and the total recovered and disposed to date.
5. EPEC will notify the OCD at least one week in advance of all scheduled activities such that the OCD has the opportunity to witness the events and/or split samples.
6. All documents submitted for approval will be submitted to the OCD Santa Fe Office with copies provided to the OCD Hobbs District Office.

Please be advised that OCD approval does not relieve EPEC of liability should their remediation and monitoring program fail to adequately monitor or remediate ground water contamination related to EPEC's operations. In addition, this approval does not relieve EPEC of responsibility for compliance with 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: Chris Williams, OCD Hobbs District Supervisor  
Wayne Price, OCD Hobbs Office



48

APR 30 1997

April 29, 1997

Mr. William C. Olson  
Hydrogeologist, Environmental Bureau  
Energy, Mineral and Natural Resources Department  
New Mexico Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, New Mexico 87505

**RE: Phase IV Ground Water Contamination Study  
EPNG Jal No. 4, Lea County, New Mexico  
Proposed Project Changes and First Quarter Report**

Dear Mr. Olson:

El Paso Natural Gas Company (EPNG) proposes to differ the installation of additional ground water monitoring wells, at the above referenced site, as recommended in the submitted *Jal No. 4, Groundwater Delineation Report* dated October 14, 1996. EPNG proposes to operate and monitor the recovery system prior to the installation, if required, of additional monitor wells. EPNG is also proposing to change the monitoring wells sampled quarterly and, in the future, submit annual reports with both quarterly and annual sampling results. The quarterly sampled wells, as shown below, will be analyzed for chlorides, TDS, conductivity, and BTEX. All wells will be sampled annually and analyzed for all previous quarterly parameters, as shown on the attached analytical table. The following monitoring wells and sampling frequency are proposed:

| WELLS  | QUARTER | ANNUAL |
|--------|---------|--------|
| ACW-1  |         | X      |
| ACW-5  |         | X      |
| ACW-6  |         | X      |
| ACW-6  |         | X      |
| ACW-9  |         | X      |
| ACW-10 |         | X      |
| ACW-11 |         | X      |
| ACW-12 | X       | X      |
| ACW-13 | X       | X      |
| ACW-14 | X       | X      |

Also  
2, 4, 7, 8

Mr. William C. Olson  
New Mexico Oil Conservation Division  
Page 2

In summary, the three new monitoring wells will be sampled on a quarterly basis and water samples analyzed for chlorides, TDS, conductivity, and BTEX. All of the above listed monitoring wells will be sampled annually and analyzed for the current quarterly parameters. The annual report will be submitted by February 15, 1998.

A summary of historical water quality analytical results for monitor wells ACW-1, ACW-5, ACW-6, ACW-10, ACW-11 and current water quality analytical results for monitor wells ACW-9, ACW-12, ACW-13, ACW-14 along with a current water table elevation map are attached.

Please contact me at (713) 757-3827, if you have any questions or need additional information.

Sincerely,



Gerry Garibay  
Senior Environmental Scientist  
Discontinued Operations

#### Attachments

cc: Jerry Sexton  
Hobbs District Supervisor  
New Mexico Oil Conservation Division  
P.O. Box 1980  
Hobbs, NM 88240

**SAMPLE KEY**

SAMPLE NUMBER: S97-0037 LOCATION: JAL #4 PLANT  
MATRIX: WATER  
SAMPLE DESCRIPTION: FIELD BLANK  
S D CONTINUED:  
S D CONTINUED:  
SAMPLE TIME: 16:00 SAMPLE DATE: 02/18/97

**SAMPLE KEY**

SAMPLE NUMBER: S97-0038 LOCATION: JAL #4 PLANT  
MATRIX: WATER  
SAMPLE DESCRIPTION: BAILER BLANK BEFORE SAMPLING  
S D CONTINUED:  
S D CONTINUED:  
SAMPLE TIME: 16:20 SAMPLE DATE: 02/18/97

**MAR 24 1997**

RECEIVED IN  
ENVIRONMENTAL AFFAIRS

**SAMPLE KEY**

SAMPLE NUMBER: S97-0039 LOCATION: JAL #4 PLANT  
MATRIX: WATER  
SAMPLE DESCRIPTION: PUMP BLANK BEFORE SAMPLING  
S D CONTINUED:  
S D CONTINUED:  
SAMPLE TIME: 16:50 SAMPLE DATE: 02/18/97

**SAMPLE KEY**

SAMPLE NUMBER: S97-0040 LOCATION: JAL #4 PLANT  
MATRIX: WATER  
SAMPLE DESCRIPTION: PRODUCTION WELL # DOOME WATER WELL  
S D CONTINUED:  
S D CONTINUED:  
SAMPLE TIME: 13:30 SAMPLE DATE: 02/19/97

**SAMPLE KEY**

SAMPLE NUMBER: S97-0041 LOCATION: JAL #4 PLANT  
MATRIX: WATER  
SAMPLE DESCRIPTION: MONITOR WELL # ACW9  
S D CONTINUED:  
S D CONTINUED:  
SAMPLE TIME: 15:39 SAMPLE DATE: 02/19/97

**SAMPLE KEY**

SAMPLE NUMBER: S97-0042 LOCATION: JAL #4 PLANT  
MATRIX: WATER  
SAMPLE DESCRIPTION: MONITOR WELL # ACW12  
S D CONTINUED:  
S D CONTINUED:  
SAMPLE TIME: 17:55 SAMPLE DATE: 02/19/97

**SAMPLE KEY**

SAMPLE NUMBER: S97-0043 LOCATION: JAL #4 PLANT  
MATRIX: WATER  
SAMPLE DESCRIPTION: MONITOR WELL # ACW12 DUP.  
S D CONTINUED:  
S D CONTINUED:  
SAMPLE TIME: 17:55 SAMPLE DATE: 02/19/97

**SAMPLE KEY**

SAMPLE NUMBER: S97-0044 LOCATION: JAL #4 PLANT  
MATRIX: WATER  
SAMPLE DESCRIPTION: PRODUCTION WELL #OXY  
S D CONTINUED:  
S D CONTINUED:  
SAMPLE TIME: 17:30 SAMPLE DATE: 02/19/97

**SAMPLE KEY**

SAMPLE NUMBER: S97-0045 LOCATION: JAL #4 PLANT  
MATRIX: WATER  
SAMPLE DESCRIPTION: MONITOR WELL # ACW13  
S D CONTINUED:  
S D CONTINUED:  
SAMPLE TIME: 11:45 SAMPLE DATE: 02/20/97

**SAMPLE KEY**

SAMPLE NUMBER: S97-0046 LOCATION: JAL #4 PLANT  
MATRIX: WATER  
SAMPLE DESCRIPTION: MONITOR WELL #ACW15  
S D CONTINUED:  
S D CONTINUED:  
SAMPLE TIME: 10:25 SAMPLE DATE: 02/26/97

# *American Environmental Network (Arizona), Inc.*

AEN I.D. 702277

March 7, 1997

El Paso Natural Gas Company  
8645 Railroad Drive  
El Paso, TX 79904

Project Name/Number: Jal #4

Attention: Darrell Campbell

On 02/22/97, American Environmental Network (Arizona), Inc., received a request to analyze aqueous sample(s). The sample(s) 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 160.1-total dissolved solids analysis was added on 02/26/97 for all samples. Per the clients request, run analysis past holding time.

If you have any questions or comments, please do not hesitate to contact us at (602) 496-4400.



Linda Eshelman  
Project Manager

LE/jk

Enclosure

ADHS License No. AZ0061  
Sherman McCutcheon, General Manager

*American Environmental Network (Arizona), Inc.*

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4

DATE RECEIVED : 02/22/97  
REPORT DATE : 03/07/97

ATI I.D. : 702277

| ATI # | CLIENT DESCRIPTION | MATRIX  | DATE COLLECTED |
|-------|--------------------|---------|----------------|
| 01    | S97-0037           | AQUEOUS | 02/18/97       |
| 02    | S97-0038           | AQUEOUS | 02/18/97       |
| 03    | S97-0039           | AQUEOUS | 02/18/97       |
| 04    | S97-0040           | AQUEOUS | 02/19/97       |
| 05    | S97-0041           | AQUEOUS | 02/19/97       |
| 06    | S97-0042           | AQUEOUS | 02/19/97       |
| 07    | S97-0043           | AQUEOUS | 02/19/97       |
| 08    | S97-0044           | AQUEOUS | 02/19/97       |
| 09    | S97-0045           | AQUEOUS | 02/20/97       |

----- TOTALS -----

|         |           |
|---------|-----------|
| MATRIX  | # SAMPLES |
| -----   | -----     |
| AQUEOUS | 9         |

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

*American Environmental Network (Arizona), Inc.*

GENERAL CHEMISTRY RESULTS

ATI I.D. : 702277

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4

DATE RECEIVED : 02/22/97

REPORT DATE : 03/07/97

| PARAMETER                   | UNITS | 01   | 02   | 03  | 04  | 05   |
|-----------------------------|-------|------|------|-----|-----|------|
| CHLORIDE (EPA 325.2)        | MG/L  | <0.5 | <0.5 | 110 | 38  | 1260 |
| CONDUCTIVITY, (UMHOS/CM)    |       | 2    | 2    | 732 | 618 | 4110 |
| T. DISSOLVED SOLIDS (160.1) | MG/L  | <10  | <10  | 460 | 440 | 2500 |

*American Environmental Network (Arizona), Inc.*

GENERAL CHEMISTRY RESULTS

ATI I.D. : 702277

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4

DATE RECEIVED : 02/22/97

REPORT DATE : 03/07/97

| PARAMETER                   | UNITS | 06   | 07   | 08  | 09  |
|-----------------------------|-------|------|------|-----|-----|
| CHLORIDE (EPA 325.2)        | MG/L  | 380  | 390  | 70  | 53  |
| CONDUCTIVITY, (UMHOS/CM)    |       | 1610 | 1630 | 659 | 681 |
| T. DISSOLVED SOLIDS (160.1) | MG/L  | 950  | 960  | 440 | 440 |

*American Environmental Network (Arizona), Inc.*

GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT : EL PASO NATURAL GAS  
 PROJECT # : (NONE)  
 PROJECT NAME : JAL #4

ATI I.D. : 702277

| PARAMETER               | UNITS | ATI I.D. | SAMPLE RESULT | DUP. RESULT | RPD | SPIKED SAMPLE | SPIKE CONC | % REC |
|-------------------------|-------|----------|---------------|-------------|-----|---------------|------------|-------|
| CHLORIDE                | MG/L  | 70218004 | 15            | 14          | 7   | 68            | 50         | 106   |
| CHLORIDE                | MG/L  | 70227702 | <0.5          | <0.5        | NA  | 9             | 10         | 90    |
| CHLORIDE                | MG/L  | 70231401 | 150           | 150         | 0   | 350           | 200        | 100   |
| CONDUCTIVITY (UMHOS/CM) |       | 70228804 | 316           | 314         | 0.6 | NA            | NA         | NA    |
| TOTAL DISSOLVED SOLIDS  | MG/L  | 70227701 | <10           | <10         | NA  | NA            | NA         | NA    |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

*American Environmental Network (Arizona), Inc.*

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 70227701

TEST : BTEX + MTBE (EPA METHOD 8020)

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4  
CLIENT I.D. : S97-0037  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 02/18/97  
DATE RECEIVED : 02/22/97  
DATE EXTRACTED : N/A  
DATE ANALYZED : 02/24/97  
UNITS : UG/L  
DILUTION FACTOR : 1

-----  
COMPOUNDS

RESULTS  
-----

|                      |      |
|----------------------|------|
| BENZENE              | <0.5 |
| TOLUENE              | <0.5 |
| ETHYLBENZENE         | <0.5 |
| TOTAL XYLENES        | <1.0 |
| METHYL-t-BUTYL ETHER | <2.5 |

SURROGATE PERCENT RECOVERIES

BROMOFLUOROBENZENE (%) 96

*American Environmental Network (Arizona), Inc.*

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 70227702

TEST : BTEX + MTBE (EPA METHOD 8020)

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4  
CLIENT I.D. : S97-0038  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 02/18/97  
DATE RECEIVED : 02/22/97  
DATE EXTRACTED : N/A  
DATE ANALYZED : 02/24/97  
UNITS : UG/L  
DILUTION FACTOR : 1

| COMPOUNDS                     | RESULTS |
|-------------------------------|---------|
| BENZENE                       | <0.5    |
| TOLUENE                       | <0.5    |
| ETHYLBENZENE                  | <0.5    |
| TOTAL XYLENES                 | <1.0    |
| METHYL- <i>t</i> -BUTYL ETHER | <2.5    |

SURROGATE PERCENT RECOVERIES

BROMOFLUOROBENZENE (%) 98

*American Environmental Network (Arizona), Inc.*

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 70227703

TEST : BTEX + MTBE (EPA METHOD 8020)

