

**GW - 71**

**GENERAL  
CORRESPONDENCE**

**2008 - 2010**

"INSPECTION"

**Lowe, Leonard, EMNRD**

RESPONSE ITEM # 8 of Condition 16

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**From:** Lowe, Leonard, EMNRD  
**Sent:** Thursday, October 29, 2009 11:57 AM  
**To:** 'Fernald, Donald'  
**Cc:** 'Pinkerton, Barbara'; Powell, Brandon, EMNRD  
**Subject:** RE: Chaco Profile approval request

Don,

The OCD approves disposal of this material at the SJR landfill.

Please reflect this approval in your discharge plan application when renewing.

llowe

**Leonard Lowe**

Environmental Engineer  
Oil Conservation Division/EMNRD  
1220 S. St. Francis Drive  
Santa Fe, N.M. 87505  
Office: 505-476-3492  
Fax: 505-476-3462  
E-mail: [leonard.lowe@state.nm.us](mailto:leonard.lowe@state.nm.us)  
Website: <http://www.emnrd.state.nm.us/ocd/>

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**From:** Fernald, Donald [<mailto:dfernal@epco.com>]  
**Sent:** Wednesday, October 21, 2009 9:15 AM  
**To:** Lowe, Leonard, EMNRD  
**Cc:** 'Pinkerton, Barbara'; Powell, Brandon, EMNRD  
**Subject:** RE: Chaco Profile approval request

Leonard,

We have scheduled removal of the desiccant for early November. Please let us know if this is approved so we can confirm our work schedule.

Thanks,

Don Fernald  
EHS&T  
614 Reilly Avenue  
Farmington, NM 87401  
O: 505-599-2141  
C: 505-486-6668  
F: 505-599-2119  
[dfernal@epco.com](mailto:dfernal@epco.com)

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**From:** Fernald, Donald  
**Sent:** Monday, October 19, 2009 2:01 PM  
**To:** Fernald, Donald; 'Lowe, Leonard, EMNRD'

**Cc:** 'Pinkerton, Barbara'; 'Powell, Brandon, EMNRD'; Lee, Stephen; Nolan, Shiver; Blackwood, Max  
**Subject:** RE: Chaco Profile approval request

Hi Leonard,

Please find the attached lab data for the Chaco spent mole sieve/desiccant.

The NMOCD's approval is requested for disposal of this material at the SJR Landfill.

Sincerely,

Don Fernald  
EHS&T  
614 Reilly Avenue  
Farmington, NM 87401  
O: 505-599-2141  
C: 505-486-6668  
F: 505-599-2119  
[dfernal@epco.com](mailto:dfernal@epco.com)

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**From:** Fernald, Donald  
**Sent:** Tuesday, September 08, 2009 9:19 AM  
**To:** 'Lowe, Leonard, EMNRD'  
**Cc:** 'Pinkerton, Barbara'; 'Powell, Brandon, EMNRD'; Lee, Stephen; Nolan, Shiver; Blackwood, Max  
**Subject:** RE: Chaco Profile approval request

Leonard,

We will obtain an additional sample and test for BTEX.

Regards,

Don

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**From:** Fernald, Donald  
**Sent:** Thursday, September 03, 2009 4:34 PM  
**To:** 'Lowe, Leonard, EMNRD'  
**Cc:** 'Pinkerton, Barbara'; Powell, Brandon, EMNRD; Lee, Stephen; Nolan, Shiver  
**Subject:** Chaco Profile approval request

Hi Leonard,

During the audit at Chaco you noted the mole sieve and spent carbon filter media on the north side of the facility (numerous piles stockpiled over past years).

The 3 piles of spent carbon filter media will be sent to the Transit Waste landfill near Bondad, Colorado. The majority of the material is the spent mole sieve.

Attached are copies of the profile, lab data and MSDS for the mole sieve material.

The NMOCD's approval is requested for disposal of this material at the SJR Landfill.

Please let us know if you have questions.

Sincerely,

Don Fernald  
EHS&T  
614 Reilly Avenue  
Farmington, NM 87401  
O: 505-599-2141  
C: 505-486-6668  
F: 505-599-2119  
[dferald@epco.com](mailto:dferald@epco.com)

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This inbound email has been scanned for malicious software and transmitted safely to you using Webroot Email Security.

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COVER LETTER

Friday, September 25, 2009

Tami Ross  
Souder, Miller and Associates  
612 E Murray Dr.  
Farmington, NM 87401

TEL: (505) 325-5667

FAX (505) 327-1496

RE: EPCO Chaco Plant

Order No.: 0909263

Dear Tami Ross:

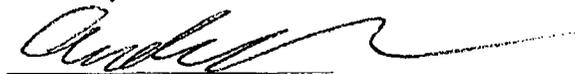
Hall Environmental Analysis Laboratory, Inc. received 1 sample(s) on 9/15/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,



Andy Freeman, Laboratory Manager

NM Lab # NM9425

AZ license # AZ0682

ORELAP Lab # NM100001

Texas Lab# T104704424-08-TX



# Hall Environmental Analysis Laboratory, Inc.

Date: 25-Sep-09

<b>CLIENT:</b> Souder, Miller and Associates	<b>Client Sample ID:</b> Dessicant
<b>Lab Order:</b> 0909263	<b>Collection Date:</b> 9/11/2009 11:15:00 AM
<b>Project:</b> EPCO Chaco Plant	<b>Date Received:</b> 9/15/2009
<b>Lab ID:</b> 0909263-01	<b>Matrix:</b> SOLID

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015B: DIESEL RANGE ORGANICS</b>						Analyst: <b>SCC</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/22/2009 10:46:37 AM
Motor Oil Range Organics (MRO)	130	50		mg/Kg	1	9/22/2009 10:46:37 AM
Surr: DNOP	76.4	61.7-135		%REC	1	9/22/2009 10:46:37 AM
<b>EPA METHOD 8015B: GASOLINE RANGE</b>						Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/24/2009 8:30:39 PM
Surr: BFB	85.8	65.9-118		%REC	1	9/24/2009 8:30:39 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>DAM</b>
Benzene	ND	0.050		mg/Kg	1	9/17/2009 4:14:22 PM
Toluene	ND	0.050		mg/Kg	1	9/17/2009 4:14:22 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/17/2009 4:14:22 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/17/2009 4:14:22 PM
Surr: 1,2-Dichloroethane-d4	85.9	81.6-105		%REC	1	9/17/2009 4:14:22 PM
Surr: 4-Bromofluorobenzene	96.2	84.7-111		%REC	1	9/17/2009 4:14:22 PM
Surr: Dibromofluoromethane	87.5	77.4-105		%REC	1	9/17/2009 4:14:22 PM
Surr: Toluene-d8	100	88.2-113		%REC	1	9/17/2009 4:14:22 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level	B Analyte detected in the associated Method Blank
	E Estimated value	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	MCL Maximum Contaminant Level
	ND Not Detected at the Reporting Limit	RL Reporting Limit
	S Spike recovery outside accepted recovery limits	

## QA/QC SUMMARY REPORT

Client: Souder, Miller and Associates  
 Project: EPCO Chaco Plant

Work Order: 0909263

Analyte	Result	Units	PQL	SPK Va	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8015B: Diesel Range Organics</b>											
Sample ID: MB-20143		MBLK									
Diesel Range Organics (DRO)	ND	mg/Kg	10								
Motor Oil Range Organics (MRO)	ND	mg/Kg	50								
Sample ID: LCS-20143		LCS									
Diesel Range Organics (DRO)	39.58	mg/Kg	10	50	0	79.2	64.6	116			
Sample ID: LCSD-20143		LCSD									
Diesel Range Organics (DRO)	44.69	mg/Kg	10	50	0	89.4	64.6	116	12.1	17.4	
<b>Method: EPA Method 8015B: Gasoline Range</b>											
Sample ID: MB-20114		MBLK									
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0								
Sample ID: LCS-20114		LCS									
Gasoline Range Organics (GRO)	25.39	mg/Kg	5.0	25	2.39	92.0	64.4	133			
Sample ID: LCSD-20114		LCSD									
Gasoline Range Organics (GRO)	25.28	mg/Kg	5.0	25	2.39	91.6	69.5	120	0.434	11.6	
<b>Method: EPA Method 8260B: Volatiles Short List</b>											
Sample ID: mb-20114		MBLK									
Benzene	ND	mg/Kg	0.050								
Toluene	ND	mg/Kg	0.050								
Ethylbenzene	ND	mg/Kg	0.050								
Xylenes, Total	ND	mg/Kg	0.10								
Sample ID: lcs-20114		LCS									
Benzene	1.033	mg/Kg	0.050	1	0	103	78.2	123			
Toluene	0.9416	mg/Kg	0.050	1	0	94.2	72.6	128			
Sample ID: lcsd-20114		LCSD									
Benzene	1.037	mg/Kg	0.050	1	0	104	83.2	118	0.384	19	
Toluene	0.9559	mg/Kg	0.050	1	0	95.6	84.8	112	1.51	0	

## Qualifiers:

E Estimated value  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

## Sample Receipt Checklist

Client Name SMA-FARM

Date Received:

9/15/2009

Work Order Number 0909263

Received by: TLS

Checklist completed by: \_\_\_\_\_

Signature



9/15/09

Date

Sample ID labels checked by: \_\_\_\_\_

Initials



Matrix:

Carrier name Greyhound

- |   |  |                              |   |                                      |
|---|--|------------------------------|---|--------------------------------------|
| Shipping container/cooler in good condition?            | Yes <input checked="" type="checkbox"/>                    | No <input type="checkbox"/>  | Not Present <input type="checkbox"/>    |                                      |
| Custody seals intact on shipping container/cooler?      | Yes <input checked="" type="checkbox"/>                    | No <input type="checkbox"/>  | Not Present <input type="checkbox"/>    | Not Shipped <input type="checkbox"/> |
| Custody seals intact on sample bottles?                 | Yes <input type="checkbox"/>                               | No <input type="checkbox"/>  | N/A <input checked="" type="checkbox"/> |                                      |
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/>                    | No <input type="checkbox"/>  |   |                                      |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/>                    | No <input type="checkbox"/>  |   |                                      |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/>                    | No <input type="checkbox"/>  |   |                                      |
| Samples in proper container/bottle?                     | Yes <input checked="" type="checkbox"/>                    | No <input type="checkbox"/>  |   |                                      |
| Sample containers intact?                               | Yes <input checked="" type="checkbox"/>                    | No <input type="checkbox"/>  |   |                                      |
| Sufficient sample volume for indicated test?            | Yes <input checked="" type="checkbox"/>                    | No <input type="checkbox"/>  |   |                                      |
| All samples received within holding time?               | Yes <input checked="" type="checkbox"/>                    | No <input type="checkbox"/>  |   |                                      |
| Water - VOA vials have zero headspace?                  | No VOA vials submitted <input checked="" type="checkbox"/> | Yes <input type="checkbox"/> | No <input type="checkbox"/>             |                                      |
| Water - Preservation labels on bottle and cap match?    | Yes <input type="checkbox"/>                               | No <input type="checkbox"/>  | N/A <input checked="" type="checkbox"/> |                                      |
| Water - pH acceptable upon receipt?                     | Yes <input type="checkbox"/>                               | No <input type="checkbox"/>  | N/A <input checked="" type="checkbox"/> |                                      |

Number of preserved bottles checked for pH:

<2 >12 unless noted below.

Container/Temp Blank temperature?

5.3°

<6° C Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action \_\_\_\_\_



## **Lowe, Leonard, EMNRD**

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**From:** Fernald, Donald [dfernald@epco.com]  
**Sent:** Thursday, September 03, 2009 4:34 PM  
**To:** Lowe, Leonard, EMNRD  
**Cc:** 'Pinkerton, Barbara'; Powell, Brandon, EMNRD; Lee, Stephen; Nolan, Shiver  
**Subject:** Chaco Profile approval request  
**Attachments:** NM\_101133NM Mile Sieve Pile.pdf; Mile Sieve MSDS.PDF; Mole Sieve Lab data 2005.PDF

Hi Leonard,

✓ INSPECTION RECOMMENDATION. INSPECTED 06.08.09

During the audit at Chaco you noted the mole sieve and spent carbon filter media on the north side of the facility (numerous piles stockpiled over past years).

The 3 piles of spent carbon filter media will be sent to the Transit Waste landfill near Bondad, Colorado. The majority of the material is the spent mole sieve.

Attached are copies of the profile, lab data and MSDS for the mole sieve material.

The NMOCD's approval is requested for disposal of this material at the SJR Landfill.

Please let us know if you have questions.

Sincerely,

Don Fernald  
EHS&T  
614 Reilly Avenue  
Farmington, NM 87401  
O: 505-599-2141  
C: 505-486-6668  
F: 505-599-2119  
[dfernald@epco.com](mailto:dfernald@epco.com)

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This inbound email has been scanned by the MessageLabs Email Security System.

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# Generator's Non-hazardous Waste Profile Sheet



Requested Disposal Facility San Juan County Landfill Profile Number 101133NM  
 Renewal for Profile Number \_\_\_\_\_ Waste Approval Expiration Date \_\_\_\_\_

### A. Waste Generator Facility Information (must reflect location of waste generation/origin)

1. Generator Name: Enterprise Field Services, LLC  
 2. Site Address: 895 CR 7100 7. Email Address: dfernald@epco.com  
 3. City/ZIP: Bloomfield, 87413 8. Phone: 505-599-2141 9. FAX: 505-5992119  
 4. State: NM 10. NAICS Code: 211112  
 5. County: San Juan 11. Generator USEPA ID #: NMD000761327  
 6. Contact Name/Title: Don Fernald / Environmental Scientist 12. State ID# (if applicable): NMD000761327

### B. Customer Information same as above P. O. Number: \_\_\_\_\_

1. Customer Name: Enterprise Field Services, LLC 6. Phone: 505-599-2141 FAX: 505-599-2119  
 2. Billing Address: 895 CR 7100 7. Transporter Name: \_\_\_\_\_  
 3. City, State and ZIP: Bloomfield, NM, 87413 8. Transporter ID # (if appl.): \_\_\_\_\_  
 4. Contact Name: Don Fernald 9. Transporter Address: \_\_\_\_\_  
 5. Contact Email: dfernald@epco.com 10. City, State and ZIP: \_\_\_\_\_

### C. Waste Stream Information

1. DESCRIPTION  
 a. Common Waste Name: Molecular Sieve Waste  
 State Waste Code(s): \_\_\_\_\_  
 b. Describe Process Generating Waste or Source of Contamination:  
Spent mole sieve used in exempt gas drying process.  
 c. Typical Color(s): White / off white  
 d. Strong Odor?  Yes  No Describe: \_\_\_\_\_  
 e. Physical State at 70°F:  Solid  Liquid  Powder  Semi-Solid or Sludge  Other: \_\_\_\_\_  
 f. Layers?  Single layer  Multi-layer  NA  
 g. Water Reactive?  Yes  No If Yes, Describe: \_\_\_\_\_  
 h. Free Liquid Range (%): \_\_\_\_\_ to \_\_\_\_\_  NA(solid)  
 i. pH Range:  ≤2  2.1-12.4  ≥12.5  NA(solid)  Actual: \_\_\_\_\_  
 j. Liquid Flash Point:  < 140°F  ≥ 140°F  NA(solid)  Actual: \_\_\_\_\_  
 k. Flammable Solid:  Yes  No  
 l. Physical Constituents: List all constituents of waste stream - (e.g. Soil 0-80%, Wood 0-20%):  (See Attached)

Constituents (Total Composition Must be > 100%)	Lower Range	Unit of Measure	Upper Range	Unit of Measure
1. <u>Mole Sieve Solid</u>				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				

2. ESTIMATED QUANTITY OF WASTE AND SHIPPING INFORMATION  
 a.  One Time Event  Base  Repeat Event  
 b. Estimated Annual Quantity: 100-200  Tons  Cubic Yards  Drums  Gallons  Other (specify): \_\_\_\_\_  
 c. Shipping Frequency: annually Units per  Month  Quarter  Year  One Time  Other  
 d. Is this a U.S. Department of Transportation (USDOT) Hazardous Material? (If yes, answer e.)  Yes  No  
 e. USDOT Shipping Description (if applicable): \_\_\_\_\_

3. SAFETY REQUIREMENTS (Handling, PPE, etc.): \_\_\_\_\_



# Generator's Non-hazardous Waste Profile Sheet

101133NM

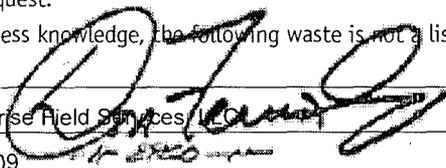
### D. Regulatory Status (Please check appropriate responses)

- Is this a USEPA (40 CFR Part 261)/State hazardous waste? If yes, contact your sales representative.  Yes  No
- Is this waste included in one or more of categories below (Check all that apply)? If yes, attach supporting documentation.  Yes  No
  - Delisted Hazardous Waste  Excluded Wastes Under 40 CFR 261.4
  - Treated Hazardous Waste Debris  Treated Characteristic Hazardous Waste
- Is the waste from a Federal (40 CFR 300, Appendix B) or state mandated clean-up? If yes, see instructions.  Yes  No
- Does the waste represented by this waste profile sheet contain radioactive material?  Yes  No
  - If yes, is disposal regulated by the Nuclear Regulatory Commission?  Yes  No
  - If yes, is disposal regulated by a State Agency for radioactive waste/NORM?  Yes  No
- Does the waste represented by this waste profile sheet contain concentrations of regulated Polychlorinated Biphenyls (PCBs)?  Yes  No
  - If yes, is disposal regulated under TSCA?  Yes  No
- Does the waste contain untreated, regulated, medical or infectious waste?  Yes  No
- Does the waste contain asbestos?  Yes  No  
If Yes,  Friable  Non Friable
- Is this profile for remediation waste from a facility that is a major source of Hazardous Air Pollutants (Site Remediation NESHA, 40 CFR 63 subpart GGGGG)?  Yes  No  
If yes, does the waste contain <500 ppmw VOHAPs at the point of determination?  Yes  No

### E. Generator Certification (Please read and certify by signature below)

By signing this Generator's Waste Profile Sheet, I hereby certify that all:

- Information submitted in this profile and all attached documents contain true and accurate descriptions of the waste material;
- Relevant information within the possession of the Generator regarding known or suspected hazards pertaining to this waste has been disclosed to WM/the Contractor;
- Analytical data attached pertaining to the profiled waste was derived from testing a representative sample in accordance with 40 CFR 261.20(c) or equivalent rules; and
- Changes that occur in the character of the waste (i.e. changes in the process or new analytical) will be identified by the Generator and disclosed to WM (and the Contractor if applicable) prior to providing the waste to WM (and the Contractor if applicable).
- Check all that apply:
  - Attached analytical pertains to the waste. Identify laboratory & sample ID #'s and parameters tested:  
Lab: Envirotech, Inc. / Sample ID No. 1 & 2 Mole Sieve / 8015B & SW846 # Pages: 5
  - Only the analyses identified on the attachment pertain to the waste (identify by laboratory & sample ID #'s and parameters tested).  
Attachment #: \_\_\_\_\_
  - Additional information necessary to characterize the profiled waste has been attached (other than analytical).  
Indicate the number of attached pages: \_\_\_\_\_
  - I am an agent signing on behalf of the Generator, and the delegation of authority to me from the Generator for this signature is available upon request.
  - By Generator process knowledge, the following waste is not a listed waste and is below all TCLP regulatory limits.

