

**GW - 20**

**PERMITS,  
RENEWALS,  
& MODS**

ACKNOWLEDGEMENT OF RECEIPT  
OF CHECK/CASH

I hereby acknowledge receipt of check No. \_\_\_\_\_ dated 2/4/10

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

from Larson & Associates Inc

for GW-20

Submitted by: LAWRENCE FOXERO Date: 9/9/10

Submitted to ASD by: LAWRENCE FOXERO Date: 9/9/10

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

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

Modification \_\_\_\_\_ Other Discharge Plan

Organization Code 521.07 Applicable FY 2010

To be deposited in the Water Quality Management Fund.

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



February 4, 2010

Mr. Leonard Lowe  
Environmental Engineer  
New Mexico Oil Conservation Division  
1220 S St. Francis Drive  
Santa Fe, New Mexico 87505

RE: Frontier Field Service Discharge Permit Renewal  
Maljamar Gas Plant - GW-020  
Lea County, New Mexico

RECEIVED OCD  
2010 FEB -5 P 3:28

Dear Mr. Lowe:

On behalf of Frontier Field Services, Larson & Associates, Inc., submits this renewal permit for the Maljamar Gas Plant. Please find enclosed the renewal application, public notice (in English and Spanish) and the filing fee.

If you have any questions or require additional information, please call me at 432.687.0901 to discuss.

Sincerely,

**LARSON & ASSOCIATES, INC.**

A handwritten signature in black ink, appearing to read 'Michelle L. Green', is written over a horizontal line.

Michelle L. Green  
Environmental Scientist  
[michelle@laenvironmental.com](mailto:michelle@laenvironmental.com)

Enclosure      Discharge Permit Renewal Application  
Public Notice  
Filing Fee

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)

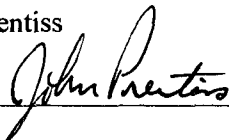
☒ New      ☒ Renewal      ☐ Modification

1. Type: Gas Plant
2. Operator: Frontier Field Services, LLC  
  
Address: P.O. Box 7, 1001 Conoco Road, Maljamar, New Mexico 88260  
  
Contact Person: John Prentiss      Phone: 575-676-3528
3. Location: Unit N (SE/4, SW/4), Section 21, Township 17 South, Range 32 East  
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: John Prentiss

Title: Area Manager

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



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

1/27/10

E-mail Address: [jprentiss@frontierfieldservices.com](mailto:jprentiss@frontierfieldservices.com)

## PUBLIC NOTICE

Frontier Field Services, LLC, 4200 E. Skelly Drive, Tulsa, Oklahoma, 74135, has submitted an application to the New Mexico Energy, Minerals and Natural Resources Department, Oil Conservation Division for renewal of a discharge plan permit (GW- 020) for their Maljamar Gas Plant located in the Unit N (SE ¼, SW ¼) of Section 21, Township 17 South, Range 32 East in Lea County, New Mexico. The physical address of the facility is 1001 Conoco Road, Maljamar, New Mexico, 88260. The facility is located approximately 3 miles south of Maljamar, New Mexico.

The facility processes natural gas that is transferred to the facility from various fields in a pipeline gathering system. The facility is a 60 MMcfd cryogenic gas plant and gathering system. The facility utilizes a cryogenic process to remove simple alkanes (i.e. ethane, propane, pentane and hexane) from natural gas and third party y-grade (liquid hydrocarbons). The unprocessed material is transported to the facility via pipelines. The gas is compressed and sent to an amine system to remove carbon dioxide and hydrogen sulfide, dehydrated and cooled. Natural gas liquid and residue gas products leave the facility by means of pipelines. The facility uses scrubbers, exchangers, separators, chillers, flash tanks, and compressors for the various processes. The end products, residue gas and natural gas liquids, are sold to various Petroleum based companies.

Approximately 3,000 barrels (bbl) of waste water from wash down, pressure separators, scrubbers, and slug catchers is generated monthly and hauled from the three-phase separator tank and disposed off site in an OCD approved Class II well. Approximately 200 bbl of spent amine and water is collected each quarter in the amine waste tank and disposed off site in an OCD approved Class II well. Approximately 300 bbl of waste water from the reverse osmosis back-flush is discharged into the ConocoPhillips Playa Lake. Approximately 15 gallons of Stoddard solvent is generated in the parts washer and disposed off site by a commercial company. Approximately 3,000 bbl of waste oil, including engine, gear and lubricating oil, is collected in the dirty slop oil tank and disposed off site in an OCD approved Class II well. Spent or depleted process materials, including activated carbon, zeolite and aluminum silicate, is disposed off site at an OCD approved facility. Process filters and metal are placed in separate bins for recycling. Empty aerosol cans and pails are placed in a trash bin for disposal offsite. Oily soil from spills is disposed at an OCD approved disposal facility or treated on site with OCD approval. All storage tanks are within properly engineered and OCD approved secondary containments.

The primary aquifer most likely to be affected is between approximately 70 and 95 feet below ground surface in two sandstone beds separated by a four-foot thick shale sequence. The total dissolved solids concentration of the primary aquifer is below the 1,000 mg/l NM WQCC standard.

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 Leonard Lowe at the New Mexico OCD at 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3492. The OCD will accept comments and statements of interest regarding the

renewal and will create a facility-specific mailing list for persons who wish to receive future notices.

## AVISO AL PÚBLICO

Frontier Field Services, LLC, 4200 E. Skelly Drive, Tulsa, Oklahoma, 74135, ha presentado una solicitud a la energía de New Mexico, Minerales y Departamento de Recursos Naturales, División de Conservación de Petróleo para la renovación de un plan de permiso de descarga (GW-020) para su Maljamar Planta de Gas ubicada en la Unidad N (SE  $\frac{1}{4}$ , SW  $\frac{1}{4}$ ) de la Sección 21, del municipio de 17 sur, Range 32 East en el Condado de Lea, New Mexico. La dirección física de la instalación es 1001 Conoco Road, Maljamar, New Mexico. La instalación está ubicada aproximadamente a 4.8 kilómetros al sur de Maljamar, New Mexico.

La planta procesa el gas natural que se transfiere a la instalación de varios campos en un sistema de recolección de tuberías. La instalación es de 60 MMpcd planta de gas criogénico y el sistema de recolección. La instalación utiliza un proceso criogénico para eliminar los alcanos simples (es decir, etano, propano, pentano y hexano) de gas natural y las partes y de tercer grado (hidrocarburos líquidos). El material sin procesar se transporta a la planta a través de tuberías. El gas es comprimido y enviado a un sistema con aminas para eliminar el dióxido de carbono y sulfuro de hidrógeno, deshidratados y se enfrían. De líquido de gas natural y productos de gas de residuos salir de la instalación por medio de tuberías. La instalación utiliza los depuradores, intercambiadores, separadores, enfriadores, tanques de flash, y compresores para los diversos procesos. Los productos finales, los residuos de gas y líquidos de gas natural, se venden a diferentes empresas de base de petróleo.

Aproximadamente 3,000 barriles (bbl) de las aguas residuales del proceso de lavado, separador de presión, lavadores y receptor slug se genera mensualmente y transportada desde el depósito de separadore de tres fases y eliminados fuera del emplazamiento en un OCD aprobó la clase II también. Alrededor de 200 barriles de amina gastado y agua de cada trimestre se recoge en el tanque de la amina gastado y dispuestos fuera del emplazamiento en un OCD aprobó la clase II también. Cerca de 300 barriles de aguas residuales de ósmosis inversa y sistemas de retrolavado se verte en la laguna Playa de ConocoPhillips. Aproximadamente 15 litros de disolvente Stoddard se genera en lavadoras de piezas y eliminados fuera del sitio por una empresa comercial. Aproximadamente 3,000 barriles de aceites usados, incluyendo el motor, de transmisión mecánica y aceite lubricante, se recoge en el tanque de decantación de aceite sucio y eliminados fuera de sitio cada semana en un OCD aprobó la clase II también. Gastados o agotados los materiales en proceso, incluyendo carbón activado, zeolita y silicato de aluminio, se eliminan fuera del sitio en una instalación aprobada para el OCD. Filtros de proceso y del metal se colocan en los contenedores separados para su reciclaje. Vaciar las latas de aerosol y cubos se perforan y colocado en un cubo de basura fuera del sitio de disposición. Aceitosa del suelo de los derrames se dispone en un lugar de desecho aprobado el OCD o tratados in situ con la aprobación de OCD. Todos los tanques de almacenamiento están dentro debidamente diseñados y aprobados OCD contenciones secundarias.

El acuífero principal más probabilidades de verse afectada es aproximadamente entre 70 y 95 pies por debajo de la superficie del suelo en dos camas de arenisca separado con cuatro pies de una capa de secuencia de esquisto. La concentración de sólidos disueltos en el acuífero principal es inferior 1,000 mg/l por NM WQCC reglas.

Cualquier persona o personas interesadas pueden obtener más información, enviar comentarios o solicitar que se les coloca en una instalación de lista de distribución específica para los posteriores anuncios en contacto con Leonard Lowe en el OCD de New Mexico en 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, Teléfono (505) 476-3492. El OCD se aceptan comentarios y declaraciones de interés respecto a la renovación y creará una instalación de lista de distribución específica para las personas que deseen recibir avisos de futuro.



**DISCHARGE PERMIT RENEWAL APPLICATION**

**GW-020**

Frontier Field Services, LLC  
Maljamar Gas Plant  
Lea County, New Mexico

Project No. 7-0110

January 22, 2010

Prepared for:  
Frontier Field Services, LLC  
P. O. Box 7  
Maljamar, New Mexico 88264

Prepared by:  
Michelle L. Green  
Environmental Scientist

Larson & Associates, Inc.  
507 North Marienfeld, Suite 200  
Midland, Texas 79701

January 22, 2010

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## **1.0 Type of Operation**

Frontier Field Services, LLC (Frontier) operates the Maljamar Gas Plant located in Lea County, New Mexico. The facility is a 60 MMcfd cryogenic gas plant and gathering system. The facility utilizes a cryogenic process to remove simple alkanes (i.e. ethane, propane, pentane and hexane) from natural gas and third party y-grade (liquid hydrocarbons). The unprocessed material is transported to the facility via pipelines. The gas is compressed and sent to an amine system to remove carbon dioxide and hydrogen sulfide, dehydrated and cooled. Natural gas liquid and residue gas products leave the facility by means of pipelines. Condensate is transported via trucking. The facility uses scrubbers, exchangers, separators, chillers, flash tanks, and compressors for the various processes.

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## **2.0 Name of Operator or Legally Responsible Party and Local Representative**

Facility Operator and Responsible Party: Frontier Field Services, LLC  
1001 Conoco Road  
Maljamar, New Mexico 88260

Local Representatives: John Prentiss  
Area Manager  
Office: 575-676-3528  
Cell: 575-706-6983

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### **3.0 Location of the Discharge Plan Facility**

The facility is located at Latitude 32° 48' 49.68" North and Longitude 103° 46' 19.18" West, in the SE/4, SW/4, (Unit N), Section 21, Township 17 South, Range 32 East, NMPM, Lea County, New Mexico. A topographic map, aerial based map and facility drawing are presented in Figures 1, 2, and 3, respectively.

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#### **4.0 Landowners**

The landowner of record, according to the Lea County Tax Assessor's Office is:

Frontier Field Services, LLC  
4200 E. Skelly Drive  
Suite 700  
Tulsa, Oklahoma 74135

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## **5.0 Facility Description**

The Maljamar Gas Plant is a cryogenic gas plant and associated gathering system. The plant accepts inlet gas from the various fields. The end products, residue gas and natural gas liquids, are sold to various Petroleum based companies.

A facility diagram depicting locations of storage, disposal and processing areas is presented in Figure 4. Process flow diagram is presented in Appendix A.



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## 6.0 Material Stored or Used at the Facility

The following materials are stored and used at the Maljamar Gas Plant facility:

### *A. Process specific chemicals (TEG, Amine, Lean Oil, etc.)*

Material Name	Solid or Liquid	Type of Container	Estimated Volume	Secondary Containment	Location
Diethanolamine	Liquid	1 – 3,000 gallon tank	3,000 gallons	Concrete berm	Process Area

### *B. Acids/Caustics*

Material Name	Solid or Liquid	Type of Container	Estimated Volume	Secondary Containment	Location
Sodium Hydroxide	Liquid	500 ml glass container	1,000 ml	N/A	Instrument Air Building
Sulfuric acid	Liquid	500 ml glass container	1,000 ml	N/A	Instrument Air Building

### *C. Detergents/soaps*

Material Name	Solid or Liquid	Type of Container	Estimated Volume	Secondary Containment	Location
Bio-degradable Industrial Detergent, F-20 Low pH	Liquid	400 gallon Poly Tank	400 gallon	Concrete berm	Clark Building Storage Area

### *D. Solvents, inhibitors and degreasers*

Material Name	Solid or Liquid	Type of Container	Estimated Volume	Secondary Containment	Location
A-142 Solvent	Liquid	500 gallon tank	500 gallons	Concrete berm	Electric Compressor Building
A-142 Solvent	Liquid	500 gallon tank	500 gallons	Concrete berm	Clark Building Storage Area
Methanol	Liquid	2,000 gallon Tank	2,000 gallons	Concrete berm	Process Area
Methanol	Liquid	500 ml bottle	2,000 ml	N/A	Instrument Air Building
Methanol	Liquid	500 gallon poly tank	500 gallons	Concrete berm	Southwest corner of Facility
Defoamer 1017E	Liquid	Drum	100 gallons	Concrete berm	Process Area

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Material Name	Solid or Liquid	Type of Container	Estimated Volume	Secondary Containment	Location
Xylene	Liquid	5 gallon pail	10 gallons	Concrete bottom	Paint Storage Building
Stoddard Solvent – Parts Washer	Liquid	Parts Washer Vat	15 gallons	Concrete pad	Shop Building
Orton R-856 Corrosion Inhibitor	Liquid	300 gallon poly tote	300 gallons	Concrete berm	Clark Building Storage Area

***E. Paraffin Treatment/Emulsion breakers***

Material Name	Solid or Liquid	Type of Container	Estimated Volume	Secondary Containment	Location
Emulsotron - X711	Liquid	Drum	55 gallons	Metal containment	Raw Product Tanks

***F. Biocides***

Non- applicable

***G. Others (other liquids or solids such as diesel or cement, etc.)***

Material Name	Solid or Liquid	Type of Container	Estimated Volume	Secondary Containment	Location
Lubrication Oil – LSO 32	Liquid	100 gallon tank	100 gallons	Concrete berm	Process area
Engine Oil	Liquid	500 gallon tank	500 gallons	Concrete berm	Electric Compressor Building
Gear Oil – Super EP220	Liquid	4 – 25 gallon tanks	100 gallons	Concrete pad	Raw Product Tanks
Gear Oil – Super EP220	Liquid	Drum	110 gallons	Fiberglass	Drum Storage Area
SA – 40 Engine Oil	Liquid	6000 gallon tank	600 gallons	Concrete berm	Clark Building Storage Area
Chevron Oil – ISO 32	Liquid	Drum	55 gallons	Fiberglass	Drum Storage Area
Chevron Hydraulic Oil – AW ISO 68	Liquid	5 gallon pail	20 gallons	Fiberglass	Drum Storage Area
Condensate	Liquid	2-300 bbl tanks	600 bbl	Concrete berm	Raw Product Storage Area
ChemTherm 550	Liquid	Drum	110 gallons	Fiberglass	Drum Storage Area

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Material Name	Solid or Liquid	Type of Container	Estimated Volume	Secondary Containment	Location
Ethylene glycol	Liquid	500 gallon tank	500 gallons	Concrete berm	Electric Compressor Building
Ethylene glycol	Liquid	500 gallon tank	500 gallons	Concrete berm	Clark Building Storage Area
Production Water	Liquid	1,000 bbls	1,000 bbl	N/A	North of Process Area
Molecular Sieves	Solid	2,000 lb Super Sack	10 super sacks	N/A	North of Clark Building Storage Area
Activated Charcoal	Solid	Filter Towers	N/A	Concrete berm	Process Area
Waste Amine	Liquid	210 bbl tank	210 bbl	Earthen berm with liner	Process Area
Produced Waste Water	Liquid	500 bbl tank	500 bbls	Earthen berm with liner	Facility Storage Area
Waste Oil	Liquid	420 bbl tank	420 bbls	Earthen berm with liner	North of Clark Building Storage Area
Methyl purple indicator	Liquid	120 ml amber glass container	120 ml	N/A	Instrument Air Building
Phenolphthalein pH indicator	Liquid	120 ml glass container	120 ml	N/A	Instrument Air Building
Sodium chloride	Solid	40 lb bags	50 bags	N/A	Water Treatment Storage Building
Paint	Liquid	16 oz aerosol can	20 cans	Flammable Cabinet	Paint Storage Building

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## **7.0 Sources and Quantities of Effluent and Waste Solids Generated at the Facility**

The facility generates the following:

### ***1. Separators, Scrubbers, Slug Catchers***

#### ***Oily Water Tank***

The facility generates produced water and condensate mixture from the pressure separators, scrubbers and slug catchers. The water and condensate mixture is separated out in the three-phase separator tank. The condensate and oil is recovered as a product and is sold. The waste water is transported via pipeline to Conoco Production for re-use. Excess waste water is also transferred to the Produced Waste Water Tank. The waste water is disposed of by trucking to an OCD approved disposal facility. The facility generates approximately 3,000 barrels (bbls) per month of waste water. This waste water is considered RCRA exempt.

### ***2. Boilers, Waste Heat Recovery Units, cogeneration facilities, and cooling towers/fans***

#### ***Waste Amine Tank***

The facility uses diethanolamine (amine) to remove hydrogen sulfide and carbon dioxide from the gas stream. The amine is recycled back into the system. Spent amine is transferred to an open drain sump. Contents of the sump are then transferred to the Waste Amine Tank. The waste water is disposed quarterly by trucking to an OCD approved disposal facility, DK Disposal.

#### ***R/O Waste Water***

The facility generates waste water from the reverse osmosis system. Approximately 200 to 400 bbls of waste water are generated on a monthly basis. The water is transferred to the Production Water Tank. The waste water is discharged into the ConocoPhillip's Playa Lake.