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4  
CLIENT I.D. : S97-0039  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 02/18/97  
DATE RECEIVED : 02/22/97  
DATE EXTRACTED : N/A  
DATE ANALYZED : 02/24/97  
UNITS : UG/L  
DILUTION FACTOR : 1

-----  
COMPOUNDS

RESULTS  
-----

|                      |      |
|----------------------|------|
| BENZENE              | <0.5 |
| TOLUENE              | <0.5 |
| ETHYLBENZENE         | <0.5 |
| TOTAL XYLENES        | <1.0 |
| METHYL-t-BUTYL ETHER | <2.5 |

SURROGATE PERCENT RECOVERIES

BROMOFLUOROBENZENE (%) 100

*American Environmental Network (Arizona), Inc.*

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 70227704

TEST : BTEX + MTBE (EPA METHOD 8020)

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4  
CLIENT I.D. : S97-0040  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 02/19/97  
DATE RECEIVED : 02/22/97  
DATE EXTRACTED : N/A  
DATE ANALYZED : 02/24/97  
UNITS : UG/L  
DILUTION FACTOR : 1

| COMPOUNDS            | RESULTS |
|----------------------|---------|
| BENZENE              | <0.5    |
| TOLUENE              | <0.5    |
| ETHYLBENZENE         | <0.5    |
| TOTAL XYLENES        | <1.0    |
| METHYL-t-BUTYL ETHER | <2.5    |

SURROGATE PERCENT RECOVERIES

BRCMOFLUOROBENZENE (%) 92

*American Environmental Network (Arizona), Inc.*

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 70227705

TEST : BTEX + MTBE (EPA METHOD 8020)

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4  
CLIENT I.D. : S97-0041  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 02/19/97  
DATE RECEIVED : 02/22/97  
DATE EXTRACTED : N/A  
DATE ANALYZED : 02/24/97  
UNITS : UG/L  
DILUTION FACTOR : 1

-----  
COMPOUNDS

RESULTS  
-----

|                      |     |
|----------------------|-----|
| BENZENE              | 1.3 |
| TOLUENE              | 4.0 |
| ETHYLBENZENE         | 10  |
| TOTAL XYLENES        | 4.2 |
| METHYL-t-BUTYL ETHER | 8.0 |

SURROGATE PERCENT RECOVERIES

BROMOFLUOROBENZENE (%) 103

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 70227706

TEST : BTEX + MTBE (EPA METHOD 8020)

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4  
CLIENT I.D. : S97-0042  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 02/19/97  
DATE RECEIVED : 02/22/97  
DATE EXTRACTED : N/A  
DATE ANALYZED : 02/24/97  
UNITS : UG/L  
DILUTION FACTOR : 1

-----  
COMPOUNDS

RESULTS  
-----

|                      |      |
|----------------------|------|
| BENZENE              | <0.5 |
| TOLUENE              | <0.5 |
| ETHYLBENZENE         | 1.5  |
| TOTAL XYLENES        | <1.0 |
| METHYL-t-BUTYL ETHER | <2.5 |

SURROGATE PERCENT RECOVERIES

BROMOFLUOROBENZENE (%) 93

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 70227707

TEST : BTEX + MTBE (EPA METHOD 8020)

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4  
CLIENT I.D. : S97-0043  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 02/19/97  
DATE RECEIVED : 02/22/97  
DATE EXTRACTED : N/A  
DATE ANALYZED : 02/24/97  
UNITS : UG/L  
DILUTION FACTOR : 1

-----  
COMPOUNDS

RESULTS  
-----

|                      |      |
|----------------------|------|
| BENZENE              | 2.9  |
| TOLUENE              | <0.5 |
| ETHYLBENZENE         | <0.5 |
| TOTAL XYLENES        | <1.0 |
| METHYL-t-BUTYL ETHER | 8.1  |

SURROGATE PERCENT RECOVERIES

BROMOFLUOROBENZENE (%) 98

*American Environmental Network (Arizona), Inc.*

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 70227708

TEST : BTEX + MTBE (EPA METHOD 8020)

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4  
CLIENT I.D. : S97-0044  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 02/19/97  
DATE RECEIVED : 02/22/97  
DATE EXTRACTED : N/A  
DATE ANALYZED : 02/24/97  
UNITS : UG/L  
DILUTION FACTOR : 1

| COMPOUNDS            | RESULTS |
|----------------------|---------|
| BENZENE              | <0.5    |
| TOLUENE              | <0.5    |
| ETHYLBENZENE         | 1.4     |
| TOTAL XYLENES        | <1.0    |
| METHYL-t-BUTYL ETHER | <2.5    |

SURROGATE PERCENT RECOVERIES

BROMOFLUOROBENZENE (%) 98

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 70227709

TEST : BTEX + MTBE (EPA METHOD 8020)

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4  
CLIENT I.D. : S97-0045  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 02/20/97  
DATE RECEIVED : 02/22/97  
DATE EXTRACTED : N/A  
DATE ANALYZED : 02/24/97  
UNITS : UG/L  
DILUTION FACTOR : 1

| COMPOUNDS            | RESULTS |
|----------------------|---------|
| BENZENE              | <0.5    |
| TOLUENE              | <0.5    |
| ETHYLBENZENE         | 1.5     |
| TOTAL XYLENES        | <1.0    |
| METHYL-t-BUTYL ETHER | <2.5    |

SURROGATE PERCENT RECOVERIES

BROMOFLUOROBENZENE (%) 98

*American Environmental Network (Arizona), Inc.*

GAS CHROMATOGRAPHY - RESULTS

REAGENT BLANK

TEST : BTEX + MTBE (EPA METHOD 8020)

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4  
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 702277  
DATE EXTRACTED : N/A  
DATE ANALYZED : 02/24/97  
UNITS : UG/L  
DILUTION FACTOR : N/A

| COMPOUNDS                     | RESULTS |
|-------------------------------|---------|
| BENZENE                       | <0.5    |
| TOLUENE                       | <0.5    |
| ETHYLBENZENE                  | <0.5    |
| TOTAL XYLENES                 | <1.0    |
| METHYL- <i>t</i> -BUTYL ETHER | <2.5    |

SURROGATE PERCENT RECOVERIES

BROMOFLUOROBENZENE (%) 103

*American Environmental Network (Arizona), Inc.*

QUALITY CONTROL DATA

TEST : BTEX + MTBE (EPA METHOD 8020)

ATI I.D. : 702277

CLIENT : EL PASO NATURAL GAS  
 PROJECT # : (NONE)  
 PROJECT NAME : JAL #4  
 REF I.D. : 70227709

DATE ANALYZED : 02/24/97  
 SAMPLE MATRIX : AQUEOUS  
 UNITS : UG/L

| COMPOUNDS            | SAMPLE CONC. |        | SPIKED<br>RESULT | SPIKED<br>SAMPLE | DUP. % SPIKED |             | RPD |
|----------------------|--------------|--------|------------------|------------------|---------------|-------------|-----|
|                      | RESULT       | SPIKED |                  |                  | REC.          | SAMPLE REC. |     |
| BENZENE              | <0.5         | 20     | 18               | 90               | 18            | 90          | 0   |
| TOLUENE              | <0.5         | 20     | 18               | 90               | 19            | 95          | 5   |
| ETHYLBENZENE         | 1.5          | 20     | 18               | 82               | 19            | 88          | 5   |
| TOTAL XYLENES        | <0.5         | 60     | 55               | 92               | 55            | 92          | 0   |
| METHYL-t-BUTYL ETHER | <2.5         | 40     | 45               | 112              | 45            | 112         | 0   |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spiked Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

*American Environmental Network (Arizona), Inc.*

DATE OF ANALYSIS

ACCESSION #: 702277

| SAMPLE ID | TEST AND METHOD NUMBER      | DATE OF ANALYSIS | ANALYST |
|-----------|-----------------------------|------------------|---------|
| 70227701  | CHLORIDE (EPA 325.2)        | 03/05/97         | CM      |
| 70227702  | CHLORIDE (EPA 325.2)        | 03/05/97         | CM      |
| 70227703  | CHLORIDE (EPA 325.2)        | 03/05/97         | CM      |
| 70227704  | CHLORIDE (EPA 325.2)        | 03/05/97         | CM      |
| 70227705  | CHLORIDE (EPA 325.2)        | 03/06/97         | CM      |
| 70227706  | CHLORIDE (EPA 325.2)        | 03/06/97         | CM      |
| 70227707  | CHLORIDE (EPA 325.2)        | 03/06/97         | CM      |
| 70227708  | CHLORIDE (EPA 325.2)        | 03/05/97         | CM      |
| 70227709  | CHLORIDE (EPA 325.2)        | 03/06/97         | CM      |
| 70227701  | CONDUCTIVITY, (UMHOS/CM)    | 02/25/97         | PS      |
| 70227702  | CONDUCTIVITY, (UMHOS/CM)    | 02/25/97         | PS      |
| 70227703  | CONDUCTIVITY, (UMHOS/CM)    | 02/25/97         | PS      |
| 70227704  | CONDUCTIVITY, (UMHOS/CM)    | 02/25/97         | PS      |
| 70227705  | CONDUCTIVITY, (UMHOS/CM)    | 02/25/97         | PS      |
| 70227706  | CONDUCTIVITY, (UMHOS/CM)    | 02/25/97         | PS      |
| 70227707  | CONDUCTIVITY, (UMHOS/CM)    | 02/25/97         | PS      |
| 70227708  | CONDUCTIVITY, (UMHOS/CM)    | 02/25/97         | PS      |
| 70227709  | CONDUCTIVITY, (UMHOS/CM)    | 02/25/97         | PS      |
| 70227701  | T. DISSOLVED SOLIDS (160.1) | 02/27/97         | DH      |
| 70227702  | T. DISSOLVED SOLIDS (160.1) | 02/27/97         | DH      |
| 70227703  | T. DISSOLVED SOLIDS (160.1) | 02/27/97         | DH      |
| 70227704  | T. DISSOLVED SOLIDS (160.1) | 02/27/97         | DH      |
| 70227705  | T. DISSOLVED SOLIDS (160.1) | 02/27/97         | DH      |
| 70227706  | T. DISSOLVED SOLIDS (160.1) | 02/27/97         | DH      |
| 70227707  | T. DISSOLVED SOLIDS (160.1) | 02/27/97         | DH      |
| 70227708  | T. DISSOLVED SOLIDS (160.1) | 02/27/97         | DH      |
| 70227709  | T. DISSOLVED SOLIDS (160.1) | 02/27/97         | DH      |

REFERENCES:

Methods for Chemical Analysis of Water and Wastes, March 1983, EPA-600 4-79-020



# *American Environmental Network (Arizona), Inc.*

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AEN I.D. 702384

March 18, 1997

El Paso Natural Gas Company  
8645 Railroad Drive  
El Paso, TX 79904

Project Name/Number: JAL #4

Attention: Darrell Campbell

On 02/28/97, American Environmental Network (Arizona), Inc., received a request to analyze aqueous sample(s). The sample(s) 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 (602) 496-4400.



Linda Eshelman  
Project Manager

LE/jk

Enclosure

ADHS License No. AZ0061  
Sherman McCutcheon, General Manager

*American Environmental Network (Arizona), Inc.*

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4

DATE RECEIVED : 02/28/97  
REPORT DATE : 03/17/97

ATI I.D. : 702384

| ATI # | CLIENT DESCRIPTION | MATRIX  | DATE COLLECTED |
|-------|--------------------|---------|----------------|
| 01    | S97-0046           | AQUEOUS | 02/26/97       |

----- TOTALS -----

| MATRIX  | # SAMPLES |
|---------|-----------|
| AQUEOUS | 1         |

ATI STANDARD DISPOSAL PRACTICE

The samples from this project will be disposed of in thirty (30) days from the date of this report. If an extended storage period is required, please contact our sample control department before the scheduled disposal date.