Certification Signature:  Title: Environmental Scientist

Company Name: Enterprise Field Services, LLC Name (Print): Don Fernald

Date: September 2, 2009

### FOR WM USE ONLY

Management Method:  Landfill  Bioremediation  Non-hazardous solidification  Other: \_\_\_\_\_

Approval Decision:  Approved  Not Approved

Waste Approval Expiration Date: \_\_\_\_\_

Management Facility Precautions, Special Handling Procedures or Limitation on approval: \_\_\_\_\_

Shall not contain free liquid

Shipment must be scheduled into disposal facility

Approval Number must accompany each shipment

Waste Manifest must accompany load

WM Authorization Name / Title: \_\_\_\_\_ Date: \_\_\_\_\_

State Authorization (if Required): \_\_\_\_\_ Date: \_\_\_\_\_

**GRACE Davison**

W. R. GRACE & Co.-Conn.  
 7500 Grace Drive  
 Columbia, Maryland 21044  
 (410) 531-4000

**MATERIAL  
 SAFETY  
 DATA  
 SHEET**

**SAFETY  
 DATA**

REF. NO. 2506

PRODUCT: Packaged Molecular Sieve

DATE: August 14, 2001

**Emergency Contact:**

J. H. Convey, Manager Environmental Services Telephone No. (Home) 301-874-2009 (Office) 410-531-4764

The following information includes safety data required by OSHA. The recipient of this safety data is responsible for passing the safety information on so that it reaches the ultimate user who may come in contact with the material.

**TRADE NAME:** PACKAGED MOLECULAR SIEVE - BAGS, PACKETS & CLOSURES

**CHEMICAL NAME & FAMILY:** Synthetic Zeolite, A-TYPE Sieves, X-TYPE Sieves, Y-TYPE Sieves

**SYNONYMS:** Sodium\*, Calcium\* or Potassium\* Aluminosilicate (\* Depending on product grade.)

**CHEMICAL NOTATION OR STRUCTURE:**

A-TYPE:  $Na_2O, CaO$  or  $K_2O(Al_2O_3 \cdot 2.0SiO_2 \cdot xH_2O)$   
 X-TYPE:  $Na_2O, CaO$  or  $K_2O(Al_2O_3 \cdot 2.8SiO_2 \cdot xH_2O)$   
 Y-TYPE:  $Na_2O, CaO$  or  $K_2O(Al_2O_3 \cdot 5.0SiO_2 \cdot xH_2O)$   
 Clay:  $3 MgO \cdot 1.5Al_2O_3 \cdot 8SiO_2 \cdot 9H_2O$

INGREDIENTS:	Na <sub>2</sub> O * Sodium Oxide	CaO * Calcium Oxide	K <sub>2</sub> O * Potassium Oxide	SiO <sub>2</sub> ** Silica (Synthetic)	Al <sub>2</sub> O <sub>3</sub> Alumina	Clay	Quartz
OSHA: PEL mg/m <sup>3</sup> , total	n.l.	5	n.l.	6	10	n.l.	30 mg/m <sup>3</sup> + (%SiO <sub>2</sub> +2)
,respirable					5		0.1 mg/m <sup>3</sup>
ACGIH: TLV mg/m <sup>3</sup> , total	n.l.	2	n.l.	10	10	n.l.	
,respirable							0.1 mg/m <sup>3</sup>
CAS REGISTRY NO:	1313-59-3	1305-78-8	12136-45-7	7631-86-9	1344-28-1	1332-58-7	14808-60-7

n.l. = not listed \*\* Should not be confused with quartz, cristobalite or tridymite.

**RTECS NO:** WC4800000 EW3100000 TT3790000 VV73220000 BK1200000 n.l. VV7330000

TSCA: EPA has defined zeolites as complex chemical products consisting of silica (SiO<sub>2</sub>) and alumina (Al<sub>2</sub>O<sub>3</sub>), in various proportions plus metallic oxides and certain cations. For purposes of TSCA, zeolites are statutory mixtures.

**HEALTH INFORMATION**

The information contained herein is based upon data considered true and accurate. However, Grace makes no warranties, express or implied, as to the accuracy or adequacy of the information contained herein or the results to be obtained from the use thereof. This information is offered solely for the user's consideration, investigation and verification. Since the use and conditions of use of this information and the material described herein are not within the control of Grace, Grace assumes no responsibility for injury to the user or third persons. The material described herein is sold only pursuant to Grace's Terms and Conditions of Sale, including those limiting warranties and remedies contained therein. It is the responsibility of the user to determine whether any use of this data and information is in accordance with applicable federal, state or local laws and regulations.

REF. NO. 2506

**PRECAUTION IN USE:**

Avoid prolonged breathing of the dust or contact of dust with the skin. The drying action of this material can cause irritation of the mucous membranes of the nose and throat and irritation of the skin. If its use requires manual handling, wear long sleeves and close-weave cotton gloves with tight-fitting wristlets. If dusty conditions prevail, use of an approved NIOSH/MSHA dust mask is recommended.

**FIRST AID:**

**EYES:** Immediately wash from eyes with large amounts of water, occasionally lifting upper & lower eye lids. If irritation occurs and persists, seek medical attention.

**SKIN:** Wash with soap & water.

**INGESTION:** Material will pass through body normally.

**INHALATION:** Remove to fresh air.

**TOXICOLOGY**

**ANIMAL TOXICOLOGY**

**TESTS FOR DOT HAZARD CLASSIFICATION:**

Tests on Na<sub>2</sub>O X-TYPE sieves gave the following results:

1-hour LC<sub>50</sub> (rat) > 2.8 mg/l

48-hour oral LD<sub>50</sub> (rat) est. > 31,600 mg/kg

48-hour dermal LD<sub>50</sub> (rabbit) est. > 2,000 mg/kg

Not considered an ocular irritant.

**TESTS FOR FDA APPROVAL FOR USE IN FOODS:**

Not a food-grade product.

**HUMAN TOXICOLOGY:**

Molecular Sieves are non-fibrous, synthetic aluminosilicates (zeolites) not to be confused with natural zeolites. All studies to date indicate that they do not cause significant health problems. When activated, molecular sieves act as a desiccant and can cause a drying irritation of the mucous membranes and skin in cases of severe exposure. The average concentration of quartz in this material is less 2.0% (maximum = 3.0%). The most recent IARC classification of crystalline silica (quartz) is that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group I). Quartz can cause cancer, silicosis or other fibrotic lung disease with prolonged exposure. Davison knows of no medical conditions abnormally aggravated by exposure to this product. The primary route of entry is inhalation.

**ENVIRONMENTAL DATA**

Not known to have any adverse effect on the aquatic environment when properly disposed. Insoluble and nontoxic.

**TYPICAL CHEMICAL & PHYSICAL INFORMATION**

**APPEARANCE:** Bags/Packets and closures containing White, gray, or tan beads of Molecular Sieve

**pH IN 5% SLURRY:** 10.3 - 10.5

**ODOR:** Odorless

**SPECIFIC GRAVITY:** 2.1

**BULK DENSITY:** Beaded Grades 40-50 lbs/ft.<sup>3</sup>

**SOLUBILITY  
IN WATER:** Insoluble

**APPROXIMATE  
ANALYSIS:**

Mol ratios:	A-TYPE:	$1\text{Na}_2\text{O} : 1\text{Al}_2\text{O}_3 : 2\text{SiO}_2 \cdot x\text{H}_2\text{O}$
	A-TYPE:	$0.8\text{CaO} : 0.2\text{Na}_2\text{O} : 1.0\text{Al}_2\text{O}_3 : 2.0\text{SiO}_2 \cdot x\text{H}_2\text{O}$
	A-TYPE:	$0.6\text{K}_2\text{O} : 0.4\text{Na}_2\text{O} : 1.0\text{Al}_2\text{O}_3 : 2.0\text{SiO}_2 \cdot x\text{H}_2\text{O}$
	X-TYPE:	$1\text{Na}_2\text{O} : 1\text{Al}_2\text{O}_3 : 2.8\text{SiO}_2 \cdot x\text{H}_2\text{O}$
	Y-TYPE:	$1\text{Na}_2\text{O} : 1\text{Al}_2\text{O}_3 : 5.0\text{SiO}_2 \cdot x\text{H}_2\text{O}$
	CLAY:	$3\text{MgO} : 1\text{Al}_2\text{O}_3 : 8\text{SiO}_2 \cdot 9\text{H}_2\text{O}$
Weight %:	Quartz:	< 2 (typical) Maximum = 3.0

**STABILITY:** Stable

**REACTIVITY:** Reacts with HF and strong acids or alkali

**FIRE & EXPLOSION  
DATA:** Non-flammable

### REGULATORY STATUS

- OSHA-** PEL: Molecular Sieve - not listed in 29 CFR 1910.1000. See page 1.
- NIOSH-** Not included on the list of substances requiring toxicity studies.
- EPA-** This product contains no toxic chemicals in excess of the applicable de minimis concentration as specified under § 313 of Title III SARA.
- ACGIH-** TLV: Molecular Sieve - not listed in ACGIH - TLV's. See page 1.
- USDA-** Not applicable.
- FDA-** Not applicable.
- DOT-** Not classified as a hazardous material.

### HANDLING INFORMATION

#### STORAGE AND TRANSPORTATION:

Keep containers tightly sealed to protect product quality.

#### DISPOSAL:

Landfill in accordance with local, state and federal regulations. Cover to avoid blowing of dust. See Special Information, below.

#### SPILLAGE AND CLEANUP:

Vacuum or sweep up or flush to sewer treated for suspended solids removal.

#### CONTAINERS:

Drums, pails and cartons.

### SPECIAL INFORMATION

# GRACE Davison

W. R. GRACE & Co.-Conn.  
 P. O. Box 2117  
 Baltimore, Maryland 21203  
 (410) 659-9000

## MATERIAL SAFETY DATA SHEET

## SAFETY DATA

REF. NO. 2501A

PRODUCT: 562 CS & 564 CS Formed Molecular Sieve

DATE: December 1, 1997

### Emergency Contact:

J. H. Convey, Manager Environmental Services Telephone No. (Home) 301-874-2009 (Office) 410-659-9058

The following information includes safety data required by OSHA. The recipient of this safety data is responsible for passing the safety information on so that it reaches the ultimate user who may come in contact with the material.

TRADE NAME: 562 CS & 564 CS Formed Molecular Sieves

CHEMICAL NAME & FAMILY: Synthetic Zeolite, A-TYPE Sieves, X-TYPE Sieves, Y-TYPE Sieves

SYNONYMS: Sodium\*, Calcium\* or Potassium\* Aluminosilicate,  
 \* Depending on product grade.

### CHEMICAL NOTATION OR STRUCTURE:

A-TYPE:  $\text{Na}_2\text{O}, \text{CaO}$  or  $\text{K}_2\text{O}(\text{Al}_2\text{O}_3 \cdot 2.0\text{SiO}_2 \cdot x\text{H}_2\text{O})$

X-TYPE:  $\text{Na}_2\text{O}, \text{CaO}$  or  $\text{K}_2\text{O}(\text{Al}_2\text{O}_3 \cdot 2.8\text{SiO}_2 \cdot x\text{H}_2\text{O})$

Y-TYPE:  $\text{Na}_2\text{O}, \text{CaO}$  or  $\text{K}_2\text{O}(\text{Al}_2\text{O}_3 \cdot 5.0\text{SiO}_2 \cdot x\text{H}_2\text{O})$

Clay:  $3 \text{MgO} \cdot 1.5\text{Al}_2\text{O}_3 \cdot 8\text{SiO}_2 \cdot 9\text{H}_2\text{O}$

Tetrasodium Pyrophosphate:  $\text{Na}_4\text{P}_2\text{O}_7$

INGREDIENTS:	$\text{Na}_2\text{O}^*$ Sodium Oxide	$\text{CaO}^*$ Calcium Oxide	$\text{K}_2\text{O}^*$ Potassium Oxide	$\text{SiO}_2^{**}$ Silica (Synthetic)	$\text{Al}_2\text{O}_3$ Alumina	Clay	Tetrasodium Pyrophosphate	Quartz
OSHA: PEL $\text{mg}/\text{m}^3$ total	n.l.	5	n.l.	6	10	n.l.	n.l.	Total Dust: $30 \text{mg}/\text{m}^3$ + (% $\text{SiO}_2+2$ )
respirable					5			Respirable Fraction: $0.1 \text{mg}/\text{m}^3$
ACGIH: TLV $\text{mg}/\text{m}^3$ total	n.l.	2	n.l.	10	10	n.l.	5	Respirable Fraction: $0.1 \text{mg}/\text{m}^3$
respirable								
CAS NO:	1313-59-3	1305-78-8	12136-45-7	7631-86-9	1344-28-1	1332-58-7	7722-88-5	14808-60-7
FECS NO:	WC4800000	EW3100000	TT3790000	VV73220000	BK1200000	n.l.	UX7350000	VV7330000

n.l. = not listed

\*\* Should not be confused with quartz, cristobalite or tridymite.

TSCA: EPA has defined zeolites as complex chemical products consisting of silica ( $\text{SiO}_2$ ) and alumina ( $\text{Al}_2\text{O}_3$ ), in various proportions plus metallic oxides and certain cations. For purposes of TSCA, zeolites are statutory mixtures.

The information contained herein is based upon data considered true and accurate. However, Grace makes no warranties, express or implied, as to the accuracy or adequacy of the information contained herein or the results to be obtained from the use thereof. This information is offered solely for the user's consideration, investigation and verification. Since the use and conditions of use of this information and the material described herein are not within the control of Grace, Grace assumes no responsibility for injury to the user or third persons. The material described herein is sold only pursuant to Grace's Terms and Conditions of Sale, including those limiting warranties and remedies contained therein. It is the responsibility of the user to determine whether any use of this data and information is in accordance with applicable federal, state or local laws and regulations.

REF. NO. 2501A

## ENVIRONMENTAL DATA

Not known to have any adverse effect on the aquatic environment when properly disposed. Insoluble and nontoxic.

## TYPICAL CHEMICAL &amp; PHYSICAL INFORMATION

**APPEARANCE:** White, gray, or tan, beads.

**pH IN 5% SLURRY:** 10.3 - 10.5

**ODOR:** Odorless

**SPECIFIC GRAVITY:** 2.1

**BULK DENSITY:** Beaded Grades 40-50 lbs/ft.<sup>3</sup>

**SOLUBILITY IN WATER:** Insoluble

**APPROXIMATE ANALYSIS:**

Mol ratios:	A-TYPE:	1Na <sub>2</sub> O:1Al <sub>2</sub> O <sub>3</sub> :2SiO <sub>2</sub> :xH <sub>2</sub> O
	A-TYPE:	0.8CaO:0.2Na <sub>2</sub> O:1.0Al <sub>2</sub> O <sub>3</sub> :2.0SiO <sub>2</sub> :xH <sub>2</sub> O
	A-TYPE:	0.6K <sub>2</sub> O:0.4Na <sub>2</sub> O:1.0Al <sub>2</sub> O <sub>3</sub> :2.0SiO <sub>2</sub> :xH <sub>2</sub> O
	X-TYPE:	1Na <sub>2</sub> O:1Al <sub>2</sub> O <sub>3</sub> :2.8SiO <sub>2</sub> :xH <sub>2</sub> O
	Y-TYPE:	1Na <sub>2</sub> O:1Al <sub>2</sub> O <sub>3</sub> :5.0SiO <sub>2</sub> :xH <sub>2</sub> O
	CLAY:	3 MgO.1.Al <sub>2</sub> O <sub>3</sub> .8SiO <sub>2</sub> .9H <sub>2</sub> O
Weight %:	Quartz:	< 2 (typical) Maximum = 3.0
	Tetrasodium Pyrophosphate:	1-5%

**STABILITY:** Stable

**REACTIVITY:** Reacts with HF and strong acids or alkali.

**FIRE & EXPLOSION DATA:** Non-flammable

# ZEOCHEM®

Chemie Uetikon Subsidiary

P.O. Box 35940  
Louisville, KY 40232 USA  
Telephone: 502-634-7600  
Fax: 502-634-8133

## MATERIAL SAFETY DATA SHEET

### I. PRODUCT IDENTIFICATION

**Product:** Z3-01, 02, 03, 04, 05; Z4-01, 02, 03, 04, 05, 06; Z5-01, 02, 06, Z10-01, 02, 03, 04, 05, 06  
**Chemical Name:**  $Mx/n [(AlO_2)_x (SiO_2)_y] + wH_2O$   
**Chemical Formula:** Synthetic Sodium Potassium or Calcium Aluminosilicate  
**Chemical Family:** Molecular Sieve Zeolite

### II. (A) INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS Number</u>	<u>Zeolite Type</u>
Zeolite, NaA	1344-00-9	4A
Zeolite, KA	12736-96-8	3A
Zeolite CaA	1344-01-0	5A
Zeolite, NaX	1344-00-9	13X
Mg Aluminosilicate	1327-43-1	Clay

### II. (B) PRODUCT ANALYSES & EXPOSURE LIMITS

<u>Component</u>	<u>CAS No.</u>	<u>%</u>	<u>OSHA/PEL</u>	<u>ACGIH/TLV</u>
Zeolite	See above	75-85	10mg/m <sup>3</sup>	10mg/m <sup>3</sup>
Mg Aluminosilicate	1327-43-1	23-15	10mg/m <sup>3</sup>	10mg/m <sup>3</sup>
Quartz	14808-60-7	< .5	0.1mg/m <sup>3</sup>	0.1mg/m <sup>3</sup>

### III. PHYSICAL DATA

Melting Point °F > 2900  
Melting Point °C > 1600  
Bulk Density 0.68 g/cc  
Percent volatiles by Weight < 5%  
Appearance and Odor Product may appear as light tan bead, cake or powder.