A representative grab sample was collected on October 29, 2009 and submitted for Volatile Organic Compounds (VOC) and TCLP Metal parameters. The sample was determined to be non-hazardous based on analytical data (work order 350336) provided by Xenco Laboratories (Xenco).

An additional sample was collected May 21, 2008 for Wet Chemistry parameters. The sample was submitted to Continental Products of Texas.

Laboratory analytical reports are presented in Appendix B.

### ***3. Wash down/Steam out effluent from process and storage equipment internals and externals***

#### ***Wash Down from Equipment***

The facility generates a mixture of water and biodegradable soap from equipment cleaning. The waste water is transferred to the Waste Oil Tank. The facility generates approximately 210 gallons of waste

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water per month. The waste water is disposed by trucking to an OCD approved disposal facility, Sundance Services, Inc. (NM01-0003).

***Wash Down from Electric Compressor Buildings***

The facility collects wash-down material from the Electric compressor building. The waste water is transferred to the Waste Oil Tank. The facility generates approximately 210 gallons of waste water per month. The waste water is disposed by trucking to an OCD approved disposal facility, Sundance Services, Inc.

***Wash Down from Electric Inlet Compressor***

The facility collects wash-down material from the Electric Inlet Compressor. The waste water is collected in the compressor skids. The waste water is transferred to a holding tank. The waste is transported by trucking to an OCD approved disposal facility, Sundance Services, Inc.

***Wash Down from Refrigeration Compressor***

The facility collects wash-down material from the Refrigeration Compressor. The waste water is collected within the building and drained to a sump. The waste water is disposed by trucking to an OCD approved disposal facility, Sundance Services, Inc.

***4. Solvent/degreaser use***

***Safety Kleen Stoddard Solvent***

The solvent is used in the parts washer to degrease and clean small parts. The facility disposes of approximately 15 gallons of the solvent every three months by Safety Kleen.

***Methanol***

The facility uses methanol in the cryogenic unit. The methanol is recycled in the process.

***5. Spent acids or caustics***

Non-applicable

***6. Used engine coolants (antifreeze)***

***Ethylene glycol***

The facility uses ethylene glycol for process engines. The water and antifreeze mixture is recycled in the process.

***7. Used lubrication and motor oils***

***Lubrication, Gear and Synthetic Oils***

The oils are used to lube engines, pumps, and compressors. The used oil is transferred to the Waste Oil Tanks for proper disposal. The facility generates approximately 100 gallons of oil waste per month. The waste oil is transported by trucking to an OCD approved disposal facility, Sundance Services, Inc.

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## **8. Used lube oil and process filters**

### ***Process Filters***

Process filters (sock filters, pre and after charcoal filters and bag filters) and oil filters are collected and placed in the Used Filter Bin located at the East of the Clark Compressor Building Area. The filters are recycled by FCC, an approved recycling facility every quarter or "as needed".

## **9. Solids and sludges from tanks**

### ***Sludges***

Sludge waste from the sumps is removed by a local transport company. The sludge is disposed "as needed" by trucking to an OCD approved disposal facility, Sundance Services, Inc.

## **10. Painting wastes**

### ***Paint Cans***

The facility utilizes paint for marking the safety hazard awareness areas (steps, uneven surfaces, etc.) and for maintaining process equipment. The empty cans and pails are placed in a trash bin for proper disposal as unregulated solid waste.

## **11. Sewage**

### ***Septic Tank***

The facility is not connected to a publicly owned treatment works; however two septic systems are utilized at the facility. Septic system maintenance is performed by a local septic service company. The septic tank complies with applicable requirements.

## **12. Laboratory wastes**

### ***Methanol, Methyl purple, Phenolphthalein, Sulfuric acid & Sodium hydroxide***

The facility utilizes a small laboratory for product testing. The used solutions are transferred to a 15 gallon drum in a secondary containment. The waste is managed as hazardous and properly disposed of by Safety Kleen.

## **13. Other waste liquids**

### ***Storm water***

Storm water collects in secondary containments and is removed using procedures described in the facility Storm Water Runoff Plan. Storm water is disposed when necessary by trucking to an OCD approved disposal facility, Sundance Services, Inc.

The Storm Water Runoff Plan is presented in Appendix C.

## **14. Other waste solids**

### ***Metal***

The facility recycles various un-usable metal parts and metal shavings. These are placed in a metal recycling dumpster.

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***Activated carbon***

The plant uses activated charcoal in the amine system. Depleted activated charcoal is placed in drums and disposed at an OCD approved disposal facility, CRI, Inc. (R-9116).

***Molecular sieve/zeolite***

The plant uses molecular sieves during the gas separation process. Depleted molecular sieves are placed in drums and disposed at an OCD approved disposal facility, CRI, Inc.

***Oily Soil***

The plant personnel remediate oil spills around the yard as they occur. The soil is stockpiled, tested and disposed of at an OCD approved disposal facility, CRI, Inc., or treated onsite.

***Ceramic balls, Molecular sieves, Aluminum silicate***

The plant uses various media: ceramic balls in conjunction with catalysts, molecular sieves and aluminum silicate to increase the production of clean fuels, absorb water from the air, filter various compounds and protect catalysts. Depleted media is placed in drums and disposed at an OCD approved disposal facility, CRI, Inc.

***Plant refuse***

The plant refuse is placed in a dumpster. The dumpsters are emptied weekly by Waste Management. Refuse is transported to the local landfill.

***Methanol, Methyl purple, Phenolphthalein, Sulfuric acid & Sodium hydroxide***

The facility utilizes a small laboratory for product testing. The used solutions are transferred to a 15 gallon drum in a secondary containment. The waste is managed as hazardous and properly disposed of by Safety Kleen.

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## **8.0 Description of Current Liquid and Solid Waste Collection/Storage/Disposal Procedures**

### ***Oily Water Waste***

The oil and produced water mixture from the wash down, pressure separators, scrubbers, and slug catchers are transferred to the Oily Water Tank which is located in the Condensate Storage Area near the south end of the plant. The water and oil mixture is separated. The condensate and oil is recovered as a product and sold to various oil related customers. The plant disposes of approximately of 3,000 bbls of waste water per month. The waste water is transported to a permitted OCD Class II disposal well operated by Sundance Services, Inc. (NM01-0003).

### ***Amine Waste***

The spent amine and water is collected in the 210 bbl Amine Waste Tank located in northeast corner of the facility. The plant disposes of approximately of 200 bbls of spent amine and waste water every three months in a permitted OCD Class II disposal well operated by Sundance Services, Inc.

### ***Oil Tank Waste***

The used oil generated by the plant and the compressor units is transferred to the Waste Oil Tank located south of the facility. The tank has a capacity of 420 bbls. The plant disposes of approximately of 40 bbls of used oil and waste water per week. The used oil and waste water is trucked offsite to a permitted OCD Class II disposal well operated by Sundance Services, Inc.

### ***R/O Waste Water***

The facility generates waste water from back-flush/rejection water from the reverse osmosis system. Approximately 200 to 400 bbls of waste water are generated on a monthly basis. The waste water is discharged into the ConocoPhillip's Playa Lake.

### ***Produced Waste Water***

The facility generates produced water from the pressure separators, scrubbers and slug catchers. The produced water is transported via pipeline to Conoco Production for re-use. Excess waste water is also transferred to the Produced Waste Water Tank and is disposed of by trucking to an OCD approved disposal facility. The facility generates approximately 3,000 barrels (bbls) per month of waste water. This waste water is considered RCRA exempt.

### ***Sludges***

Sludge waste from the sumps is removed and disposed of "as needed" to an OCD approved facility operated by Sundance Services, Inc.

### ***Metal***

The facility collects un-usable metal parts and scrap metal. The scrap metal is placed in a metal recycling dumpster located at the south end of the facility. Scrap metal is taken to Hobbs Iron and Metal, a recycling facility.



January 22, 2010

***Septic System Waste***

The facility is not connected to a publically owned treatment works; however two septic systems are utilized. Septic system maintenance is performed on an "as needed basis", by a local septic service company.

The septic waste is managed in leach fields on-site.

***Safety Kleen – Stoddard Solvent***

The solvent is used in the parts washer to clean small parts. The parts washer vessels are leased from Safety Kleen. The facility disposes approximately 15 gallons on a quarterly basis by Safety Kleen.

***Carb/Choke Cleaner - Aerosol Cans and Pails***

The facility utilizes carb/choke cleaner to clean electrical parts and contacts. The cleaner is used according to manufacturer instructions. The empty cans and pails are placed in a trash bin for proper disposal as unregulated solid waste.

***Activated carbon***

The plant uses activated charcoal in the amine system process. Depleted activated charcoal is placed in drums and disposed at an OCD approved disposal facility, CRI, Inc. (R-9116).

***Molecular sieve/zeolite***

The plant uses molecular sieves during the gas separation process. Depleted molecular sieves are placed in drums and disposed at an OCD approved disposal facility, CRI, Inc.

***Oily Soil***

The plant is in the process of remediating oil spills in the vicinity of the flare sump. Removed soil is stockpiled and tested. Oily soil is disposed of at an OCD approved facility, CRI, Inc. or treated onsite.

***Ceramic balls, Molecular sieves, Aluminum silicate***

The plant uses various media: ceramic balls in conjunction with catalyst, molecular sieves and aluminum silicate to increase the production of clean fuels, absorb water from the air, filter various compounds and protect catalyst. Depleted media is placed in 55 gallons drums and disposed at an OCD approved disposal facility, CRI, Inc. on an "as needed basis".

***Process Filters***

Process filters (sock filters, pre and after charcoal filters, amine filters, dust filters, and bag filters) and oil filters are collected and placed in the Used Filter Bin located at the South end of the plant. The filter bin is picked up for recycling every six months and transported to an approved recycling facility, FCC.

***Plant Refuse***

The dumpsters are emptied weekly by Waste Management. Refuse is transported to the local landfill.

***Used Drums***

Empty drums are stored in the drum storage area. Drums are laid on their side with the bungs in a horizontal plane. Empty drums are returned to the appropriate vendors.

January 22, 2010

***Methanol Waste***

The used methanol solution is transferred to a 15 gallon drum placed in a secondary containment. The waste is managed as hazardous and properly disposed of by Safety Kleen.

January 22, 2010

## **9.0 Proposed Modifications**

No modifications are proposed at this time.

January 22, 2010

## **10.0 Inspection, Maintenance and Reporting**

### ***Drum Storage Area***

The drum storage area secondary containment is made of fiberglass. The secondary containment stores empty and full drums. Drums are properly labeled and the containment and drums are visually inspected daily.

### ***Underground Lines***

The plant has underground lines from various processes and wastewater. The lines were hydrostatically pressure tested to demonstrate mechanical integrity between April 13 and April 26, 2005. Services were performed by a Frontier Field Serviced skilled employee. All underground lines met the requirements of the mechanical integrity test. All above ground surface piping were visually inspected for leaks after the test pressure was stabilized. The summary report *Annual Sump and Five Year Underground Piping Inspection* conducted by Frontier is presented in Appendix D.

The underground and surface lines will be hydrostatically pressure tested in the first semi-annual (6 months) of 2010.

### ***Containments and Sumps***

All containments and sumps are inspected annually. The sumps are emptied, steam cleaned and dried. The sumps are filled with fresh water and the water level recorded. The sumps are measured every two hours for the remainder of the day and again the following morning. The *2009 Sump Summary Report* is presented in Appendix E.

January 22, 2010

## **11.0 Spill/Leak Prevention and Reporting Procedures (Contingency Plan)**

The facility has a site specific Contingency Plan. A copy of the plan is located in Appendix F.

January 22, 2010

## **12.0 Site Characteristics**

### ***1. Surface Water Hydrology***

The facility is located approximately three miles south of Maljamar, on the southerly slope of Taylor Hill, a rise about ½ mile to the north. The location is in an area of vegetation-stabilized sand dunes without any incised water drainages. Surface water percolates into the subsurface at a rate of 20 inches per hour. No water bodies, streams, or groundwater discharge sites were noted within a mile of the facility's perimeter. The nearest ephemeral watercourse is Taylor Draw, about 3.5 miles to the west. Taylor Draw flows southwest anastomosing before disappearing in the sand dunes.

A search of the State Engineer's New Mexico Water Rights Reporting System (NMWRRS) database did not identify any points of diversion within ¼-mile of the facility's perimeter. A copy of the database is attached in Appendix G.

### ***2. Soil and Aquifer Information***

The facility is located in the Baish Oil Field of the Pecos Slope, a broad, low eastward dip of about 50 to 100 feet per mile. East of the site is the Mescalero Arch, and south of the facility are the Querecho Plains. The eastern extents of the Pecos Slope are the extramontane Delaware and Midland Basins. This monocline is imprinted with other structural features, including the southern flank of the Artesia-Vacuum Arch.

The Artesia-Vacuum Arch extends from beneath the Pecos Valley fill to the west, extending through Townships 17 to 19 South, eastward to Range 35 East in Lea County (Kelley, 1971). The arch is covered primarily by post-Permian strata.

Surface soils are dominated by the eolian fine sand mapped by the Natural Resources Conservation Service (NRCS) as the Kermit soils and dune land, 0 to 12 percent slopes. This Quaternary eolian and piedmont deposited soil has the landform characteristics of coppice dunes three to seven feet high, 25 to 50 in diameter, with a wind-formed elongation to the northeast.

A generalized cross-section prepared by Maxim Technologies, Inc. (Maxim) for the groundwater investigation indicates the surface of blow sand and a complex subsurface stratigraphy. A caliche layer bisecting the 60 foot thick sand is most likely an illuviation horizon relict from previously higher standing water table conditions. This sand is deposited unconformably over 30 to 50 feet of Triassic-aged Chinle green shale, which acts as a confining layer for an underlying sandstone unit. A "low TDS (total dissolved solids) – bicarbonate water" is density segregated from saline waters overlying Triassic Red Beds. The groundwater investigation at the facility is being conducted by ConocoPhillips, a prior owner, with Tetra Tech, Inc. currently performing investigation and remediation activities.

Groundwater flow is dominated by a mound northwest of the facility. Groundwater is encountered between 70 and 95 feet below ground surface (bgs) in two sandstone beds separated by a four-foot thick shale sequence. Regionally, groundwater should flow to the southwest towards the Pecos River, but the mound's influence has groundwater predominantly flowing towards the southeast at an

January 22, 2010

approximate gradient of 0.0119 to 0.0121 feet per foot. Background water TDS is generally below the 1,000 milligrams per liter New Mexico Water Quality Control Commission's standards.

### ***3. Surface Flooding and Protection Measures***

The facility is located in high permeability dune sands area. This location is not within a flood plain, and would not be subject to flooding even during extreme precipitation events.

January 22, 2010

### **13.0 Other Compliance Information**

No other compliance information is available.