*American Environmental Network (Arizona), Inc.*  
GENERAL CHEMISTRY RESULTS

ATI I.D. : 702384

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4

DATE RECEIVED : 02/28/97

REPORT DATE : 03/17/97

---

| PARAMETER                   | UNITS | 01  |
|-----------------------------|-------|-----|
| CHLORIDE (EPA 325.2)        | MG/L  | 86  |
| CONDUCTIVITY, (UMHOS/CM)    |       | 830 |
| T. DISSOLVED SOLIDS (160.1) | MG/L  | 570 |

---

*American Environmental Network (Arizona), Inc.*  
 GENERAL CHEMISTRY - QUALITY CONTROL

CLIENT : EL PASO NATURAL GAS  
 PROJECT # : (NONE)  
 PROJECT NAME : JAL #4

ATI I.D. : 702384

| PARAMETER              | UNITS | ATI I.D. | SAMPLE RESULT | DUP. RESULT | RPD | SPIKED SAMPLE | SPIKE CONC | % REC |
|------------------------|-------|----------|---------------|-------------|-----|---------------|------------|-------|
| CHLORIDE               | MG/L  | 70317003 | 7             | 7           | 0   | 17            | 10         | 100   |
| CONDUCTIVITY(UMHOS/CM) |       | 70231501 | 920           | 917         | 0.3 | NA            | NA         | NA    |
| TOTAL DISSOLVED SOLIDS | MG/L  | 70236301 | 290           | 290         | 0   | NA            | NA         | NA    |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative Percent Difference)} = \frac{(\text{Sample Result} - \text{Duplicate Result})}{\text{Average Result}} \times 100$$

*American Environmental Network (Arizona), Inc.*

GAS CHROMATOGRAPHY - RESULTS

ATI I.D. : 70238401

TEST : BTEX + MTBE (EPA METHOD 8020)

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4  
CLIENT I.D. : S97-0046  
SAMPLE MATRIX : AQUEOUS

DATE SAMPLED : 02/26/97  
DATE RECEIVED : 02/28/97  
DATE EXTRACTED : N/A  
DATE ANALYZED : 03/06/97  
UNITS : UG/L  
DILUTION FACTOR : 1

-----  
COMPOUNDS

RESULTS  
-----

|                      |      |
|----------------------|------|
| BENZENE              | <0.5 |
| TOLUENE              | <0.5 |
| ETHYLBENZENE         | <0.5 |
| TOTAL XYLENES        | <1.0 |
| METHYL-t-BUTYL ETHER | <2.5 |

SURROGATE PERCENT RECOVERIES

BROMOFLUOROBENZENE (%) 86

American Environmental Network (ANEP) - RESULTS

REAGENT BLANK

TEST : BTEX + MTBE (EPA METHOD 8020)

CLIENT : EL PASO NATURAL GAS  
PROJECT # : (NONE)  
PROJECT NAME : JAL #4  
CLIENT I.D. : REAGENT BLANK

ATI I.D. : 702384  
DATE EXTRACTED : N/A  
DATE ANALYZED : 03/06/97  
UNITS : UG/L  
DILUTION FACTOR : N/A

---

| COMPOUNDS            | RESULTS |
|----------------------|---------|
| BENZENE              | <0.5    |
| TOLUENE              | <0.5    |
| ETHYLBENZENE         | <0.5    |
| TOTAL XYLENES        | <1.0    |
| METHYL-t-BUTYL ETHER | <2.5    |

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SURROGATE PERCENT RECOVERIES

BROMOFLUOROBENZENE (%) 99

*American Environmental Network (Arizona), Inc.*

QUALITY CONTROL DATA

ATI I.D. : 702384

TEST : BTEX + MTBE (EPA METHOD 8020)

CLIENT : EL PASO NATURAL GAS  
 PROJECT # : (NONE)  
 PROJECT NAME : JAL #4  
 REF I.D. : 70238401

DATE ANALYZED : 03/06/97  
 SAMPLE MATRIX : AQUEOUS  
 UNITS : UG/L

| COMPOUNDS            | SAMPLE CONC. |        | SPIKED SAMPLE | % REC. | DUP. SPIKED SAMPLE REC. |     | RPD |
|----------------------|--------------|--------|---------------|--------|-------------------------|-----|-----|
|                      | RESULT       | SPIKED |               |        | %                       | %   |     |
| BENZENE              | <0.5         | 20     | 19            | 95     | 19                      | 95  | 0   |
| TOLUENE              | <0.5         | 20     | 19            | 95     | 19                      | 95  | 0   |
| ETHYLBENZENE         | <0.5         | 20     | 21            | 105    | 20                      | 100 | 5   |
| TOTAL XYLENES        | <1.0         | 60     | 65            | 108    | 63                      | 105 | 3   |
| METHYL-t-BUTYL ETHER | <2.5         | 40     | 37            | 92     | 38                      | 95  | 3   |

$$\% \text{ Recovery} = \frac{(\text{Spike Sample Result} - \text{Sample Result})}{\text{Spike Concentration}} \times 100$$

$$\text{RPD (Relative \% Difference)} = \frac{(\text{Spiked Sample Result} - \text{Duplicate Spike Sample Result})}{\text{Average of Spiked Sample}} \times 100$$

*American Environmental Network (Arizona), Inc.*

DATE OF ANALYSIS

ACCESSION #: 702384

| SAMPLE ID | TEST AND METHOD NUMBER      | DATE OF ANALYSIS | ANALYST |
|-----------|-----------------------------|------------------|---------|
| 70238401  | CHLORIDE (EPA 325.2)        | 3/13/97          | CM      |
| 70238401  | CONDUCTIVITY. (UMHOS/CM)    | 2/28/97          | PS      |
| 70238401  | T. DISSOLVED SOLIDS (160.1) | 2/28/97          | DH      |

REFERENCES: Methods for Chemical Analysis of Water and Wastes, March 1983, EPA-600 4-79-020



JAL #4 MONITOR WELL

4/29/97

| SAMPLE DATE | SAMPLE NUMBER | SAMPLE DESCRIPTION   | Chloride mg/l | Residue, Filterable (TDS) mg/l | Specific Conductance umho/cm | pH  | Fluoride mg/l | Nitrate mg/l | Boron mg/l | Calcium mg/l | Copper mg/l | Iron mg/l | Magnesium mg/l | Manganese mg/l | Potassium mg/l | Sodium mg/l | Zinc mg/l | Benzene ug/l | Toluene ug/l | Ethylbenzene ug/l | Total Xylene ug/l | Alkalinity (as CaCO3) mg/l | Hardness (as CaCO3) mg/l | Bromide mg/l | Sulfate mg/l | Silica mg/l |
|-------------|---------------|----------------------|---------------|--------------------------------|------------------------------|-----|---------------|--------------|------------|--------------|-------------|-----------|----------------|----------------|----------------|-------------|-----------|--------------|--------------|-------------------|-------------------|----------------------------|--------------------------|--------------|--------------|-------------|
| 3/5/93      | S93-0100      | Monitor Well ACW #01 | 4045          | 8506                           | 14350                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 9/15/93     | S93-0531      | Monitor Well ACW #01 | 2915          | 6018                           | 10360                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 11/10/93    | S93-0883      | Monitor Well ACW #01 | 3683          | 7340                           | 11780                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 4/20/94     | S94-0377      | Monitor Well ACW #01 | 5400          | 8430                           | 16520                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 10/27/94    | S94-0717      | Monitor Well ACW #01 | 3700          | 8440                           | 14830                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 5/18/95     | S95-0231      | Monitor Well ACW #01 | 4100          | 8200                           | 14000                        | 8.3 | 25            | <2.0         | 0.9        | 86           | <0.025      | 0.38      | 72             | 0.082          | 12             | 2600        | 0.020     | <5           | <10          | <5                | 0                 | 700                        | 470                      | 1.8          | 240          | 33          |
| 6/27/95     | S95-0383      | Monitor Well ACW #01 | 6700          | 8400                           | 14000                        | 8.4 | 22            | <2.0         | 1.0        | 74           | <0.025      | 0.59      | 92             | 0.077          | 15             | 3200        | <0.02     | 4.6          | 4.6          | <2.5              | 140               | 710                        | 510                      | 1.9          | 260          | 35          |
| 8/29/95     | S95-0448      | Monitor Well ACW #01 | 3300          | 12000                          | 21000                        | 8.2 | 18            | <20          | 0.8        | 87           | <0.025      | 0.18      | 78             | 0.069          | 11             | 2400        | <0.02     | 6            | <10          | <5                | <15               | 820                        | 590                      | 2.2          | 210          | 28          |
| 2/8/96      | S96-0063      | Monitor Well ACW #01 | 5200          | 9700                           | 16000                        | 8.3 | 0.88          | 0.02         | 1.0        | 78           | <0.006      | 0.56      | 100            | 0.069          | 16             | 4300        | 0.010     | 6.1          | 3            | 1.9               | 2.8               | 830                        | 620                      | 2.1          | 280          | 36          |
| 2/8/96      | S96-0064*     | Monitor Well ACW #01 | 5770          | 9440                           | 16170                        | 8.2 | 2.1           | <1.25        | 1.1        | 84           | <0.1        | 0.7       | 102            | 0.1            | 17             | 3900        | <0.1      | 5.6          | 2.7          | 3                 | <7.5              | 759                        | 630                      | 2.06         | 293          | 41          |
| 5/8/96      | S96-0263      | Monitor Well ACW #01 | 4130          | 8190                           | 14620                        | 8.2 | 2.2           | <1.25        | 1.0        | 93           | 0.01        | 0.6       | 118            | 0.09           | 18             | 3070        | <0.05     | 6.3          | 2.03         | <1.0              | <3.0              | 310                        | 718                      | <1.25        | 268          | 54          |
| 8/13/96     | S96-0381      | Monitor Well ACW #01 | 3500          | 7400                           | 12000                        | 8.1 | 4.9           | <0.05        | 1.1        | 110          | 0.019       | 0.88      | 100            | 0.078          | 6.6            | 2400        | 0.008     | 3.5          | 1.2          | <1.0              | <2.0              | 730                        | 690                      | 1.9          | 270          | 41          |
| 11/5/96     | S96-0576      | Monitor Well ACW #01 | 3700          | 7200                           | 11000                        | 8.1 | 4.4           | <0.05        | 1.0        | 81           | <0.007      | 0.59      | 98             | 0.082          | 11             | 3000        | 0.011     | 5.6          | 2.5          | <1.0              | 1.3               | 810                        | 810                      | 2            | 250          | 16          |
| 3/10/93     | S93-0114      | Monitor Well ACW #05 | 2544          | 6110                           | 10400                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 6/17/93     | S93-0387      | Monitor Well ACW #05 | 1228          | 323                            | 4480                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 9/16/93     | S93-0536      | Monitor Well ACW #05 | 650           | 3064                           | 4140                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 11/9/93     | S93-0678      | Monitor Well ACW #05 | 720           | 3202                           | 4390                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 4/21/94     | S94-0385      | Monitor Well ACW #05 | 800           | 3300                           | 4131                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 10/28/94    | S94-0749      | Monitor Well ACW #05 | 550           | 3112                           | 4500                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 1/31/95     | S95-0015      | Monitor Well ACW #05 | 499           | 2848                           | 4050                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 5/18/95     | S95-0229      | Monitor Well ACW #05 | 530           | 2800                           | 3900                         | 7.0 | <1.0          | 3.5          | 0.9        | 270          | <0.025      | 0.46      | 39             | 0.026          | 6.8            | 540         | 0.020     | <5           | <10          | <5                | 0                 | 320                        | 980                      | 1.3          | 1100         | 57          |
| 8/27/95     | S95-0380      | Monitor Well ACW #05 | 460           | 2800                           | 3800                         | 7.3 | <1.0          | 3.4          | 1.0        | 270          | <0.025      | 0.34      | 40             | 0.02           | 6.9            | 530         | 0.020     | <2.5         | <2.5         | <2.5              | <5.0              | 320                        | 240                      | 1.1          | 800          | 56          |
| 8/30/95     | S95-0450      | Monitor Well ACW #05 | 510           | 2700                           | 3900                         | 7.0 | <1.0          | <2.0         | 1.1        | 240          | <0.025      | <0.10     | 36             | <0.015         | 6.7            | 550         | 0.020     | <5           | <10          | <5                | <15               | 310                        | 810                      | 1            | 890          | 44          |
| 2/6/96      | S96-0061      | Monitor Well ACW #05 | 510           | 2200                           | 3800                         | 7.5 | 0.12          | 4.7          | 1.4        | 240          | <0.006      | 1.5       | 32             | 0.026          | 6.5            | 580         | 0.015     | <1.0         | <1.0         | <1.0              | <2.0              | 260                        | 740                      | 0.92         | 920          | 64          |
| 2/8/96      | S96-0062*     | Monitor Well ACW #05 | 506           | 2745                           | 3090                         | 7.3 | 0.29          | 4.9          | 1.4        | 240          | <0.1        | 2         | 32             | 0.1            | 8.1            | 580         | <0.1      | <2.5         | <2.5         | <2.5              | <7.5              | 284                        | 730                      | <1.25        | 835          | 66          |
| 5/8/96      | S96-0258      | Monitor Well ACW #05 | 519           | 2460                           | 3650                         | 7.2 | 0.42          | 5            | 0.8        | 187          | 0.01        | 0.2       | 24             | <0.05          | 8              | 508         | <0.05     | <1.0         | <1.0         | <1.0              | <3.0              | 190                        | 515                      | 4.5          | 653          | 35          |
| 8/13/96     | S96-0385      | Monitor Well ACW #05 | 500           | 2500                           | 3400                         | 7.3 | 0.7           | 5.4          | 2.0        | 200          | <0.006      | 0.024     | 26             | <0.007         | 6.3            | 520         | 0.033     | <1.0         | 1.2          | <1.0              | <2.0              | 320                        | 620                      | 1            | 710          | 58          |
| 11/8/96     | S96-0588      | Monitor Well ACW #05 | 500           | 2300                           | 3300                         | 7.5 | 0.57          | <0.05        | 1.9        | 180          | <0.007      | 0.3       | 25             | 0.008          | 6              | 520         | 0.022     | 1.1          | 1.4          | 1.2               | <2.0              | 350                        | 560                      | 1.2          | 710          | 27          |