# ZEOCHEM®

Chemie Uetikon Subsidiary

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Louisville, KY 40232 USA  
Telephone: 502-634-7600  
Fax: 502-634-8133

**Product:** Z3-01, 02, 03, 04, 05; Z4-01, 02, 03, 04, 05, 06; Z5-01, 02, 06, Z10-01, 02, 03, 04, 05, 06

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## IV. FIRE AND EXPLOSION HAZARD DATA

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<b>Flash Point</b>	Non-flammable
<b>Firefighting Media</b>	Dry chemical, water, spray or foam
<b>Fire and Explosion Hazard</b>	Negligible fire and explosion hazard when exposed to heat or flame by reaction with incompatible substances.
<b>Firefighting</b>	Non-flammable solids, liquids or gases: Cool containers that are exposed to flames with water from the side until well after fire is out. For massive fire in enclosed area, use unmanned hose holder or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of the tank due to fire.

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## V. HEALTH HAZARD DATA

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Health hazards may arise from ingestion, inhalation and contact with the skin and eyes. Ingestion may result in damage to throat, esophagus, and/or gastro-intestinal tract. Inhalation may cause burning of the upper respiratory tract and/or temporary or permanent lung damage. Prolonged or repeated contact with the skin, in the absence of proper hygiene, may cause dryness, irritation, and/or dermatitis. Contact with eye tissue may result in irritation, burns or conjunctivitis. This product contains a small amount of crystalline silica which may cause delayed respiratory disease of inhaled over a prolonged period of time. IARC Monographs on the evaluation of the Carcinogenic Risk of chemicals to Humans (volume 42, 1987) concludes that there is "limited evidence" of the carcinogenicity of crystalline silica to humans. IARC classification 2A.

**First Aid (Inhalation)** Remove to fresh air immediately. If breathing has stopped, give artificial respiration. Keep affected person warm and at rest. Get medical attention immediately.

**First Aid (Ingestion)** If large amounts have been ingested, give emetics to cause vomiting. Stomach siphon may be applied as well. Milk and fatty acids should be avoided. Get medical attention immediately.

# ZEOCHEM<sup>®</sup>

Chemie Uetikon Subsidiary

P.O. Box 35940  
Louisville, KY 40232 USA  
Telephone: 502-634-7600  
Fax: 502-634-8133

**Product:** Z3-01, 02, 03, 04, 05; Z4-01, 02, 03, 04, 05, 06; Z5-01, 02, 06, Z10-01, 02, 03, 04, 05, 06

<b>First Aid (Eyes)</b>	Wash affected areas immediately and carefully for 15-20 minutes with running water. Get prompt medical attention.
<b>First Aid (Skin)</b>	Wash with soap and water.
<b>Note to Physician:</b>	This product is a desiccant and generates heat as it adsorbs water. The used product can contain material of hazardous nature. Identify that material and treat accordingly.

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## VI. REACTIVITY DATA

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Reactivity - Is stable under normal temperature and pressures in sealed containers. Hazardous polymerization will not occur. Moisture can cause rise in temperature which may result in burn. Avoid sudden contact with high concentrations of chemicals having high heats of adsorption such as olefins, HCl, etc.

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## VII. SPILLS OR LEAK PROCEDURES

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Notify safety personnel of spills or leaks. Cleanup personnel need protection against inhalation of dusts or fumes. Eye protection is required. Vacuuming or wet methods of cleanup are preferred. Place in appropriate containers for disposal keeping airborne particulate at a minimum.

**Disposal Method** - In selecting the method of disposal, applicable local, state and federal regulations should be consulted.

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## VIII. SPECIAL PROTECTION INFORMATION

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<b>Respiratory Protection</b>	Provide a NIOSH/MSHA jointly approved respirator in the absence of proper environmental control. Contact your safety equipment supplier for proper mask type.
<b>Ventilation</b>	Provide general and/or local exhaust ventilation to keep exposures below the threshold limit value. Ventilation used must be designed to prevent spots of dust accumulation or recycling of dusts.

# ZEOCHEM<sup>®</sup>

Chemie Uetikon Subsidiary

P.O. Box 35940  
Louisville, KY 40232 USA  
Telephone: 502-634-7600  
Fax: 502-634-8133

**Product:** Z3-01, 02, 03, 04, 05; Z4-01, 02, 03, 04, 05, 06; Z5-01, 02, 06, Z10-01, 02, 03, 04, 05, 06

**Protective Clothing** Wear protective clothing, including gloves, to prevent repeated or prolonged skin contact.

**Eye Protection** Chemical splash goggles designed in compliance with OSHA regulations are recommended. Consult your safety equipment supplier.

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## IX. REGULATORY INFORMATION

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The information presented herein is believed to be accurate, but is not warranted. Recipients are advised to confirm in advance that the information is current and applicable to meet their circumstances.

This product contains substances which appear on lists of the indicated act or agency.

- XX American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values for Chemical Substance in the Work Environment
  
- XX California Proposition 65  
Clean Air Act 40 CFR 61  
  
Clean Water Act 40 CFR 116  
  
Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) 40 CFR 302
  
- XX International Agency for Research on Cancer (IARC) Monographs on the Evaluation of Carcinogenic Risks to Humans Volumes 1-42  
  
NTP Annual Report on Carcinogens
  
- XX Occupational Safety and Health Administration (OSHA) 29 CFR 1910  
  
Resource Conservation and Recovery Act (RCRA) 40 CFR 261 Subpart C  
  
Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III Section 313 40 CFR 372
  
- XX Toxic Substances Control Act (TSCA) 40 CFR 700

# GRACE Davison

W. R. GRACE & Co.-Conn.

7500 Grace Drive

Columbia, Maryland 21044

(410) 531-4000

REF. NO. 2501

MATERIAL

SAFETY

DATA

SHEET

SAFETY

DATA

PRODUCT: Formed Molecular Sieve

DATE: June 22, 2001

**Emergency Contact:**

J.H. Conway, Manager Environmental Services Telephone No. (Home) 301-874-2009 (Office) 410-531-4764

The following information includes safety data required by OSHA. The recipient of this safety data is responsible for passing the safety information on so that it reaches the ultimate user who may come in contact with the material.

**TRADE NAME:**

Formed Molecular Sieves  
 GRADES: S-422, 511, 511H, 512, 513, 513LNG, 513SGP, 514, 514LNG, 514SGP, 516, 518, 519, 521, 522, 542, 542GP, 542HP, 544, 544HP, 546GP, 548, 548HP, 562, 562C, 562OXS, 564, 564C, 564OXS, 568, 572, 574, 576, C581, 612, 614, 625, 626, 641, SNG-3, SZ-5, SZ-9, PSE, IGE, WZ-10

**CHEMICAL NAME**

**& FAMILY:**

**SYNONYMS:**

Synthetic Zeolite, A-TYPE Sieves, X-TYPE Sieves, Y-TYPE Sieves  
 Sodium\*, Calcium\* or Potassium\* Aluminosilicate  
 \* Depending on product grade.

**CHEMICAL NOTATION**

**OR STRUCTURE:**

A-TYPE:  $Na_2O, CaO$  or  $K_2O(Al_2O_3 \cdot 2.0SiO_2 \cdot xH_2O)$   
 X-TYPE:  $Na_2O, CaO$  or  $K_2O(Al_2O_3 \cdot 2.8SiO_2 \cdot xH_2O)$   
 Y-TYPE:  $Na_2O, CaO$  or  $K_2O(Al_2O_3 \cdot 5.0SiO_2 \cdot xH_2O)$   
 Clay:  $3 MgO \cdot 1.5Al_2O_3 \cdot 8SiO_2 \cdot 9H_2O$

**INGREDIENTS:**

		Na <sub>2</sub> O* Sodium Oxide	CaO* Calcium Oxide	K <sub>2</sub> O* Potassium Oxide	SiO <sub>2</sub> ** Silica (Synthetic)	Al <sub>2</sub> O <sub>3</sub> Alumina	Clay	Quartz
OSHA: PEL mg/m <sup>3</sup>	total	n.l.	5	n.l.	6	10	n.l.	Total Dust: 30 mg/m <sup>3</sup> * (%SiO <sub>2</sub> +2)
	respirable					5		Respirable Fraction: 0.1 mg/m <sup>3</sup>
ACGIH: TLV mg/m <sup>3</sup>	total	n.l.	2	n.l.	10	10	n.l.	
	respirable							Respirable Fraction: 0.1 mg/m <sup>3</sup>
CAS NO:		1313-59-3	1305-78-8	12136-45-7	7631-86-9	1344-28-1	1332-58-7	14808-60-7
RTECS NO:		WC4800000	EW3100000	TT3790000	VV73220000	BK1200000	n.l.	VV7330000

n.l. = not listed      \*\* Should not be confused with quartz, cristobalite or tridymite.

TSCA: EPA has defined zeolites as complex chemical products consisting of silica (SiO<sub>2</sub>) and alumina (Al<sub>2</sub>O<sub>3</sub>), in various proportions plus metallic oxides and certain cations. For purposes of TSCA, zeolites are statutory mixtures.

The information contained herein is based upon data considered true and accurate. However, Grace makes no warranties, express or implied, as to the accuracy or adequacy of the information contained herein or the results to be obtained from the use thereof. This information is offered solely for the user's consideration, investigation and verification. Since the use and conditions of use of this information and the material described herein are not within the control of Grace, Grace assumes no responsibility for injury to the user or third persons. The material described herein is sold only pursuant to Grace's Terms and Conditions of Sale, including those limiting warranties and remedies contained therein. It is the responsibility of the user to determine whether any use of this data and information is in accordance with applicable federal, state or local laws and regulations.

## HEALTH INFORMATION

### PRECAUTION IN USE:

Avoid prolonged breathing of the dust or contact of dust with the skin. The drying action of this material can cause irritation of the mucous membranes of the nose and throat and irritation of the skin. If its use requires manual handling, wear long sleeves and close-weave cotton gloves with tight-fitting wristlets. If dusty conditions prevail, use of an approved NIOSH/MSHA dust mask is recommended.

When pouring into a container of flammable liquid, ground both containers electrically to prevent a static electric spark.

Will release heat when adsorbing water. If a large quantity of sieve quickly adsorbs the equilibrium amount of water, the sieves can become hot enough to cause thermal burns of the skin. Avoid contact under these conditions. See SPECIAL INFORMATION, p. 4.

### FIRST AID:

**EYES:** Immediately wash from eyes with large amounts of water, occasionally lifting upper & lower eye lids. If irritation occurs and persists, seek medical attention.

**SKIN:** Wash with soap & water.

**INGESTION:** Material will pass through body normally.

**INHALATION:** Remove to fresh air.

## TOXICOLOGY

### ANIMAL TOXICOLOGY

#### TESTS FOR DOT HAZARD CLASSIFICATION:

Tests on Na<sub>2</sub>O X-TYPE sieves gave the following results:

1-hour LC<sub>50</sub> (rat) > 2.8 mg/l

48-hour oral LD<sub>50</sub> (rat) est. > 31,600 mg/kg

48-hour dermal LD<sub>50</sub> (rabbit) est. > 2,000 mg/kg

Not considered an ocular irritant.

#### TESTS FOR FDA APPROVAL FOR USE IN FOODS:

Not a food-grade product.

### HUMAN TOXICOLOGY:

Molecular Sieves are non-fibrous, synthetic aluminosilicates (zeolites) not to be confused with natural zeolites. All studies to date indicate that they do not cause significant health problems. When activated, molecular sieves act as a desiccant and can cause a drying irritation of the mucous membranes and skin in cases of severe exposure. The average concentration of quartz in this material is less 2.0% (maximum = 3.0). The most recent IARC classification of crystalline silica (quartz) is that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1). Quartz can cause cancer, silicosis or other fibrotic lung disease with prolonged exposure. Davison knows of no medical conditions abnormally aggravated by exposure to this product. The primary route of entry is inhalation.

**ENVIRONMENTAL DATA**

Not known to have any adverse effect on the aquatic environment when properly disposed. Insoluble and nontoxic.

**TYPICAL CHEMICAL & PHYSICAL INFORMATION**

**APPEARANCE:** White, gray, or tan, beads.

**pH IN 5% SLURRY:** 10.3 - 10.5

**ODOR:** Odorless

**SPECIFIC GRAVITY:** 2.1

**BULK DENSITY:** Beaded Grades 40-50 lbs/ft.<sup>3</sup>

**SOLUBILITY IN WATER:** Insoluble

**APPROXIMATE ANALYSIS:**

Mol ratios:	A-TYPE:	1Na <sub>2</sub> O:1Al <sub>2</sub> O <sub>3</sub> :2SiO <sub>2</sub> :xH <sub>2</sub> O
	A-TYPE:	0.8CaO:0.2Na <sub>2</sub> O:1.0Al <sub>2</sub> O <sub>3</sub> :2.0SiO <sub>2</sub> :xH <sub>2</sub> O
	A-TYPE:	0.6K <sub>2</sub> O:0.4Na <sub>2</sub> O:1.0Al <sub>2</sub> O <sub>3</sub> :2.0SiO <sub>2</sub> :xH <sub>2</sub> O
	X-TYPE:	1Na <sub>2</sub> O:1Al <sub>2</sub> O <sub>3</sub> :2.8SiO <sub>2</sub> :xH <sub>2</sub> O
	Y-TYPE:	1Na <sub>2</sub> O:1Al <sub>2</sub> O <sub>3</sub> :5.0SiO <sub>2</sub> :xH <sub>2</sub> O
	CLAY:	3 MgO.1 Al <sub>2</sub> O <sub>3</sub> .8SiO <sub>2</sub> .9H <sub>2</sub> O
Weight %:	Quartz:	< 2 (typical) Maximum = 3.0

**STABILITY:** Stable

**REACTIVITY:** Reacts with HF and strong acids or alkali

**FIRE & EXPLOSION DATA:** Non-flammable

**REGULATORY STATUS**

- OSHA- PEL: Molecular Sieve - not listed in 29 CFR 1910.1000. See page 1.
- NIOSH- Not included on the list of substances requiring toxicity studies.
- EPA- This product contains no toxic chemicals in excess of the applicable de minimis concentration as specified under § 313 of Title III SARA.
- ACGIH- TLV: Molecular Sieve - not listed in ACGIH - TLVs. See page 1.
- USDA- Not applicable.
- FDA- Not applicable.
- DOT- Not classified as a hazardous material.

#### HANDLING INFORMATION

##### STORAGE AND TRANSPORTATION:

Keep containers tightly sealed to protect product quality.

##### DISPOSAL:

Landfill in accordance with local, state and federal regulations.  
Cover to avoid blowing of dust. See Special Information, below.

##### SPILLAGE AND CLEANUP:

Vacuum or sweep up or flush to sewer treated for suspended solids removal.

##### CONTAINERS:

Bags and drum containers.  
Also available in other packaging as required, including bulk shipments by truck.

#### SPECIAL INFORMATION

When transferring beaded molecular sieves with high pressure air, wear goggles. Malfunction of equipment can propel beads with enough velocity to penetrate the skin. Make sure that the transfer system and receiving vessels are properly grounded. Follow standard operating instructions.

Following contact with typical petrochemicals or gases, molecular sieves must be handled with special precautions. The combination of molecular sieves and retained material can be flammable and toxic. Care should be taken to avoid sources of ignition and to avoid personal contact. Use approved disposal methods suitable for toxic wastes.

340/Chaco

# ENVIROTECH INC.

**PRACTICAL SOLUTIONS FOR A BETTER TOMORROW**

August 4, 2005

Client No. 04061-006

Mr. Randy Randall  
Enterprise  
P.O. Box 579  
Bloomfield, NM 87413

Phone: (505) 564-4070  
Fax: (505) 564-4017

**RE: SAMPLING RESULTS OF THE MOLE SIEVE MEDIA AT ENTERPRISE CHACO PLANT, FARMINGTON, NEW MEXICO**

Dear Mr. Randall:

On July 18, 2005, Envirotech Inspector, Donald P. Ortiz collected samples of Mole Sieve Material at Chaco Plant located at the Enterprise Chaco Plant Farmington, NM.

The Inspector collected samples of two (2) Mole Sieve materials for total petroleum hydrocarbons. As per the attached analysis report; Sample #1 contained 0.1 mg/Kg, total petroleum hydrocarbons and Sample #2 -contained 5.9 mg/kg total petroleum hydrocarbons. Both samples are less than the NMOCD clean soil standard of 100 mg/kg. This material is considered clean.

We appreciate the opportunity to be of service. If you have any questions or require additional information, please contact us at (505) 632-0615.

Sincerely,  
ENVIROTECH, INC.

*Donald P. Ortiz*  
Donald P. Ortiz  
[dortiz@envirotech.com](mailto:dortiz@envirotech.com)

Attachment: Analytical Results

DPO: /office/client-acm/04061 Enterprise/04061-007/ACMResults.doc

**ENVIROTECH LABS****PRACTICAL SOLUTIONS FOR A BETTER TOMORROW****EPA METHOD 8015 Modified  
Nonhalogenated Volatile Organics  
Total Petroleum Hydrocarbons**

Client:	Enterprise	Project #:	04061-006
Sample ID:	1 - Mole Sieve	Date Reported:	07-24-05
Laboratory Number:	33753	Date Sampled:	07-18-05
Chain of Custody No:	14304	Date Received:	07-18-05
Sample Matrix:	Solid	Date Extracted:	07-22-05
Preservative:	Cool	Date Analyzed:	07-24-05
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

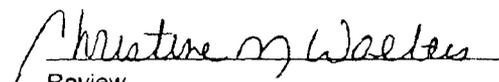
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	0.1	0.1
Total Petroleum Hydrocarbons	0.1	0.1

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Chaco Plant.