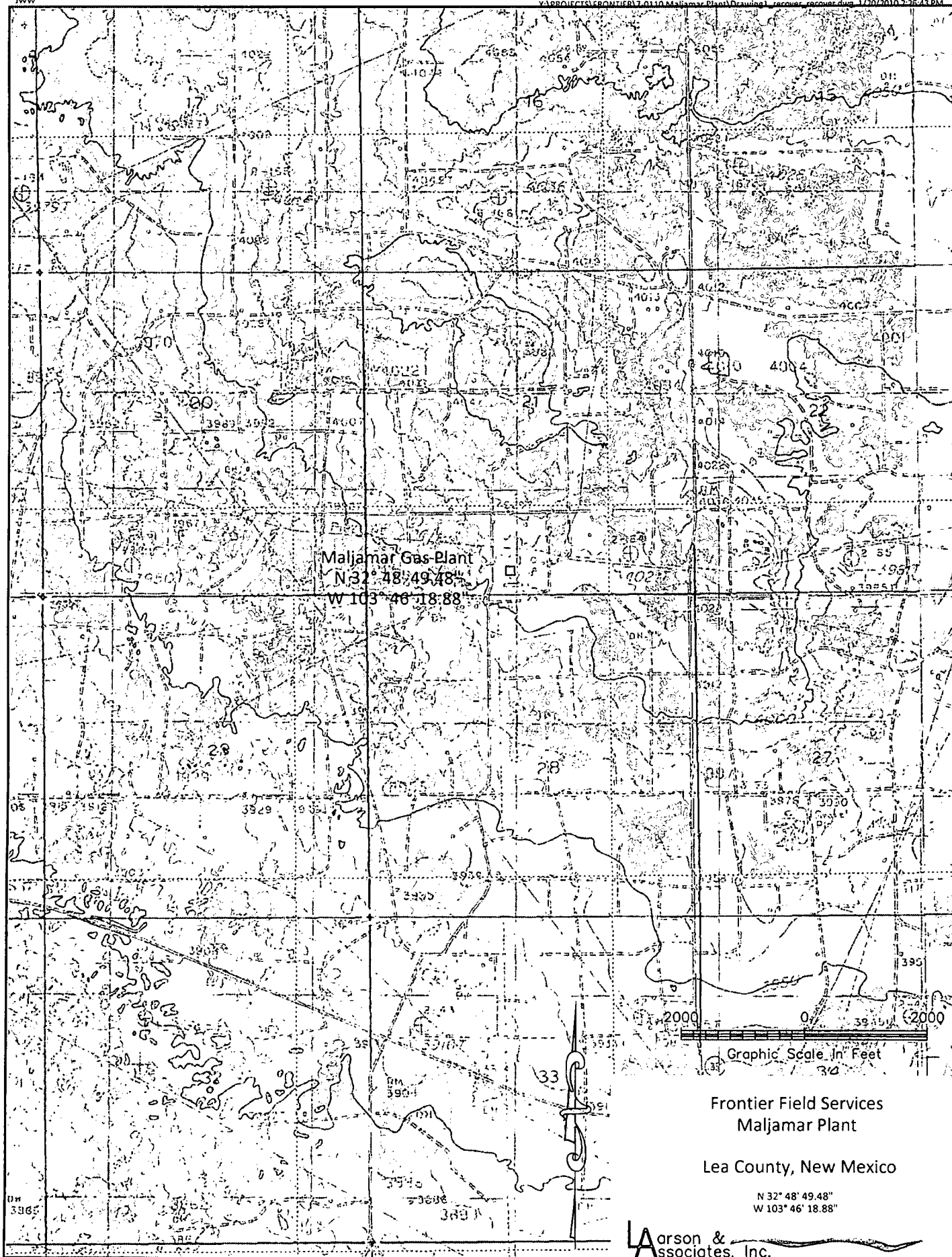
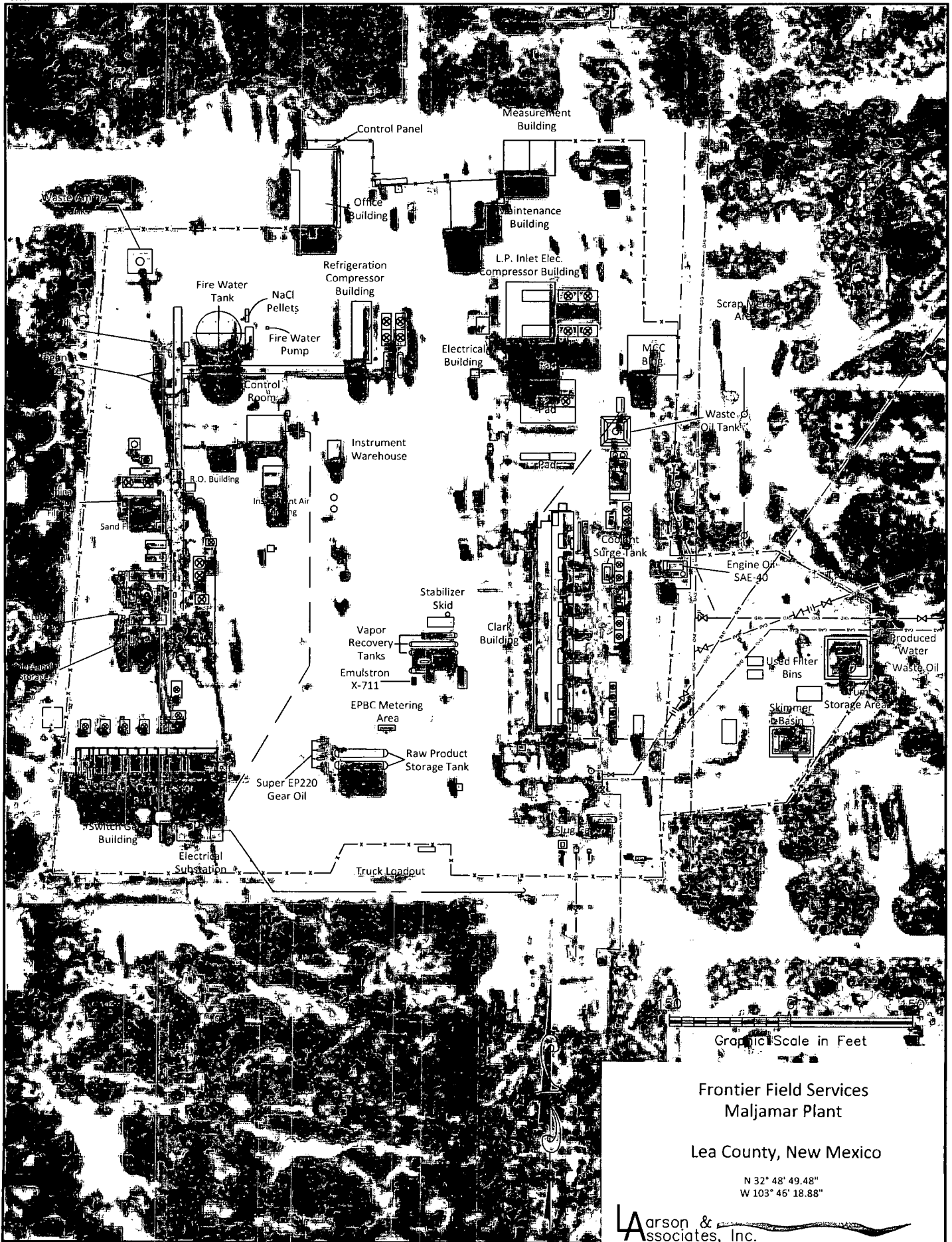


Figure 1- Topographic Map

JWW



JWW

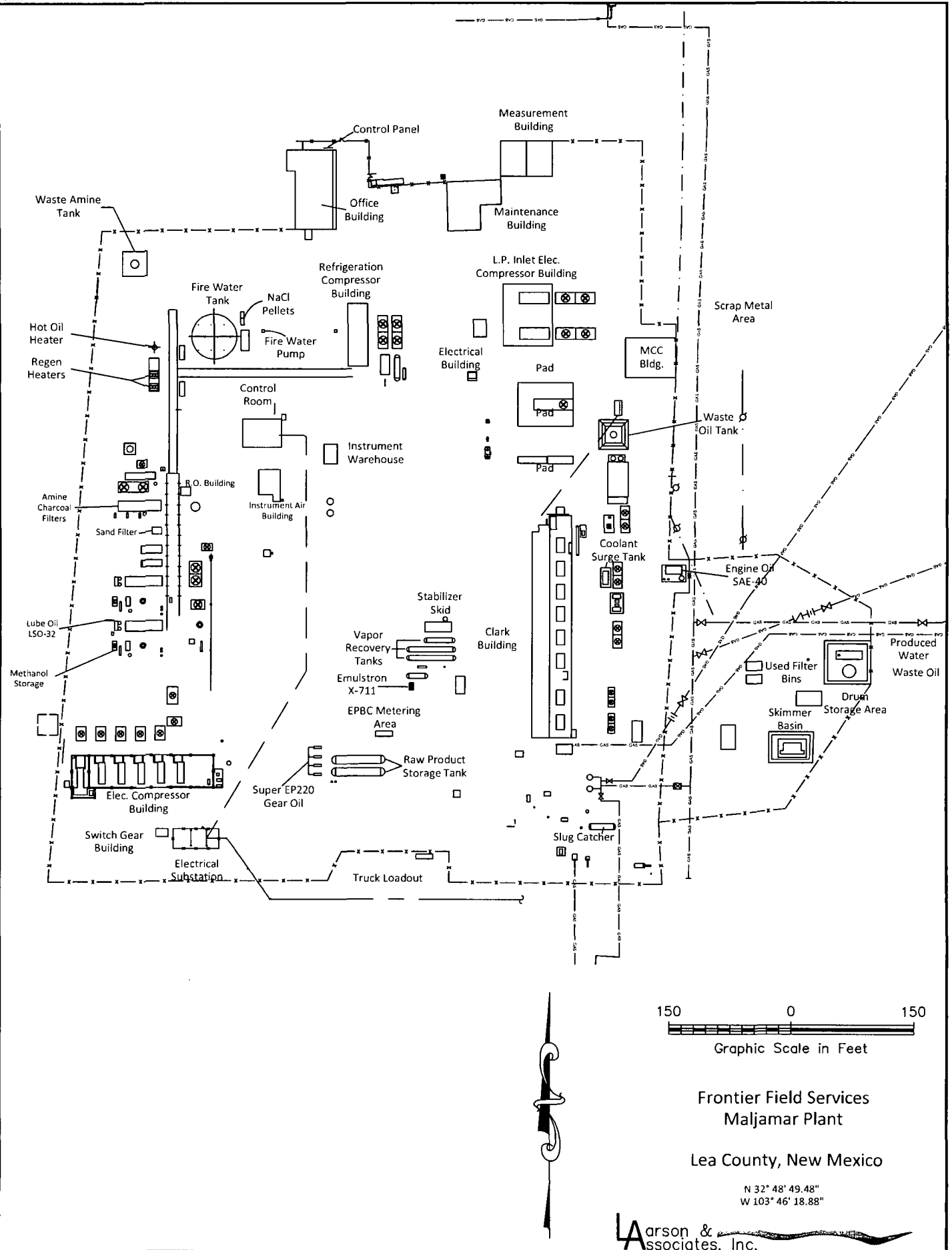
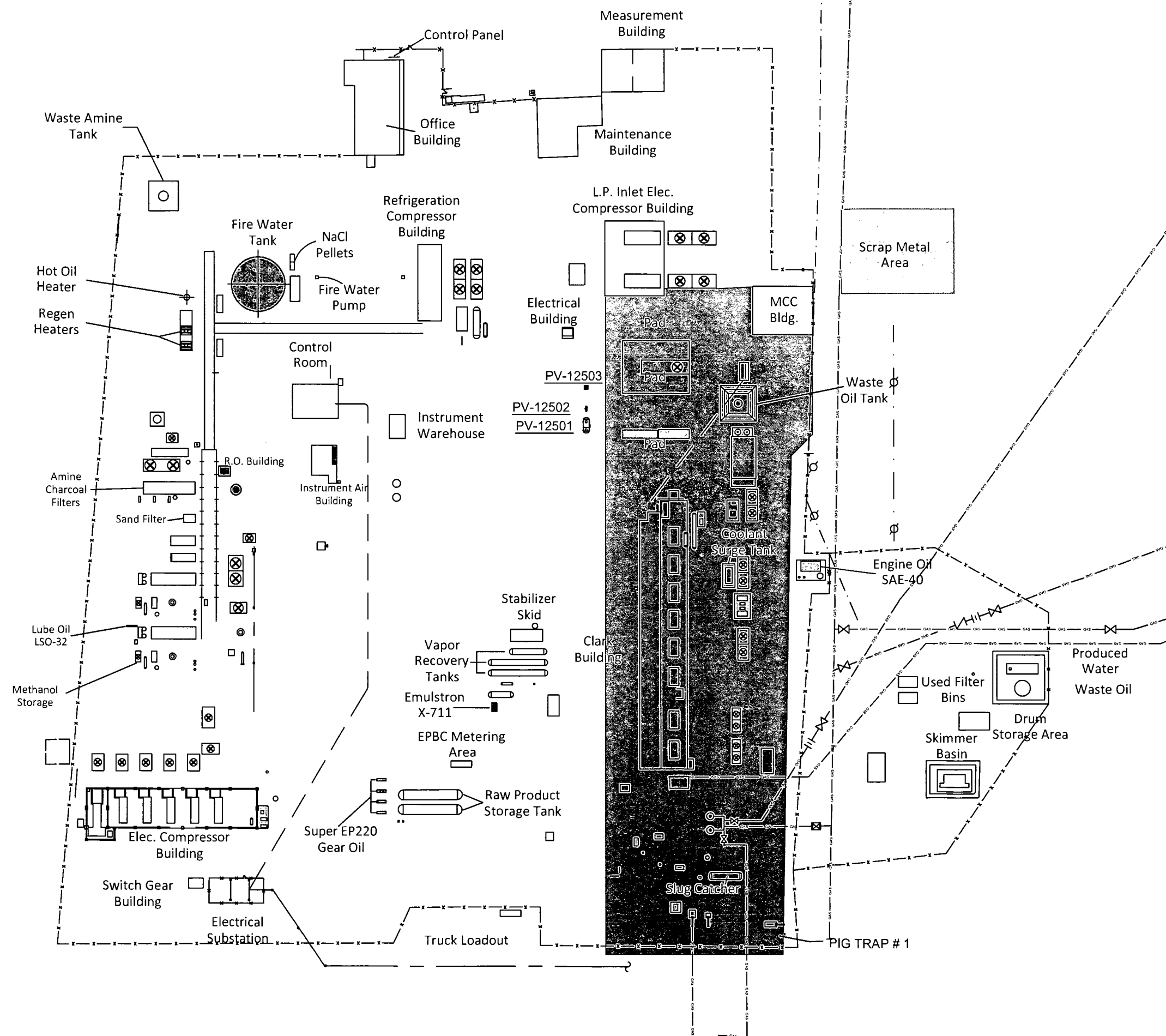


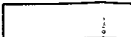





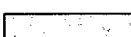

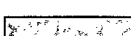
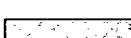
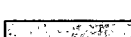





Figure 3 - Facility Drawing

JWW



# Storage, Disposal, & Process Locations List

-  - Process Area
-  - Clark Building Storage Area
-  - Waste Amine Tank
-  - R.O. Waste Water Tank
-  - Methanol Waste
-  - Methanol Storage
-  - Amine Storage Tank
-  - R.O. Building
-  - Engine Oil, Anti-Freeze, A-142 Solvent
-  - Gear Oil - Super EP220
-  - Emulsotron X-711
-  - Molecular Sieves Storage Area
-  - A-142 Solvent, F-20 Low pH, Anti- Freeze, Orton R-856 Corrosion Inhibitor
-  - Paint and Xylene
-  - Defoamer 1017E
-  - Scrap Metal Area



NOT TO SCALE  
Frontier Field Services  
Maljamar Plant

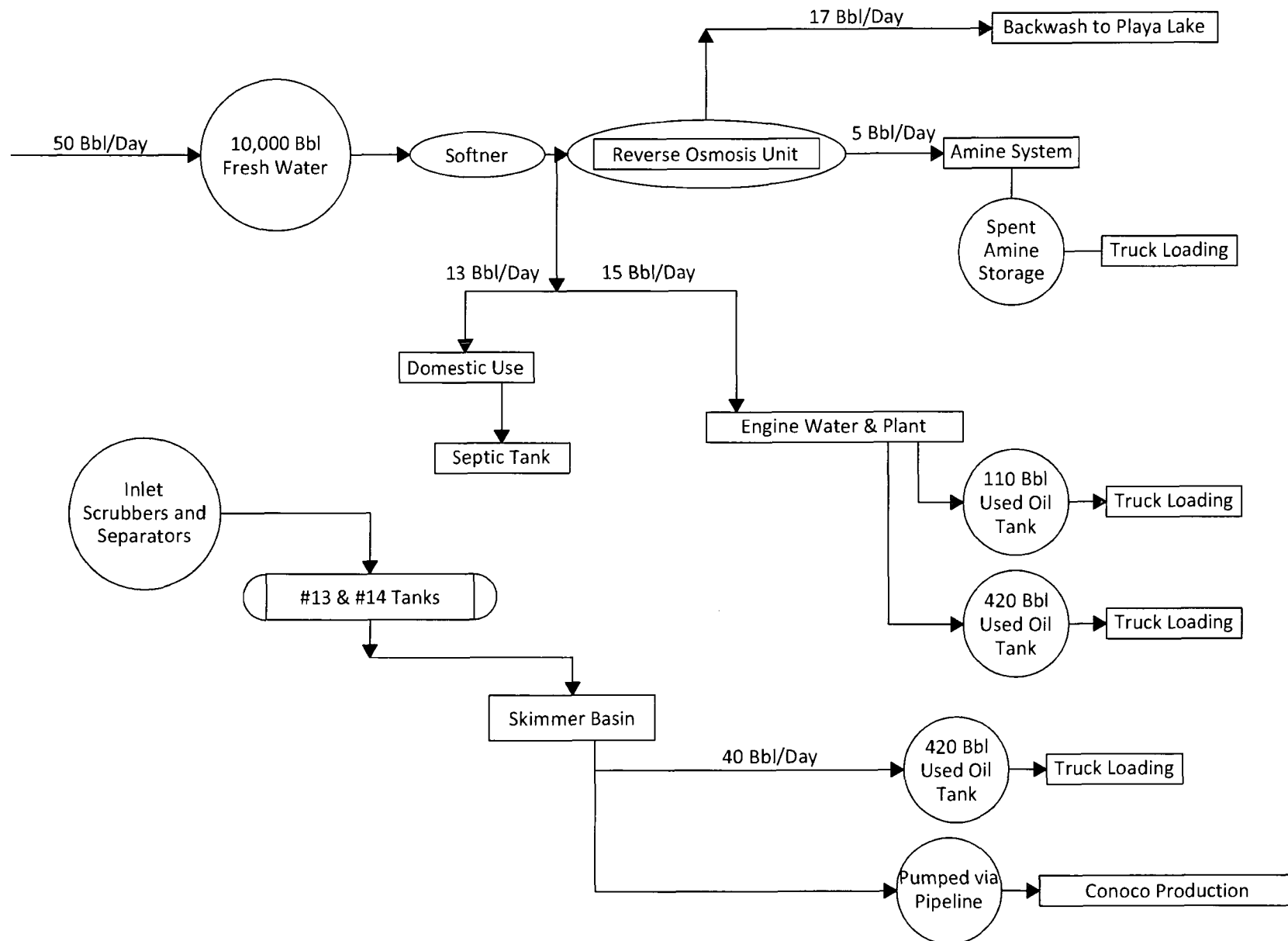
Lea County, New Mexico

N 32° 48' 49.48"  
W 103° 46' 18.88"

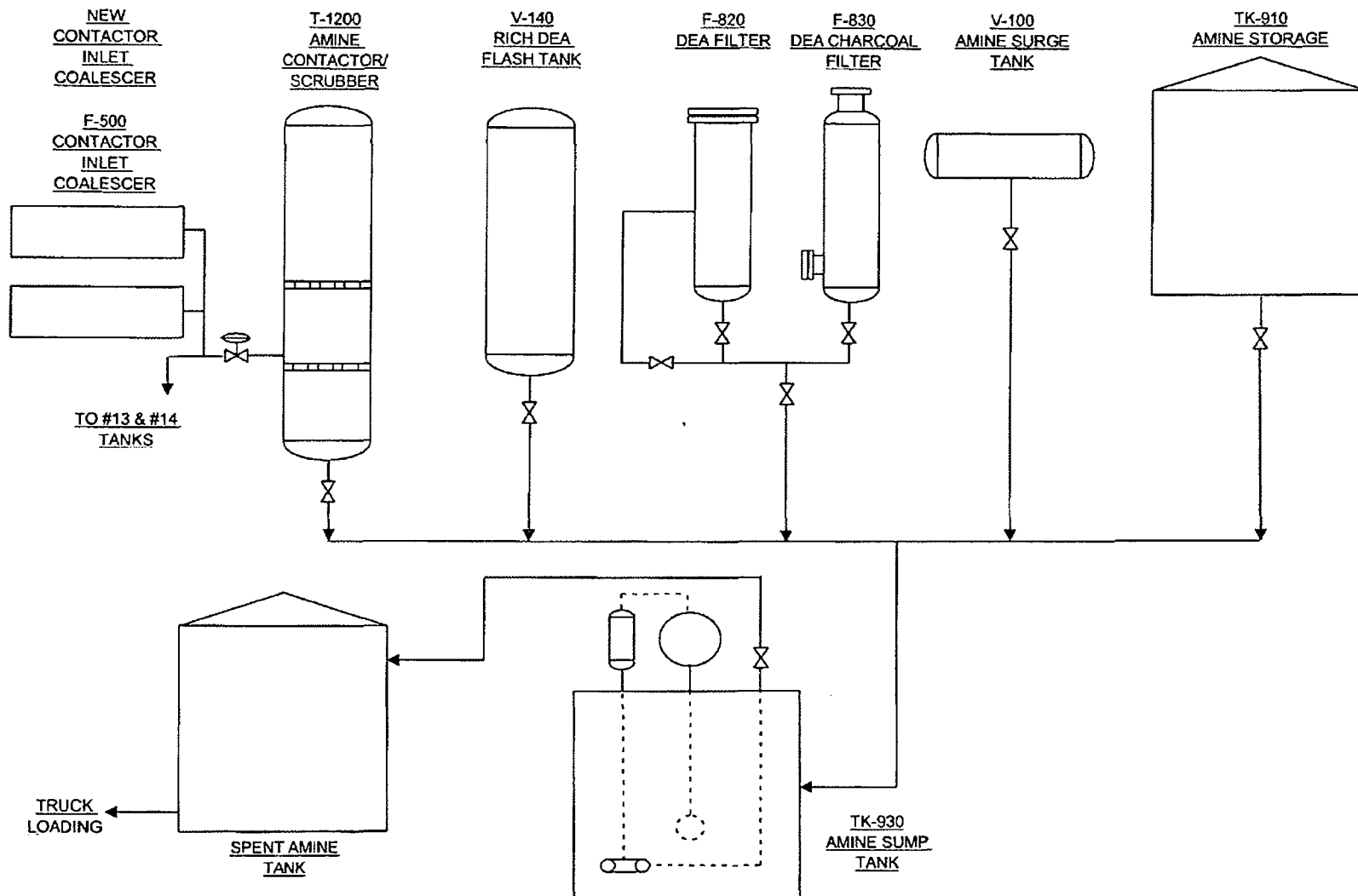
**Larson & Associates, Inc.**  
Engineering and Construction