JAL #4 MONITOR WELL

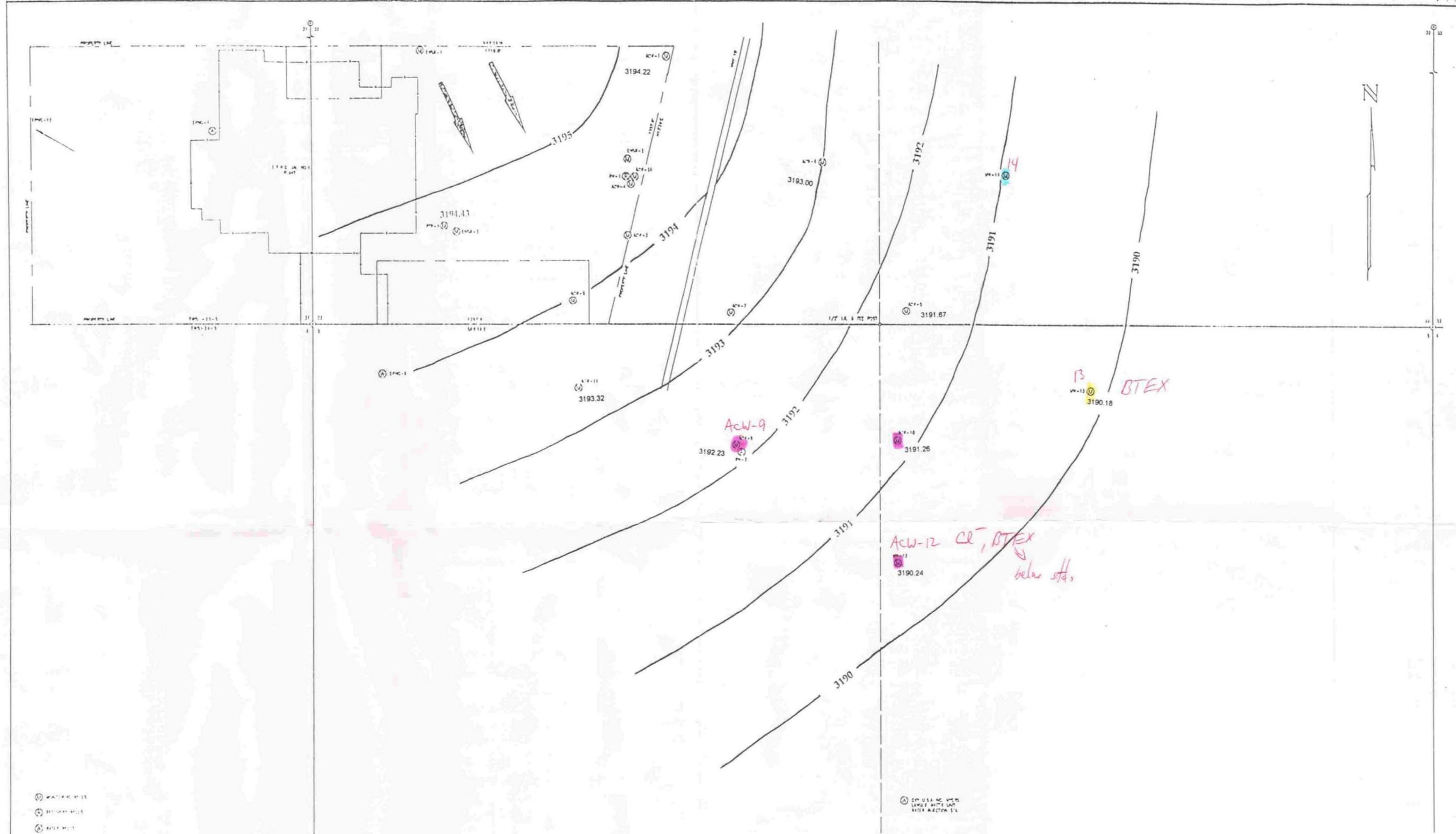
4/29/97

| SAMPLE DATE | SAMPLE NUMBER | SAMPLE DESCRIPTION   | Chloride mg/l | Residue, Filterable (TD6) mg/l | Specific Conductance umho/cm | pH  | Fluoride mg/l | Nitrate mg/l | Boron mg/l | Calcium mg/l | Copper mg/l | Iron mg/l | Magnesium mg/l | Manganese mg/l | Potassium mg/l | Sodium mg/l | Zinc mg/l | Benzene ug/l | Toluene ug/l | Ethylbenzene ug/l | Total Xylene ug/l | Alkalinity (as CaCO3) mg/l | Hardness (as CaCO3) mg/l | Bromide mg/l | Sulfate mg/l | Silica mg/l |  |
|-------------|---------------|----------------------|---------------|--------------------------------|------------------------------|-----|---------------|--------------|------------|--------------|-------------|-----------|----------------|----------------|----------------|-------------|-----------|--------------|--------------|-------------------|-------------------|----------------------------|--------------------------|--------------|--------------|-------------|--|
| 8/18/93     | S93-0388      | Monitor Well ACW #08 | 2108          | 5027                           | 8220                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 9/16/93     | S93-0537      | Monitor Well ACW #08 | 2737          | 6856                           | 11130                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 11/8/93     | S93-0877      | Monitor Well ACW #08 | 2154          | 5848                           | 8540                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 4/21/94     | S94-0384      | Monitor Well ACW #08 | 3600          | 6930                           | 11080                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 10/28/94    | S94-0750      | Monitor Well ACW #08 | 2100          | 6910                           | 11988                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 1/31/95     | S95-0016      | Monitor Well ACW #08 | 2873          | 6755                           | 11530                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 5/16/95     | S95-0230      | Monitor Well ACW #08 | 2600          | 6400                           | 10000                        | 8.1 | 31            | <2.0         | 0.9        | 70           | <0.025      | 3.9       | 19             | 0.079          | <5.0           | 2200        | 0.020     | <5           | <10          | <5                | 0                 | 1300                       | 200                      | 1.4          | 110          | 48          |  |
| 6/27/95     | S95-0379      | Monitor Well ACW #08 | 3500          | 8800                           | 10000                        | 9.0 | 44            | <2.0         | 1.1        | 64           | <0.025      | 5.9       | 16             | 0.082          | <5.0           | 3000        | 0.080     | 14           | <2.5         | <2.5              | <5.0              | 1500                       | 130                      | 1.8          | 110          | 44          |  |
| 8/29/95     | S95-0449      | Monitor Well ACW #08 | 3000          | 7100                           | 12000                        | 8.4 | 28            | <2.0         | 0.9        | 42           | <0.025      | 0.54      | 18             | 0.04           | <5.0           | 2500        | 0.020     | 7            | <10          | <5                | <15               | 1500                       | 200                      | 1.8          | 110          | 42          |  |
| 2/8/96      | S96-0059      | Monitor Well ACW #08 | 2600          | 6800                           | 11000                        | 8.0 | 3.8           | 0.0071       | 1.1        | 91           | <0.008      | 4.6       | 23             | 0.12           | 3.6            | 2700        | 0.029     | 6.6          | 3.2          | <1.0              | <2.0              | 1400                       | 320                      | 1.3          | 72           | 62          |  |
| 2/8/96      | S96-0060*     | Monitor Well ACW #08 | 3180          | 5630                           | 10320                        | 7.8 | 10            | <1.25        | 1.3        | 76           | <0.1        | 5         | 21             | 0.1            | 3.6            | 2400        | <0.1      | <2.5         | <2.5         | <2.5              | <7.5              | 1315                       | 275                      | 1.52         | 79           | 50          |  |
| 5/8/96      | S96-0257      | Monitor Well ACW #08 | 2880          | 6480                           | 10820                        | 7.7 | 8.4           | <1.25        | 1.3        | 35           | 0.02        | 4.1       | 21             | 0.14           | 4              | 2380        | <0.05     | 4.08         | 1.58         | <1.0              | <3.0              | 1398                       | 175                      | <1.25        | 48           | 40          |  |
| 8/14/96     | S96-0321      | Monitor Well ACW #08 | 2900          | 7100                           | 11000                        | 7.9 | 21            | <0.05        | 1.2        | 85           | <0.008      | 4.5       | 23             | 0.13           | 3.4            | 2900        | 0.024     | 4.2          | 2.6          | <2.0              | <2.0              | 1400                       | 310                      | 1.8          | 88           | 60          |  |
| 11/8/96     | S96-0585      | Monitor Well ACW #08 | 3400          | 7700                           | 12000                        | 8.8 | 18            | <0.05        | 1.2        | 98           | <0.007      | 5.3       | 27             | 0.18           | 3.8            | 2800        | 0.032     | 4.5          | 1.5          | <1.0              | <2.0              | 1600                       | 360                      | 1.3          | 74           | 32          |  |
| 11/8/96     | S96-0586      | Monitor Well ACW #08 | 3600          | 7700                           | 12000                        | 8.8 | 18            | <0.05        | 1.1        | 88           | <0.007      | 4         | 22             | 0.13           | 3.6            | 2400        | 0.019     | 4.6          | 1.5          | <1.0              | <2.0              | 1600                       | 310                      | 1.3          | 62           | 27          |  |
| 6/17/93     | S93-0391      | Monitor Well ACW #09 | 2288          | 4435                           | 5900                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 9/14/93     | S93-0525      | Monitor Well ACW #09 | 915           | 2119                           | 3100                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 11/9/93     | S93-0879      | Monitor Well ACW #09 | 1184          | 2300                           | 3870                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 4/22/94     | S94-0387      | Monitor Well ACW #09 | 1150          | 2508                           | 3900                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 12/1/94     | S94-0795      | Monitor Well ACW #09 | 1650          | 3510                           | 5450                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 1/31/95     | S95-0017      | Monitor Well ACW #09 | 2063          | 4240                           | 7110                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |  |
| 5/17/95     | S95-0233      | Monitor Well ACW #09 | 5600          | 6800                           | 11000                        | 8.8 | <1.0          | <2.0         | 0.4        | 820          | <0.025      | 0.17      | 280            | 1              | 16             | 910         | 0.025     | <5           | 22           | <5                | 0                 | 320                        | 4500                     | 2.1          | 440          | 49          |  |
| 6/28/95     | S95-0384      | Monitor Well ACW #09 | 3500          | 6200                           | 9100                         | 7.0 | <1.0          | <2.0         | 0.4        | 770          | <0.025      | 0.28      | 250            | 0.98           | 15             | 1000        | 0.020     | <2.5         | <2.5         | <2.5              | <5.0              | 300                        | 2700                     | 1.9          | 360          | 51          |  |
| 8/30/95     | S95-0419      | Monitor Well ACW #09 | 2500          | 4500                           | 7150                         | 8.5 | <1.0          | <2.0         | 0.4        | 840          | <0.025      | 0.19      | 220            | 0.88           | 14             | 880         | 0.040     | <5           | <10          | <5                | <15               | 240                        | 2000                     | 1.5          | 370          | 43          |  |
| 2/7/96      | S96-0069      | Monitor Well ACW #09 | 2400          | 5400                           | 7500                         | 7.7 | 0.18          | 0.039        | 0.4        | 570          | <0.008      | 0.48      | 180            | 0.71           | 14             | 810         | 0.010     | 1.8          | <1.0         | <1.0              | <2.0              | 300                        | 2200                     | 1.5          | 320          | 47          |  |
| 2/7/96      | S96-0070*     | Monitor Well ACW #09 | 2300          | 4820                           | 7450                         | 8.8 | 0.38          | <1.25        | 0.4        | 600          | <0.1        | 0.4       | 175            | 0.7            | 16             | 810         | <0.1      | <2.5         | <2.5         | <2.5              | <7.5              | 291                        | 2220                     | 1.85         | 341          | 58          |  |
| 5/8/96      | S96-0259      | Monitor Well ACW #09 | 2210          | 4210                           | 7530                         | 6.8 | 0.35          | <1.25        | <0.5       | 508          | 0.01        | 0.4       | 183            | 0.49           | 17             | 687         | <0.05     | <1.0         | <1.0         | <1.0              | <3.0              | 209                        | 2020                     | 3            | 322          | 60          |  |
| 8/14/96     | S96-0326      | Monitor Well ACW #09 | 1200          | 3600                           | 4400                         | 7.4 | 1.4           | 0.13         | 0.4        | 490          | <0.008      | 0.66      | 160            | 0.65           | 13             | 730         | 0.027     | 1.4          | 1.6          | <1.0              | <2.0              | 220                        | 1900                     | 1.2          | 180          | 53          |  |
| 11/7/96     | S96-0590      | Monitor Well ACW #09 | 1200          | 3100                           | 4200                         | 7.3 | 1.1           | 0.055        | 0.3        | 360          | <0.007      | 0.4       | 110            | 0.44           | 10             | 510         | 0.028     | 2.3          | 2.2          | <1.0              | <2.0              |                            |                          |              |              |             |  |
| 2/19/97     | S96-0590      | Monitor Well ACW #09 | 1260          | 2500                           | 4110                         |     |               |              |            |              |             |           |                |                |                |             |           | 1.3          | 4.0          | 10                | 4.2               |                            |                          |              |              |             |  |