  
Analyst

  
Review

**ENVIROTECH LABS****PRACTICAL SOLUTIONS FOR A BETTER TOMORROW****EPA METHOD 8015 Modified  
Nonhalogenated Volatile Organics  
Total Petroleum Hydrocarbons**

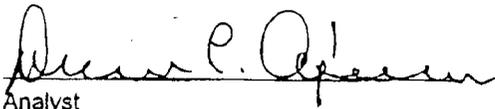
Client:	Enterprise	Project #:	04061-006
Sample ID:	2 - Mole Sieve	Date Reported:	07-24-05
Laboratory Number:	33754	Date Sampled:	07-18-05
Chain of Custody No:	14304	Date Received:	07-18-05
Sample Matrix:	Solid	Date Extracted:	07-22-05
Preservative:	Cool	Date Analyzed:	07-24-05
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

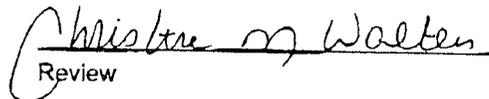
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	5.9	0.1
Total Petroleum Hydrocarbons	5.9	0.1

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Chaco Plant.**

  
Analyst

  
Review

# ENVIROTECH LABS

**PRACTICAL SOLUTIONS FOR A BETTER TOMORROW**

**EPA Method 8015 Modified  
Nonhalogenated Volatile Organics  
Total Petroleum Hydrocarbons**

**Quality Assurance Report**

Client:	QA/QC	Project #:	N/A
Sample ID:	07-24-05 QA/QC	Date Reported:	07-24-05
Laboratory Number:	33701	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-24-05
Condition:	N/A	Analysis Requested:	TPH

Sample	Date	1st Conc.	2nd Conc.	Difference	Accept Range
Gasoline Range C5 - C10	02-04-05	9.9910E+002	1.0001E+003	0.10%	0 - 15%
Diesel Range C10 - C28	02-04-05	1.0010E+003	1.0030E+003	0.20%	0 - 15%

Blank Conc. (mg/L, mg/kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

Duplicate Conc. (mg/kg)	Sample	Duplicate	Difference	Accept Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	0.2	0.2	0.0%	0 - 30%

Spike Conc. (mg/kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	ND	250	250	100.0%	75 - 125%
Diesel Range C10 - C28	0.2	250	250	99.9%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 33701 - 33705, 33753 - 33754, 33765 - 33767.

*Dean P. O'Brien*  
Analyst

*Christine M. Walters*  
Review

# CHAIN OF CUSTODY RECORD

14304

08-08-05:02:03PM

Client / Project Name <b>ENTERPRISE</b>			Project Location <b>CHACO PLANT</b>		ANALYSIS / PARAMETERS								
Sampler: <b>DONALD ORTIZ</b>			Client No. <b>04061-006</b>		No. of Containers	TPM 8015							Remarks
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix									
1 - MOLE SEIVE	7-18-05	10:50	33753	SOLID	1	✓							
2 - MOLE SEIVE	7-18-05	10:50	33754	SOLID	1	✓							
Relinquished by: (Signature) <i>Donald Ortiz</i>			Date 07-18-05 11:55	Time 11:55	Received by: (Signature) <i>John C. Aguirre</i>			Date 7-18-05	Time 11:55				
Relinquished by: (Signature)					Received by: (Signature)								
Relinquished by: (Signature)					Received by: (Signature)								

**ENVIROTECH INC.**  
 5796 U.S. Highway 64  
 Farmington, New Mexico 87401  
 (505) 632-0615

Sample Receipt			
	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

**Lowe, Leonard, EMNRD**

---

**From:** Fernald, Donald [dfernald@epco.com]  
**Sent:** Friday, September 11, 2009 11:35 AM  
**To:** Lowe, Leonard, EMNRD  
**Cc:** Lee, Stephen; Blackwood, Max  
**Subject:** RE: GW-071, Filter staging area

Hi Leonard,

Yes, it has been reconstructed. The concrete foundation under the expanded metal was removed and a new pour was installed with the cinder block walls. We will be overlaying the concrete with a spray-on liner to prevent fluids from permeating through the cinder block. The drain from this area is routed to the sub-grade tanks located directly north of the filter drain area.

Please let us know if you have additional questions.

Sincerely,

Don Fernald  
EHS&T  
614 Reilly Avenue  
Farmington, NM 87401  
O: 505-599-2141  
C: 505-486-6668  
F: 505-599-2119  
[dfernald@epco.com](mailto:dfernald@epco.com)

---

**From:** Lowe, Leonard, EMNRD [mailto:Leonard.Lowe@state.nm.us]  
**Sent:** Friday, September 11, 2009 10:50 AM  
**To:** Fernald, Donald  
**Subject:** GW-071, Filter staging area

Don,

Good morning.

I am reviewing the submitted reply from Enterprise for GW-071, Chaco GP

Question:

The used oil filter staging area: Enterprises reply stated that the staging area has been "reconstructed". Does that mean it was completely disassembled and a new one was build in place? What is the bottom of the containment made of?

llowe

**Leonard Lowe**  
Environmental Engineer  
Oil Conservation Division/EMNRD  
1220 S. St. Francis Drive

Santa Fe, N.M. 87505  
Office: 505-476-3492  
Fax: 505-476-3462  
E-mail: [leonard.lowe@state.nm.us](mailto:leonard.lowe@state.nm.us)  
Website: <http://www.emnrd.state.nm.us/ocd/>

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Ad No. 674710 / Enterprise Field

COPY OF PUBLICATION

STATE OF NEW MEXICO  
County of San Juan:

RECEIVED  
2009 JUN 29 PM 12 57

CONNIE PRUITT, being duly sworn says:  
That she is the ADVERTISING DIRECTOR of  
THE DAILY TIMES, a daily newspaper of  
general circulation published in English at  
Farmington, said county and state, and that  
the hereto attached Legal Notice was  
published in a regular and entire issue of the  
said DAILY TIMES, a daily newspaper duly  
qualified for the purpose within the meaning of  
Chapter 167 of the 1937 Session Laws of the  
State of New Mexico for publication and  
appeared in The Daily Times on the following  
May 21, 2009

And the cost of the publication is \$ 531.79

Connie Pruitt

ON 5/28/09 CONNIE PRUITT  
appeared before me, whom I know personally  
to be the person who signed the above  
document.

Christine Sellers  
My Commission Expires 11/05/11

PUBLIC NOTICE	ANUNCIO PÚBLICO
<p>Enterprise Field Services LLC, P. O. Box 4324, Houston, TX 77210-4324, has submitted an application to the New Mexico Energy, Minerals and Natural Resources Department, Oil Conservation Division for a renewal of the previously approved discharge plan (GW-071-0) for the Chaco Gas Plant. This facility is located in the SE4, Section 16, Township 26 North, Range 12 West, NMPM in San Juan County, NM, approximately 28 miles south-southwest of Bloomfield, New Mexico. Questions concerning this application may be directed to Mr. Clay Roessler at the Houston address.</p> <p>The facility provides natural gas compression, cryogenic natural gas liquids extraction, and product storage. Materials generated or used at the facility include pipeline condensate and field liquids, triethylene glycol, amine, new and used compressor lubrication oil, oily wastewater from engine or scrubber wash down and small quantities of maintenance chemicals. Approximately 500 barrels/month of waste water, 8500 barrels/month of produced water and 20,000 gallons/year of used oil are generated and stored onsite. These fluids are not intentionally discharged to the ground. All liquids utilized at the facility are stored in dedicated storage tanks prior to sulfate recycling or disposal at an OCD approved site. All storage tanks are within properly engineered and OCD approved secondary containments. The aquifer most likely to be affected is 220 feet in depth, and the total dissolved solids concentration of this aquifer is estimated to be 360-1000mg/l. The discharge plan addresses how oilfield products and waste will be properly handled, stored, and disposed of, including how spills, leaks and other accidental discharges to the surface will be managed in order to protect fresh water.</p> <p>Any interested person or persons may obtain information, submit comments or request to be placed on a facility-specific mailing list for future notices by contacting Mr. Leonard Lowe at the New Mexico Energy, Minerals and Natural Resources Department, Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico, (505) 476-3492. The OCD will accept comments and statements of interest regarding the application and will create a facility-specific mailing list for persons who wish to receive future notices.</p>	<p>Enterprise Field Services LLC, P. O. Box 4324, Houston, TX 77210-4324, ha sometido una solicitud a la New Mexico Energy, Minerals and Natural Resources Department, Oil Conservation Division para la renovación del previamente aprobado plan de descarga de residuos (GW-071-0) para la Chaco Gas Plant. Esta planta esta localizada en el SE4 cuarto, Section 16, Township 26 North, Range 12 West, NMPM en San Juan Condado, NM, aproximadamente 28 millas sur-suroeste de Bloomfield, New Mexico. Preguntas acerca de esta solicitud pueden ser dirigidas a Mr. Clay Roessler a la dirección en Houston.</p> <p>La planta proporciona compresión de gas natural, extracción criogénica de líquidos de gas natural, y almacenamiento de productos. Materiales generados o utilizados en la planta incluyen condensación de gases y líquidos dentro de tuberías y líquidos de campo, glicol tri etileno, aminas, aceite de lubricación nuevo y usado de los compresores, desecho de agua aceitosa de los motores o de agua de lavado de scrubber y pequeñas cantidades de sustancias químicas para mantenimiento. Aproximadamente 500 barriles/mes de agua de desecho, 8500 barriles/mes de agua producida y 20,000 galones/año de aceite usado son generados y almacenados en el sitio. Estos líquidos no son descargados intencionalmente al suelo. Todos los líquidos utilizados en la planta son almacenados en tanques dedicados antes de ser reciclados fuera de la planta o de la eliminación en una planta aprobada por la OCD. Todos los tanques están localizados en retenciones secundarias apropiadamente diseñadas o aprobadas por la OCD. El meso acuífero con mayor probabilidad de ser afectado es de 220 pies de profundidad, y la concentración total de sólidos disueltos en este meso acuífero es estimada a ser 360-1000 mg/l. El plan de la descarga describe cómo productos de yacimientos petrolíferos y desperdicios serán manejados apropiadamente, cómo serán almacenados y cómo serán desechados, incluyendo cómo derrames, fugas y otras descargas accidentales en la superficie serán manejadas para proteger aguas dulces.</p> <p>Cualquier persona o personas interesada(s) en obtener información adicional, sumeter comentarios o solicitar ser incluidos en una lista de correo para futuros avisos pueden comunicarse con Mr. Leonard Lowe a New Mexico Energy, Minerals and Natural Resources Department, Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico, (505) 476-3492. La OCD aceptará comentarios y declaraciones de interés en referencia a esta solicitud y creará una lista de correo específica de la planta para personas que deseen recibir futuros avisos.</p>

## **Lowe, Leonard, EMNRD**

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**From:** Seale, Runell [RSeale@epco.com]  
**Sent:** Friday, May 08, 2009 11:05 AM  
**To:** Lowe, Leonard, EMNRD  
**Subject:** Chaco Plant Public Notice  
**Attachments:** Public Notice Spanish - Chaco Plant GW-071 Renewal.doc; Public Notice - Chaco Plant GW-071-0 Renewal.doc

Leonard,

I have been out of town in Houston for meetings this week, just returned. Attached is the proposed public notice (English & Spanish) for the Chaco Plant. Please review and advise if this is ok for publication. Thanks

## **Runell A. Seale**

**Environmental Scientist**

**EHS&T-Environmental Permitting**

**EPCO, Inc. - Providing services to Enterprise Products and TEPPCO**

614 Reilly Ave.

Farmington, NM 87401

505 599.2124 office

505 599.2538 fax

505 320.2816 cell

[RSeale@epco.com](mailto:RSeale@epco.com)

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## PUBLIC NOTICE

✓ ①  
Enterprise Field Services LLC, P. O. Box 4324, Houston, TX 77210-4324, has submitted an application to the New Mexico Energy, Minerals and Natural Resources Department, Oil Conservation Division for a renewal of the previously approved discharge plan (GW-071-0) for the Chaco Gas Plant. This facility is located in the SE/4, Section 16, Township 26 North, Range 12 West, NMPM in San Juan County, NM; approximately 28 miles south-southwest of Bloomfield, New Mexico. Questions concerning this application may be directed to Mr. Clay Roesler at the Houston address.

✓ ②  
The facility provides natural gas compression, cryogenic natural gas liquids extraction, and product storage. Materials generated or used at the facility include pipeline condensate and field liquids, triethylene glycol, amine, new and used compressor lubrication oil, oily wastewater from engine or scrubber wash down and small quantities of maintenance chemicals. Approximately 500 barrels/month of waste water, 8500 barrels/month of produced water and 20,000 gallons/year of used oil are generated and stored onsite. These fluids are not intentionally discharged to the ground. All liquids utilized at the facility are stored in dedicated storage tanks prior to offsite recycling or disposal at an OCD approved site. All storage tanks are within properly engineered and OCD approved secondary containments. The aquifer most likely to be affected is 220 feet in depth, and the total dissolved solids concentration of this aquifer is estimated to be 560-1000mg/l. The discharge plan addresses how oilfield products and waste will be properly handled, stored, and disposed of, including how spills, leaks and other accidental discharges to the surface will be managed in order to protect fresh water.

✓ ④  
Any interested person or persons may obtain information; submit comments or request to be placed on a facility-specific mailing list for future notices by contacting Mr. Leonard Lowe at the New Mexico Energy, Minerals and Natural Resources Department, Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico, (505) 476-3492. The OCD will accept comments and statements of interest regarding the application and will create a facility-specific mailing list for persons who wish to receive future notices.

✓ ⑤  
OCD Approved,  
05/14/09

THE SANTA FE  
**NEW MEXICAN**  
 Founded 1849

*Leonard Lowe*  
 NM EMNRD OIL CONSERV  
 1220 S ST FRANCIS DR  
 SANTA FE NM 87505

ALTERNATE ACCOUNT: 56689  
 AD NUMBER: 00283385 ACCOUNT: 00002212  
 LEGAL NO: *86873* P.O. #:  
 627 LINES 1 TIME(S) 0.00  
 AFFIDAVIT: 0.00  
 TAX: 0.00  
 TOTAL: 0.00

**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 (20.6.2.3106 NMAC); the following discharge permit application(s) has been submitted to the Director of the New Mexico Oil Conservation Division ("NMOCD"), 1220 S. Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

Jennifer Knowlton, of Agave Energy Company 105, South Fourth Street, Artesia N.M. 88210, has submitted renewal applications for the previously approved discharge plan for the following:

(GW-050-1) Bitter Lake Compressor Station, located in the NE/4 SW/4 of Section 10, Township 9 South, Range 25 East, NMPM, Chaves County. The facility compresses natural gas for a small localized gathering system. Approximately 700 bbls/day of wash down water, 500 gallons/yr of used motor oil and 100bbls/year of condensate are generated and stored in onsite. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 10-60 feet, with a total

**AFFIDAVIT OF PUBLICATION**

STATE OF NEW MEXICO  
 COUNTY OF SANTA FE

I, L. Paquin, 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 # *86873* a copy of which is hereto attached was published in said newspaper 1 day(s) between 04/01/2009 and 04/01/2009 and that the notice was published in the newspaper proper and not in any supplement; the first date of publication being on the 1st day of April, 2009 and that the undersigned has personal knowledge of the matter and things set forth in this affidavit.

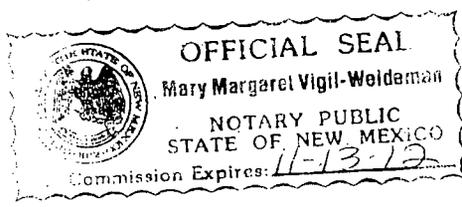
2009 APR 17 AM 11 34  
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/s/ *L. Paquin*  
 LEGAL ADVERTISEMENT REPRESENTATIVE

Subscribed and sworn to before me on this 1st day of April, 2009

Notary *Mary Margaret Vigil Weideman*

Commission Expires: *11-13-2012*



dissolved solids concentration of approximately 600 - 2600 mg/L.

(GW-050-5) Red Bluff # 1 Compressor Station, located in the SE/4 SE/4 of Section 34, Township 7 South, Range 25 East, NMPM, Eddy County. The facility compresses natural gas for a small localized gathering system. Approximately 700 bbls/day of wash down water, 500 gallons/yr of used motor oil and 100bbls/year of condensate are generated and stored in onsite. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 21 - 109 feet, with a total dissolved solids concentration of approximately 600 - 2600 mg/L.

(GW-050-7) Red Bluff # 2 Compressor Station, located in the NE/4 SE/4 of Section 2, Township 8 South, Range 25 East, NMPM, Eddy County. The facility compresses natural gas for a small localized gathering system. Approximately 700 bbls/day of wash down water, 500 gallons/yr of used motor oil and 100bbls/year of condensate are generated and stored in onsite. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 52 - 238 feet, with a total dissolved solids concentration of approximately 600 - 2600 mg/L.

(GW-050-8) Red Bluff # 3 Compressor Station, located in the NE/4 SE/4 of Section 10, Township 10 South, Range 25 East, NMPM, Eddy County. The facility compresses natural gas for a small localized gathering system. Approximately 700 bbls/day of wash down water, 500 gallons/yr of used motor oil and 100bbls/year of condensate are generated and stored in onsite. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 52 - 238 feet, with a total dissolved solids concentration of approximately 600 - 2600 mg/L.

(GW-224) Conoco Phillips Pipe Line Company, Thomas Lacki, Environmental Coordinator, 4001 E. 42nd Street, Suite 105, Odessa TX 79762, has

submitted a renewal application for the previously approved discharge plan (GW-224) for their Buckeye pump station, located in the SE/4 SW/4 of section 34, Township 17 South, Range 35 East, NMPM, Lea County, New Mexico, one mile south of CR 50, approximately 20 miles northwest of Hobbs in Lea County New Mexico. The pump station has two 10,000 bbl crude oil storage tanks and all storage tanks are within properly engineered secondary containments. Small amounts of miscellaneous plant trash; crude oil, paraffin, and sand blast aggregate from maintenance and repairs; basic sediment and water (tank bottoms) from tank cleanouts; and tank seals are generated on a periodic basis. Maintenance produces approximately 2-bbls of paraffin per year, which is stored on site in approved 55-gallon barrels until it is recycled back into the system or sent off site for reclamation. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 61 feet, with a total dissolved solids concentration of approximately 700 mg/L.

(GW-003) Chevron U.S.A. Inc., 11111 South Wilcrest, Houston, TX 77099, has submitted a renewal application for the previously approved discharge plan for their Eunice South Gas Plant located in the NW/4 of the SW/4 of Section 27, Township 22 South, Range 37 East, NMPM, Lea County, New Mexico. The gas plant is shut down, partially dismantled, and is out of operation with the exception of some compression equipment that is currently operated by Targa Midstream Services on behalf of Versado L.L.P. Chevron is presently disposing of recovered chloride impacted ground water into an on-site salt water disposal well operated by Targa Midstream Services and is storing recovered hydrocarbon impacted ground water

in a 175 barrel frac tank for offsite disposal. Ground water that is most likely to be affected by an accidental discharge is at a depth of approximately 49-54 feet below ground surface with a total dissolved solids concentration of approximately 1,000 to 1,300 mg/L.