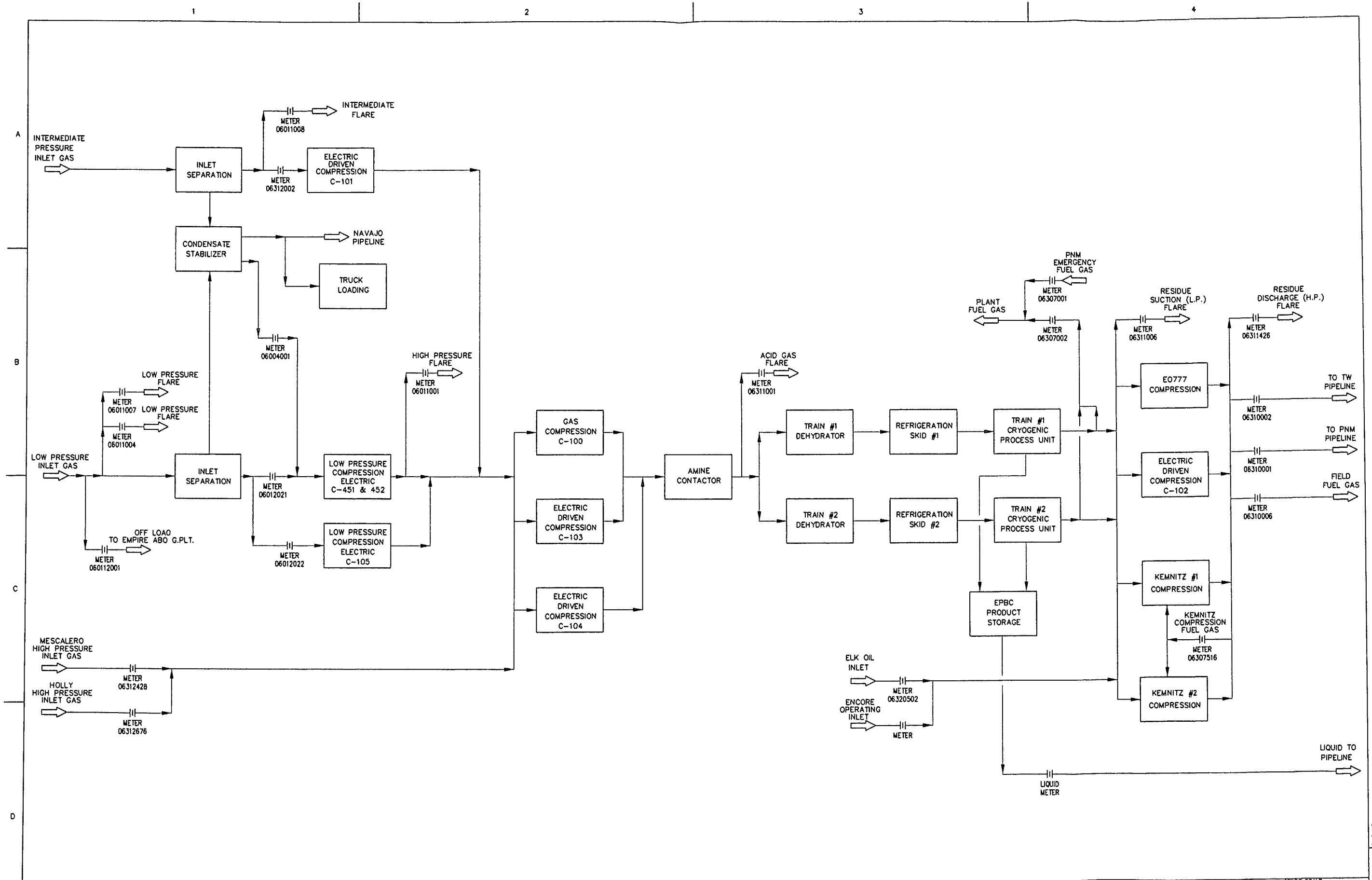
Figure 4. Storage, Disposal, and Process Locations

# MALJAMAR GAS PLANT WATER BALANCE



# MALJAMAR GAS PLANT AMINE WASTE CONTAINMENT & DRAINAGE SYSTEM





REFERENCE DRAWINGS:	NO.	DATE	REVISION	DRW.	DES.	CHK.	APP.	NO.	DATE	REVISION	DRW.	DES.	CHK.	APP.
	1	9/09	GENERATED DRAWINGS								ATM			



MALJMAR GAS PLANT  
BLOCK FLOW DIAGRAM  
METERING

SCALE: NONE	PLOT SCALE: 1=1
APR: APE	LOCATION: LEA COUNTY, NM
DWG. NO: MJ-10200	REV. 1

DWG. NO. MJ-10200

# Analytical Report 350336

for

## Frontier Field Services

Project Manager: Steve Maker

Maljamar Plant

05-NOV-09



12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):

Texas (T104704215-08-TX), Arizona (AZ0738), Arkansas (08-039-0), Connecticut (PH-0102), Florida (E871002)  
Illinois (002082), Indiana (C-TX-02), Iowa (392), Kansas (E-10380), Kentucky (45), Louisiana (03054)  
New Hampshire (297408), New Jersey (TX007), New York (11763), Oklahoma (9218), Pennsylvania (68-03610)  
Rhode Island (LAO00308), USDA (S-44102)

Xenco-Atlanta (EPA Lab Code: GA00046):

Florida (E87428), North Carolina (483), South Carolina (98015), Utah (AAL11), West Virginia (362), Kentucky (85)  
Louisiana (04176), USDA (P330-07-00105)

Xenco-Miami (EPA Lab code: FL01152): Florida (E86678), Maryland (330)

Xenco-Tampa Mobile (EPA Lab code: FL01212): Florida (E84900)

Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-08-TX)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-08-TX)

Xenco-Corpus Christi (EPA Lab code: TX02613): Texas (T104704370-08-TX)

Xenco-Boca Raton (EPA Lab Code: FL00449): Florida (E86240),

South Carolina (96031001), Louisiana (04154), Georgia (917)





05-NOV-09

Project Manager: **Steve Maker**  
**Frontier Field Services**  
1001 Conoco Road

Maljamar, NM 88264

Reference: XENCO Report No: **350336**  
**Maljamar Plant**  
Project Address: Maljamar, NM

**Steve Maker:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 350336. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 350336 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

**Brent Barron, II**

Odessa Laboratory Manager

*Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.*

*Certified and approved by numerous States and Agencies.*

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## Sample Cross Reference 350336



Frontier Field Services, Maljamar, NM

Maljamar Plant

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Playa Lake Discharge	W	Oct-29-09 11:35		350336-001



## **CASE NARRATIVE**

*Client Name: Frontier Field Services*

*Project Name: Maljamar Plant*

*Project ID:*

*Work Order Number: 350336*

*Report Date: 05-NOV-09*

*Date Received: 10/29/2009*

---

**Sample receipt non conformances and Comments:**

*None*

---

**Sample receipt Non Conformances and Comments per Sample:**

*None*

**Analytical Non Conformances and Comments:**

*Batch: LBA-780197 VOAs by SW-846 8260B*

*None*

*Batch: LBA-780354 TCLP Metals per ICP by SW846 6010B*

*None*

*Batch: LBA-780359 TCLP Mercury by SW 7470A*

*SW7470A*

*Batch 780359, Mercury recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate.*

*Samples affected are: 350336-001.*

*The Laboratory Control Sample for Mercury is within laboratory Control Limits*



# Certificate of Analysis Summary 350336

Frontier Field Services, Maljamar, NM



Project Id:

Contact: Steve Maker

Project Location: Maljamar, NM

Project Name: Maljamar Plant

Date Received in Lab: Thu Oct-29-09 04:30 pm


Report Date: 05-NOV-09

Project Manager: Brent Barron, II

<b>Analysis Requested</b>	<b>Lab Id:</b>	350336-001					
	<b>Field Id:</b>	Playa Lake Discharge					
	<b>Depth:</b>						
	<b>Matrix:</b>	WATER					
	<b>Sampled:</b>	Oct-29-09 11:35					
<b>TCLP Mercury by SW 7470A</b>	<b>Extracted:</b>	Nov-04-09 11:00					
	<b>Analyzed:</b>	Nov-05-09 11:44					
	<b>Units/RL:</b>	mg/L RL					
Mercury		ND 0.0001					
<b>TCLP Metals per ICP by SW846 6010B</b>	<b>Extracted:</b>	Nov-03-09 10:00					
	<b>Analyzed:</b>	Nov-04-09 13:18					
	<b>Units/RL:</b>	mg/L RL					
Antimony		ND 0.010					
Arsenic		ND 0.010					
Barium		0.128 0.010					
Beryllium		ND 0.004					
Cadmium		ND 0.005					
Chromium		ND 0.005					
Lead		ND 0.012					
Nickel		ND 0.010					
Selenium		ND 0.010					
Silver		ND 0.004					

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Brent Barron, II  
Odessa Laboratory Manager



# Certificate of Analysis Summary 350336

Frontier Field Services, Maljamar, NM

Project Name: Maljamar Plant



Project Id:

Contact: Steve Maker

Project Location: Maljamar, NM

Date Received in Lab: Thu Oct-29-09 04:30 pm

Report Date: 05-NOV-09

Project Manager: Brent Barron, II

<b>Analysis Requested</b>	<b>Lab Id:</b>	350336-001				
	<b>Field Id:</b>	Playa Lake Discharge				
	<b>Depth:</b>					
	<b>Matrix:</b>	WATER				
<b>VOAs by SW-846 8260B SUB: T104704295-08-TX</b>	<b>Sampled:</b>	Oct-29-09 11:35				
	<b>Extracted:</b>	Nov-03-09 10:10				
	<b>Analyzed:</b>	Nov-03-09 12:47				
	<b>Units/RL:</b>	mg/L RL				
Benzene		ND 0.005				
Bromobenzene		ND 0.005				
Bromochloromethane		ND 0.005				
Bromodichloromethane		ND 0.005				
Bromoform		ND 0.005				
Bromomethane		ND 0.005				
MTBE		ND 0.005				
n-Butylbenzene		ND 0.005				
Sec-Butylbenzene		ND 0.005				
tert-Butylbenzene		ND 0.005				
Carbon Tetrachloride		ND 0.005				
Chlorobenzene		ND 0.005				
Chloroethane		ND 0.010				
Chloroform		ND 0.005				
Chloromethane		ND 0.010				
2-Chlorotoluene		ND 0.005				
4-Chlorotoluene		ND 0.005				
p-Cymene (p-Isopropyltoluene)		ND 0.005				
Dibromochloromethane		ND 0.005				
1,2-Dibromo-3-Chloropropane		ND 0.005				
1,2-Dibromoethane		ND 0.005				
Dibromomethane		ND 0.005				
1,2-Dichlorobenzene		ND 0.005				
1,3-Dichlorobenzene		ND 0.005				
1,4-Dichlorobenzene		ND 0.005				

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Brent Barron, II  
Odessa Laboratory Manager



# Certificate of Analysis Summary 350336

Frontier Field Services, Maljamar, NM

Project Name: Maljamar Plant



Project Id:

Contact: Steve Maker

Project Location: Maljamar, NM

Date Received in Lab: Thu Oct-29-09 04:30 pm

Report Date: 05-NOV-09

Project Manager: Brent Barron, II

<b>Analysis Requested</b>	<b>Lab Id:</b> 350336-001 <b>Field Id:</b> Playa Lake Discharge <b>Depth:</b> <b>Matrix:</b> WATER <b>Sampled:</b> Oct-29-09 11:35					
<b>VOAs by SW-846 8260B SUB: T104704295-08-TX</b>	<b>Extracted:</b> Nov-03-09 10:10 <b>Analyzed:</b> Nov-03-09 12:47 <b>Units/RL:</b> mg/L RL					
Dichlorodifluoromethane	ND 0.005					
1,1-Dichloroethane	ND 0.005					
1,2-Dichloroethane	ND 0.005					
1,1-Dichloroethene	ND 0.005					
cis-1,2-Dichloroethene	ND 0.005					
trans-1,2-dichloroethene	ND 0.005					
1,2-Dichloropropane	ND 0.005					
1,3-Dichloropropane	ND 0.005					
2,2-Dichloropropane	ND 0.005					
1,1-Dichloropropene	ND 0.005					
cis-1,3-Dichloropropene	ND 0.005					
trans-1,3-dichloropropene	ND 0.005					
Ethylbenzene	ND 0.005					
Hexachlorobutadiene	ND 0.005					
isopropylbenzene	ND 0.005					
Methylene Chloride	ND 0.005					
Naphthalene	ND 0.010					
n-Propylbenzene	ND 0.005					
Styrene	ND 0.005					
1,1,1,2-Tetrachloroethane	ND 0.005					
1,1,2,2-Tetrachloroethane	ND 0.005					
Tetrachloroethylene	ND 0.005					
Toluene	ND 0.005					
1,2,3-Trichlorobenzene	ND 0.005					
1,2,4-Trichlorobenzene	ND 0.005					

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Brent Barron, II  
Odessa Laboratory Manager



# Certificate of Analysis Summary 350336

Frontier Field Services, Maljamar, NM



Project Id:

Contact: Steve Maker

Project Location: Maljamar, NM

Project Name: Maljamar Plant

Date Received in Lab: Thu Oct-29-09 04:30 pm

Report Date: 05-NOV-09

Project Manager: Brent Barron, II

<b>Analysis Requested</b>	<b>Lab Id:</b>	350336-001					
	<b>Field Id:</b>	Playa Lake Discharge					
	<b>Depth:</b>						
	<b>Matrix:</b>	WATER					
<b>VOAs by SW-846 8260B SUB: T104704295-08-TX</b>	<b>Sampled:</b>	Oct-29-09 11:35					
	<b>Extracted:</b>	Nov-03-09 10:10					
	<b>Analyzed:</b>	Nov-03-09 12:47					
	<b>Units/RL:</b>	mg/L RL					
1,1,1-Trichloroethane		ND 0.005					
1,1,2-Trichloroethane		ND 0.005					
Trichloroethene		ND 0.005					
Trichlorofluoromethane		ND 0.005					
1,2,3-Trichloropropane		ND 0.005					
1,2,4-Trimethylbenzene		ND 0.005					
1,3,5-Trimethylbenzene		ND 0.005					
o-Xylene		ND 0.005					
m,p-Xylenes		ND 0.010					
Vinyl Chloride		ND 0.002					

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Brent Barron, II  
Odessa Laboratory Manager



## Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the MQL and above the SQL.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.
- BRL** Below Reporting Limit.
- RL** Reporting Limit
- \* Outside XENCO's scope of NELAC Accreditation.

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## Form 2 - Surrogate Recoveries

Project Name: Maljamar Plant

Work Orders : 350336,

Project ID:

Lab Batch #: 780197

Sample: 542281-1-BKS / BKS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/03/09 10:07

### SURROGATE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0515	0.0500	103	74-124	
Dibromofluoromethane	0.0488	0.0500	98	75-131	
1,2-Dichloroethane-D4	0.0503	0.0500	101	63-144	
Toluene-D8	0.0489	0.0500	98	80-117	

Lab Batch #: 780197

Sample: 542281-1-BLK / BLK

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/03/09 10:54

### SURROGATE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0455	0.0500	91	74-124	
Dibromofluoromethane	0.0475	0.0500	95	75-131	
1,2-Dichloroethane-D4	0.0474	0.0500	95	63-144	
Toluene-D8	0.0513	0.0500	103	80-117	

Lab Batch #: 780197

Sample: 350336-001 / SMP

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/03/09 12:47

### SURROGATE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0529	0.0500	106	74-124	
Dibromofluoromethane	0.0512	0.0500	102	75-131	
1,2-Dichloroethane-D4	0.0517	0.0500	103	63-144	
Toluene-D8	0.0510	0.0500	102	80-117	

Lab Batch #: 780197

Sample: 350360-004 S / MS

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/03/09 14:09

### SURROGATE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0511	0.0500	102	74-124	
Dibromofluoromethane	0.0482	0.0500	96	75-131	
1,2-Dichloroethane-D4	0.0513	0.0500	103	63-144	
Toluene-D8	0.0512	0.0500	102	80-117	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 \cdot A / B$

All results are based on MDL and validated for QC purposes.