JAL #4 MONITOR WELL

4/29/97

| SAMPLE DATE | SAMPLE NUMBER | SAMPLE DESCRIPTION    | Chloride mg/l | Residue, Filterable (TDS) mg/l | Specific Conductance umho/cm | pH  | Fluoride mg/l | Nitrate mg/l | Boron mg/l | Calcium mg/l | Copper mg/l | Iron mg/l | Magnesium mg/l | Manganese mg/l | Potassium mg/l | Sodium mg/l | Zinc mg/l | Benzene ug/l | Toluene ug/l | Ethylbenzene ug/l | Total Xylene ug/l | Alkalinity (as CaCO3) mg/l | Hardness (as CaCO3) mg/l | Bromide mg/l | Sulfate mg/l | Silica mg/l |
|-------------|---------------|-----------------------|---------------|--------------------------------|------------------------------|-----|---------------|--------------|------------|--------------|-------------|-----------|----------------|----------------|----------------|-------------|-----------|--------------|--------------|-------------------|-------------------|----------------------------|--------------------------|--------------|--------------|-------------|
| 8/18/93     | S93-0392      | Monitor Well ACW #10  | 1027          | 701                            | 1081                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 9/14/93     | S93-0526      | Monitor Well ACW #10  | 421           | 1190                           | 1349                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 11/9/93     | S93-0680      | Monitor Well ACW #10  | 420           | 1238                           | 1800                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 4/22/94     | S94-0388      | Monitor Well ACW #10  | 700           | 1638                           | 2440                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 10/26/94    | S94-0751      | Monitor Well ACW #10  | 600           | 1694                           | 2592                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 2/1/95      | S95-0019      | Monitor Well ACW #10  | 819           | 1426                           | 2660                         |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 5/17/95     | S95-0234      | Monitor Well ACW #10  | 1800          | 2300                           | 3900                         | 6.9 | <1.0          | 1.1          | 0.3        | 320          | <0.025      | 0.12      | 110            | 0.037          | 8              | 170         | 0.020     | <5           | <10          | <5                | 0                 | 190                        | 1300                     | 1.1          | 300          | 43          |
| 6/26/95     | S95-0385      | Monitor Well ACW #10  | 1900          | 2300                           | 3100                         | 7.3 | <1.0          | <2.0         | 0.3        | 280          | <0.025      | 0.28      | 94             | 0.029          | 7.5            | 160         | 0.020     | <2.5         | <2.5         | <2.5              | <5.0              | 190                        | 1200                     | 0.98         | 230          | 46          |
| 6/30/95     | S95-0420      | Monitor Well ACW #10  | 790           | 2200                           | 3100                         | 7.0 | <1.0          | <2.0         | 0.2        | 280          | <0.025      | <0.20     | 95             | 0.034          | 52             | 150         | 0.040     | <5           | <10          | <5                | <15               | 180                        | 1100                     | 0.9          | 210          | 42          |
| 2/7/96      | S95-0071      | Monitor Well ACW #10  | 850           | 2300                           | 3200                         | 7.8 | 0.24          | 0.42         | 0.3        | 320          | <0.008      | 0.24      | 110            | 0.032          | 8.4            | 190         | 0.011     | 3.9          | <1.0         | <1.0              | <2.0              | 200                        | 1200                     | 0.88         | 230          | 38          |
| 2/7/96      | S96-0072*     | Monitor Well ACW #10  | 829           | 2100                           | 3100                         | 7.1 | 0.44          | <1.25        | 0.3        | 320          | <0.1        | 0.4       | 107            | <0.1           | 9.4            | 190         | <0.1      | 4.3          | <2.5         | <2.5              | <7.5              | 194                        | 1240                     | <1.25        | 242          | 54          |
| 5/8/96      | S96-0281      | Monitor Well ACW #10  | 603           | 1290                           | 2322                         | 7.2 | 0.48          | 2.2          | <0.5       | 208          | <0.01       | 0.1       | 92             | <0.05          | 8              | 127         | <0.05     | 1.22         | <1.0         | <1.0              | <3.0              | 137                        | 893                      | 4.5          | 190          | 82          |
| 8/14/96     | S96-0327      | Monitor Well ACW #10  | 560           | 1900                           | 2400                         | 7.6 | 1.4           | 0.58         | 0.3        | 210          | <0.008      | 0.14      | 71             | 0.019          | 7              | 140         | 0.037     | <1.0         | <1.0         | <1.0              | <2.0              | 170                        | 810                      | 0.82         | 160          | 47          |
| 11/7/96     | S96-0591      | Monitor Well ACW #10  | 610           | 1800                           | 250                          | 7.5 | 1.1           | 0.49         | 0.2        | 200          | <0.007      | 0.22      | 70             | 0.017          | 7.4            | 150         | 0.025     | 1.2          | 1.5          | <1.0              | <2.0              | 170                        | 800                      | 0.83         | 170          | 20          |
| 6/19/93     | S93-0393      | Monitor Well ACW #11  | 9737          | 18670                          | 25000                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 9/15/93     | S93-0534      | Monitor Well ACW #11  | 3437          | 6820                           | 10570                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 11/9/93     | S93-0681      | Monitor Well ACW #11  | 3620          | 6592                           | 10160                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 4/21/94     | S94-0382      | Monitor Well ACW #11  | 6400          | 9520                           | 16290                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 10/27/94    | S94-0720      | Monitor Well ACW #11  | 6200          | 13280                          | 20080                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 10/27/94    | S94-0721      | Monitor Well ACW #11  | 6600          | 12900                          | 20550                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 2/1/95      | S95-0020      | Monitor Well ACW #11  | 11562         | 19880                          | 32200                        |     |               |              |            |              |             |           |                |                |                |             |           |              |              |                   |                   |                            |                          |              |              |             |
| 5/17/95     | S95-0235      | Monitor Well ACW #11  | 4400          | 7200                           | 12000                        | 6.8 | <1.0          | <2.0         | 0.3        | 740          | <0.025      | 0.38      | 260            | 0.23           | 16             | 1200        | 0.020     | <5           | <10          | <5                | 0                 | 230                        | 3300                     | 1.9          | 250          | 42          |
| 6/27/95     | S95-0381      | Monitor Well ACW #11  | 6500          | 7000                           | 11000                        | 7.2 | <1.0          | <2.0         | 0.4        | 720          | <0.025      | 0.29      | 270            | 0.2            | 16             | 980         | 0.020     | 5.1          | <2.5         | <2.5              | <5.0              | 210                        | 2800                     | 1.6          | 210          | 45          |
| 8/29/95     | S95-0447      | Monitor Well ACW #11  | 3400          | 6000                           | 10000                        | 6.8 | 6.2           | <2.0         | 0.3        | 550          | <0.025      | 0.17      | 210            | 0.088          | 16             | 880         | 0.020     | 8            | <10          | <5                | <15               | 220                        | 2700                     | 2.2          | 220          | 44          |
| 2/7/96      | S96-0065      | Monitor Well ACW #11  | 3400          | 7400                           | 11000                        | 7.8 | 0.15          | 0.087        | 0.3        | 660          | <0.008      | 0.38      | 230            | 0.13           | 26             | 1500        | 0.010     | 6.9          | <1.0         | <1.0              | <2.0              | 210                        | 2800                     | 1.5          | 230          | 47          |
| 2/7/96      | S96-0066*     | Monitor Well ACW #11  | 3770          | 6740                           | 11030                        | 7.2 | 0.39          | <1.25        | 0.4        | 688          | <0.1        | 0.5       | 224            | 0.1            | 31             | 1400        | <0.1      | 7.6          | <2.5         | <2.5              | <7.5              | 200                        | 2590                     | 1.6          | 248          | 48          |
| 5/8/96      | S96-0262      | Monitor Well ACW #11  | 3120          | 5080                           | 9640                         | 7.3 | 0.37          | <1.25        | <0.5       | 484          | 0.02        | 0.3       | 220            | 0.09           | 29             | 1180        | <0.05     | 6.76         | <1.0         | <1.0              | <3.0              | 111                        | 2110                     | <1.25        | 206          | 50          |
| 8/13/96     | S96-0383      | Monitor Well ACW #11  | 4200          | 10000                          | 12000                        | 7.3 | 1.0           | 0.18         | 0.4        | 540          | 0.013       | 0.28      | 190            | 0.081          | 24             | 1700        | 0.12      | 7.9          | 2.2          | <1.0              | <2.0              | 160                        | 2100                     | 2            | 230          | 47          |
| 11/5/96     | S96-0578      | Monitor Well ACW #11  | 13000         | 25000                          | 29                           | 7.3 | 0.4           | 0.31         | 0.3        | 1200         | <0.007      | 0.25      | 430            | 0.14           | 35             | 5100        | 0.088     | 32           | 1.7          | <1.0              | 1.2               | 170                        | 4700                     | 2.9          | 560          | 21          |
| 2/19/97     | S97-0042      | Monitor Well ACW #12  | 380           | 950                            | 1610                         |     |               |              |            |              |             |           |                |                |                |             |           | <0.5         | <0.5         | 1.5               | <1.0              |                            |                          |              |              |             |
| 2/19/97     | S97-0043      | Monitor Well ACW #12D | 390           | 960                            | 1630                         |     |               |              |            |              |             |           |                |                |                |             |           | 2.9          | <0.5         | <0.5              | <1.0              |                            |                          |              |              |             |
| 2/20/97     | S97-0045      | Monitor Well ACW #13  | 53            | 440                            | 681                          |     |               |              |            |              |             |           |                |                |                |             |           | <0.5         | <0.5         | 1.5               | <1.0              |                            |                          |              |              |             |
| 2/20/97     | S97-0046      | Monitor Well ACW #14  | 86            | 570                            | 830                          |     |               |              |            |              |             |           |                |                |                |             |           | <0.5         | <0.5         | <0.5              | <1.0              |                            |                          |              |              |             |



POTENTIOMETRIC SURFACE MAP  
February 1997

| NO. | DATE    | DESCRIPTION       | BY  | CHKD. | DATE | NO. | DATE | DESCRIPTION | BY | CHKD. | DATE | NO. | DATE | DESCRIPTION | BY | CHKD. | DATE |
|-----|---------|-------------------|-----|-------|------|-----|------|-------------|----|-------|------|-----|------|-------------|----|-------|------|
| 1   | 2/19/97 | ASST. MGR. REVIEW | JLW |       |      |     |      |             |    |       |      |     |      |             |    |       |      |
| 2   | 2/19/97 | DESIGN            | JLW |       |      |     |      |             |    |       |      |     |      |             |    |       |      |
| 3   | 2/19/97 | DRAFTING          | JLW |       |      |     |      |             |    |       |      |     |      |             |    |       |      |
| 4   | 2/19/97 | CHECKED           | JLW |       |      |     |      |             |    |       |      |     |      |             |    |       |      |
| 5   | 2/19/97 | APPROVED          | JLW |       |      |     |      |             |    |       |      |     |      |             |    |       |      |
| 6   | 2/19/97 | PRINTED           | JLW |       |      |     |      |             |    |       |      |     |      |             |    |       |      |

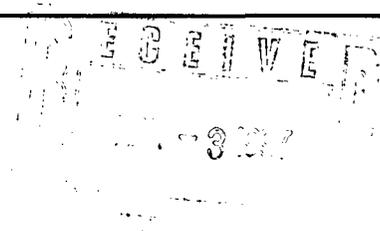
**El Paso**  
NATURAL GAS COMPANY

JAL NO. 4 PLANT  
GROUNDWATER MONITORING  
WELL LOCATIONS

SCALE: 1"=100'  
DWG. NO. J4-1-F62  
REV. 2



March 31, 1997



Mr. William C. Olson  
Hydrogeologist, Environmental Bureau  
Energy, Mineral and Natural Resources Department  
New Mexico Oil Conservation Division  
2040 S. Pacheco St.  
Santa Fe, New Mexico 87505

**RE: Phase IV Ground Water Contamination Study  
EPNG Jal No. 4, Lea County New, Mexico  
First Quarter 1997 Submittal Extension**

Dear Mr. Olson:

Pursuant to our discussion on March 27, the quarterly report for the above referenced site will be submitted by May 1, 1997. The project files are in the process of being moved from El Paso to Houston, Texas.

If you have any questions or need additional information, please contact me at 915/496-5764 or 713/757-3827.

Sincerely,

A handwritten signature in cursive script that reads 'Gerry Garibay'.