(GW-350) Mr. Kenneth Springer, Project Manager, Shell Oil Products, U.S., P.O. 1087, Huffman, TX 77336, has submitted an application for a renewal discharge plan application for the previously approved permit for Shell's Groundwater Remediation System located within the Plain's Pipeline (Plain's) Jal Basin Crude Oil Station. The discharge site is located in the SE of the SE of Section 32, Township 25 South, Range 37 East, NMPM, Lea County, New Mexico, approximately two miles south of Jal, New Mexico on State Highway 18. Groundwater most likely to be affected by an accidental discharge is at a depth of approximately 65 feet below ground surface with a total dissolved solids concentration of approximately 759 mg/L. Shell operates a groundwater remediation system to abate groundwater pollution beneath a portion of the Jal Basin Station. The groundwater remediation system consists of groundwater recovery wells and a mobile Hi-Vac system incorporating a liquid ring extraction pump and associated separation and treatment equipment. The liquid ring pump extracts groundwater, non-aqueous phase liquid (NAPL), suspended particles and soil vapors. The collected media is processed through a series of separators and collected fluids are pumped through an 800-gallon oil/water separator (OWS). The system is operated such that NAPL is recovered in a product storage tank and the separated water is treated utilizing air stripping technology; zeolite and carbon filters, as necessary. Treated water is then re-injected into the subsurface.

(GW-158) Knight Oil Tooling Inc., has submitted a renewal application for the previously approved discharge plan for their Oil and Gas Service Company at 5970 US HWY 64, Farmington

New Mexico, located in the NW/4 NW/4 of Section 25, Township 29 North, Range 12 West, NMPM, San Juan County. The facility is an oilfield tool rental string supplier company to the oil and gas industry. Approximately 150 gal/month of sump waste, 55 gallons of waste oil and 300 gallons of diesel are generated and stored in onsite. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 3 - 53 feet, with a total dissolved solids concentration of approximately 500 - 600 mg/L.

(GW-148) Mr. Douglas Jordan, Environmental Permitting Manager, Teppco/Val Verde Gas Gathering Company L.P. P.O. Box 2521, Houston TX 77252, has submitted a renewal application for the previously approved discharge plan for their Pump Mesa Compressor Station, located in the NE/4 SW/4 of Section 14, Township 31 North, Range 8 West, NMPM, San Juan County. The facility compresses natural gas. Approximately 300 gallons of wash down water, 210 bbls of waste oil and 317 bbls of produced water are generated and stored in onsite. These fluids are not to be intentionally discharged to the ground. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 32 feet, with a total dissolved solids concentration of approximately 2000 mg/L.

(GW-146) Mr. Clayton A. Roesler, Environmental Permitting Manager, Teppco/Val Verde Gas Gathering Company L.P. P.O. Box 2521, Houston TX 77252, has submitted a renewal application for the previously approved discharge plan for their Sims Mesa Compressor Station, located in the NE/4 ME/4 of Section 22, Township 30 North, Range 7 West, NMPM, Rio Arriba County. The facility compresses natural gas for the local gathering system. Approximately 500 gal-

lons of methanol, 210 bbls of produced water, 210 bbls of used oil and 65 gallons of lube oil are generated and stored in onsite. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 160 feet, with a total dissolved solids concentration of approximately 600 mg/L.

Enterprise Field Services, LLC, P.O. Box 2521, Houston TX 77252, has submitted a renewal application for the two previously approved discharge plans for their:

(GW-301) Manzanares Compressor Station, located in the SE/4 NE/4 of Section 17, Township 29 North, Range 9 West, NMPM, San Juan County. The facility compresses natural gas for the local gathering system. Approximately 1000 bbls of condensate, 500 bbls of lube oil, 75 bbls of wash down water and 120 bbls of produced water are generated and stored in onsite. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 50 feet, with a total dissolved solids concentration of approximately 300-3000 mg/L.

(GW-071-0) Chaco Gas Plant, located in the SE/4 of Section 16, Township 26 North, Range 12 West, NMPM, San Juan County. The facility is a natural gas compression station and cryogenic natural gas liquids extraction plant. Approximately 500 bbls/month of waste water, 8500 bbls/month produced water, and 20,000 gallons/year of used oil are generated and stored in onsite. Groundwater most likely to be affected by a spill, leak or accidental discharge is at a depth of approximately 220 feet, with a total dissolved solids concentration of approximately 560 - 1000 mg/L.

The NMOCD has determined that the application is administratively complete and has prepared a draft permit. The NMOCD will accept comments and statements of interest regarding this application and will create a facility-specific mailing list for persons who wish to receive future notices. Per-

sons interested in obtaining further information, submitting comments or requesting to be on a facility-specific mailing list for future notices may contact the Environmental Bureau Chief of the Oil Conservation Division at the address given above. The administrative completeness determination and draft permit may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday, or may also be viewed at the NMOCD web site <http://www.emnrd.state.nm.us/ocd/>. Persons interested in obtaining a copy of the application and draft permit may contact the NMOCD at the address given above. Prior to ruling on any proposed discharge permit or major modification, the Director shall allow a period of at least thirty (30) days after the date of publication of this notice, during which interested persons may submit comments or request that NMOCD hold a public hearing. 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 that there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed permit based on information available, including all comments received. If a public hearing is held, the director will approve or disapprove the proposed permit based on information in the permit application and information submitted at the hearing.

Para obtener más información sobre esta solicitud en español, sírvase comunicarse por favor: New Mexico Energy, Minerals and Natural Resources Department (Depto. Del Energía, Minerals y Recursos Naturales de Nuevo México), Oil Conservation Division (Depto. Conservación Del Petróleo), 1220 South St. Francis Drive, Santa Fe, New México (Contacto: Dorothy Phillips,

505-476-3461)

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 5th day of March 2009.

STATE OF NEW MEXICO  
OIL CONSERVATION  
DIVISION

SEAL  
Mark Fesmire,  
Director  
Legal No. 86873  
Pub. April 1, 2009



Enterprise Products™

RECEIVED

2008 DEC 19 PM 1 13

614 Reilly Avenue

Farmington, NM 87401

505.599.2180

www.epplp.com

December 17, 2008

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

Re: Groundwater Discharge Renewal  
Chaco Gas Plant -- GW-071-~~2~~<sub>0</sub>

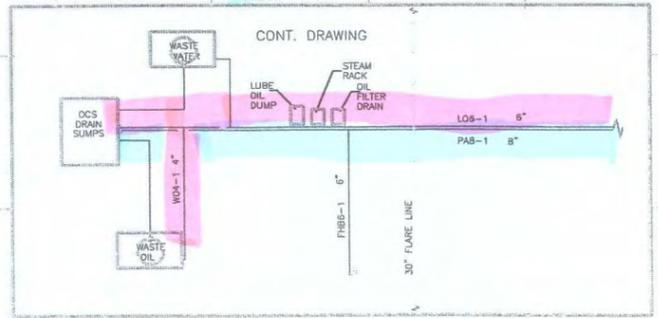
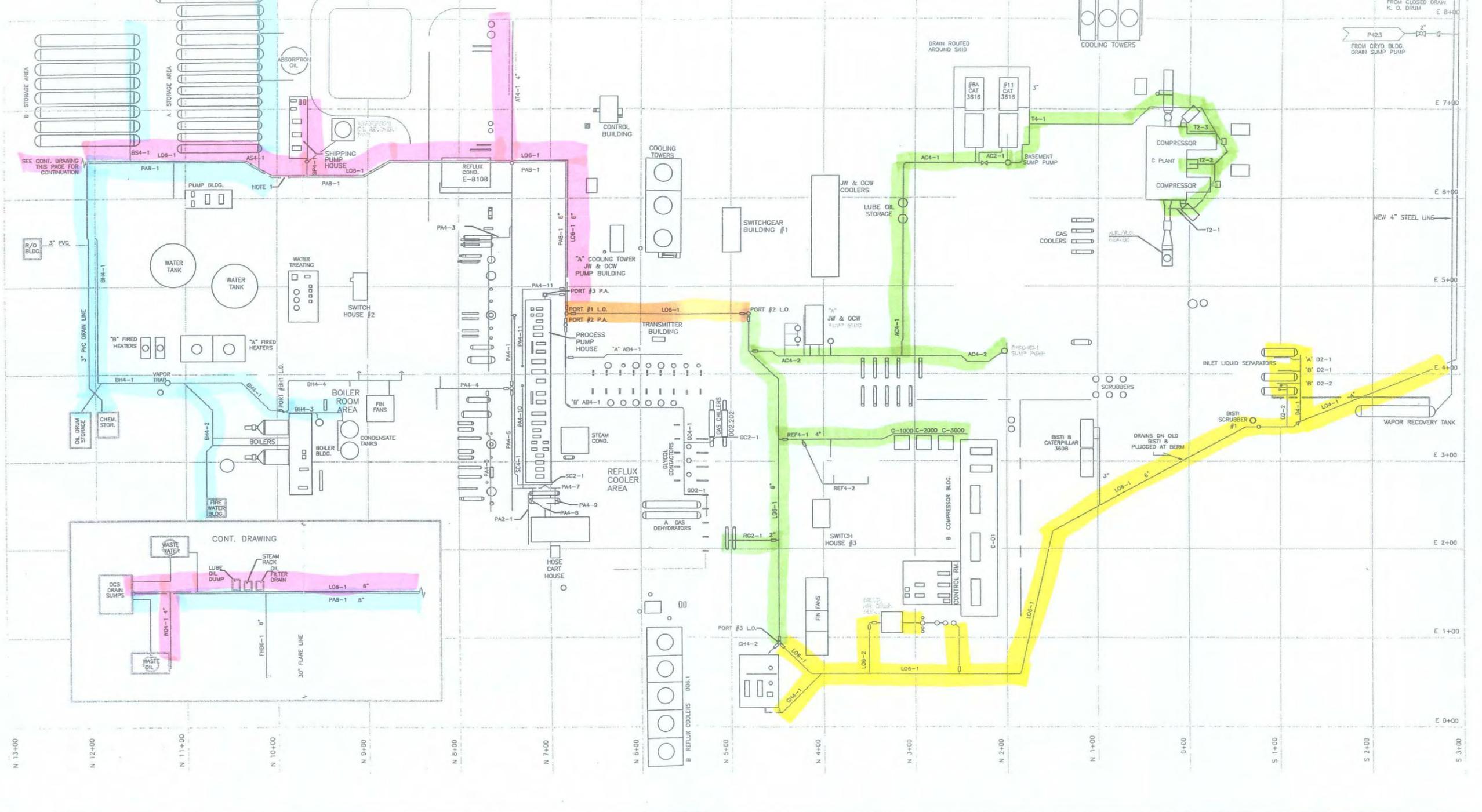
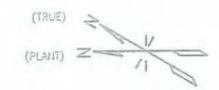
Dear Jim,

Enclosed is a copy of the Site Layout Map that is larger scale than what will be included in the formal application. Please add this document as figure 3 in the application for renewal of the Discharge Plan GW-071-2.

I have also included a copy of the drain line testing and colored plot plan showing the lines tested during the June 2007 testing. Please add this to the application.

Sincerely,

Runell A. Seale  
Environmental Specialist  
EHS&T-Environmental Permitting  
EPCO, Inc.  
505.599.2124  
[RSeale@epco.com](mailto:RSeale@epco.com)



NOTE:  
 1. DRAIN LINE LOCATIONS ARE APPROXIMATE.  
 2. FIELD WILL DETERMINE LOCATIONS AND DEPTHS OF EXISTING LINED AND LOCATE NEW LINES TO SUIT EXISTING CONDITIONS.  
 3. EXACT LOCATION OF BLIND IN PAB-1 NOT DEFINED.

PORT  
 FLANGE/SPOOL  
 ALL 90° CORNERS ARE ACTUALLY TWO 45°  
 ELBOWS WITH A MINIMUM 12" R/P

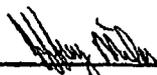
DRAWING NO.	TITLE	NO.	DATE	BY	DESCRIPTION	PROJ. ID	APPR.	SCALE	DRAWING NUMBER	REVISION
2CH-1-P95	CHACO OVERALL PLOT PLAN									
CH-1-P119	CHACO PLANT OPEN DRAIN SYSTEM LUBE OIL DRAIN AND PROCESS AREA DRAIN									
CH-1-P118	CHACO PLANT OPEN DRAIN SYSTEM LUBE OIL DRAIN AND PROCESS AREA DRAIN	3	05/03	AR	AS-BUILT PER FIELD MARK UPS	058565		1"	01/10/95	
CH-1-P117	CHACO PLANT OPEN DRAIN SYSTEM LUBE OIL DRAIN AND PROCESS AREA DRAIN	2	11/98	BL	GENERAL REVISIONS FROM FLD. MARKED DWGS.			1"	02/27/95	
CH-1-P116	CHACO PLANT OPEN DRAIN SYSTEM LUBE OIL DRAIN AND PROCESS AREA DRAIN	1	09/98	BL	CHANGE REF. DRW. HQ'S			1"		
CH-1-P115	CHACO PLANT OPEN DRAIN SYSTEM LUBE OIL DRAIN AND PROCESS AREA DRAIN	0	02/95	BL	AS BUILT DRAWING			1"		
	REFERENCE DRAWINGS									
					REVISIONS					

**CHACO PLANT  
 DRAINAGE SYSTEM  
 LUBE OIL DRAIN AND  
 PROCESS AREA DRAIN**  
 SAN JUAN COUNTY, NEW MEXICO



Test # 5

### Hydrostatic Line Testing Form

<b>Testing Company:</b> Envirotech, Inc.			
<b>Client:</b> Enterprise Field Services LLC			
<b>Facility Name/Location:</b> Chaco Plant			
<b>Description of Test:</b> Low pressure hydrostatic line test on contact drain system to determine the presence of leaks.			
<b>Description of System:</b> Steel Pipe			
<b>Test Requirements:</b> Hydrostatic pressure test on contact drainage systems in accordance to the State of New Mexico, Minerals, Natural Resources Department - Oil Conversation Division Discharge Plan Requirements. Hydrostatic pressure test performed on contact drain system at 3 pounds per square inch for a period of one hour.			
<b>Test Medium:</b> Water	<b>Test Pressure:</b> 7' WC		
<b>Test Date:</b> 6/22/07	<b>Test Start:</b> <b>Test Completed:</b>		
<b>Test Notes:</b> GH4-1, L06-1, L06-2, Control Room, Bisti #8 comp D2-2, D4-1, D2-1, L04-1,			
<b>Review and Approvals:</b>			
			
<b>Signed by (Operations)</b>	<b>Date</b>	<b>Test Completed by ( signed )</b>	<b>Date</b> 6/22/07
		Jeffrey Miles	
<b>Name Printed by (Operations)</b>		<b>Contractor Representative ( printed )</b>	

Test #4

### Hydrostatic Line Testing Form

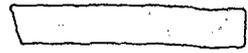
<b>Testing Company:</b> Envirotech, Inc.			
<b>Client:</b> Enterprise Field Services LLC			
<b>Facility Name/Location:</b> Chaco Plant			
<b>Description of Test:</b> Low pressure hydrostatic line test on contact drain system to determine the presence of leaks.			
<b>Description of System:</b> Steel Pipe			
<b>Test Requirements:</b> Hydrostatic pressure test on contact drainage systems in accordance to the State of New Mexico, Minerals, Natural Resources Department - Oil Conversation Division Discharge Plan Requirements. Hydrostatic pressure test performed on contact drain system at 3 pounds per square inch for a period of one hour.			
<b>Test Medium:</b> Water		<b>Test Pressure:</b> 7' WC	
<b>Test Date:</b> 6/19/07		<b>Test Start:</b> 10:00 <b>Test Completed:</b> 11:00	
<b>Test Notes:</b> Port #2 L10; Lob-1, RG2-1, Port #3, C3000, C200, C1000, AC4-1, AC4-2, T4-1, T2-3, T2-2, T2-1, C Plant			
<b>Review and Approvals:</b>			
Signed by (Operations)		Test Completed by ( signed )	
Date		Date 6/19/07	
Name Printed by (Operations)		Contractor Representative ( printed )	
		Jeffrey Miles	

Test #3

### Hydrostatic Line Testing Form

<b>Testing Company:</b> Envirotech, Inc.	
<b>Client:</b> Enterprise Field Services LLC	
<b>Facility Name/Location:</b> Chaco Plant	
<b>Description of Test:</b> Low pressure hydrostatic line test on contact drain system to determine the presence of leaks.	
<b>Description of System:</b> Steel Pipe	
<b>Test Requirements:</b> Hydrostatic pressure test on contact drainage systems in accordance to the State of New Mexico, Minerals, Natural Resources Department - Oil Conversation Division Discharge Plan Requirements. Hydrostatic pressure test performed on contact drain system at 3 pounds per square inch for a period of one hour.	
<b>Test Medium:</b> Water	<b>Test Pressure:</b> 7' WC
<b>Test Date:</b> 6/14/07	<b>Test Start:</b> 2:00 <b>Test Completed:</b> 4:00
<b>Test Notes:</b> Port #1 LA, LOG-1, Port #2	
<b>Review and Approvals:</b>	
<b>Signed by (Operations)</b>	
<b>Date</b>	<b>Test Completed by ( signed )</b>
	Jeffrey Miles
<b>Name Printed by (Operations)</b>	<b>Contractor Representative ( printed )</b>

Test #2



# Hydrostatic Line Testing Form

<b>Testing Company:</b> Envirotech, Inc.			
<b>Client:</b> Enterprise Field Services LLC			
<b>Facility Name/Location:</b> Chaco plant			
<b>Description of Test:</b> Low pressure hydrostatic line test on contact drain system to determine the presence of leaks.			
<b>Description of System:</b> Steel pipe			
<b>Test Requirements:</b> Hydrostatic pressure test on contact drainage systems in accordance to the State of New Mexico, Minerals, Natural Resources Department - Oil Conversation Division Discharge Plan Requirements. Hydrostatic pressure test performed on contact drain system at 3 pounds per square inch for a period of one hour.			
<b>Test Medium:</b> Water		<b>Test Pressure:</b> 7' WC	
<b>Test Date:</b> 6/12/07		<b>Test Start:</b> 4:15	
<b>Test Completed:</b> 5:15			
<b>Test Notes:</b> Lube oil dump, Steam Rack, oil Filter Drain, LOG-1, AS4-1 Shipping Pump House, SP4-1, AT4-1, WO4-1,			
<b>Review and Approvals:</b>			
<b>Signed by (Operations)</b>		<b>Test Completed by ( signed )</b>	
Date		Date 6/12/07	
Name Printed by (Operations)		Contractor Representative ( printed )	
		Jeffrey Miles	