## Form 2 - Surrogate Recoveries

Project Name: Maljamar Plant

Work Orders : 350336,

Lab Batch #: 780197

Sample: 350360-004 SD / MSD

Project ID:

Batch: 1 Matrix: Water

Units: mg/L

Date Analyzed: 11/03/09 14:30

### SURROGATE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
4-Bromofluorobenzene	0.0530	0.0500	106	74-124	
Dibromofluoromethane	0.0474	0.0500	95	75-131	
1,2-Dichloroethane-D4	0.0515	0.0500	103	63-144	
Toluene-D8	0.0489	0.0500	98	80-117	

\* Surrogate outside of Laboratory QC limits

\*\* Surrogates outside limits; data and surrogates confirmed by reanalysis

\*\*\* Poor recoveries due to dilution

Surrogate Recovery [D] =  $100 * A / B$

All results are based on MDL and validated for QC purposes.

Project Name: Maljamar Plant

Work Order #: 350336

Project ID:

Lab Batch #: 780197

Sample: 542281-1-BKS

Matrix: Water

Date Analyzed: 11/03/2009

Date Prepared: 11/03/2009

Analyst: JEA

Reporting Units: mg/L

Batch #: 1

## BLANK /BLANK SPIKE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Benzene	ND	0.050	0.051	102	66-142	
Bromobenzene	ND	0.050	0.046	92	60-130	
Bromochloromethane	ND	0.050	0.053	106	73-125	
Bromodichloromethane	ND	0.050	0.052	104	75-125	
Bromoform	ND	0.050	0.049	98	75-125	
Bromomethane	ND	0.050	0.052	104	70-130	
MTBE	ND	0.050	0.054	108	75-125	
n-Butylbenzene	ND	0.050	0.048	96	75-125	
Sec-Butylbenzene	ND	0.050	0.047	94	75-125	
tert-Butylbenzene	ND	0.050	0.047	94	75-125	
Carbon Tetrachloride	ND	0.050	0.046	92	62-125	
Chlorobenzene	ND	0.050	0.044	88	60-133	
Chloroethane	ND	0.050	0.052	104	70-130	
Chloroform	ND	0.050	0.054	108	74-125	
Chloromethane	ND	0.050	0.049	98	70-130	
2-Chlorotoluene	ND	0.050	0.045	90	73-125	
4-Chlorotoluene	ND	0.050	0.048	96	74-125	
p-Cymene (p-Isopropyltoluene)	ND	0.050	0.048	96	75-125	
Dibromochloromethane	ND	0.050	0.045	90	60-130	
1,2-Dibromo-3-Chloropropane	ND	0.050	0.055	110	59-125	
1,2-Dibromoethane	ND	0.050	0.050	100	73-125	
Dibromomethane	ND	0.050	0.055	110	69-127	
1,2-Dichlorobenzene	ND	0.050	0.046	92	75-125	
1,3-Dichlorobenzene	ND	0.050	0.046	92	75-125	
1,4-Dichlorobenzene	ND	0.050	0.046	92	75-125	
Dichlorodifluoromethane	ND	0.050	0.052	104	70-130	
1,1-Dichloroethane	ND	0.050	0.052	104	60-130	
1,2-Dichloroethane	ND	0.050	0.056	112	68-127	
1,1-Dichloroethene	ND	0.050	0.050	100	59-172	
cis-1,2-Dichloroethene	ND	0.050	0.054	108	60-130	
trans-1,2-dichloroethene	ND	0.050	0.052	104	60-130	
1,2-Dichloropropane	ND	0.050	0.055	110	74-125	
1,3-Dichloropropane	ND	0.050	0.054	108	75-125	

Blank Spike Recovery [D] =  $100 * [C] / [B]$

All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit

**Project Name: Maljamar Plant**

**Work Order #: 350336**

**Project ID:**

**Lab Batch #: 780197**

**Sample: 542281-1-BKS**

**Matrix: Water**

**Date Analyzed: 11/03/2009**

**Date Prepared: 11/03/2009**

**Analyst: JEA**

**Reporting Units: mg/L**

**Batch #: 1**

**BLANK /BLANK SPIKE RECOVERY STUDY**

VOAs by SW-846 8260B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
2,2-Dichloropropane	ND	0.050	0.052	104	60-140	
1,1-Dichloropropene	ND	0.050	0.050	100	75-125	
cis-1,3-Dichloropropene	ND	0.050	0.051	102	60-140	
trans-1,3-dichloropropene	ND	0.050	0.050	100	66-125	
Ethylbenzene	ND	0.050	0.044	88	75-125	
Hexachlorobutadiene	ND	0.050	0.048	96	75-125	
isopropylbenzene	ND	0.050	0.045	90	75-125	
Methylene Chloride	ND	0.050	0.060	120	75-125	
Naphthalene	ND	0.050	0.049	98	65-135	
n-Propylbenzene	ND	0.050	0.045	90	75-125	
Styrene	ND	0.050	0.047	94	60-130	
1,1,1,2-Tetrachloroethane	ND	0.050	0.046	92	75-125	
1,1,2,2-Tetrachloroethane	ND	0.050	0.043	86	50-130	
Tetrachloroethylene	ND	0.050	0.044	88	60-130	
Toluene	ND	0.050	0.043	86	59-139	
1,2,3-Trichlorobenzene	ND	0.050	0.049	98	75-137	
1,2,4-Trichlorobenzene	ND	0.050	0.049	98	75-135	
1,1,1-Trichloroethane	ND	0.050	0.052	104	75-125	
1,1,2-Trichloroethane	ND	0.050	0.052	104	75-127	
Trichloroethene	ND	0.050	0.052	104	62-137	
Trichlorofluoromethane	ND	0.050	0.050	100	67-125	
1,2,3-Trichloropropane	ND	0.050	0.045	90	75-125	
1,2,4-Trimethylbenzene	ND	0.050	0.048	96	75-125	
1,3,5-Trimethylbenzene	ND	0.050	0.047	94	70-125	
o-Xylene	ND	0.050	0.046	92	75-125	
m,p-Xylenes	ND	0.100	0.092	92	75-125	
Vinyl Chloride	ND	0.050	0.049	98	75-125	

Blank Spike Recovery [D] = 100\*[C]/[B]

All results are based on MDL and validated for QC purposes.

BRL - Below Reporting Limit



## BS / BSD Recoveries



Project Name: Maljamar Plant

Work Order #: 350336

Analyst: LATCOR

Lab Batch ID: 780359

Sample: 542392-1-BKS

Batch #: 1

Project ID:

Date Analyzed: 11/05/2009

Matrix: Water

Units: mg/L

### BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TCLP Mercury by SW 7470A	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Mercury	ND	0.0010	0.0010	100	0.001	0.0009	90	11	75-125	20	

Analyst: LATCOR

Date Prepared: 11/03/2009

Date Analyzed: 11/04/2009

Lab Batch ID: 780354

Sample: 542367-1-BKS

Batch #: 1

Matrix: Water

Units: mg/L

### BLANK / BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

TCLP Metals per ICP by SW846 6010B	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Antimony	ND	1.20	1.12	93	1.2	1.08	90	4	75-125	25	
Arsenic	ND	0.800	0.693	87	0.8	0.675	84	3	75-125	25	
Barium	ND	0.150	0.151	101	0.15	0.148	99	2	75-125	25	
Beryllium	ND	0.150	0.158	105	0.15	0.157	105	1	75-125	25	
Cadmium	ND	0.150	0.167	111	0.15	0.161	107	4	75-125	25	
Chromium	ND	0.150	0.149	99	0.15	0.144	96	3	75-125	25	
Lead	ND	1.10	0.928	84	1.1	0.904	82	3	75-125	25	
Nickel	ND	0.500	0.473	95	0.5	0.461	92	3	75-125	25	
Selenium	ND	0.300	0.325	108	0.3	0.328	109	1	75-125	25	
Silver	ND	0.050	0.051	102	0.05	0.049	98	4	75-125	25	

Relative Percent Difference RPD =  $200 \cdot |(C-F)/(C+F)|$

Blank Spike Recovery [D] =  $100 \cdot (C)/[B]$

Blank Spike Duplicate Recovery [G] =  $100 \cdot (F)/[E]$

All results are based on MDL and Validated for QC Purposes



# Form 3 - MS / MSD Recoveries



Project Name: Maljamar Plant

Work Order #: 350336

Project ID:

Lab Batch ID: 780359

QC- Sample ID: 350336-001 S

Batch #: 1 Matrix: Water

Date Analyzed: 11/05/2009

Date Prepared: 11/04/2009

Analyst: LATCOR

Reporting Units: mg/L

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TCLP Mercury by SW 7470A	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Mercury	ND	0.0010	0.0007	70	0.0010	0.0007	70	0	75-125	20	X

Lab Batch ID: 780354

QC- Sample ID: 350336-001 S

Batch #: 1 Matrix: Water

Date Analyzed: 11/04/2009

Date Prepared: 11/03/2009

Analyst: LATCOR

Reporting Units: mg/L

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

TCLP Metals per ICP by SW846 6010B	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Analytes											
Antimony	ND	1.20	1.06	88	1.20	1.06	88	0	75-125	25	
Arsenic	ND	0.800	0.685	86	0.800	0.686	86	0	75-125	25	
Barium	0.128	0.150	0.301	115	0.150	0.291	109	3	75-125	25	
Beryllium	ND	0.150	0.153	102	0.150	0.150	100	2	75-125	25	
Cadmium	ND	0.150	0.160	107	0.150	0.158	105	1	75-125	25	
Chromium	ND	0.150	0.138	92	0.150	0.136	91	1	75-125	25	
Lead	ND	1.10	0.874	79	1.10	0.862	78	1	75-125	25	
Nickel	ND	0.500	0.425	85	0.500	0.421	84	1	75-125	25	
Selenium	ND	0.300	0.295	98	0.300	0.290	97	2	75-125	25	
Silver	ND	0.050	0.048	96	0.050	0.046	92	4	75-125	25	

Matrix Spike Percent Recovery [D] = 100\*(C-A)/B  
Relative Percent Difference RPD = 200\*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100\*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable  
N = See Narrative, EQL = Estimated Quantitation Limit



# Form 3 - MS / MSD Recoveries



Project Name: Maljamar Plant

Work Order #: 350336

Project ID:

Lab Batch ID: 780197

QC- Sample ID: 350360-004 S

Batch #: 1 Matrix: Water

Date Analyzed: 11/03/2009

Date Prepared: 11/03/2009

Analyst: JEA

Reporting Units: mg/L

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

VOAs by SW-846 8260B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Benzene	ND	0.050	0.046	92	0.050	0.049	98	6	66-142	21	
Bromobenzene	ND	0.050	0.042	84	0.050	0.045	90	7	60-130	20	
Bromochloromethane	ND	0.050	0.047	94	0.050	0.053	106	12	73-125	20	
Bromodichloromethane	ND	0.050	0.049	98	0.050	0.052	104	6	75-125	20	
Bromoform	ND	0.050	0.043	86	0.050	0.049	98	13	75-125	20	
Bromomethane	ND	0.050	0.048	96	0.050	0.047	94	2	70-130	20	
MTBE	ND	0.050	0.049	98	0.050	0.052	104	6	75-125	20	
n-Butylbenzene	ND	0.050	0.041	82	0.050	0.044	88	7	75-125	20	
Sec-Butylbenzene	ND	0.050	0.040	80	0.050	0.044	88	10	75-125	20	
tert-Butylbenzene	ND	0.050	0.041	82	0.050	0.043	86	5	75-125	20	
Carbon Tetrachloride	ND	0.050	0.042	84	0.050	0.045	90	7	62-125	20	
Chlorobenzene	ND	0.050	0.042	84	0.050	0.043	86	2	60-133	21	
Chloroethane	ND	0.050	0.044	88	0.050	0.046	92	4	70-130	20	
Chloroform	ND	0.050	0.048	96	0.050	0.051	102	6	74-125	20	
Chloromethane	ND	0.050	0.041	82	0.050	0.042	84	2	70-130	20	
2-Chlorotoluene	ND	0.050	0.041	82	0.050	0.045	90	9	73-125	20	
4-Chlorotoluene	ND	0.050	0.042	84	0.050	0.046	92	9	74-125	20	
p-Cymene (p-Isopropyltoluene)	ND	0.050	0.041	82	0.050	0.045	90	9	75-125	20	
Dibromochloromethane	ND	0.050	0.043	86	0.050	0.045	90	5	60-130	20	
1,2-Dibromo-3-Chloropropane	ND	0.050	0.051	102	0.050	0.054	108	6	59-125	28	
1,2-Dibromoethane	ND	0.050	0.049	98	0.050	0.051	102	4	73-125	20	
Dibromomethane	ND	0.050	0.050	100	0.050	0.056	112	11	69-127	23	
1,2-Dichlorobenzene	ND	0.050	0.042	84	0.050	0.046	92	9	75-125	20	

Matrix Spike Percent Recovery  $[D] = 100 \cdot (C-A)/B$   
Relative Percent Difference  $RPD = 200 \cdot |(C-F)/(C+F)|$

Matrix Spike Duplicate Percent Recovery  $[G] = 100 \cdot (F-A)/E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable  
N = See Narrative, EQL = Estimated Quantitation Limit



## Form 3 - MS / MSD Recoveries



Project Name: Maljamar Plant

Work Order #: 350336

Project ID:

Lab Batch ID: 780197

QC- Sample ID: 350360-004 S

Batch #: 1 Matrix: Water

Date Analyzed: 11/03/2009

Date Prepared: 11/03/2009

Analyst: JEA

Reporting Units: mg/L

VOAs by SW-846 8260B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
1,3-Dichlorobenzene	ND	0.050	0.041	82	0.050	0.044	88	7	75-125	20	
1,4-Dichlorobenzene	ND	0.050	0.040	80	0.050	0.044	88	10	75-125	20	
Dichlorodifluoromethane	ND	0.050	0.044	88	0.050	0.045	90	2	70-130	23	
1,1-Dichloroethane	ND	0.050	0.045	90	0.050	0.047	94	4	60-130	20	
1,2-Dichloroethane	ND	0.050	0.051	102	0.050	0.054	108	6	68-127	20	
1,1-Dichloroethene	ND	0.050	0.042	84	0.050	0.045	90	7	59-172	22	
cis-1,2-Dichloroethene	ND	0.050	0.047	94	0.050	0.049	98	4	60-130	20	
trans-1,2-dichloroethene	ND	0.050	0.045	90	0.050	0.046	92	2	60-130	20	
1,2-Dichloropropane	ND	0.050	0.050	100	0.050	0.051	102	2	74-125	20	
1,3-Dichloropropane	ND	0.050	0.048	96	0.050	0.053	106	10	75-125	20	
2,2-Dichloropropane	ND	0.050	0.045	90	0.050	0.047	94	4	60-140	20	
1,1-Dichloropropene	ND	0.050	0.044	88	0.050	0.045	90	2	75-125	20	
cis-1,3-Dichloropropene	ND	0.050	0.045	90	0.050	0.051	102	13	60-140	20	
trans-1,3-dichloropropene	ND	0.050	0.049	98	0.050	0.052	104	6	66-125	20	
Ethylbenzene	ND	0.050	0.041	82	0.050	0.042	84	2	75-125	20	
Hexachlorobutadiene	ND	0.050	0.039	78	0.050	0.044	88	12	75-125	20	
isopropylbenzene	ND	0.050	0.041	82	0.050	0.042	84	2	75-125	20	
Methylene Chloride	ND	0.050	0.048	96	0.050	0.049	98	2	75-125	35	
Naphthalene	ND	0.050	0.040	80	0.050	0.045	90	12	65-135	20	
n-Propylbenzene	ND	0.050	0.040	80	0.050	0.043	86	7	75-125	20	
Styrene	ND	0.050	0.042	84	0.050	0.043	86	2	60-130	51	
1,1,1,2-Tetrachloroethane	ND	0.050	0.045	90	0.050	0.046	92	2	75-125	20	
1,1,2,2-Tetrachloroethane	ND	0.050	0.040	80	0.050	0.043	86	7	50-130	31	

Matrix Spike Percent Recovery  $[D] = 100 \cdot (C-A)/B$

Relative Percent Difference  $RPD = 200 \cdot [(C-F)/(C+F)]$

Matrix Spike Duplicate Percent Recovery  $[G] = 100 \cdot (F-A)/E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not

ApplicableN = See Narrative. EQL = Estimated Quantitation Limit





## Form 3 - MS / MSD Recoveries



Project Name: Maljamar Plant

Work Order #: 350336

Project ID:

Lab Batch ID: 780197

QC- Sample ID: 350360-004 S

Batch #: 1 Matrix: Water

Date Analyzed: 11/03/2009

Date Prepared: 11/03/2009

Analyst: JEA

Reporting Units: mg/L

VOAs by SW-846 8260B Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Tetrachloroethylene	ND	0.050	0.040	80	0.050	0.041	82	2	60-130	20	
Toluene	ND	0.050	0.040	80	0.050	0.042	84	5	59-139	21	
1,2,3-Trichlorobenzene	ND	0.050	0.042	84	0.050	0.045	90	7	75-137	20	
1,2,4-Trichlorobenzene	ND	0.050	0.041	82	0.050	0.043	86	5	75-135	20	
1,1,1-Trichloroethane	ND	0.050	0.045	90	0.050	0.046	92	2	75-125	20	
1,1,2-Trichloroethane	ND	0.050	0.046	92	0.050	0.051	102	10	75-127	20	
Trichloroethene	ND	0.050	0.044	88	0.050	0.047	94	7	62-137	24	
Trichlorofluoromethane	ND	0.050	0.045	90	0.050	0.046	92	2	67-125	20	
1,2,3-Trichloropropane	ND	0.050	0.043	86	0.050	0.046	92	7	75-125	20	
1,2,4-Trimethylbenzene	ND	0.050	0.042	84	0.050	0.046	92	9	75-125	20	
1,3,5-Trimethylbenzene	ND	0.050	0.042	84	0.050	0.045	90	7	70-125	20	
o-Xylene	ND	0.050	0.042	84	0.050	0.042	84	0	75-125	20	
m,p-Xylenes	ND	0.100	0.084	84	0.100	0.087	87	4	75-125	20	
Vinyl Chloride	ND	0.050	0.040	80	0.050	0.043	86	7	75-125	20	

Matrix Spike Percent Recovery  $[D] = 100 * (C - A) / B$   
Relative Percent Difference  $RPD = 200 * [(C - F) / (C + F)]$

Matrix Spike Duplicate Percent Recovery  $[G] = 100 * (F - A) / E$

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable  
N = See Narrative, EQL = Estimated Quantitation Limit