Gerry Garibay  
Senior Environmental Scientist  
Discontinued Operations

cc: Jerry Sexton,  
Hobbs District Supervisor  
New Mexico Oil Conservation Division  
P.O. Box 1980  
Hobbs, NM 88240



State of New Mexico  
**ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT**  
 Santa Fe, New Mexico 87505

STATE OF  
 NEW MEXICO  
 OIL  
 CONSERVATION  
 DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

|   |                                   |           |              |
|---|-----------------------------------|-----------|--------------|
| <input checked="" type="checkbox"/> Telephone | <input type="checkbox"/> Personal | Time 1430 | Date 2/13/97 |
|---|-----------------------------------|-----------|--------------|

| <u>Originating Party</u>   | <u>Other Parties</u>   |
|----------------------------|--|
| Bill Olson - Envir. Bureau | <del>Bill Olson</del> Gerry Gerrity - EPNG<br>(915) 496-5764 |

Subject  
 Jal # 4

Discussion  
 Called to discuss additional monitor well recommendations in Oct 1996 report  
 He would like to defer additional monitor wells until further monitoring data is accumulated. Also wants to change monitoring program to include new monitor well

Conclusions or Agreements  
 He will send letter ASAP

Distribution file

Signed *Bill Olson*

TO: WILLIAM OLSON  
FROM: STEVE BRISBIN

DATE: JANUARY 8, 1997  
PLACE: Technical Services Division

**SUBJECT: JAL #4 MONITOR WELLS**

.Listed below is the schedule for sampling Jal#4 monitor wells. If a problem should arise that would change this schedule I will notify you. If you have any question's please call me at (915)759-2329.

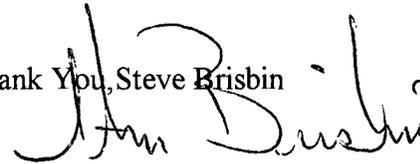
FEBRUARY 17 THRU 21, 1997

MAY 5 THRU 9, 1997

AUGUST 11 THRU 15, 1997

OCTOBER 20 THRU 24, 1997

Thank You, Steve Brisbin





State of New Mexico  
**ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT**  
 Santa Fe, New Mexico 87505

STATE OF  
 NEW MEXICO  
 OIL  
 CONSERVATION  
 DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

|   |                                   |           |             |
|---|-----------------------------------|-----------|-------------|
| <input checked="" type="checkbox"/> Telephone | <input type="checkbox"/> Personal | Time 0845 | Date 1/8/97 |
|---|-----------------------------------|-----------|-------------|

|                          |                            |
|--------------------------|----------------------------|
| <u>Originating Party</u> | <u>Other Parties</u>       |
| Steve Brisman - EPNG     | Bill Olson - Envir. Bureau |

Subject

Jal # 4 Gas Plant

Discussion

Will be sampling monitor wells on following tentative schedule  
 for 1997

- Feb 17<sup>th</sup>
- May 5<sup>th</sup>
- August 11<sup>th</sup>
- Oct 20<sup>th</sup>

Conclusions or Agreements

Distribution

file  
 Wayne Price - OCD Hobbs

Signed

# Affidavit of Publication

STATE OF NEW MEXICO )  
 ) ss.  
COUNTY OF LEA )

Joyce Clemens being first duly sworn on oath deposes and says that he is Adv. Director of THE LOVINGTON DAILY LEADER, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled

Legal Notice

Notice of Publication

~~and numbered~~ ..... ~~XXXXXX~~

~~XXXXXXXXXX~~

~~XXXXXXXXXXXXXXXXXXXX~~ was published in a regular and entire issue of THE LOVINGTON DAILY LEADER and not in any supplement thereof. ~~XXXXXXXXXXXXXXXXXXXX~~

~~XXXXXXXXXXXXXXXXXXXX~~ for one(1) day.....

~~XXXXXXXXXXXX~~ consecutive ~~XXXX~~ beginning with the issue of .....

March 4 ..... 19..97..

and ending with the issue of .....

March 4 ..... 19..97..

And that the cost of publishing said notice is the sum of \$ 88.40

which sum has been (Paid) (Assessed) as Court Costs

*Joyce Clemens*

Subscribed and sworn to before me this 4th.....

day of March ..... 19..97..

*Jean Senior*

Notary Public, Lea County, New Mexico

My Commission Expires ..Sept..28....., 19..98..

**RECEIVED**

MAR - 7 1997

Environmental Bureau  
Oil Conservation Division

LEGAL NOTICE  
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 applications have been submitted to the Director of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505, Telephone (505) 827-7131:

( G W - 1 0 7 ) - S I D Richardson Gasoline, Co., Mr. Wayne Farley, (817)-390-8686, 201 N. Main, Fort Worth, TX, 76102, has submitted a Discharge Plan Renewal Application for their Jaf #4 Compressor Station located in the SE/4,

Section 31, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico. Any potential discharge at the facility will be stored in a closed top receptacle. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of approximately 105 feet with a total dissolved solids concentration of approximately 331 mg/L. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

(GW-120) - Amoco Production Company, Mr. Buddy Shaw, (505)-326-9219, 200 Amoco Court, Farmington, NM, 87401, has submitted a Discharge Plan Renewal Application for their Pipkin Compressor Station located in the NW/4 NW/4, Section 36, Township 28 North, Range 11 West, NMPM, San Juan County, New Mexico. Any potential discharge at the facility will be stored in a closed top receptacle. 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 1000

mg/L. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

( G W - 1 0 4 ) - Y a t e s Petroleum Corporation, Mr. John F. Brown, (505) 748-4219, 105 S. 4th Street, Artesia, NM, 88210, has submitted a Discharge Plan Renewal Application for their Algerita Compressor Station located in the SE/4 NE/4, Section 16, Township 20 South, Range 24 East, NMPM, Eddy County, New Mexico. Any potential discharge at the facility will be stored in a closed top receptacle. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of approximately 250 feet with a total dissolved solids concentration of approximately 387 mg/L. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

(GW-105) - Yates Petroleum Corporation, Mr. John F. Brown, (505)-748-4219, 105 S. 4th Street, Artesia, NM, 88210, has submitted a Discharge Plan Renewal Application for their Larue Compressor

Station located in the SE/4 NW/4, Section 3, Township 20 South, Range 24 East, NMPM, Eddy County, New Mexico. Any potential discharge at the facility will be stored in a closed top receptacle. Groundwater most likely to be affected by a spill, leak, or accidental discharge to the surface is at a depth of approximately 250 feet with a total dissolved solids concentration of approximately 387 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 renewal applications 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 renewal based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan renewal based on information in the discharge plan application and information submitted at the hearing.

**GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 24th day of February, 1997.**

STATE OF  
NEW MEXICO  
OIL  
CONSERVATION  
DIVISION  
WILLIAM J. LEMAY,  
Director  
WJL/pws

SEAL  
Published in the Lovington  
Daily Leader March 4,  
1997.

District I - (505) 393-6161  
P. O. Box 1980  
Hobbs, NM 88241-1980  
District II - (505) 748-1283  
S. First  
Artesia, NM 88210  
District III - (505) 334-6178  
1000 Rio Brazos Road  
Aztec, NM 87410  
District IV - (505) 827-7131

New Mexico  
Energy Minerals and Natural Resources Department  
Oil Conservation Division  
2040 South Pacheco Street  
Santa Fe, New Mexico 87505  
(505) 827-7131

Revised 12/1/9

Submit Origin.  
Plus 1 Copy  
to Santa Fe  
1 Copy to appropriate  
District Office

FEB 21 1997

**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)

*File Copy*

New

Renewal

Modification

1. Type: Compression facility
2. Operator: Sid Richardson Gasoline Co.  
Address: 201 Main Street, Suite 3000 Fort Worth, TX 76102  
Contact Person: Wayne J. Farley Phone: (817) 390-8686
3. Location:        /4 SE /4 Section 31 Township 23-S Range 37-E  
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: Wayne J. Farley Title: Manager, Gas Operations

Signature: *Wayne J. Farley* Date: 2-18-97

**FEB 21 1997**

Environmental Services  
Oil Conservation Division

**DISCHARGE PLAN**  
**FOR**  
**SID RICHARDSON GASOLINE CO.**  
**JAL #4 PLANT - COMPRESSION FACILITY**  
**LEA COUNTY, NEW MEXICO**

**Prepared By:**

**Sid Richardson Gasoline Co.**

**Fort Worth, Texas**

**February 1997**

**(MANUAL\DPSRGC)**

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## APPENDICES

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I. **GENERAL INFORMATION**

A. Identity of Discharger

Mr. Wayne Farley, Gas Operations Manager  
Sid Richardson Gasoline Co.  
201 Main Street  
Fort Worth, Texas 76102  
Telephone: (817) 390-8686

B. Local Representative

Mr. George Washburn, Plant Manager  
Sid Richardson Gasoline Co.  
Jal #3 Gasoline Plant  
P. O. Box 1311  
Jal, New Mexico 88252  
Telephone: (505) 395-2068

C. Location of Discharge

Jal #4 Gasoline Plant --  
10 miles North of Jal, New Mexico, on Hwy. #18. The plant consists of one 36.364 acre tract located in the SE 1/4 of Section 31, T-23-S, R-37-E, N.M.P.M., Lea County, New Mexico. See Appendix A for the Plot Plan.

D. Type of Natural Gas Operation

The major purpose of the Jal #4 Plant-Compressor Facility is compression of rich natural gas from the Lea County Gathering System - High and Low Pressure Systems.

Rich natural gas, condensate, water and other hydrocarbon liquids are separated in inlet scrubbers and the liquids are dumped to aboveground storage tanks. The rich natural gas is then compressed from approximately 5 to 600 psig in three stages and leaves the plant. Interstage and after cooling of the gas results in additional water and hydrocarbon dropout. Produced liquids are removed in interstage and after scrubbers and then dumped to the field hydrocarbon separator operating at approximately 5 to 15 psig. Flashed vapors are then recycled to the inlet and the separated liquids are dumped to an aboveground storage tank. Inlet and produced liquids contained in the storage tanks are sold and trucked off-site.

E. Affirmation

I hereby certify that I am familiar with the information contained in and submitted with this application and that such information is true, accurate and complete to the best of my knowledge and belief.

Wayne J. Farley                      2-18-96  
(Signature)                                      (Date)

Wayne J. Farley  
(Name)

Manager, Gas Operations  
(Title)

## II. PLANT PROCESSES

### A. Sources and Quantities of Effluent and Process Fluids

- a. Compressors and Generators - The "A" Compressor building houses seven Cooper-Bessemer GMV-10 integral compressors and one Ingersoll-Rand KVS-412 integral compressor with a total site horsepower of 10,500. The auxiliary building houses three General Electric, 570 KW, generators powered by Ingersoll-Rand PKVG-8LZ engines (2,442 site horsepower), six jacket water circulating pumps, and three starting air compressors. Both buildings contain floor drains which are connected to the Open Drain system (See Appendices B and C). The buildings have well-maintained concrete floors and all drips, spills and washdown water will be contained in the buildings or diverted to the floor drains.

The compressors and generator engines will be washed approximately twelve times a year, using approximately 19,800 gallons of water. Washdown water runoff will flow to the floor drains. The water will contain hydrocarbon from the lubricating oil and natural gas condensate and non-acid based soap.

Compressor and generator engine lube oil will be changed only when required by periodic lube oil analysis, but not less than annually. Approximately 2,750 gallons of waste oil will be disposed of annually. The oil will be collected and disposed of by an approved oil recycler. (See Appendix G)

All GMV and PKVG engines use inhibited water in their jacket water and lube oil cooling systems. The total volume of water contained in the jacket water and lube oil cooling systems is 27,755 gallons and 11,214 gallons, respectively.

The one KVS-412 has a separate jacket water and lube oil cooling system and uses Ambitrol CN as a coolant/antifreeze. The system contains 1,744 gallons as jacket coolant and 804 gallons as lube oil coolant.

New engine oil will be stored on-site in two 210-barrel steel tanks. Ambitrol CN will be stored on-site in a 50-barrel steel tank.

2. Scrubbers and Inlet Separators - Inlet scrubbers are located on the high and low pressure systems. The inlet scrubbers remove water and condensate from the inlet gas stream.

The high pressure system scrubbers (V6 and V6A) dump the liquids into the section of the closed drain system which is connected to Storage Tanks #22 and #33. Liquids from the low pressure inlet scrubber are dumped into the section of the closed drain system which is connected to the Storage Tank #29301, south of the plant.

The first stage compressor suction scrubber will collect any liquids which may condense downstream of the inlet scrubbers. The liquid will be dumped to the closed drain system connected to the Storage Tank #29301.

The first, second and third stage discharge scrubbers collect compression liquids and dump them to a section of the closed drain system which flows to the North Field Flash Separator. The compressor headers and gas coolers are also tied into this system. Liquids from the North Field Flash Separator are dumped to Storage Tank #23 located with #22 and #33. Hydrocarbon vapors are recycled to the inlet of the facility.

Liquids recovered and produced will vary with the season and the volume of gas being compressed by the facility. The predicted volume of liquids varies from 239 bbls/day in the winter to 210 bbls/day in the summer (sixty-five percent hydrocarbon and thirty-five percent water).