Test # 1

### Hydrostatic Line Testing Form

<b>Testing Company:</b> Envirotech, Inc.	
<b>Client:</b> Enterprise Field Services LLC	
<b>Facility Name/Location:</b> Chaco Plant	
<b>Description of Test:</b> Low pressure hydrostatic line test on contact drain system to determine the presence of leaks.	
<b>Description of System:</b> Steel Pipe	
<b>Test Requirements:</b> Hydrostatic pressure test on contact drainage systems in accordance to the State of New Mexico, Minerals, Natural Resources Department - Oil Conversation Division Discharge Plan Requirements. Hydrostatic pressure test performed on contact drain system at 3 pounds per square inch for a period of one hour.	
<b>Test Medium:</b> Water	<b>Test Pressure:</b> 7' WC
<b>Test Date:</b> 6/7/07	<b>Test Start:</b> 4:05 <b>Test Completed:</b> 5:05
<b>Test Notes:</b> Lines Tested PAB-1 From O.G.S To Storage Area. 3" PVC From oil drum storage ASA-1, FH6-1, BHA-1 (To Part.)	
<b>Review and Approvals:</b>	
<b>Signed by (Operations)</b>	<b>Test Completed by ( signed )</b>
<b>Date</b>	<b>Date</b> 6/7/07
<b>Name Printed by (Operations)</b>	<b>Contractor Representative ( printed )</b> Jeffrey Miles

ACKNOWLEDGEMENT OF RECEIPT  
OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 12/18/08

or cash received on \_\_\_\_\_ in the amount of \$ 100<sup>00</sup>

from Shiver J. Nolan

for GW-71

Submitted by: Lawrence Tenno Date: 12/29/08

Submitted to ASD by: Lawrence Tenno Date: 12/29/08

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

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

Modification \_\_\_\_\_ Other \_\_\_\_\_

Organization Code 521.07 Applicable FY 2004

To be deposited in the Water Quality Management Fund:

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

713-880-6595  
SHIVER J. NOLAN  
EPCO  
2727 N LOOP W  
HOUSTON, TX 77008

DATE 12-18-2008

56-1551-500  
441  
5277465601657

PAY TO THE ORDER OF NMED - Water Quality Fund \$ 100<sup>00</sup>  
One Hundred Dollars DOLLARS

JPMorganChase  
JPMorgan Chase Bank, N.A.  
Columbus, OH

VALID UP TO 2500 DOLLARS

MEMO Chaco G6071-2 [Signature]

[redacted]

SECURITY FEATURES  
Included on Date

REUSE WALLETS OR DUPLICATE

SPECIALTY BLUE



Enterprise Products™

RECEIVED

ENTERPRISE PRODUCTS PARTNERS LP  
ENTERPRISE PRODUCTS OPERATING LLC

ENTERPRISE PRODUCTS GP, L.L.C., GENERAL PARTNER  
ENTERPRISE PRODUCTS OLPGP, INC., SOLE MANAGER

December 18, 2008

8623 4321 1885  
Federal Express

New Mexico Oil Conservation Division  
Environmental Bureau  
Attn: Jim Griswold/Wayne Price  
1220 South St. Francis Drive  
Santa Fe, NM 87505

**RE: Groundwater Discharge Renewal Application  
Chaco Gas Plant – GW-071-~~Z~~**

Dear Messrs. Griswold-Price:

Enclosed for your review and handling are the referenced Discharge Plan Application with plan details. Also enclosed is a check, payable to NMED Water Quality Management Fund, in the amount of \$100 which covers the application fee for the permit.

Should you have questions or need additional information, please contact me at (713) 803-5470 or Ms. Runell Seale of my staff at (505) 599-2124.

Sincerely,

Clayton A. Roesler  
Manager, Environmental Permitting

/sjn  
attachments

CC: OCD-District 3, 1000 Rio Brazos Blvd., Aztec, NM 87410

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

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Revised June 10, 2003

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

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

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

New  Renewal  Modification

1. Type: Chaco Gas Plant 0 GW-071-2
2. Operator: Enterprise Field Services, LLC, Owner: Enterprise Products Operating, LLC, Operator  
Address: P. O. Box 4324, Houston, TX 77210-4324  
Contact Person: Clay Roesler, Manager-Environmental Permitting Phone: 713-803.5470
3. Location: SE/4 Section 16 Township 26N Range 12W  
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: Mary E. Hebert

Title: Environmental Director

Signature: 

Date: 12/18/2008

E-mail  
Address: mhebert@epco.com

## **Chaco Gas Plant**

SW/4 of Section 16, Township 26N, Range 12W  
San Juan County, New Mexico

### **GROUNDWATER DISCHARGE PLAN– GW 071-2**

---

This document constitutes a renewal for the Groundwater Discharge Plan (GW071-2) for the Chaco Gas Plant in San Juan County, New Mexico. This Groundwater Discharge Plan has been prepared in accordance with the NMOCD "Guidelines for the Preparation of Discharge Plans at Natural Gas Plants, Refineries, Compressor and Crude Oil Pump Stations" (rev 12-95) and the New Mexico Water Quality Control Commission (WQCC) regulations, 20.6.2.3.104 and 3-106 NMAC.

#### **1. Type of Operation**

The Chaco Gas Plant is a natural gas compression station and cryogenic natural gas liquids extraction plant. The site rated horsepower of this facility is 148,163 hp.

#### **2. Operator/Legally Responsible Party**

Operator/Owner:

Enterprise Field Services LLC, Owner (EFS)  
Enterprise Products Operating LLC, Operator (EPO)  
P. O. Box 4324  
Houston, TX 77210-4324

Legally Responsible Party:

Terry L. Hurlburt, Senior Vice President-Operations  
P. O. Box 4324  
Houston, TX 77210-4324  
713-880-6595

Local Representative:

Don Fernald, Field Environmental Scientist  
614 Reilly Ave.  
Farmington, NM 87401  
505.599.2141

#### **3. Facility Location**

SE/4, S16, T26N, R12W, San Juan County, NM  
Latitude N 36.4858" Longitude W 108.1200"  
See Figure 1, Site Location Map (Topo Map) and Figure 2, Site Survey (Plat)

#### **4. Landowner**

Enterprise Field Services LLC  
P. O. Box 4324  
Houston, TX 77210  
713-880-6595

## 5. Facility Description

The Chaco Gas Plant is a natural gas compression station and cryogenic natural gas liquids extraction plant. The gas enters the plant via underground pipelines and is compressed to approximately 900 pounds per square inch, then processed through an expander plant operating at cryogenic temperatures to remove condensable liquid hydrocarbons (propane and heavier). The condensed liquids are transferred to the Mid-America Pipeline Company liquids pipeline and the liquid free natural gas is discharged into the El Paso Natural Gas Company and Trans-Western Pipeline company transportation pipelines. See Figure 3 Site Layout Map.

## 6. Materials Stored or Used at the Facility

Tank Contents	Solid or Liquid	Tank Capacity-Max Volume Stored	Location-See Site Layout Map
Gasoline	Liquid	1,000 gallons	Tank # 1
Non-Exempt contact water	Liquid	42,000 gallons	Tank #3
Produced Water	Liquid	9,200 gallons	Tank #4
Methanol	Liquid	100 gallons	Tank #5
Triethylene Glycol	Liquid	3780 gallons	Tank #6
VRU Bullet Condensate	Liquid	91,370 gallons	Tank #7
54GO	Liquid	150 gallons	Tank #8a,8b,8c
Ambritol	Liquid	2730 gallons	Tank #9
Lube Oil for GE Turbines	Liquid	8820 gallons	Tank #10
Lube Oil for Bisti 8 Engine	Liquid	3360 gallons	Tank #11
Lube Oil for B Plant Engine	Liquid	8734 gallons	Tank #12
Diesel for standby compressor	Liquid	1000 gallons	Tank #13
H2SO4-Cooling Tower water treatment	Liquid	550 gallons	Tank #14
Biocide	Liquid	750 gallons	Tank #15

<b>Tank Contents</b>	<b>Solid or Liquid</b>	<b>Tank Capacity-Max Volume Stored</b>	<b>Location-See Site Layout Map</b>
Sodium Hypochlorite-Water Treatment	Liquid	800 gallons	Tank #16
Methanol	Liquid	500 gallons	Tank #21
Used Oil	Liquid	21,000 gallons	Tank #22
Used Oil (Sumps)	Liquid	(3) 1,000 gallons each	Tanks #23a, 23b, 23c
Methanol (Bullets)	Liquid	(5) 91,000 gallons each	Tank #24a,24,b, 24c,24,d, 24e, see site layout map
Y Grade NGL (Bullets)	Liquid	(4) 105,000 gallons each	Tank #25a,25b,25c,25d
Condensate	Liquid	168,000 gallons	Tank #28
Condensate	Liquid	168,000 gallons	Tank #29
Lube Oil	Liquid	500 gallons	Tank #30
Lube Oil	Liquid	500 gallons	Tank #31
Lube Oil	Liquid	(3) 8734 gallons	Tank #32
Lube Oil	Liquid	4500 gallons	Tank #34
Corrosion Inhibitor	Liquid	105 gallons	Tank #36
Lube Oil	Liquid	(2) 350 gallons	Tank #37a, 38b
Diesel	Liquid	500 gallons	Tank #38
Solvent	Liquid	500 gallons	Tank #39
Ambritol	Liquid	300 gallons	Tank #40
Sodium Hypochlorite-Water Treatment	Liquid	500 gallons	Tank #41
Bromine-Water Treatment	Liquid	400 gallons	Tank #42
Biocide-Cooling water treatment	Liquid	410 gallons	Tank #43
Sulfuric Acid	Liquid	500 gallons	Tank #44
Amine	Liquid	20,000 gallons	Tank #45
Used Oil (UST)	Liquid	1000 gallons	Tank #46
Oil/Water Separator	Liquid	1000 gallons	Tank #47
Bromine	Liquid	400 gallons	Tank #48
Propane	Liquid	3600 gallons	SE corner, near condensate tanks

## 7. Sources and Quantities of Effluent and Waste Solids Generated at the Facility

### 7A. Source & Quantity

Process Fluid/Waste	Source	Quantity (Ranges)	Additives
Used Oil	Equipment maintenance	20,300 gallons/year	None
Amine	Equipment maintenance	None	None
Stormwater	Rainfall	< 10"/year	None
Non-contact wastewater	Cooling towers, plant inlet water filter backwash, and turbine inlet air washer blow down.	20,000 barrels/month	Sodium Hypochlorite and sulfuric acid and biocide.
Non-exempt wastewater	Hydrocarbon separators	500 barrels/month	Biodegradable soap and water w/traces of hydrocarbons
Produced water/Exempt wastewater	Pigging operations, extraction process and 3 phase separators	5200 barrels/month	None
Exempt hydrocarbon liquids	Liquid slug catcher	8500 barrels/month	None
Used Oil Filters	Equipment maintenance	640 annually	None
Used Amine Filters	Equipment maintenance	1100 annually	None
Used Glycol Filters	Equipment maintenance	190 annually	None
Spent Carbon Filter Media	Amine Filtration System	20 yards/year	Amine in small quantities
Spill residue	Incidental spills	Incident dependent	Incident dependent
Sorbent Material and rags	Incidental spill/leaks and equipment wipe-down	Incident dependent	None
Solid Waste (trash)	Office production	300 pounds/month	None
Domestic Sewage	Office Restrooms		None, not commingled with any other wastes

## 7B. Quality Characteristics

Process Fluid/Waste	NM WASTE STATUS	Analytical Process	Toxic Pollutants
Used Oil	Non-Exempt	Profiled, recycled	None
Amine	Exempt	NA	None
Storm water	Exempt	NA	None
Non-contact wastewater	Exempt	Not required	None
Non-exempt wastewater	Non-Exempt	TCLP analysis/annually	None
Produced Water/Exempt wastewater	Exempt	Profiled at disposal facility according to NMOCD regulations.	None
Exempt hydrocarbon liquids	Exempt	Not required, sold as a product.	None
Used Oil Filters	Non-exempt	TCLP required analysis / Profiled annually	None
Used Amine Filters	Non-exempt	TCLP required analysis / Profiled annually	None
Used Glycol Filters	Non-exempt	TCLP required analysis / Profiled annually	None
Spent Carbon Filter Media	Exempt	Profiled annually	None
Spill residue Non-Exempt Oil	Non-exempt	RCRA 8 metals. In the event of a release or spill impacting soil, analytical testing will be completed and completion of Form C-138 prior to transport of impacted media to an NMOCD approved landfarm.	None
Spill residue Exempt (Produced water or condensate)	Exempt	Complete Certification of waste (Form C-138) and transport impacted media to an NMOCD approved landfarm.	None
Sorbent Material and rags	Non-exempt	Tested and profiled prior to disposal	None
Solid Waste (trash)	Exempt	Not required	None
Domestic Sewage	Exempt	Not required	None

### **7 (C). Commingled Waste Streams**

Liquids from the Cryogenic Plant open drain system are commingled with the effluents from the Cryogenic Plant closed drain system. All of the liquids from the Cryogenic Plant open drain system flow by gravity through buried 2"-3" carbon steel lines into an atmospheric pressure, below-grade, 20-bbl, double-walled, carbon steel tank. The liquids are then pumped from this tank into the Cryogenic Plant closed drain system. This system flows to a knock-out (KO) drum. Liquids from the KO drum flow by level control into the Chaco Plant lube oil drain system.

All commingled effluent streams from the Chaco Plant lube oil drain system flow through a below-grade, double-walled heavy oil/water separator, and all of the commingled effluent streams from the Chaco Plant process area drain system flow through a below-grade, double-walled light oil/water separator. The separated oil is piped to an aboveground tank, from where it is transferred to an off-site location for recycling. The separated water from both classifiers is piped to a third below-grade, double-walled tank and then to an aboveground skimmer tank. The oil fraction from the skimmer tank is piped to the slop oil tank, and the contact water is piped to an AGT for off-site disposal.

The used oil filters, used process filters and rags, and absorbent pads are also commingled waste streams. They are put into a waste container and removed by Waste Management as special waste and disposed off-site.

Domestic sewage is not commingled with any other wastes.

No other waste streams are commingled.

**8. Description of Current Liquid and Solid Waste Collection/Storage/Disposal Procedures**  
**Transfer, Storage, and Disposal of Process Fluids, Effluents, and Waste Solids**  
**CHACO GAS PLANT**

<b><u>PROCESS FLUID/WASTE</u></b>	<b><u>COLLECTION &amp; STORAGE SYSTEM</u></b>	<b><u>CONTAINER CAPACITY/ DESCRIPTION</u></b>	<b><u>NM Waste STATUS</u></b>	<b><u>DESCRIPTION OF FINAL DISPOSITION</u></b>
Used Oil	Collected via closed drain line system through an oil/water classifier into AGT for storage until removed for recycling.	21,000 gallons	Non-exempt	Recycled: Transported by Safety Kleen Systems, Inc. to facility Sec 10, T10N, R3E, NM. EPA ID #NMD 000 804 294, NM and/or Thermal Fluids, Inc. to recycling facility located at 9010 Bates Road SW Albuquerque, NM EPA #NMD986674141.
Amine	Sump	20 barrels	Exempt	Pumped back to process area for reuse.
Stormwater	Unlined pond in northwest corner of facility and a bermed area in the southwest corner of facility grounds	NA	NA	Allowed to evaporate from ponding areas or percolate into unpaved areas of the facility.
Non-contact wastewater	Evaporation ponds	750,000 square feet surface area	Exempt	On-site earthen ponds
Contact wastewater/ Non-exempt wastewater	Aboveground storage tank	1500 barrels	Non-exempt	Transported to Key Four Corners Inc facility (OCD Permit #9) at UL E,S2-T29N, R12W, San Juan County for evaporation/disposal.
Produced Water/Exempt wastewater	Evaporation Ponds	Two – one acre ponds	Exempt	Transported by truck and disposed at Basin Disposal facility (OCD Permit #5) at UL F, S3, T29N, R11W San Juan County for evaporation/disposal.
Exempt Hydrocarbon Liquids	Above-ground storage tanks	(2) 4000 barrels tanks	Exempt	Transported offsite by Western Refining for further processing as product.
Used Oil filters	Special waste dumpster	(2) 8-yard steel bins	Non-exempt	Transported by Waste Management to San Juan County Regional landfill facility and/or Thermal Fluids, Inc. to recycling facility located at 9010 Bates Road SW Albuquerque, NM EPA #NMD986674141.
<b><u>PROCESS</u></b>	<b><u>COLLECTION &amp;</u></b>	<b><u>CONTAINER</u></b>	<b><u>NM Waste</u></b>	<b><u>DESCRIPTION OF FINAL DISPOSITION</u></b>

<u>FLUID/WASTE</u>	<u>STORAGE SYSTEM</u>	<u>CAPACITY/ DESCRIPTION</u>	<u>STATUS</u>	
Used Amine Filters	Special waste dumpster	(2) 8-yard steel bins	Non-exempt	Transported by Waste Management to San Juan County Regional landfill facility and/or Thermal Fluids, Inc. to recycling facility located at 9010 Bates Road SW Albuquerque, NM EPA #NMD986674141.
Used Glycol Filters	Special waste dumpster.	(2) 8-yard steel bins	Non-exempt	Transported by Waste Management to San Juan County Regional landfill and/or Thermal Fluids, Inc. to recycling facility located at 9010 Bates Road SW Albuquerque, NM EPA #NMD986674141.
Spent Carbon Filter Media	Removed directly from process vessel	Process Vessel	Exempt	Trucked from process vessel directly to Transit Waste facility at Bondad Landfill in LaPlata County, Colorado.
Spill Residue – with used oil (i.e. soil, gravel)	No storage on-site. Immediate cleanup of all spill residue	NA	Non-exempt	Transported off-site for disposal or landfarming as warranted. Will be profiled before removal. Will be sent to Envirotech or Tierra Landfarms, San Juan County, NM.
Spill Residue- with condensate (i.e. soil, gravel)	No storage on-site. Immediate clean-up of all spill residue	NA	Exempt	Transported off-site for disposal or landfarming as warranted. Will be profiled before removal. Will be sent to Envirotech or Tierra Landfarms, San Juan County, NM.
Municipal Waste	Steel container	1.5 yards	Exempt	Disposed of by Waste Management at the San Juan County Regional Landfill.
Absorbent Pads	Special waste dumpster	(2) 8-yard steel bins	Non-exempt	Transported by Waste Management to San Juan County Regional landfill and/or Thermal Fluids, Inc. to recycling facility located at 9010 Bates Road SW Albuquerque, NM EPA #NMD986674141.
Domestic Sewage	4 leach fields on separate septic systems	(3) 1000 gallon systems built in 1957. (1) 1000 gallon system for Cryo Plant built in 1996	Regulated by NMED	Solids removed by Serrano's Portable Toilets of Bloomfield, NM

There are 10 groundwater monitoring wells within the property boundary. Wells 2,3,4,5,6,7 are sampled on an annual basis, wells 1 and 8 are sampled semi-annually and wells 9 and 10 are sampled quarterly. These are monitoring for contamination from the North and South Contact Water Ponds. Please refer to letters dated November 12, 1993 and May 15, 1997 from El Paso Field Services to the NMOCD.