## The Environmental Lab of Texas

**12600 West I-20 East  
Odessa, Texas 79765**

**Phone: 432-563-1800**  
**Fax: 432-563-1713**

**Sampler Signature:**

Steve Maker

Frontier Field Services LLC

1001 Conoco Road

Maljamar, NM

**Fax No:**

**e-mail:**

**PO #:**

Maljamar Plant

cc: NALJAMAR, NM

**Report Format:** ☐ Standard ☐ TRRP ☐ NPDES

[illegible]

# Environmental Lab of Texas

## Variance/ Corrective Action Report- Sample Log-In

Client: Frontier Field Services  
 Date/ Time: 10.29.07 16:30  
 Lab ID #: 390336  
 Initials: AL

### Sample Receipt Checklist

				Client Initials
#1	Temperature of container/ cooler?	<u>Yes</u>	No	<u>1.5</u> °C
#2	Shipping container in good condition?	<u>Yes</u>	No	
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	<u>Not Present</u>
#4	Custody Seals intact on sample bottles/ container?	Yes	No	<u>Not Present</u>
#5	Chain of Custody present?	<u>Yes</u>	No	
#6	Sample instructions complete of Chain of Custody?	<u>Yes</u>	No	
#7	Chain of Custody signed when relinquished/ received?	<u>Yes</u>	No	
#8	Chain of Custody agrees with sample label(s)?	<u>Yes</u>	No	ID written on Cont./ Lid
#9	Container label(s) legible and intact?	<u>Yes</u>	No	Not Applicable
#10	Sample matrix/ properties agree with Chain of Custody?	<u>Yes</u>	No	
#11	Containers supplied by ELOT?	<u>Yes</u>	No	
#12	Samples in proper container/ bottle?	<u>Yes</u>	No	See Below
#13	Samples properly preserved?	<u>Yes</u>	No	See Below
#14	Sample bottles intact?	<u>Yes</u>	No	
#15	Preservations documented on Chain of Custody?	<u>Yes</u>	No	
#16	Containers documented on Chain of Custody?	<u>Yes</u>	No	
#17	Sufficient sample amount for indicated test(s)?	<u>Yes</u>	No	See Below
#18	All samples received within sufficient hold time?	<u>Yes</u>	No	See Below
#19	Subcontract of sample(s)?	<u>Yes</u>	No	Not Applicable
#20	VOC samples have zero headspace?	<u>Yes</u>	No	Not Applicable

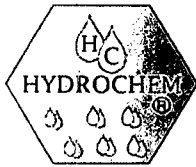
### Variance Documentation

Contact: \_\_\_\_\_ Contacted by: \_\_\_\_\_ Date/ Time: \_\_\_\_\_

Regarding: VOC subbed to Xence - Dallas

Corrective Action Taken:

- Check all that Apply:
- ☐ See attached e-mail/ fax
  - ☐ Client understands and would like to proceed with analysis
  - ☐ Cooling process had begun shortly after sampling event



# Water Analysis Report

## Continental Products of Texas

"Specialty Oilfield & Water Chemical Solutions"  
 100 Industrial Avenue PO Box 3627 Odessa TX 79760 432-337-4681 800-592-4684  
 www.cptonline.com

Company: **Frontier Field Services**

To:

Plant: **Majamar**

Location:

Date Sampled: **5/21/2008**

Analysis Number	47958	47959			
Source of Sample	Produced Water #2	Produced Water #3			
	mg/L	mg/L	mg/L	mg/L	mg/L
<b>Alkalinity, CaCO<sub>3</sub></b>					
Total	2998	2505			
Phenolphthalein	1476	1140			
Free Mineral Acidity					
<b>Total Hardness, CaCO<sub>3</sub></b>	0	0			
Calcium (Ca)	0	0			
Magnesium (Mg)	0	0			
<b>Ions</b>					
Chloride (Cl)	161	213			
Sulfate (SO <sub>4</sub> )	110	48			
Iron (Fe)	1.98	1.00			
Silica (SiO <sub>2</sub> )	<1	1			
Copper (Cu)					
Conductivity	4347	4109			
pH	8.72	8.71			
<b>Phosphate</b>					
Total (PO <sub>4</sub> )					
Ortho (PO <sub>4</sub> )					
<b>Miscellaneous</b>					
Sodium Sulfite (NaSO <sub>3</sub> )					
Causticity (OH)					
Oil & Grease					
Nitrite (NO <sub>2</sub> )					
Freeze Point, °F					
Antipol 310					
Tag Polymer					

Comments:

**MALJAMAR GAS PLANT  
STORMWATER RUNOFF PLAN**

**PREPARED FOR:  
CONOCO INCORPORATED  
P.O. BOX 90  
MALJAMAR, NEW MEXICO 88260**

**PREPARED BY:  
MAXIM TECHNOLOGIES  
10601 LOMAS, SUITE 106  
ALBUQUERQUE, NEW MEXICO 87112**

**SEPTEMBER 2000**

## 1.0 INTRODUCTION

The New Mexico Energy, Minerals, and Natural Resources Department's Oil Conservation Division (OCD) requested that Conoco Inc.'s Maljamar Gas Plant (Maljamar) prepare and submit a stormwater runoff plan addressing potential stormwater issues at the Maljamar site. Maljamar is exempt from stormwater permitting under the CWA NPDES permit, and is not required to have a Stormwater Pollution Prevention Plan (SWPPP). This plan discusses Maljamar's site drainage scenario and outlines actions taken to minimize potential for contamination of and erosion by surface water runoff.

## 2.0 SITE DESCRIPTION

Conoco, Inc. has operated the Maljamar Gas Plant since 1960. The site is in Lea County, New Mexico, about three miles south of Maljamar off Farm Road 126. The plant processes 40 to 60 million cubic feet of natural gas per day and produces gas liquids (ethane, propane, butane, and condensate). The products are sold and transported off site by pipeline.

### 2.1 Facilities

Site facilities include several buildings, tanks, and uncovered equipment skids (Figure MJ2001). Major structures include:

- two compressor buildings;
- a refrigerator compressor building;
- controls building;
- maintenance shop;
- warehouse; and
- office building.

Some equipment is on unroofed skids, including:

- refrigeration equipment;
- demethanizers;
- raw product tanks;
- vapor recovery tanks;
- an LP gas tank;
- a sludge tank
- an amine skid;
- assorted control panels;
- assorted chemical storage areas.

## **2.2 Roads**

The site surface is composed primarily of a silty sand soil. Most of the site is accessible to light vehicles, but actual graded roadways are limited. There are no paved roads inside the fenced area controlled by Conoco.

## **2.3 Buildings**

The buildings at Maljamar comprise less than 20 percent of the total area of the site, and as such should have minimal effect on site runoff patterns.

## **2.4 Containment Areas**

Containment is provided for all chemical, fuel, and other reagent storage areas on site. All chemical storage drums are stored on concrete pads with curbs to control spills. The majority of the aboveground saddle tanks are mounted on curbed concrete containment slabs while some are equipped with fiberglass containment tanks. All other tanks on site are inside containment berms.

Compressor skids at Maljamar have been designed to contain engine oil spills and leaks as well as other chemicals or reagents used at the compressors.

## **2.5 Reagents Stored and Used on Site**

Chemicals and other materials stored and used on the Maljamar plant site include the following:

- Diethanolomine;
- Methanol;
- Liquid Antifoam;
- Detergents;
- F-20 Low pH;
- Stoddard solvent;
- LCS-20;
- Emulsotron XY-409;
- Elmar 3000 engine oil;
- Elmar ashless engine oil;
- Kerosene;
- Antifreeze;
- Diesel;
- Turbine oil.

Please refer to the plot plan and chemical inventory (Figure MJ20001). The plot plan includes equipment location as well as location of reagent consumption on the site for each of the above mentioned chemicals.

## **2.6 Local Weather and Storm Information**

The Maljamar site is considered semi-arid to arid, and receives about 12 to 13 inches of precipitation annually, mostly in the form of rain. The 100 year – 24 hour storm for the site is approximately 5 inches (NOAA Atlas 2, Vol. IV., U.S. Department of Commerce, National Oceanic and Atmospheric Administration).

## **3.0 STORMWATER DRAINAGE**

The Maljamar site grades gently from northeast to southwest. The site elevation near the north property fence is 4017 feet above mean sea level (amsl). The elevation near the property fence west of the Clark Compressor building is 4004 feet amsl, resulting in an average grade across the site of approximately 1.4 percent. The steepest pitch on site is southwest of the Clark Compressor building, where the grade runs 6 percent for about 60 feet.

The soil in the Maljamar area is a silty sand with relatively high permeability. It also is somewhat non-cohesive and contains a low percentage of coarse fragments near the surface. While the soil will absorb some precipitation and pass it as interflow, high-intensity, short duration storms could produce sediment transport.

Over most of the Maljamar site, the 100 year-24 hour storm should result in manageable sheet flow, with limited tendency to produce rilling or gullies. Steeper areas near the compressor building on the northeast corner of the site and near the Clark Compressor could result in erosive action during a high intensity, short-duration storm event.

Potential for discharge of surface water runoff from Maljamar to a Water of the U.S. is limited. There are no surface water features (streams, wetlands, springs, or seeps) within one mile of the Maljamar site.

## **4.0 STORMWATER MANAGEMENT**

Stormwater management at Maljamar is accomplished through installation and management of spill and leak containment structures at key points on the site. All chemical storage and usage points on the plant site have been equipped with containment structures. Sumps are maintained regularly. Inspection and preventive maintenance of the containment structures at Maljamar are critical to ensuring proper



Conoco Inc. Maljamar Gas Plant Stormwater Runoff Plan

operation of the system. Visual inspections of the entire site are conducted at least once per shift (twice per 24 hour period). Spills are cleaned up in a timely manner using environmentally sound methods and equipment.

## **5.0 CONTACTS**

### **Natural Gas & Gas Products Environmental Contact**

Joyce M. Miley  
Environmental Consultant  
Conoco, Inc., Natural Gas and Gas Products Department  
P.O. Box 2197 – Humber 3036  
Houston, Texas 77725-2197  
(281) 293-4498

### **Site Contact**

Marshall Honeyman  
Plant Manager  
Conoco Inc. Maljamar Gas Processing Plant  
P.O. Box 90  
Maljamar, New Mexico 88264  
(505) 676-3501

FIGURE



**Frontier Field Services, LLC**  
*Southern Ute Indian Tribe*

Randy McCollum  
Manager of Compliance

Phone (505) 676-3505  
Cell (505) 361-0128  
rmccollum@frontierfieldservices.com

May 14, 2005

**CERTIFIED MAIL # 7004 0750 0002 5384 6137**  
**RETURN RECEIPT REQUESTED**

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

**Re: GW-020 Discharge Plan**  
**Maljamar Gas Plant**  
**Annual Sump and Five Year Underground Piping Inspection**  
**Frontier Field Services**

Dear Mr. Price:

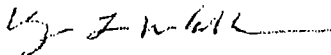
On April 10, 2005 notice was given to Paul Sheeley and Chris Williams of the local NMOCD office in Hobbs, NM that a planned inspection of sumps and underground piping as required in our Discharge Plan would be performed beginning April 14, 2005.

During the time period from April 14 through April 27, 2005 the #8 Clark cellar, plant sumps, and underground piping was inspected. Copies of the inspection records are attached. A copy of this letter is also appended to the GW-020 renewal application.

For the underground piping inspection a circular chart was used to record each inspection. The recorder was calibrated by a Frontier Field Services employee skilled in meter calibration. The chart range is from 0% to 100%, calibrated to 50 psig at 100%. The piping inspections were performed at approximately 20 psig held for at least 4 hours.

If you have any questions or require more information please contact me at 505-676-3505.

Sincerely,



Randy L. McCollum

Paul Sheeley, OCD-Hobbs  
✓ File: Env 1054

# Frontier Field Services, LLC

*Southern Ute Indian Tribe*

April 27, 2005

## OCD Drain Line Test for 2005

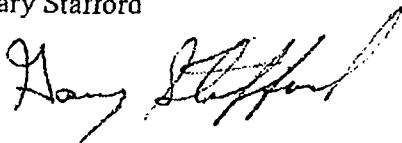
East and West Expander Sumps 3'  $\frac{3}{4}$ ";      Start test 11:00 a.m. on 4/13/05  
End test 11:00 a.m. on 4/14/05

Refridge Sump 6'8";      Start test 2:30 p.m. on 4/14/05  
End test 3:00 p.m. on 4/15/05

Sump Southside of Old Electric Building;      Start test 7:30 a.m. on 4/18/05      6'8"  
End test 7:30 a.m. on 4/19/05      6'8"

Amine Sump;      Start test 7:30 a.m., on 4/25/05      43  $\frac{1}{2}$ "  
End test 7:30 a.m., on 4/26/05      43  $\frac{1}{2}$ "

Gary Stafford



# Frontier Field Services, LLC

*Southern Ute Indian Tribe*

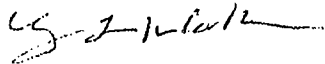
April 15, 2005

#8 Clark was shutdown and the cellar surrounding the unit was emptied, mopped and steam cleaned. The cellar was allowed to dry overnight, April 14, 2005, and was visually inspected on April 15 by Randy McCollum.

The inspection consisted of entry into the cellar and making a close examination of the cellar floor and walls, looking for cracks or other evidence that fluids might be leaking.

No evidence of leaks was found during the inspection. The unit was left down for several hours to give NMOCD personnel time to arrive at the site. The unit was then returned to service.