3. Storage Tanks - Recovered hydrocarbon liquids and water are stored in four aboveground steel storage tanks. Liquids flow to the tanks through the drain systems described in paragraphs 1 and 2 above. Tanks #23 and #33 are 410-barrel capacity and #22 is 436-barrel capacity; all are located on the north side of the plant. Storage Tank #29301 is 500-barrel capacity and is located on the south side of the plant. All tanks are set within a containment (berm) of sufficient size to contain 1 1/3 the volume of the tanks.

Tank liquids will be approximately sixty-five percent hydrocarbon and the remainder water. Liquids will be pumped from the tanks on a regular basis by an approved disposal service.

B. Quality Characteristics of Sources Listed in Section A

Material Safety Data Sheets (MSDS) for all material used or encountered at Jal #4 are contained in Appendix F.

C. Transfer and Storage of Process Fluids and Effluents

Drainage System Flow schematic and Plan drawings indicating the flow within and location of the open and closed drain system are contained in Appendices B and C.

Drain testing procedures are contained in Appendix D. Drains will be tested on a five-year basis.

D. Spill/Leak Prevention and Housekeeping Procedures

Small spills will be absorbed with soil and picked up for off-site disposal by an OCD-approved disposal contractor.

Large spills will be contained with temporary berms. Free liquids will be removed with a vacuum truck. Contaminated soil will be picked up for off-site remediation by an OCD-approved contractor.

Verbal and written notification of leaks and spills will be made to OCD in accordance with OCD Rule 116 and SRGCo. procedures.

All areas identified during operation as susceptible to spills or leaks will be bermed or otherwise contained to prevent the discharge of any effluents.

III. **EFFLUENT DISPOSAL**

A. Existing Operations

1. On-Site Facilities - There are no on-site facilities for effluent disposal.
2. Off-Site Disposal - All effluents will be trucked off-site and handled in accordance with OCD and NMED regulations. All effluents will be recycled when possible.

The recycling and disposal contractors used at Jal #4 will be approved by the New Mexico Environment Department or Oil Conservation Division, as appropriate, for the hauling and final disposition of effluents. A list of hauling/disposal contracts can be found in Appendix G.

- B. Proposed Modifications - Since there are no on-site facilities for effluent disposal, there are no proposed modifications.

#### IV. SITE CHARACTERISTICS

A. Hydrologic Features

1. Bodies of Water Near Plant Site - There are no bodies of water or groundwater discharge sites within one mile of the plant site. Water courses in the area are generally ephemeral washes. The plant gets its water from Wells #12 and #16 located in Sec. 36, T-23-S, R-36-E.
2. Groundwater Most Likely Affected by Discharge - The Ogallala aquifer is the principal source of potable water in the area. The depth to the aquifer is unknown; the total dissolved solids (TDS) concentration for the groundwater most likely to be affected by the discharge is 331 mg/l (see Appendix E for complete Analysis of Sample from Well #16).
3. Flow Direction of Groundwater Most Likely Affected by Discharge - The Ogallala aquifer slopes to the southeast with a hydraulic gradient of about ten to twelve feet per mile and imparts an easterly or southeasterly movement to the groundwater (Cronin, 1969) (EPNG Discharge Plan, March 1981).

B. Geologic Description of Discharge Site (EPNG Discharge Plan, March 1981).

1. Soil Types - The Jal #4 plant site is located on the Berino-Cacique loamy fine sands soil association and the Pyote and Maljamar soil series.

The Pyote and Maljamar fine sands are well-drained soils with moderately rapid permeability formed in wind-deposited materials. The Pyote soil is fine sand over sandy loam subsoil to a depth of forty-eight to sixty inches where a fine sandy loam C horizon is encountered. The Maljamar fine sand soil series has a sandy clay loam subsoil with an indurated caliche horizon at approximately fifty inches.

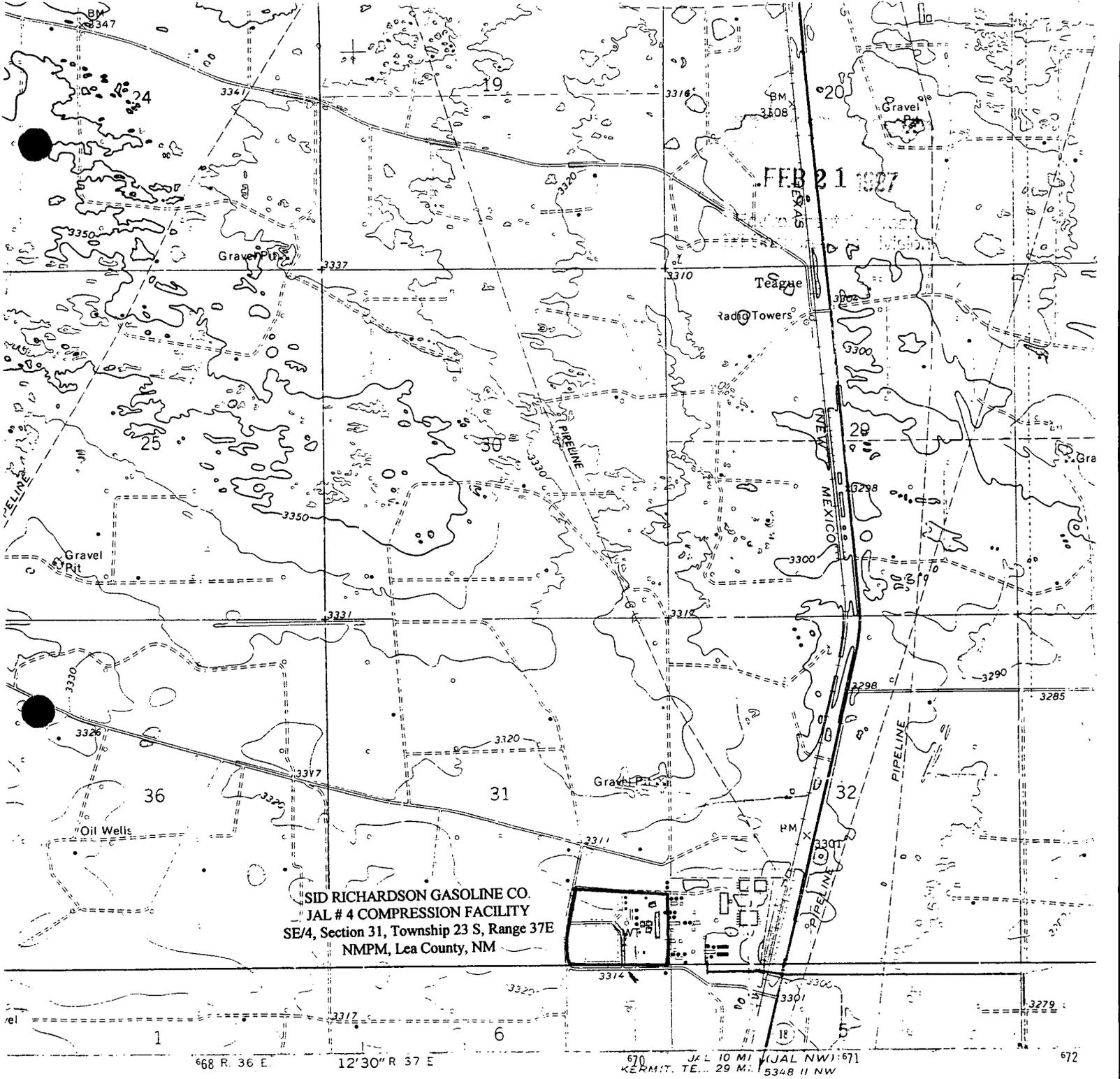
The Berino-Cacique association consists of approximately fifty percent Berino loamy fine sand and forty percent Cacique loamy fine sand. Cacique soils occur only in association with Berino spoils. Both Berino and Cacique soils are moderately permeable and have very slow runoff. The Berino soil has a light sandy clay loam subsoil with caliche at depths ranging from twenty-nine to sixty inches. Cacique loamy fine sand is a shallow soil with indurated caliche at twenty to thirty inches.

2. Name of Aquifer - The Ogallala formation is the principal source of potable groundwater in the area.
3. Composition of the Aquifer Material - The Ogallala formation is alluvial consisting of sand, gravel, silt and clay.
4. Depth to Rock at Base of Alluvium - The Ogallala overlies the relatively impermeable Chinle Formation; however, the depth is unknown.

C. Flood Protection

1. Flooding Potential - The plant is situated on the Pecos River Basin. The Basin in southern Lea County has no perennial streams, but there are a few ephemeral streams and broad, shallow drainages that may flow following thunderstorms which are common during July and August. Most precipitation quickly soaks into the soil or evaporates. The land surface in the plant area has little relief, falling approximately thirty feet per mile to the east. Runoff from the area flows east to provide water to Cheyenne Draw, a north to south trending tributary of Monument Draw located to the east of the plant. The plant has a very low flooding potential.
2. Flood Protection Measures - The plant is bounded on the south by a paved and caliche road, a curbed asphalt street on the southwest side and a cinder block wall along the majority of the west side of the plant. (A four-foot, reinforced cinder block wall is along the east boundary of the plant and will prevent any surface water from leaving the plant.)

- D. Closure Plan - All reasonable and necessary measures will be taken to prevent the exceedance of WQCC Section 3103 quality standards should Sid Richardson choose to permanently close the Jal #4 facility. Closure measures will include removal or closure in place of all underground piping and equipment. All tanks will be emptied. No potentially toxic materials or effluents will remain on-site. All potential sources of toxic pollutants will be inspected. Should contaminated soil be discovered, any necessary reporting under NMOCD Rule 116 and WQCC Section 1203 will be made, and clean-up activities will commence. Post-closure maintenance and monitoring plans would not be necessary unless contamination is encountered.

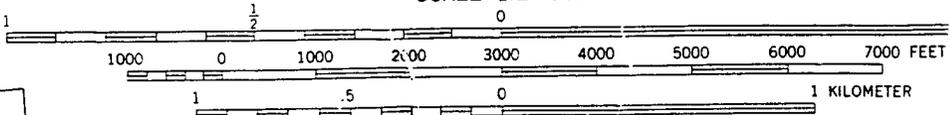


**SID RICHARDSON GASOLINE CO.**  
**JAL # 4 COMPRESSION FACILITY**  
 SE/4, Section 31, Township 23 S, Range 37E  
 NMPM, Lea County, NM

FEB 21 1987

668 R. 36 E. 12'30" R 37 E 670 JAL 10 MI (JAL NW) 671 672  
 KERMIT, TE. 29 M. 5348 II NW

SCALE 1:24 000



★  
 GN MN  
 10°  
 0°58' 17 MILS

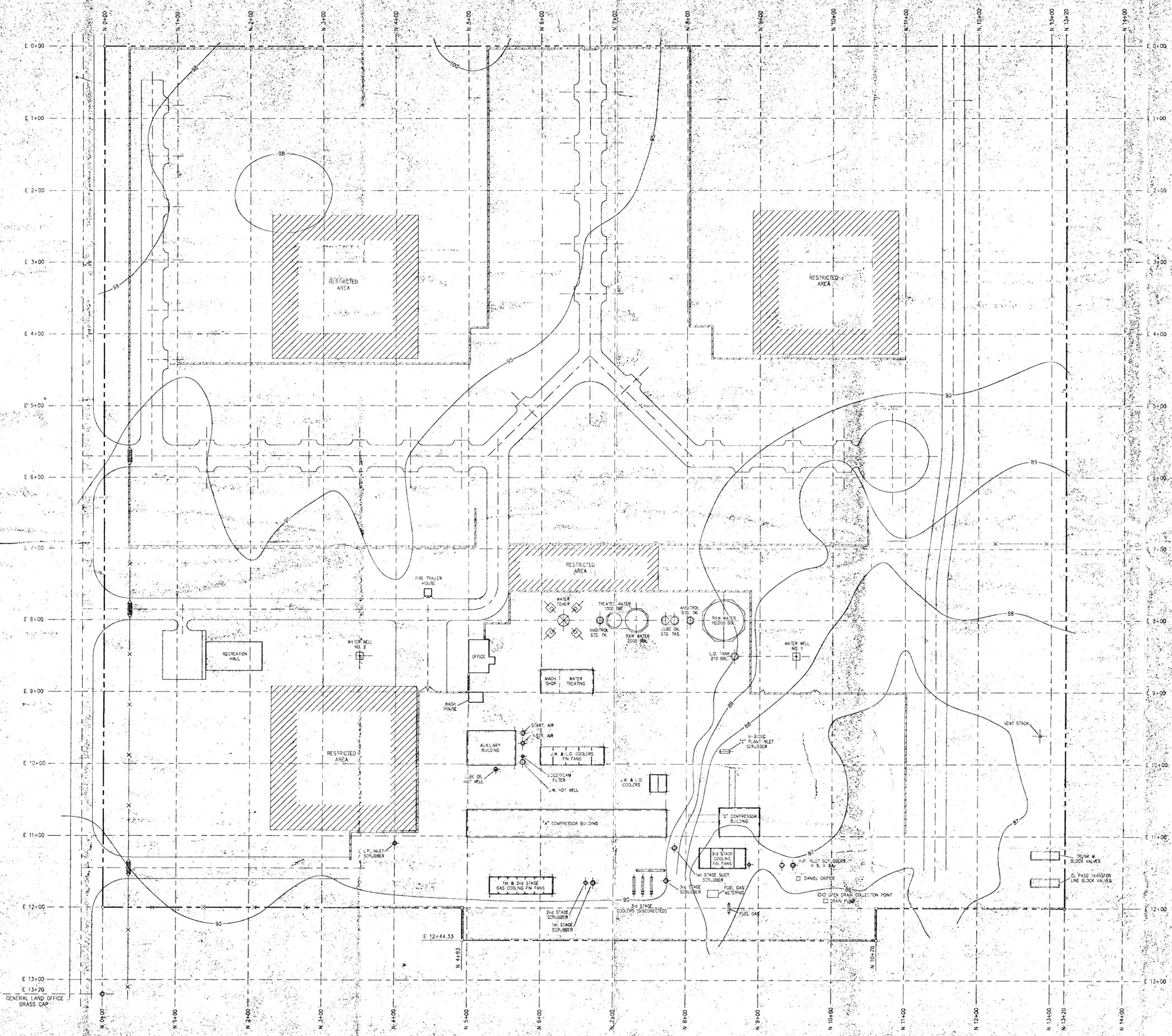


QUADRANGLE LOCATION

CONTOUR INTERVAL 10 FEET  
 NATIONAL GEODETIC VERTICAL DATUM OF 1929  
**RATTLESNAKE CANYON, N. MEX.**  
 N3215—W10307.5/7.5