Hydrostatic testing of facility piping is conducted every five (5) years to ensure the integrity of the passive drain line piping at this facility. The testing consists of plugging the outlet of the line(s) at the confluence with the sub-grade waste water storage tank located in the concrete vault. A pipe riser is placed prior to the confluence that extends several feet above ground to achieve a minimum of three (3) pounds per square inch (psi) hydrostatic water pressure once the passive drain lines are filled with water. The hydrostatic test is conducted for a one (1) hour period to determine that the water level in the riser pipe is static which is indicative of pipeline integrity. The last test was conducted from June 7, 2007, to June 21, 2007. Schematic diagrams showing the drain system piping was submitted with the 1997 renewal and is incorporated by reference. A copy of the test data is included with this renewal.

All tanks and chemical storage areas are designed to contain at minimum a volume of 33% greater than the total volume stored. In the event of interconnected tanks, volume of the containment will be 33% greater than the combined volume of the tanks.

## **9. Proposed Modifications**

The wash rack formerly used for cleaning drums has been removed from the facility. No modifications are planned at this time.

## **10. Inspection, Maintenance and Reporting**

Operator and/or contract personnel operate and maintain the equipment at the facility. The facility is manned 24 hours a day. Regular inspections of plant process and storage units are performed as part of normal plant operations. Any evidence of spills/leaks is routinely reported to supervisory personnel, and a facility technician will be on call 24 hours per day, 7 days per week, 52 weeks per year.

The BGT's at this facility are double lined steel vessels with leak detection. The AGT and BGT tanks will be inspected monthly. Leaks will be reported to the NMOCD in accordance with Rule 116 (19.15.C.116 NMAC) and WQCC regulation (20.6.2.1203 NMAC) regulations.

Storm water is allowed to percolate into unpaved areas of the facility, or is diverted to Pond #7 in the northwest corner of the facility or to a bermed area in the southwest corner of the facility; see Figure 2, Site Map.

Storm water controls at this facility include concrete secondary containment for bulk storage of stored chemicals. Storm water is pumped out of berms and taken to a non-exempt water tank located onsite. Storm water from the rest of the location enters a drainage ditch and drains to the storm water pond. The drainage system used to convey the storm water to the ponding area is hydro tested to a minimum of three pounds per square inch every five years and documented as shown in Appendix A.

Following are the best management practices (BMPs) that are used to prevent or mitigate pollution to storm water from facility operations:

- All waste materials and debris will be properly disposed of on an ongoing basis in appropriate containers and locations for collection and remove from the site.
- Temporary storage of potential pollutant sources will be located in areas with appropriate controls for storm water protection. This would include ensuring all containers are sealed/covered and otherwise protected from contact with precipitation.
- Periodic inspection of channels and culverts shall be performed at least twice annually and after any major precipitation event.
- Sediment deposits and debris will be removed from the channels and culverts as necessary and any erosion damage at the outfall (if any) will be repaired or controlled.
- Conduct inspections of the facility on a regular basis as part of the preventive maintenance site check. Such inspections will include the visual assessment of corroded or damaged drums and tanks, broken or breached containment structures, collapsed or clogged drainages or drain lines.

## **11. Spill/Leak Prevention and Reporting Procedures**

Spills/Leaks could occur from pipelines or equipment within the facility in the event of a major failure of one of the components. Spills/Leaks could occur from various storage tanks. Spill containment berms around above ground storage tanks are designed to contain 1-1/3 times the volume of the tank or the combined volume of interconnected tanks. The majority of process and storage units at the Chaco Gas Plant have underground drains or natural diversions which will direct any unplanned spills or releases to existing waste management areas. The process areas in the facility are concrete lined and curbed to prevent contamination of ground soil or ground water. This facility meets requirements for CFR 40 Part 112 (SPCC).

In the event of a release, the Pipeline Control Department personnel report the release to facility technicians who determine the extent of the problem, who then notify the Operator's Environmental Department. The Environmental Department then determines reportable quantity and reports the release to the appropriate agencies as required by statutes/regulations. Records of spills, leaks, or other pollutant discharges, if any, and inspections and maintenance activities will be maintained by the Operator for at least one year.

Spills and leaks of reportable quantity are reported to the NMOCD pursuant to NMOCD Rule 116 and WQCC Section 1203 using the NMOCD form C141 and/or verbal notification; see Appendix C for specific reporting guidelines and contact numbers.

## **12. Site Characteristics**

A complete discussion of the hydrogeological characteristics at and near the site was provided in the discharge plan approved in May 1992. Since that information is unchanged it is incorporated into the plan by reference.

This report indicates that Stone et al (1983) estimates groundwater to lie at a depth of approximately 220 feet below the plant site. It also indicates that the total dissolved solids (TDS) reported from this aquifer ranges from 560 to 1000 ppm (Thorn et al, 1990).

The facility lies outside of the 500-year flood plain. See attached FEMA Map. Flood Protection: Surface water runoff from the area surrounding the site will be diverted around the facility into the natural drainage path.

## **13. Additional Information**

Any unauthorized release or discharge will be reported to the NMOCD in accordance with NMOCD Rule 116, 19.15.C.116 NMAC.

Closure of facility when abandoned will meet current NMOCD guidelines and will conform to WQCC Section 3107.A.11 regulations. Reasonable and necessary measures will be taken to prevent the exceedance of 20 NMAC 6.2.3103 water quality standards should Enterprise choose to permanently close the facility. Closure measure will include removal or closure in place of the underground piping and equipment. The tanks will be emptied before removal. Potentially toxic materials or effluents will be removed from the site and properly disposed. Potential sources of toxic pollutants will be inspected. Contaminated soil if discovered will be reported under NMOCD Rule 116 and 20 NMAC 6.2.1203 procedures and clean-up activities will commence. Post-closure maintenance and monitoring plans would not be necessary unless contamination is encountered.

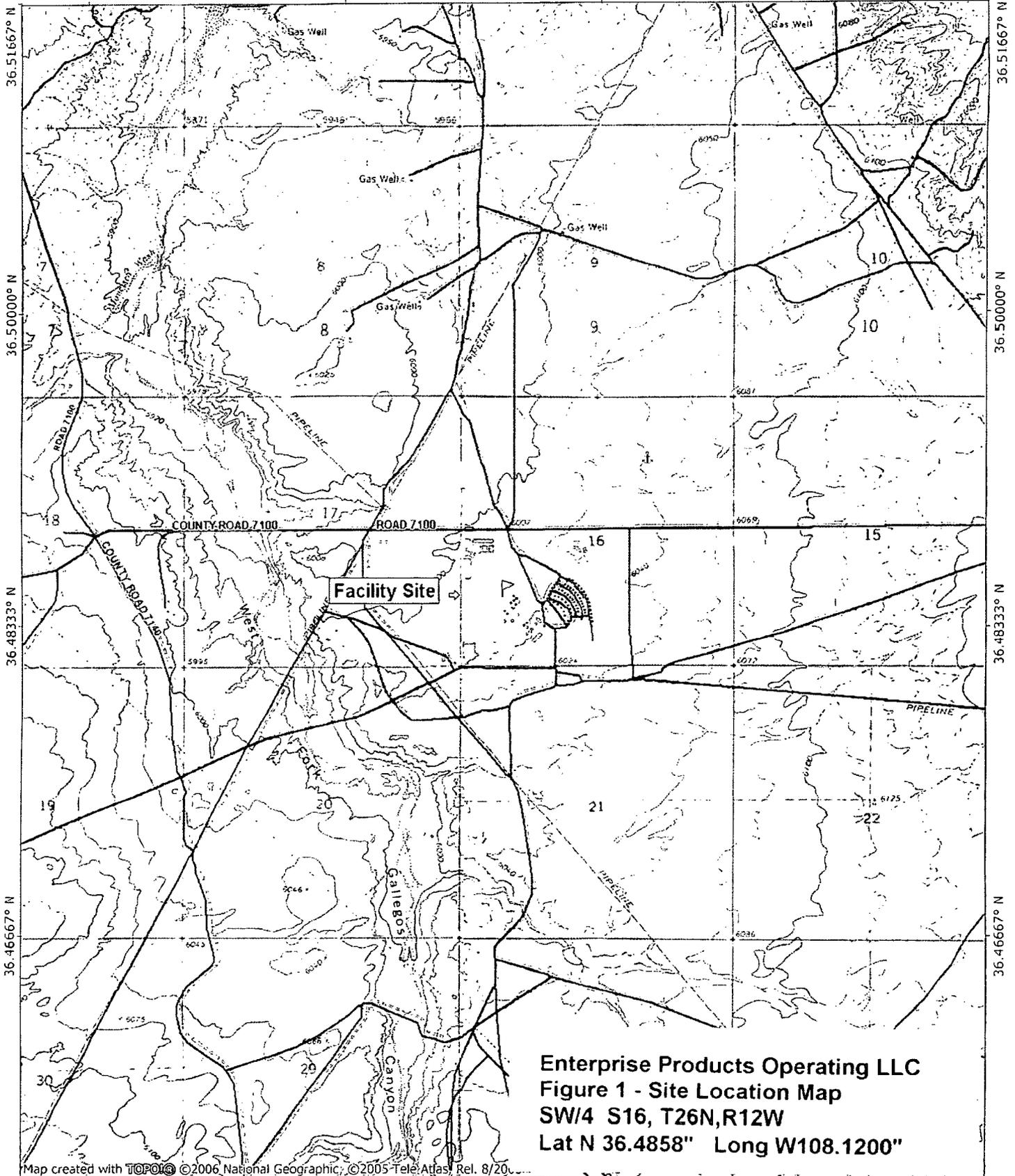
Chaco Plant, Sec 16, T26N, R12W, San Juan County

108.15000° W

108.13333° W

108.11667° W

WGS84 108.10000° W



36.51667° N

36.50000° N

36.48333° N

36.46667° N

36.51667° N

36.50000° N

36.48333° N

36.46667° N

Enterprise Products Operating LLC  
Figure 1 - Site Location Map  
SW/4 S16, T26N, R12W  
Lat N 36.4858" Long W108.1200"

Map created with TOPO! © 2006 National Geographic, © 2005 Tele Atlas, Rel. 8/20

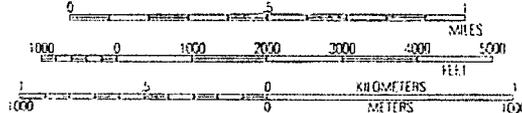
108.15000° W

108.13333° W

108.11667° W

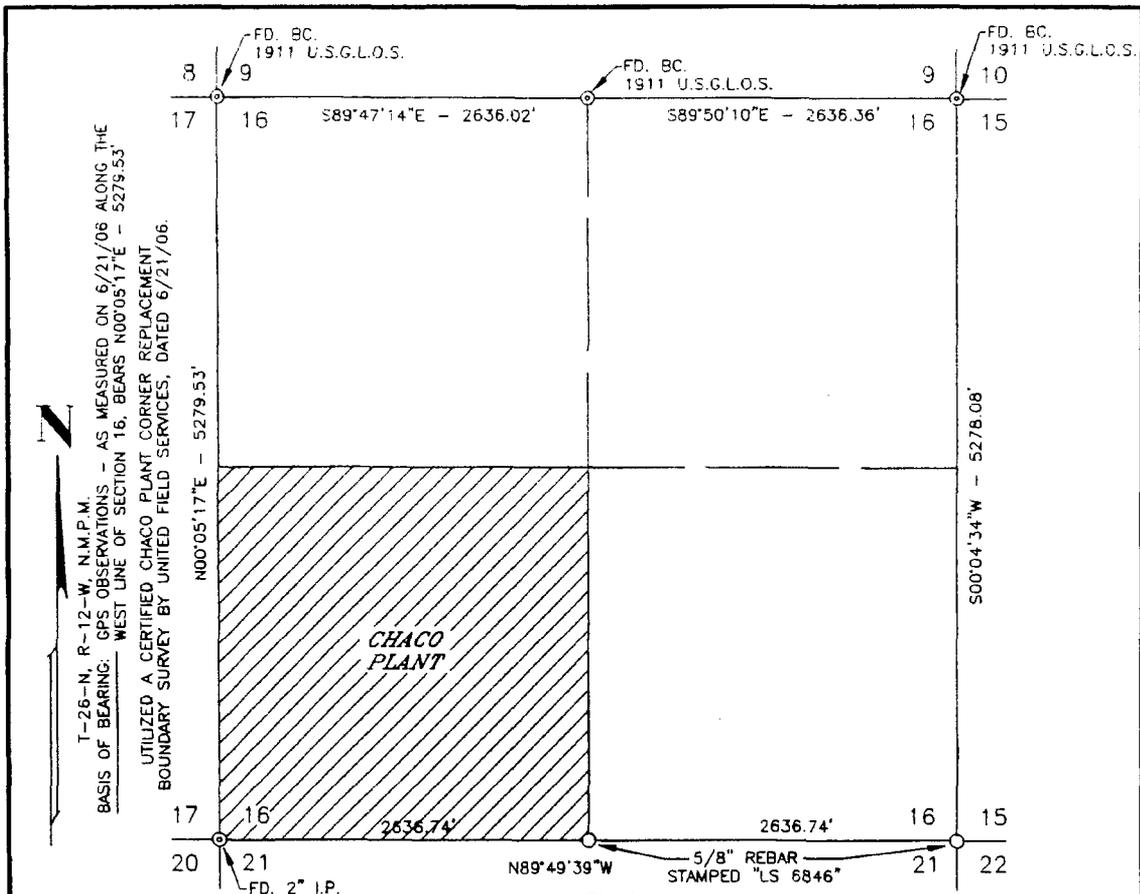
WGS84 108.10000° W

NATIONAL  
GEOGRAPHIC



TN MN  
11°

12/17/08



T-26-N, R-12-W, N.M.P.M.  
 BASIS OF BEARING: GPS OBSERVATIONS - AS MEASURED ON 6/21/06 ALONG THE WEST LINE OF SECTION 16, BEARS N00°05'17"E - 5279.53'.  
 UTILIZED A CERTIFIED CHACO PLANT CORNER REPLACEMENT BOUNDARY SURVEY BY UNITED FIELD SERVICES, DATED 6/21/06.

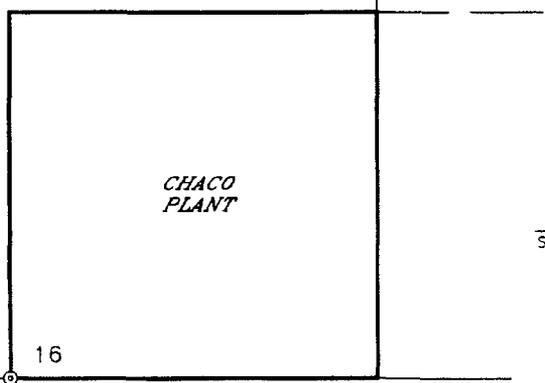
PLAN  
 SCALE: 1"=1000'

OWNERSHIP

SUBDMISION	OWNER	LESSEE	ROD(S)	ACRE(S)
SW/4, SEC. 16	ENTERPRISE FIELD SERVICES, LLC			159.788

CHACO PLANT  
 SW/4, SEC. 16.  
 TOTAL AREA  
 6960374 SQ. FT.  
 159.788 AC.

LOCATION: SW COR. SEC. 16  
 LAT.: (WGS) 36°28'52.51N  
 LONG.: (WGS) 108°07'33".06 W



DETAIL  
 SCALE: 1"=1000'

REF. DWG.:

REVISIONS

NO.	DATE	TO	W.O.	R/W NO.	W.O.
1	12/17/08				

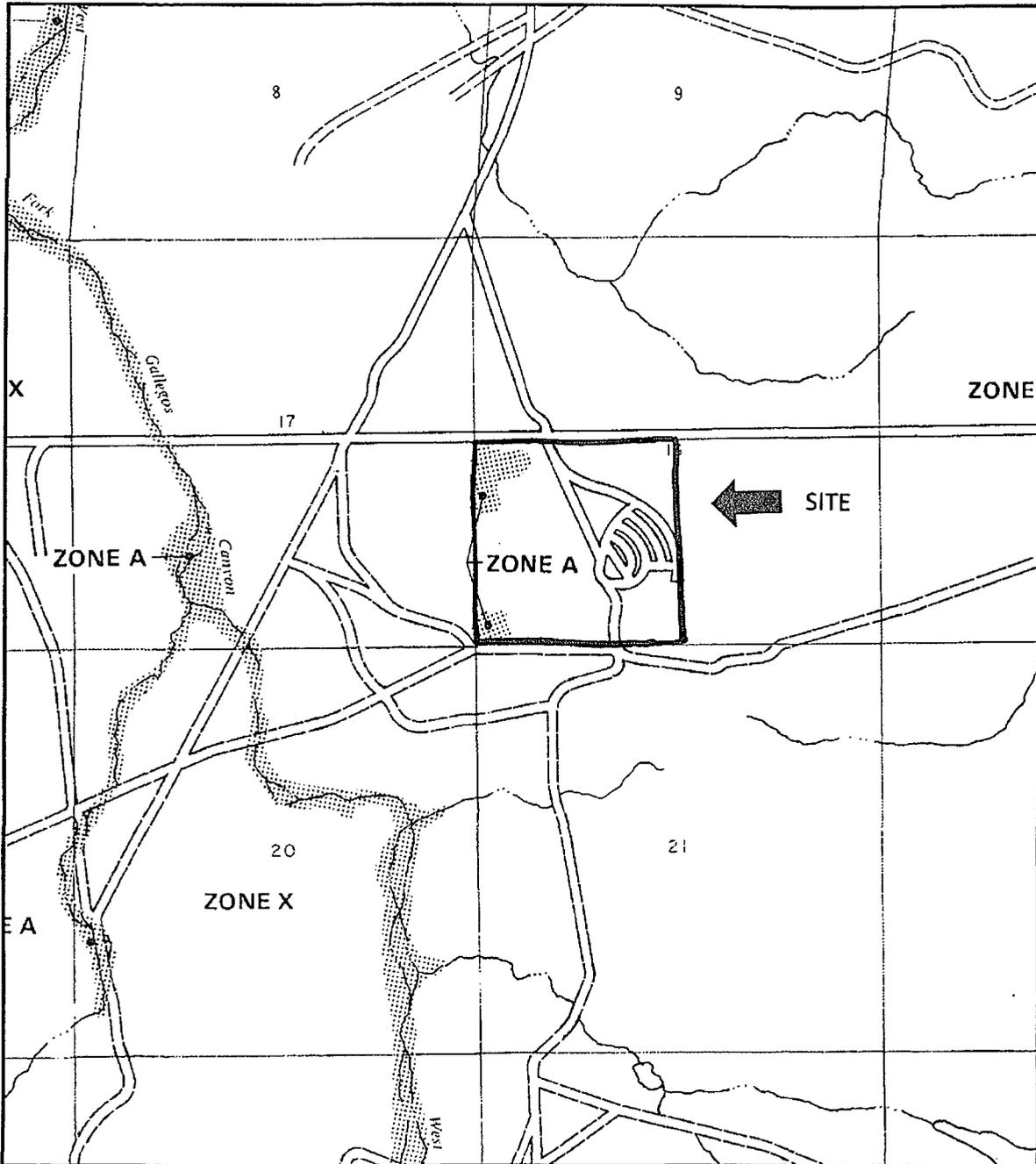


CHACO PLANT LOCATION

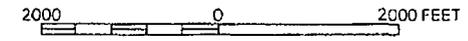
SW/4, SEC. 16, T-26-N, R-12-W, N.M.P.M.  
 SAN JUAN COUNTY, NEW MEXICO