Randy McCollum



3 4 5 6 AM

Calibrated  
4-22-05  
110# spring  
JDN

GRAPHIC CONTROLS CORPORATION  
SHEPARD, NEW YORK

CHART NO.  
MC MP-100

METER

4-22-05  
CHART PUT ON  
1445

LOCATION

TAKEN OFF  
2115

REMARKS Spring to 110#  
9/15

110#

110#

110#

6 AM

Calibrated  
4-5-65  
50# spring  
SDW



GRAPHO CONTROLS CORPORATION  
BETHLEHEM, PA. 18010

CHART NO.  
MC MP-100

METER

CHART PUT ON

1400

M

TAKEN OFF

1900

M

LOCATION

REMARKS 1" to 110 Tank

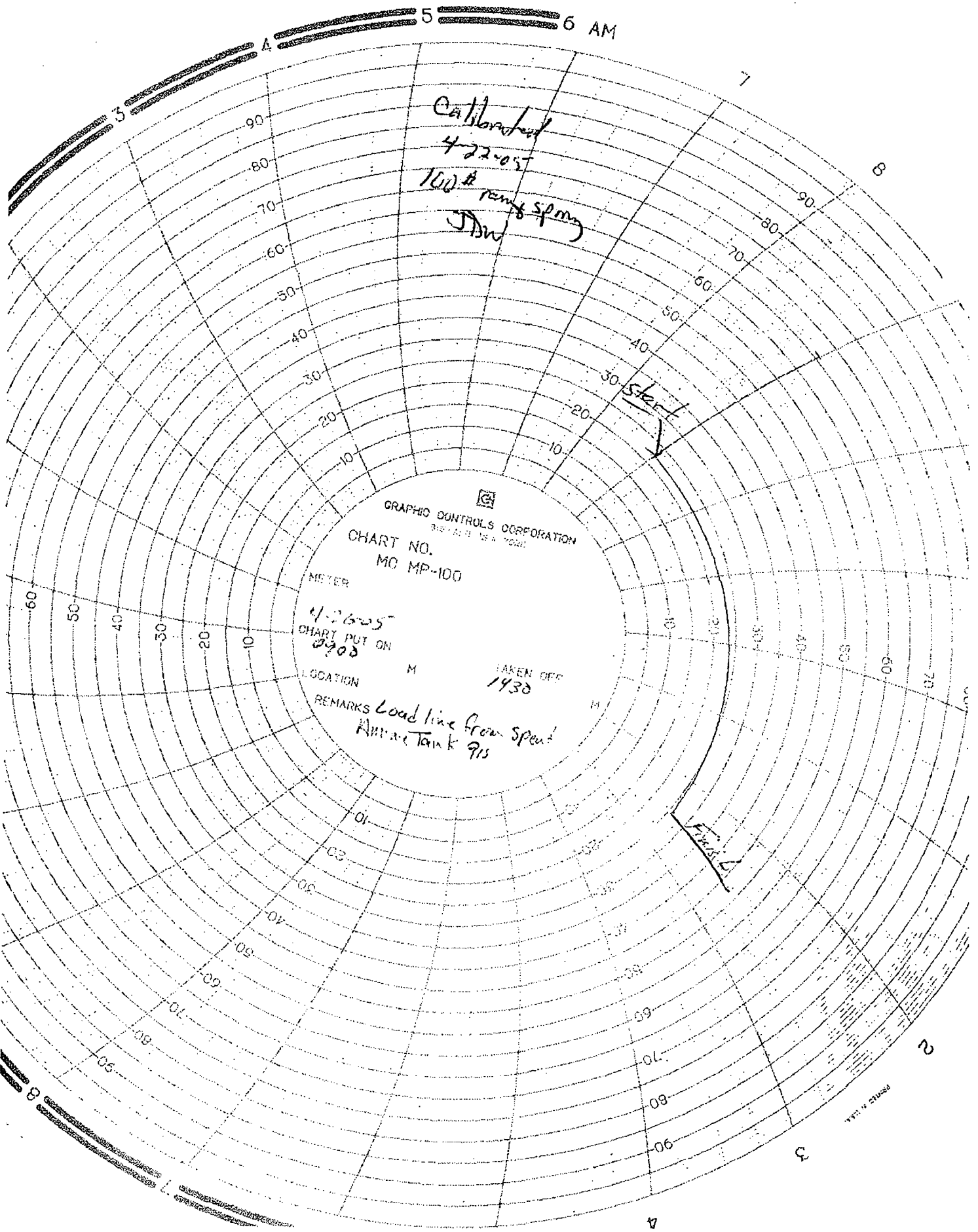
4-19-65 9B

Start

Finish

100% H. 2000





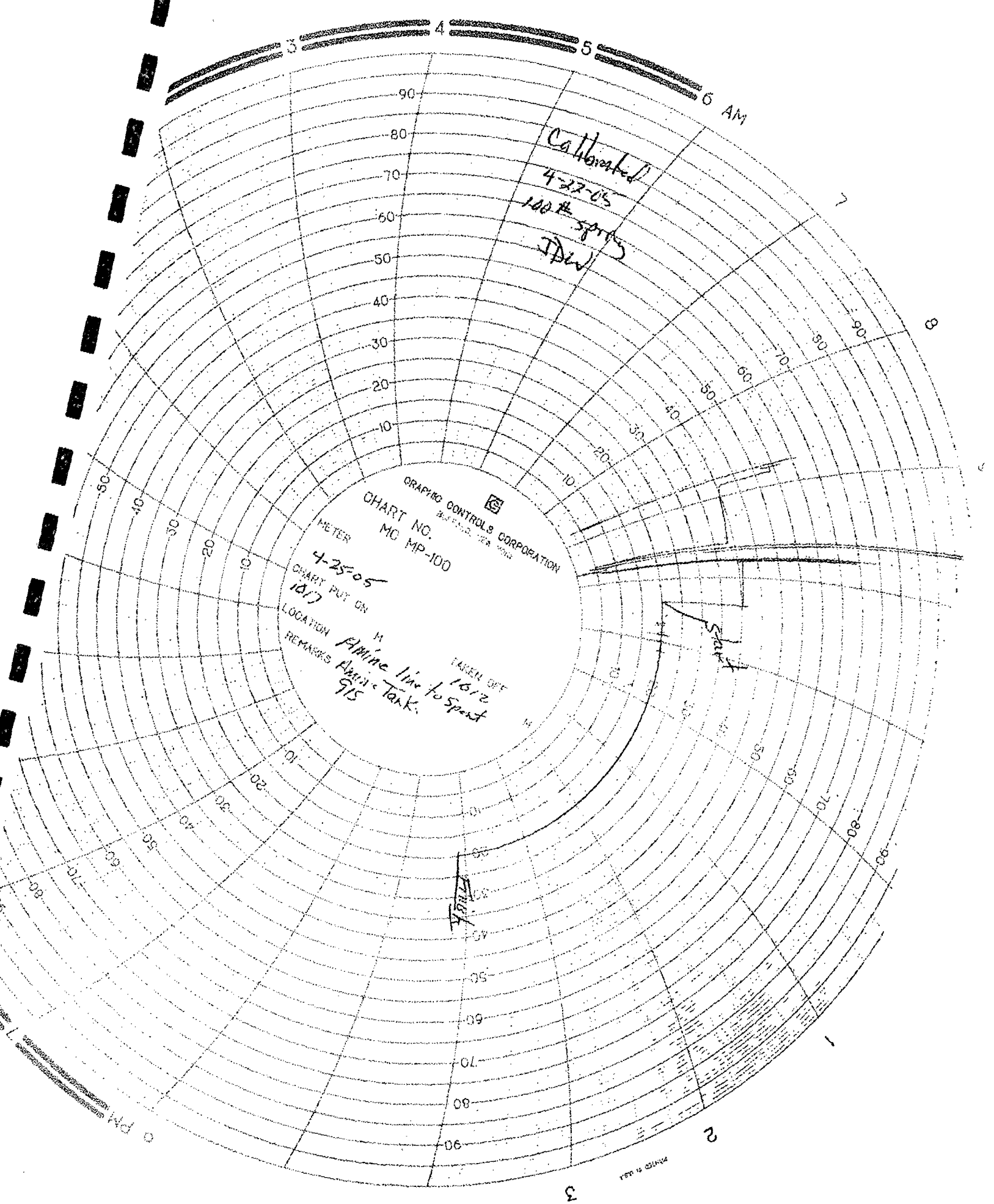
Calibrated  
4-22-05  
100 lb ramp spring  
JDN

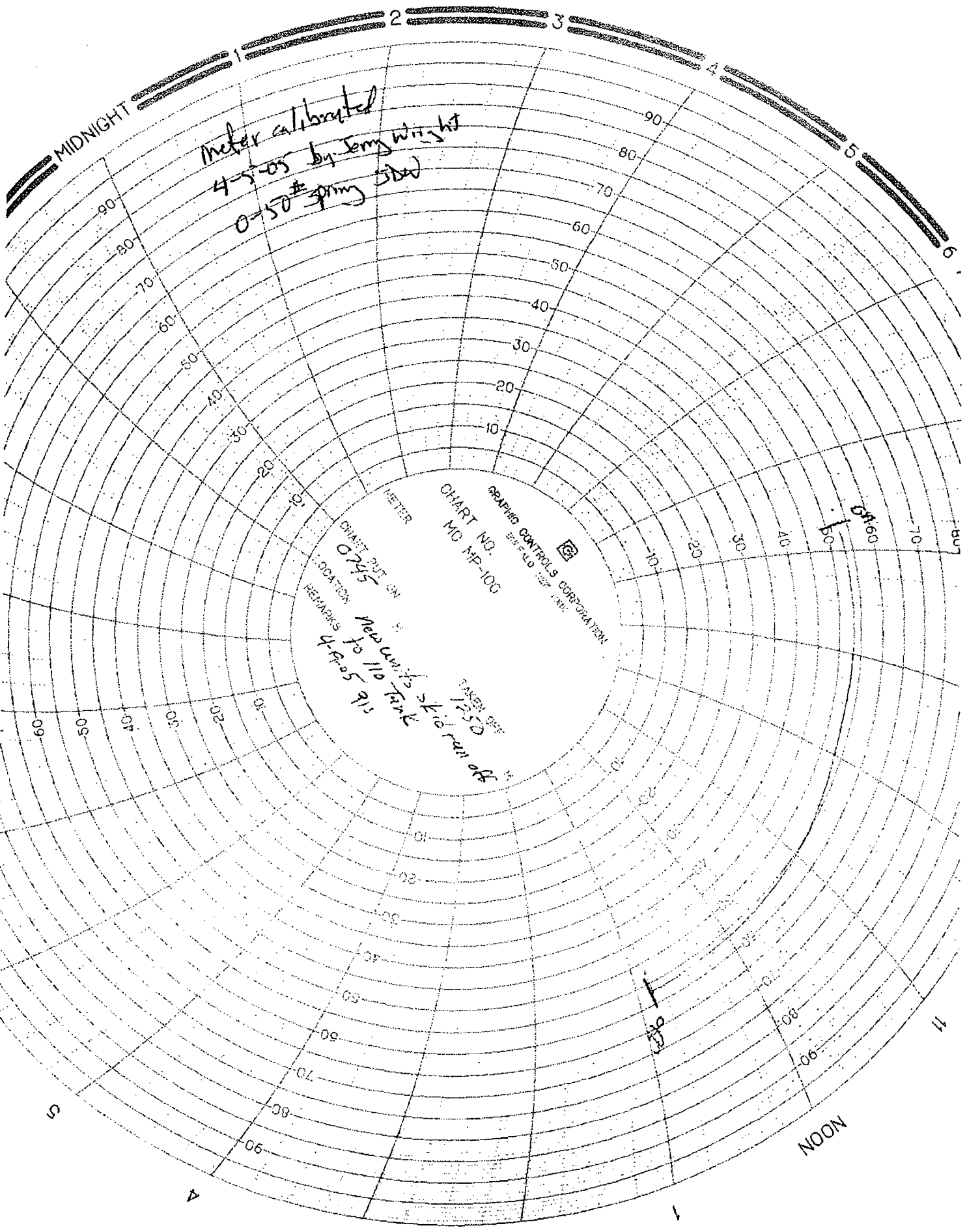
GRAPHIC CONTROLS CORPORATION  
CHART NO.  
MC MP-100

METER  
4-26-05  
CHART PUT ON  
0900  
LOCATION M  
TAKEN OFF  
1930  
REMARKS Load line from Speed  
Airline Tank 915

Start

End





*meter calibrated  
4-5-05 by Jerry Wright  
0-50 # spring 5000*

GRAPHIC CONTROLS CORPORATION  
CHART NO. MC MP-100  
METER  
CHART PUT ON  
0745  
LOCATION  
REMARKS  
New units skid run off  
to 110 tank  
4-6-05 915  
TAKEN OFF  
1250

*CH 60*

*100*

NOON

**Randy McCollum**

**From:** Randy McCollum [rmccollum@frontierfieldservices.com]  
**Sent:** Sunday, April 10, 2005 1:55 PM  
**To:** 'psheeley@state.nm.us'; 'cwilliams@state.nm.us'; 'wprice@state.nm.us'  
**Cc:** 'jprentiss@frontierfieldservices.com'; 'rlizardo@frontierfieldservices.com'; 'smaker@frontierfieldservices.com'  
**Subject:** 72 Hour Notice of Sump and Underground Piping Test  
**Importance:** High

**To:** Paul Sheeley, NMOCD, District 1  
Chris Williams, NMOCD, District 1  
Wayne Price, NMOCD, Santa Fe

Please be advised that Frontier Field Services will be conducting the annual sump(s) and 5-year underground piping tests beginning at 8:00 am, Thursday, April 14, 2005 at its Maljamar Gas Plant located 3 miles south of Maljamar, NM. These tests are required by Discharge Plan GW-020 and are being conducted in preparation for submittal of the GW-020 renewal application.

This note serves as 72 hour notice of the planned tests and I have requested delivery and read receipts.

Please contact me with any questions or guidance you might have.

Randy McCollum  
Manager of Compliance  
Frontier Field Services, LLC  
505 676-3505  
505 361-0128 cell  
505 676-2401 fax

4/10/2005

## Randy McCollum

---

**From:** System Administrator  
**To:** Williams, Chris; Sheeley, Paul; Price, Wayne  
**Sent:** Sunday, April 10, 2005 1:55 PM  
**Subject:** Delivered:

Your message

**To:** Unknown  
**Subject:**

was delivered to the following recipient(s):

Williams, Chris on 4/10/2005 2:54 PM  
Sheeley, Paul on 4/10/2005 2:54 PM  
Price, Wayne on 4/10/2005 2:54 PM

**FRONTIER FIELD SERVICES  
2009 SUMP REPORT  
05/28/09**

**SUCKED SUMPS DRY & STEAM CLEANED REFILLED SUMPS  
WITH FRESH WATER & MEASURED**

**REFRIDGE SUMP: 9:00 A.M. MEASURED 6'7"**

**11:00 A.M. MEASURED 6'7"**

**1:00 P.M. MEASURED 6'7"**

**3:00 P.M. MEASURED 6'7"**

**LET SIT OVERNIGHT & REMEASURED ON 05/29/09 @ 9:00 A.M. IT  
MEASURED 6'7"**

**EXPANDER SUMP # 1: 9:00 A.M. MEASURED 3'1"**

**11:00 A.M. MEASURED 3'1"**

**1:00 P.M. MEASURED 3'1"**

**3:00 P.M. MEASURED 3'1"**

**LET SIT OVERNIGHT & REMEASURED ON 05/29/09 @ 9:00 A.M. IT  
MEASURED 3'1"**

**EXPANDER SUMP # 2: 9:00 A.M. MEASURED 3'1"**

**11:00 A.M. MEASURED 3'1"**

**1:00 P.M. MEASURED 3'1"**

**3:00 P.M. MEASURED 3'1"**

**LET SIT OVERNIGHT & REMEASURED ON 05/29/09 @ 9:00 A.M. IT  
MEASURED 3'1"**

**AMINE SUMP: 9:00 A.M. MEASURED 2'**

**11:00 A.M. MEASURED 2'**

**1:00 P.M. MEASURED 2'**

**3:00 P.M. MEASURED 2'**

**LET SIT OVERNIGHT & REMEASURED ON 05/29/09 @ 9:00 A.M. IT  
MEASURED 2'**

**ELECT. BLDG. SUMP: 9:00 A.M. MEASURED 7'1"**

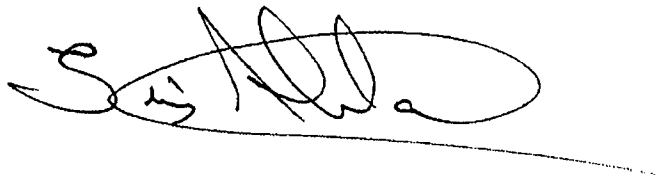
11:00 A.M. MEASURED 7'1"

1:00 P.M. MEASURED 7'1"

3:00 P.M. MEASURED 7'1"

LET SIT OVERNIGHT & REMEASURED ON 05/29/09 @ 9:00 A.M. IT  
MEASURED 7'1"

5-29-09

A handwritten signature in black ink, appearing to be "S. A. Wa", with a long horizontal line extending from the end of the signature.

**Lizardo, Rudy**

---

**From:** Lizardo, Rudy  
**Sent:** Wednesday, May 20, 2009 8:49 AM  
**To:** 'Larry'  
**Cc:** Prentiss, John  
**Subject:** annual sump test

Mr. Johnston

We are scheduled to do our plant sump inspection next week on the 28<sup>th</sup> & 29<sup>th</sup>. We will start at 8:00 am each morning.

Thanks, Rudy

Rudy Lizardo  
Maintenance Foreman  
Frontier Field Services  
P.O. Box 7  
Maljamar, New Mexico  
Office: (505) 676-3504  
Cell: (505) 361-0135  
Email: rlizardo@frontierfieldservices.com

6/16/2009



# **SPILL CONTINGENCY PLAN**

## **MALJAMAR GAS PLANT**

**Lea County, New Mexico  
1001 Conoco Road, Maljamar NM 88264**

**Operated by:  
Frontier Field Services, LLC**

**Owned by:  
Frontier Field Services, LLC  
4200 Skelly Drive, Suite 700  
Tulsa, Oklahoma 74135**

**Updated by:  
Steve Maker, Operations Foreman  
Fran King Brown, EHS Manager  
January 21, 2010**

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## A. INITIAL ACTION AT THE SITE OF A SPILL

The responsible Frontier Field Services, LLC employee at the scene of the operation who first learns about a spill or pollution shall take the following action:

1. **Notify Appropriate Supervisor** - Immediately contact supervisor, giving an assessment of the situation. The Supervisor on duty shall notify the Plant Manager or his designate. (John Prentiss 575-676-3528).
2. **Alleviate danger** - If any human life or property is in danger, take prompt action to alleviate such danger.
3. **Contain spill** - If the spill can be stopped or brought under control, take prompt action to do so. If possible, contain the spread of the spill using equipment available on-site.
4. **Determine if spill reached "navigable water."** "Navigable water" includes a variety of different sources, including lakes, creeks, and dry draws. A spill into navigable water is reportable if it is enough to create a sheen. Even if the draw is dry at the time of the spill, if oil gets into it, the spill is reportable to the National Response Center (NRC). If the spill did not get into "navigable water" respond according to the "Procedures for Reporting Spills and Upsets" found in Appendix A. If the spill did get into "navigable water", the Plant Manager or his designee will call the NRC and one of the following, beginning with the Plant Engineer:

1) John Prentiss	(575) 676-3528
Area and Plant Manager	<u>Cell</u> (575) 706-6983
2) David Feather	(575) 677-5140
Environmental Technician	<u>Cell</u> (575) 706-5287
3) Chad Cagle	(918) 388-8442
Director of Operations	<u>Cell</u> (918) 808-4863

Your supervisor will contact the Plant Manager and one of Frontier personnel and apprise them of the situation.

## B. ACTIVATION OF SPILL CONTINGENCY PLAN:

After being notified, the Plant Manager or other responsible official shall promptly accomplish three actions:

1. **Notify Management** - He shall apprise Frontier of the situation as appropriate.
2. **Notify Agencies** - If the spill reaches navigable water, verify that the National Response Center, the New Mexico Oil Conservation Division (OCD), the Bureau of Land Management (as necessary), and the Frontier Plant Manager have been notified. To notify Federal and State agencies, call the following numbers:

Federal Agencies:	National Response Center (USCG)	(800) 424-8802
	Bureau of Land Management	(505) 877-6544
State Agencies	NM Oil Conservation Division	(505) 748-1283

*If a spill does not reach navigable water it may still need to be reported to a federal or local agency depending on area, amount, and type of spill.*

3. **Initiate Cleanup** - The Plant Manager is responsible for determining the degree and speed of containment and cleanup measures required (See section C below). Decisions as to how to clean up the spill are based on:

- 
- Substance spilled
  - Size of spill
  - Sensitivity of location to people and environment
  - If spill entered water
  - Type of watercourse entered
  - Requirements of agency

**Do not talk to media** - During an oil or condensate spill situation, the following matters should not be discussed with anyone other than Frontier Field Services, LLC personnel unless prior clearances have been obtained:

- a. Cause, liability, legal consequences of the spill
- b. Estimates of damage to property or ecology
- c. Length and scope of cleanup operations
- d. Opinions concerning county, state, federal or other government agencies' response to the spill

### **C. OIL SPILL CLEAN UP PLAN**

1. The Plant Manager shall:
  - a. Ensure the spill is contained or stabilized to the extent conditions allow.
  - b. Ensure that the spill has been reported to the proper agencies.
  - c. Initiate cleanup operations.
  - d. Supervise and direct the cleanup operation subject to the approval of Frontier Field Services Management.
  - e. Determine the needs of equipment and personnel involved in the cleanup operations.
2. The facility's Plant Manager shall proceed as follows:
  - a. Establish a plan of action for cleanup. This plan should be discussed with the Frontier Environmental Health & Safety representative and the responsible agency before implementing.
  - b. Procure bulldozers and/or backhoe to build additional containment such as dikes, dams, etc., to better contain the oil spill.
  - c. Procure vacuum trucks to reclaim the effluents spilled.
  - d. Restore the area of the spill, as nearly as possible, to the same condition as before the spill.
  - e. The Frontier Plant Manager will advise on appropriate action if the spill reaches waters of the United States.
  - f. Record any reportable SPCC spill and maintain records in local files.
  - g. If the spill enters the waters of the U.S. and is greater than 1000 gallons, or if two reportable spills occur within 12 consecutive months, a report must be submitted to the EPA within 60 days. If this should occur the facility will be required to develop a complete Spill Control and Contingency Plan in accordance with 40 CFR 112.