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS  
 FOR SALE BY U. S. GEOLOGICAL SURVLY, DENVER, COLORADO 80225, OR RESTON, VIRGIN  
 A FOLDER DESCRIBING TOPOGRAHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

To place on the predicted North American Datum 1983  
 move the projection lines 9 meters south and  
 44 meters east as shown by dashed corner ticks



GENERAL LAND OFFICE  
BRASS CAP

RECEIVED  
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NOTES:

| REVISIONS |      | REFERENCE DRAWINGS |                |
|-----------|------|--------------------|----------------|
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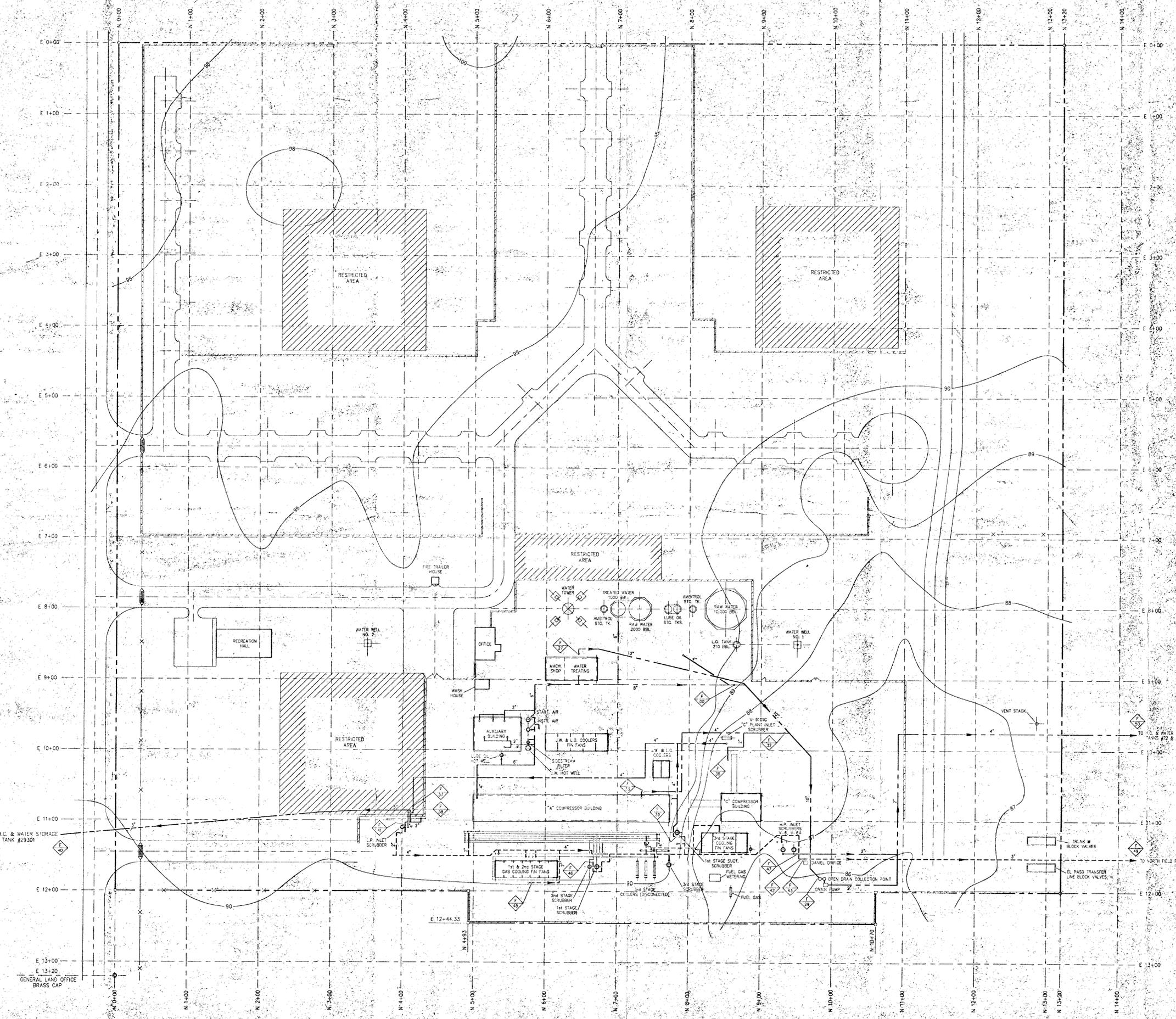
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|--------------|-----|------|--------|--------------------|------------|------------|----------|
| DATE         | NO. | REV. | TO     | FOR                | DRAWN BY   | CHECKED BY | DATE     |
| 12/9/91      | 1   | 0    | CLIENT | APPROVAL           | D.E. MOORE |            | 11/28/91 |
|              |     |      |        |                    |            |            |          |

**TPA, Inc.** Consultants/Engineers/Managers  
Dallas, Texas

**PLOT PLAN**  
**JAL 4 COMPRESSOR FACILITY**  
JAL, LEA CO., NEW MEXICO

CLIENT: SD RICHARDSON CARBON & GASOLINE CO. JAL, NEW MEXICO  
SCALE: 1"=50'-0" FILE NAME: 1098-101 JOB NO.: 1098  
DRAWING NUMBER: J4-P12-001 OWNERS DRAWING NUMBER: 0  
D-1098-101 REVISION: 0



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**LEGEND**

- HIGH PRESSURE DRAIN SYSTEM
- - - - - LOW PRESSURE DRAIN SYSTEM
- OPEN DRAIN SYSTEM

**NOTES**

TO H.C. & WATER STORAGE TANK #29301  
 GENERAL LAND OFFICE BRASS CAP  
 TO H.C. & WATER STORAGE TANK #29301  
 TO NORTH FIELD FLASH SEPARATOR  
 EL PASO TRANSFER ONE BLOCK VALVES

| REVISIONS |      |             |    | REFERENCE DRAWINGS |       |
|-----------|------|-------------|----|--------------------|-------|
| NO.       | DATE | DESCRIPTION | BY | CHK'D              | APP'D |
|           |      |             |    |                    |       |
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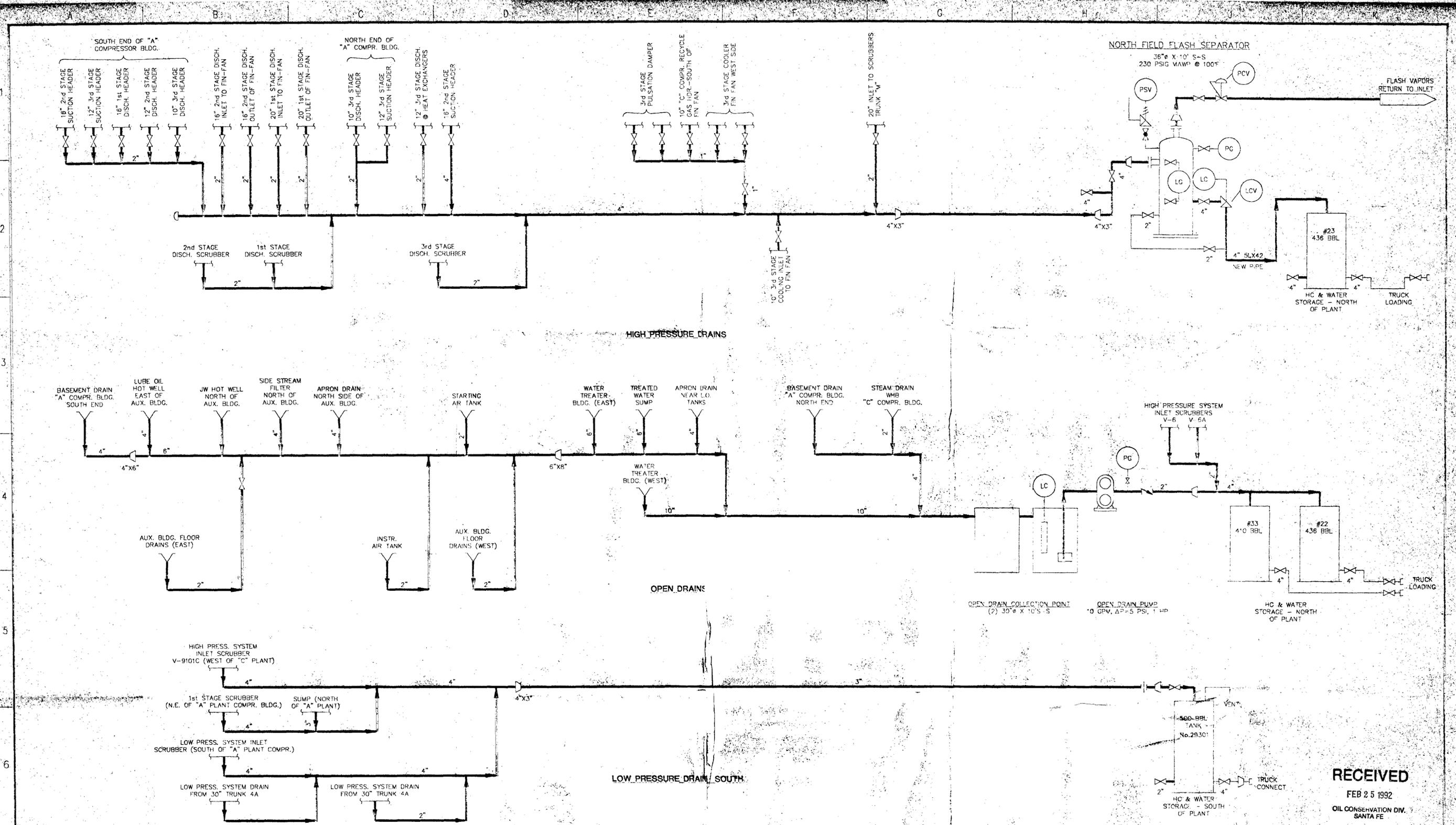
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| 12/9/91      | 1   | 0       | CLIENT | APPROVAL           | D. MOORE |         | 11/28/91 |
|              |     |         |        |                    |          |         |          |
|              |     |         |        |                    |          |         |          |

**TPA, Inc.** Consultants/Engineers/Managers  
 Dallas, Texas

**JAL 4 COMPRESSOR FACILITY**  
 JAL, LEA CO., NEW MEXICO

CLIENT: SDI RICHARDSON CARBON & GASOLINE CO. JAL, NEW MEXICO  
 SCALE: 1"=50'-0" FILE NAME: 1098-102 JOB No.: 1098  
 DRAWING NUMBER: 14-D-002 REVISION: 0



NOTES:

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|              |     |        |          |                    |          |

**TPA, Inc.** Consultants/Engineers/Managers  
Dallas, Texas

**JAL 4 COMPRESSOR FACILITY  
JAL, LEA CO., NEW MEXICO  
DRAIN SYSTEMS**

CLIENT: S/D RICHARDSON      JAL, LEA CO., N.M.  
SCALE: NONE      FILE NAME: 1098-01      JOB No.: 1098  
DRAWING NUMBER: D-1098-01      OWNERS DRAWING NUMBER: J4-D-001      REVISION: 0

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