SCALE	DWG. NO.	REV.
	5212.0-005	

Figure 2 - Site Survey Plat



APPROXIMATE SCALE

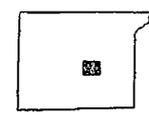


NATIONAL FLOOD INSURANCE PROGRAM

**FIRM**  
FLOOD INSURANCE RATE MAP

SAN JUAN COUNTY,  
NEW MEXICO  
UNINCORPORATED AREAS

PANEL 875 OF 1450  
(SEE MAP INDEX FOR PANELS NOT PRINTED)



PANEL LOCATION

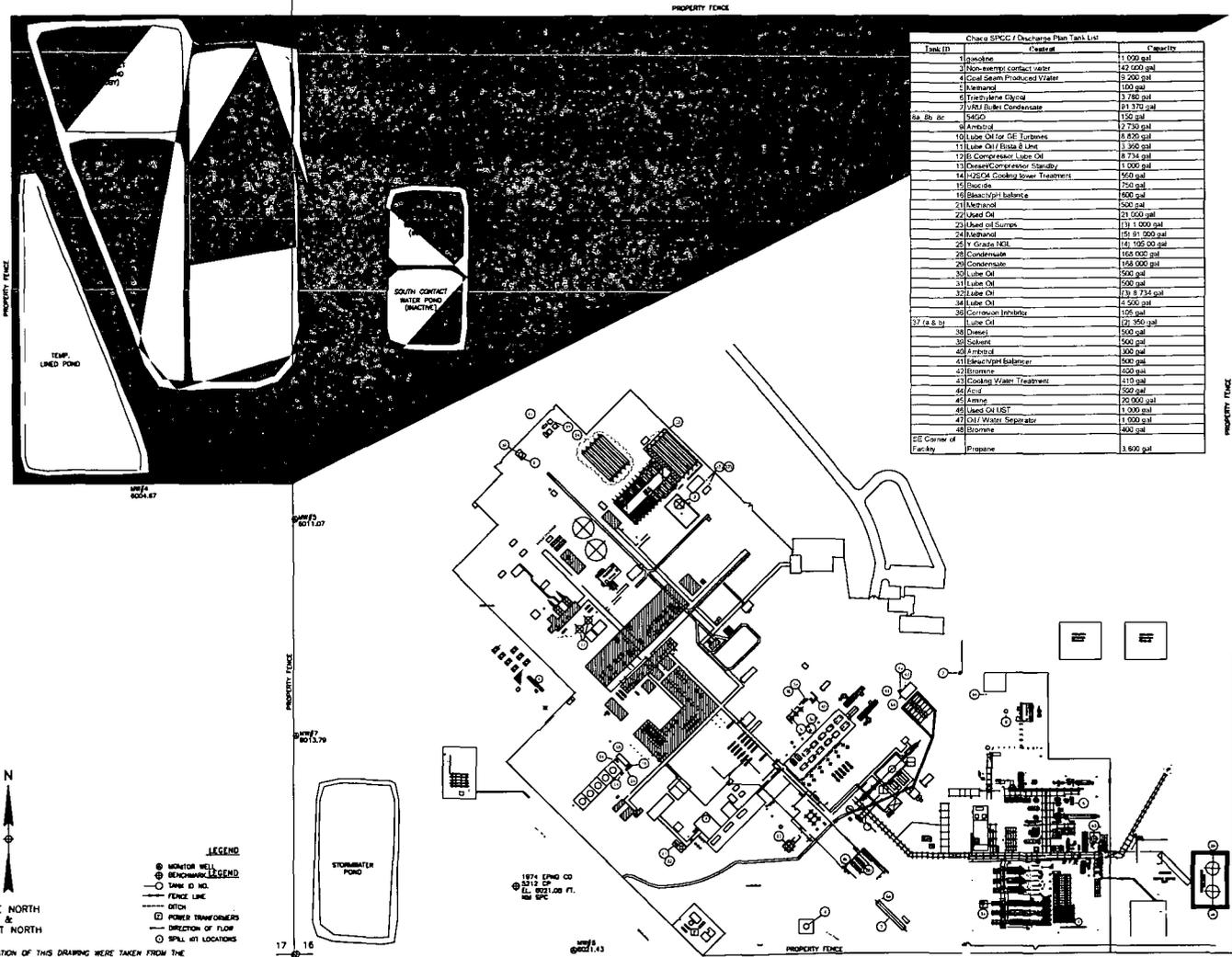
COMMUNITY-PANEL NUMBER  
350064 0875

EFFECTIVE DATE:  
AUGUST 4, 1988



Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)



Tank ID	Material	Capacity
1	Squalone	1,000 gal
2	Non-swamp contact water	447,000 gal
3	Crud Slurry Produced Water	8,200 gal
4	Hexamand	100 gal
5	Trachyline Glycol	3,785 gal
6	770 Ethyl Condensate	81,375 gal
7	5420	150 gal
8	Ambrul	12,730 gal
9	Lube Oil for OE Turbines	8,800 gal
10	Lube Oil / Basis & Line	1,395 gal
11	Compressor Lube Oil	8,734 gal
12	Compressor Standby	1,000 gal
13	H2SO4 Cooling Tower Treatment	500 gal
14	Isocida	750 gal
15	Isocynipal Inhibitor	600 gal
16	Methanol	500 gal
17	Used Oil	21,000 gal
18	Used oil Slurries	151,300 gal
19	Methanol	25,815,000 gal
20	Crude NGL	10,195,000 gal
21	Condensate	100,000 gal
22	Condensate	150,000 gal
23	Lube Oil	500 gal
24	Lube Oil	500 gal
25	Lube Oil	500 gal
26	Lube Oil	500 gal
27	Lube Oil	70 & 732 gal
28	Lube Oil	4,500 gal
29	Corrosion Inhibitor	125 gal
30	Lube Oil	10,350 gal
31	Diesel	500 gal
32	Solvent	500 gal
33	Antifoul	300 gal
34	Isocynipal Balancer	500 gal
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200	Isocynipal	500 gal

**LEGEND**

- MONITOR WELL
- BENCHMARK/LEGEND
- TANK ID NO.
- FENCE LINE
- DITCH
- POWER TRANSFORMERS
- DIRECTION OF FLOW
- SPILL KIT LOCATIONS

NOT IN SERVICE

TRUE NORTH & PLANT NORTH

NOTES:

- ALL DIMENSIONS, ELEVATIONS AND LOCATIONS USED IN THE CREATION OF THIS DRAWING WERE TAKEN FROM THE BEST INFO. AVAILABLE. CONTRACTOR TO VERIFY DIMENSIONS PRIOR TO START OF ANY JOB.
- THE UTILITY WATER SYSTEM THAT WAS SHOWN ON THE ORIGINAL DRAWING BY THIS NAME WAS NOT SHOWN ON THESE DRAWINGS WHICH WERE DONE TO UPDATE THE POWER GAS SYSTEM. IT IS SUGGESTED THAT THESE DRAWINGS BE RENUMBERED OR THAT ENTERPRISE ADD THE FIREWATER TO THESE DRAWINGS.

REV.	DATE	REVISION	BY	CHK'D	ENGR.	REV.	DATE	REVISION	BY	CHK'D	ENGR.
2	10/30/04	RECONSTITUTED DRAWING USING 2004-8-11-04 AS SINGLE PLOT PLAN	MS	MS	MS						
1	10/08	CHANGED GOOD FR. EL. POND TO F.L.D. REFERENCE	MS	MS	MS						

NOTES:

- MONITOR WELL ELEVATIONS SHOWN ARE ALL TOP OF CASING HEIGHTS BASED BY ELEVATION: 816 CAP NEAR SW CORNER OF SECTION 16. TANK FURN. REF. 416.
- CHANGING TEG REGEN SYSTEM & BEER & HOT SHOWN.

**ENTERPRISE FIELD SERVICES LLC**

ENTERPRISE

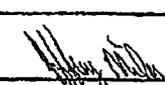
**LOCATION OF TANKS  
SEC. 16, T16N, R12W, N.M.P.M.  
SPCC & DISCHARGE PLAN MAP**

CHACO PLANT  
DRAWING NO. 08412

SAN JUAN, NM  
DATE: 12/15/97

PL. NO.	FILE NAME
CH-08-P0440	
SCALE	
1"=100'	
BASE NO.	08412
DWG. NO.	CH-1-P129

# Hydrostatic Line Testing Form

<b>Testing Company:</b> Envirotech, Inc.	
<b>Client:</b> Enterprise Field Services LLC	
<b>Facility Name/Location:</b> Chaco Plant	
<b>Description of Test:</b> Low pressure hydrostatic line test on contact drain system to determine the presence of leaks.	
<b>Description of System:</b> Steel Pipe	
<b>Test Requirements:</b> Hydrostatic pressure test on contact drainage systems in accordance to the State of New Mexico, Minerals, Natural Resources Department - Oil Conversation Division Discharge Plan Requirements. Hydrostatic pressure test performed on contact drain system at 3 pounds per square inch for a period of one hour.	
<b>Test Medium:</b> Water	<b>Test Pressure:</b> 7' WC
<b>Test Date:</b> 6/22/07	<b>Test Start:</b> <b>Test Completed:</b>
<b>Test Notes:</b> GH4-1, L06-1, L06-2, Control Room, Bisti #8 comp D2-2, D4-2, D2-1, L04-1	
<b>Review and Approvals:</b>	
	
<b>Signed by (Operations)</b>	<b>Date</b>
	<b>Test Completed by ( signed )</b>
	<b>Date:</b> 6/22/07
	Jeffrey Miles
<b>Name Printed by (Operations)</b>	<b>Contractor Representative ( printed )</b>

# Hydrostatic Line Testing Form

<b>Testing Company:</b> Envirotech, Inc.	
<b>Client:</b> Enterprise Field Services LLC	
<b>Facility Name/Location:</b> Chaco Plant	
<b>Description of Test:</b>	Low pressure hydrostatic line test on contact drain system to determine the presence of leaks.
<b>Description of System:</b>	Steel Pipe
<b>Test Requirements:</b>	Hydrostatic pressure test on contact drainage systems in accordance to the State of New Mexico, Minerals, Natural Resources Department - Oil Conversation Division Discharge Plan Requirements. Hydrostatic pressure test performed on contact drain system at 3 pounds per square inch for a period of one hour.
<b>Test Medium:</b> Water	<b>Test Pressure:</b> 7' WC
<b>Test Date:</b> 6/19/07	<b>Test Start:</b> 10:00 <b>Test Completed:</b> 11:00
<b>Test Notes:</b> Port #2 L10, L16-1, BG2-1, Port #3, C3000, C200, C1000, AC4-1, AC4-2, T4-1, T2-3, T2-2, T2-1, C Plant	
<b>Review and Approvals:</b>	
<b>Signed by (Operations)</b>	<b>Date</b>
<b>Test Completed by (signed)</b>	<b>Date</b> 6/19/07
<b>Name Printed by (Operations)</b>	<b>Contractor Representative (printed)</b> Jeffrey Miles

### Hydrostatic Line Testing Form

<b>Testing Company:</b> Envirotech, Inc.	
<b>Client:</b> Enterprise Field Services LLC	
<b>Facility Name/Location:</b> Chaco Plant	
<b>Description of Test:</b>	Low pressure hydrostatic line test on contact drain system to determine the presence of leaks.
<b>Description of System:</b>	Steel Pipe
<b>Test Requirements:</b>	Hydrostatic pressure test on contact drainage systems in accordance to the State of New Mexico, Minerals, Natural Resources Department - Oil Conversation Division Discharge Plan Requirements. Hydrostatic pressure test performed on contact drain system at 3 pounds per square inch for a period of one hour.
<b>Test Medium:</b> Water	<b>Test Pressure:</b> 7' WC
<b>Test Date:</b> 6/14/07	<b>Test Start:</b> 3:00 <b>Test Completed:</b> 4:00
<b>Test Notes:</b> Port #1 LA, 406-1, Port #2	
<b>Review and Approvals:</b>	
<b>Signed by (Operations)</b>	<b>Date</b>
<b>Test Completed by ( signed )</b>	<b>Date</b> 6/14/07
<b>Name Printed by (Operations)</b>	<b>Contractor Representative ( printed )</b> Jeffrey Miles

# Hydrostatic Line Testing Form

<b>Testing Company:</b> Envirotech, Inc.	
<b>Client:</b> Enterprise Field Services LLC	
<b>Facility Name/Location:</b> Chaco plant	
<b>Description of Test:</b>	Low pressure hydrostatic line test on contact drain system to determine the presence of leaks.
<b>Description of System:</b>	Steel Pipe
<b>Test Requirements:</b>	Hydrostatic pressure test on contact drainage systems in accordance to the State of New Mexico, Minerals, Natural Resources Department - Oil Conservation Division Discharge Plan Requirements. Hydrostatic pressure test performed on contact drain system at 3 pounds per square inch for a period of one hour.
<b>Test Medium:</b> Water	<b>Test Pressure:</b> 7' WC
<b>Test Date:</b> 6/12/07	<b>Test Start:</b> 4:15 <b>Test Completed:</b> 5:15
<b>Test Notes:</b> Lube oil dump, Steam Rack, oil Filter Drain, LOG-1, AS4-1 Shipping Pump House, SP4-1, A14-1, W04-1,	
<b>Review and Approvals:</b>	
<b>Signed by (Operations)</b>	<b>Date</b>
<b>Test Completed by ( signed )</b>	<b>Date</b> 6/12/07
<b>Name Printed by (Operations)</b>	<b>Contractor Representative ( printed )</b> Jeffrey Miles

### Hydrostatic Line Testing Form

Testing Company: Envirotech, Inc.	
Client: Enterprise Field Services LLC	
Facility Name/Location: <i>Chaco Plant</i>	
Description of Test:	Low pressure hydrostatic line test on contact drain system to determine the presence of leaks.
Description of System:	<i>Steel Pipe</i>
Test Requirements:	Hydrostatic pressure test on contact drainage systems in accordance to the State of New Mexico, Minerals, Natural Resources Department - Oil Conversation Division Discharge Plan Requirements. Hydrostatic pressure test performed on contact drain system at 3 pounds per square inch for a period of one hour.
Test Medium:	Water      Test Pressure: <i>7' WC</i>
Test Date:	<i>6/7/07</i> Test Start: <i>4:05</i> Test Completed: <i>5:05</i>
Test Notes:	<i>Lines Tested</i> <i>PA8-1 From O.G.S TO STORAGE AREA.</i> <i>3" PVC FROM OIL DRUM STORAGE</i> <i>ASH-1, FHE-1, BHA-1 (TO PORT.)</i>
Review and Approvals:	
Signed by (Operations)	Date
	
Test Completed by ( signed )	
Date <i>6/7/07</i>	
Name Printed by (Operations)	Contractor Representative ( printed )
<i>Jessica Miles</i>	



Enterprise Products™

RECEIVED

2008 AUG 25 PM 1 37

August 15, 2008

ENTERPRISE PRODUCTS PARTNERS LP  
ENTERPRISE PRODUCTS OPERATING LLC

ENTERPRISE PRODUCTS GP, LLC, GENERAL PARTNER  
ENTERPRISE PRODUCTS OLPGP, INC., SOLE MANAGER

7007 2680 0002 9458 8778  
Return Receipt Requested

New Mexico Oil Conservation Division  
Wayne Price, Environmental Bureau Chief  
1220 South St. Francis Drive  
Santa Fe, NM 87505

**Subject: Release Notification – Enterprise Field Services LLC**

Dear Mr. Price,

Enterprise Field Services LLC is hereby providing written notification in accordance to Subsection B, Paragraph (1), and Subparagraph (d) of 19.15.3.116 NMAC for two releases that occurred in San Juan County, NM.

If you have questions or need additional information, please call Don Fernald, Environmental Scientist (505) 599-2124 or me directly at (713) 880-6518.

Yours truly,

Mary E. Hebert  
Director, Environmental Compliance

Kutz CS, GW-126  
Ch220 GP GW-71

/sjn

enclosures: C-141 Form / Kutz CS  
C-141 Form / BC 30" Crossover

cc: Mr. Brandon Powell, Deputy Inspector, NMOCD/Aztec, NM

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

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised October 10, 2003

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company: Enterprise Field Services LLC	Contact: Don Fernald
Address: c/o Environmental Dept. P.O. Box 4324 Houston, Texas 77210-4324	Telephone No. 505-599-2124
Facility Name: Blanco-Chaco 30" Crossover Pipeline	Facility Type: Pipeline
Surface Owner: Private	Mineral Owner
Lease No.	

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	20	28 N	11 W					San Juan

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

**NATURE OF RELEASE**

Type of Release: Intentional pipeline blow down / maintenance	Volume of Release: 3.6 Mcf	Volume Recovered: n/a
Source of Release: Maintenance - Natural Gas Release	Date and Hour of Occurrence 8/19/08 - 6:00 AM	Date and Hour of Discovery N/A
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Brandon Powell / NMOCD Aztec, NM	
By Whom? Don Fernald	Date and Hour: 8/15/08 - 1:50 PM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	
If a Watercourse was Impacted, Describe Fully.* N/A		
Describe Cause of Problem and Remedial Action Taken.* Planned maintenance on pipeline.		
Describe Area Affected and Cleanup Action Taken.* N/A		

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

OIL CONSERVATION DIVISION

Signature:	Approved by District Supervisor:		
Printed Name: Don Fernald			
Title: Environmental Scientist	Approval Date:	Expiration Date:	
E-mail Address: dferald@eprod.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 8-15-08 Phone: 505-599-2124			

\* Attach Additional Sheets If Necessary