---

**NOTIFICATION PROCEDURES**

- Contact List and Phone Numbers
- Notification Data Sheet
- Procedures for Reporting Spills and Upsets
- BLM "Report of Undesirable Event" (Form NM 3162-1)
- Oil Conservation Division Form "Release Notification and Corrective Action" Form (C-141)
- Frontier Field Services, Growth Fund Policy Spill Reporting Form
- Submittal of Information to Regional Administrator for Qualified Discharge(s)

## Contact List and Phone Numbers

The following is a contact list and phone number reference for the Facility:

REFERENCE THE "EMERGENCY ACTION PLAN" FOR ADDITIONAL AND THE MOST UPDATED NUMBERS

Contact	Primary	Alternate
<b>Designated Person Accountable For Oil Spill Prevention and/or Facility Response Coordinator</b>		
<b>Name/Title: <u>John Prentiss/ Area and Plant Manager</u></b>	575-676-3528	575-706-6983
<b>Name/Title: <u>Steve Maker/ Operations Foreman</u></b>	575-676-3502	575-361-0835
<u>National Response Center</u>	800-424-8802	202-267-2675
<u>Bureau of Land Management</u>	505-887-6544	
State Agency for Oil Spill Response <u>New Mexico Oil Conservation Division (24 hr)</u>	505-748-1283	
<b>Cleanup Contractors (as necessary):</b>		
Vacuum Trucks – Unique Oilfield Services, LLC	575-399-4830	
Vacuum Trucks – Kenemore Welding	575-676-2332	
Contract Labor – Unique Oilfield Services, LLC	575-399-4830	
Contract Labor – Rocky Peak	575-390-6666	
Earth Moving Equipment – Rocky Peak	575-390-6666	
Earth Moving Equipment – Kenemore Welding	575-676-2332	
HazMat Response – Safety & Env Solutions, Hobbs	505-397-0510	
<b>Other Federal, State and local agencies (as necessary):</b>		

## Notification Data Sheet

The Facility will utilize the following form to relate information in the event of a discharge:

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

### INCIDENT DESCRIPTION

Reporter's Full Name: \_\_\_\_\_ Position: \_\_\_\_\_  
Day Phone Number: \_\_\_\_\_ Evening Phone Number: \_\_\_\_\_  
Company: \_\_\_\_\_ Organization Type: \_\_\_\_\_  
Facility Address: \_\_\_\_\_ Owner's Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Facility Latitude: \_\_\_\_\_ Facility Longitude: \_\_\_\_\_

Spill Location: \_\_\_\_\_

(if not at Facility) \_\_\_\_\_

Responsible Party's Name: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Responsible Party's Address: \_\_\_\_\_

Source and/or cause of discharge: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Nearest City: \_\_\_\_\_

County: \_\_\_\_\_ State: \_\_\_\_\_ Zip code: \_\_\_\_\_

Section: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_ County: \_\_\_\_\_

Distance from City: \_\_\_\_\_ Direction from City: \_\_\_\_\_

Container Type: \_\_\_\_\_ Container Storage Capacity: \_\_\_\_\_

Facility Oil Storage Capacity: \_\_\_\_\_

Material: \_\_\_\_\_

Total Quantity Released	Water Impact (YES or NO)	Quantity into Water

### RESPONSE ACTION(S)

Action(s) taken to Correct, Control, or Mitigate Incident: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Number of Injuries: \_\_\_\_\_ Number of Deaths: \_\_\_\_\_

Evacuation(s): \_\_\_\_\_ Number Evacuated: \_\_\_\_\_

Damage Estimate: \_\_\_\_\_

More information about impacted medium: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### CALLER NOTIFICATIONS

National Response Center (NRC): 1-800-424-8802

Additional Notifications (Circle all applicable): State \_\_\_\_\_ Other \_\_\_\_\_

### ADDITIONAL INFORMATION

Any information about the incident not recorded elsewhere in this report: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOTE: DO NOT DELAY NOTIFICATION PENDING COLLECTION OF ALL INFORMATION.

---

## Procedures for Reporting Spills and Upsets

### 1. PROCEDURES FOR REPORTING SPILLS AND UPSETS

#### Maljamar Gas Plant

This is to be used to know what type of spills or upsets are “reportable” and the reporting procedures to follow, as required by Frontier Field Services and the agencies of jurisdiction for the gas plant. These reporting procedures are consistent with and should be used in conjunction with any facility comprehensive spill contingency plans. Both the New Mexico Oil Conservation Division and the Bureau of Land Management combine the volume of produced water and oil to determine reportable volume.

For spills that do not create a sheen on water or allow oil into a dry draw, the following procedures should be followed.

### 2. REPORTABLE SPILLS

Releases to be reported by the Plant Manager or delegated person:

#### a. OIL AND PRODUCED WATER

Spill Conditions Location	Amount (bbl)	NMOCD		Required Reports BLM		NRC <sup>1</sup>	BP*
		Phone <sup>2</sup>	Write <sup>3</sup>	Phone	Write	Phone	Phone
Federal	<5	No	No	No	No	No	Yes
Federal	>5,<10	No	Yes	No	No	No	Yes
Federal	>10,<25	No	Yes	No	Yes	No	Yes
Federal	>25, <100	Yes	Yes	No	Yes	No	Yes
Federal	>100	Yes	Yes	Yes	Yes	No	Yes
Fee, State	<5	No	No	No	No	No	Yes
Fee, State	>5,<25	No	Yes	No	No	No	Yes
Fee, State	>25	Yes	Yes	No	No	No	Yes
In Water - BLM <sup>4</sup>	Any	Yes	Yes	Yes	Yes	Yes	Yes
In Water - State <sup>4</sup>	Any	Yes	Yes	Yes	Yes	Yes	Yes

\*All oil spills greater than 1 barrel must be reported to the Plant Manager.

Notes:

- 1 National Response Center (1-800-424-8802) for any spills in water
- 2 Phone - telephone call made within 24 hours of the spill
- 3 Write - written report as described below, within 10 days
- 4 See “Oil Spill Contingency Plan” located in Appendix D.

Report to

- Frontier Plant Manager
- Chad Cagle - Tulsa
- New Mexico Oil Conservation Division
- If on BLM land, the BLM District Office
- If spill enters water or water course - National Response Center (1-800-424-8802).

Reporting Method:

- As required, phone in report within 24 hours  
See note on telephone reporting

- 
- For all spills, written report within 10 days
  - Use Release Notification and Corrective Action Form (C-141) to report to OCD
  - Use BLM form NM 3162-1 to report to the BLM
  - Use Frontier Field Services, Growth Fund Policy Spill Reporting Form (see attached).

#### **b. CHEMICAL SPILLS**

Reportable Spill: Spills of caustics, acids, or chemicals endangering persons, wildlife, or property

Methanol 5000 lbs. or 16 bbls. CERCLA

For other chemicals, contact the Frontier Plant Manager.

Reporting Method:

- First, report immediately any chemical spill to the Frontier Plant Manager before reporting further, unless people or wildlife are immediately endangered.
- Spills that could potentially harm the public or cause significant damage to the environment should be reported to the New Mexico Oil Conservation Division and the Bureau of Land Management (if applicable) district office.
- If communications with Frontier Plant Manager confirm the existence of a "reportable quantity" spill, additional reports must be made to the National Response Center, the SERC, LEPC, and OCD.

MSDS sheets and other available resources should be used in obtaining data on chemicals used in your facility.

#### **c. GASEOUS RELEASE**

Reportable Release:

- On BLM land, any event releasing 500 MCF or more of gas (use BLM form NM 3162-1)
- Any event that releases more than 500 MCF requires immediate notification of the NMOCD district office
- Any event that releases more than 5000 MCF requires written notification of the NMOCD district office
- Any event that places life or property in danger requires NMOCD verbal and written report

Reporting Method:

- First, report immediately any gaseous release to the Frontier Plant Manager, unless people or wildlife are immediately endangered.
- Releases that could potentially harm the public or cause significant damage to the environment should be reported to the New Mexico Oil Conservation Division and the Bureau of Land Management district office.

### **3. NOTES ON REPORTING**

#### **a. TELEPHONE REPORTS**

- Reports should be made as soon as possible, at least within 24 hours. It is recommended to discuss spill with Company environmental personnel before reporting to other entities.
- For telephone reports, use the Frontier Field Services, Growth Fund Policy Form as a guide to indicate what information needs to be given. A copy of this form is attached to the plan.
- Document in facility records, all attempts to telephone reports to agencies successfully or unsuccessfully.
- Document spills of less than reportable amounts in facility files.

#### **b. WRITTEN REPORTS**

- Use the Frontier Field Services, Growth Fund Policy Spill Report Forms for reporting all spills and releases.
  - Use Release Notification and Corrective Action Form (C-141) to report to OCD.
  - Use BLM form NM 3162-1 to report to the BLM
- Reports should be submitted within 10 days of spill.



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**c. ADDRESSES AND PHONE NUMBERS**

- **Maljamar Gas Plant**  
**Production: John Prentiss** (575) 706-6983

**Environmental: David Feather** (575) 706-5287

- **For the State of New Mexico**  
**New Mexico Oil Conservation Division**  
New Mexico Environment Department  
District II  
811 S. First Street  
Artesia, NM 88210  
(505) 748-1283  
  
Ground Water Quality Bureau  
P.O. Box 1778  
Santa Fe, NM 87502  
(505) 827-2918

- **Bureau of Land Management**  
BLM - Carlsbad Resource Area  
P.O. Box 1778  
Carlsbad, NM 87820  
(505) 887-6544  
  
BLM - New Mexico State Office  
P.O. Box 1449  
Santa Fe, NM 87504  
(505) 438-7400

- **National Response Center: 1-800-424-8802**

- **For SARA and CERCLA reportable spills (chemical spills):**

a.) **SERC:**  
Max Johnson, ERC Coordinator  
Department of Public Safety  
Title III Bureau  
P.O. Box 1628  
Santa Fe, NM 87504-1628  
(505) 827-9224

b.) **Local Emergency Planning Committee**  
Eddy County LEPC  
Attn: Mr. Joel Arnwine  
101 East Greene St.  
Carlsbad, NM 88220  
(505) 887-9511

c.) **Fire Department**  
Artesia Fire Department  
(575) 676-4100  
  
Lovington Volunteer Fire Department  
(575) 396-2359

Form NM 3162-1  
(July 1991)

UNITED STATES DEPARTMENT OF THE INTERIOR  
Bureau of Land Management  
New Mexico State Office

REPORT OF UNDESIRABLE EVENT

DATE OF OCCURRENCE/DISCOVERY: \_\_\_\_\_ TIME OF OCCURRENCE: \_\_\_\_\_

DATE REPORTED TO BLM: \_\_\_\_\_ TIME REPORTED: \_\_\_\_\_

BLM OFFICE REPORTED TO: (RESOURCE AREA/DISTRICT/OTHER): \_\_\_\_\_

LOCATION: (1/4 1/4) \_\_\_\_\_ SECTION \_\_\_\_\_ T. \_\_\_\_\_ R. \_\_\_\_\_ MERIDIAN \_\_\_\_\_

COUNTY: \_\_\_\_\_ STATE: \_\_\_\_\_ WELL NAME: \_\_\_\_\_

OPERATOR: COMPANY NAME \_\_\_\_\_ PHONE NO. \_\_\_\_\_

CONTACT PERSON'S NAME \_\_\_\_\_

SURFACE OWNER: \_\_\_\_\_ MINERAL OWNER: \_\_\_\_\_  
(FEDERAL/INDIAN/FEE/STATE)

LEASE NO.: \_\_\_\_\_ RIGHT-OF-WAY NO.: \_\_\_\_\_

UNIT NAME / COMMUNITIZATION AGREEMENT No.: \_\_\_\_\_

TYPE OF EVENT, CIRCLE APPROPRIATE ITEM(S):

BLOWOUT, FIRE, FATALITY, INJURY, PROPERTY DAMAGE, OIL SPILL, SALTWATER SPILL, OIL AND  
SALTWATER SPILL, TOXIC FLUID SPILL, HAZARDOUS MATERIAL SPILL, UNCONTROLLED FLOW OF  
WELLBORE FLUIDS, OTHER (SPECIFY):

CAUSE OF EVENT: \_\_\_\_\_

HazMat Notified: (for spills) \_\_\_\_\_

Law Enforcement Notified: (for thefts) \_\_\_\_\_

CAUSE AND EXTENT OF PERSONAL INJURIES/CAUSE OF DEATH(S):

Safety Officer Notified: \_\_\_\_\_

EFFECTS OF EVENT: \_\_\_\_\_

ACTION TAKEN TO CONTROL EVENT: \_\_\_\_\_

LENGTH OF TIME TO CONTROL BLOWOUT OR FIRE: \_\_\_\_\_

VOLUMES DISCHARGED: OIL \_\_\_\_\_ WATER \_\_\_\_\_ GAS \_\_\_\_\_

OTHER AGENCIES NOTIFIED: \_\_\_\_\_

ACTION TAKEN OR TO BE TAKEN TO PREVENT RECURRENCE: \_\_\_\_\_

FINAL INVESTIGATION:

TEAM NAME(S) \_\_\_\_\_

FIELD INSPECTION DATE \_\_\_\_\_

SUMMARY OF RESULTS OF INSPECTION \_\_\_\_\_

RESOURCE LOSS WAS (CIRCLE ITEM):      AVOIDABLE              UNAVOIDABLE

DATE OF MEMO NOTIFYING MINERALS MANAGEMENT SERVICE THAT LOSS WAS AVOIDABLE: \_\_\_\_\_

DATE/TIME/PERSON NOTIFIED:

DISTRICT OFFICE \_\_\_\_\_

STATE OFFICE \_\_\_\_\_

WASHINGTON OFFICE \_\_\_\_\_

SUMMARY OF RESULTS OF RECLAMATION/CORRECTIVE ACTION:

REMARKS: \_\_\_\_\_

SIGNATURE OF AUTHORIZED OFFICER: \_\_\_\_\_

DATE: \_\_\_\_\_ TITLE: \_\_\_\_\_

District I  
1615 N. French Dr., Hobbs, NM 88240  
District II  
1501 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	Contact	
Address	Telephone No.	
Facility Name	Facility Type	
Surface Owner	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
-------------	---------	----------	-------	---------------	------------------	---------------	----------------	--------

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

NATURE OF RELEASE

Type of Release	Volume of Release	Volume Recovered
Source of Release	Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

Describe Area Affected and Cleanup Action Taken.\*

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:	Approval Date:		
Title:	Expiration Date:		Attached <input type="checkbox"/>
E-mail Address:	Conditions of Approval:		
Date:	Phone:		

\* Attach Additional Sheets If Necessary

## Southern Ute Growth Fund Spill/Release Report

Forward to the Growth Fund Safety & Environmental Compliance Management Group at Fax 870-247-1179

Report Date \_\_\_\_\_ Time: \_\_\_\_\_ am/pm or (military time)

Spill Date \_\_\_\_\_ Spill Time: \_\_\_\_\_ am/pm or (military time)

Company Name: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Reported By: \_\_\_\_\_ Title: \_\_\_\_\_

Facility Name: \_\_\_\_\_

Location: 1/4 \_\_\_\_\_ Section: \_\_\_\_\_ Township: \_\_\_\_\_ Range: \_\_\_\_\_

Type of Spill (Circle One): Produced Water, Oil, Gas, Other \_\_\_\_\_

Estimate spilled: \_\_\_\_\_ barrels Estimate recovered: \_\_\_\_\_ Hazardous: Y / N

Is the Spill Contained: Y / N If No, is it within the property "footprint": Y / N

Extent of spill (area) \_\_\_\_\_ ft<sup>2</sup> Surrounding Land Use \_\_\_\_\_

Damages/Injuries? \_\_\_\_\_ Evacuation Needed?: Y / N

Ground Water impacted: Y \_\_\_ N \_\_\_ Surface Water impacted: Y \_\_\_ N \_\_\_

IF LESS THAN A MILE, report distance IN FEET to the nearest \_\_\_\_\_

Surface water: \_\_\_\_\_ Wetlands: \_\_\_\_\_ Water wells: \_\_\_\_\_ Dry arroyo: \_\_\_\_\_ Residence: \_\_\_\_\_

Cause Of Spill: \_\_\_\_\_

Describe immediate response: \_\_\_\_\_

Does this facility require an SPOC plan: Yes / No If yes, is there one in place: Yes / No

Is there a remediation plan in place for clean up: Yes / No

Follow-up Report Being Sent: Yes / No Due By the Following Date: \_\_\_\_\_, 20\_\_\_\_

Closure Report Being Sent: Yes / No Due By the Following Date: \_\_\_\_\_, 20\_\_\_\_

### OTHER NOTIFICATIONS

Date	Agency	Contact Person	Type of notification	Comments:
			Written / Verbal / Both	
			Written / Verbal / Both	
			Written / Verbal / Both	
			Written / Verbal / Both	

For Office Use Only (if initial report was by voice):

Report Completed By: \_\_\_\_\_ Title: \_\_\_\_\_

## Sample - Submittal of Information to Regional Administrator for Qualified Discharge(s)

In the event of a qualified discharge or discharges, this page can be utilized to provide official notification to the Regional Administrator. If the Facility has had a discharge or discharges, which meet one of the following two criteria, then this report must be submitted to the Regional Administrator within 60 days. (Check as appropriate)

- ☐ This Facility has experienced a reportable spill as referenced in 40 CFR Part 112.1(b) of 1,000 gallons or more.
- ☐ This Facility has experienced two (2) reportable spills as referenced in 40 CFR Part 112.1 (b) of greater than 42 gallons each within a 12-month period.

Facility Name and Location: \_\_\_\_\_

\_\_\_\_\_

Facility Contact Person (Name, address/phone number): \_\_\_\_\_

\_\_\_\_\_

Facility maximum storage or handling capacity: \_\_\_\_\_

\_\_\_\_\_

Facility normal daily throughput: \_\_\_\_\_

\_\_\_\_\_

Describe the corrective action and countermeasures taken (include description of equipment repairs and replacements): \_\_\_\_\_

\_\_\_\_\_

Describe the Facility (maps, flow diagrams and topographical maps attached as necessary): \_\_\_\_\_

\_\_\_\_\_

Describe the cause of discharge (as referenced in 40 CFR Part 112.1(b)) including failure analysis of the system is: \_\_\_\_\_

\_\_\_\_\_

Describe the preventative measures taken or contemplated to be taken to minimize the possibility of recurrence: \_\_\_\_\_

\_\_\_\_\_

Other pertinent information: \_\_\_\_\_

\_\_\_\_\_

- A copy of this report is also to be sent to the appropriate state agency in charge of oil pollution control activities.



# New Mexico Office of the State Engineer

## Point of Diversion by Location

(with Owner Information)

(acre ft per annum)										(quarters are 1=NW 2=NE 3=SW 4=SE)									
WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Grant	Source	(quarters are smallest to largest)					(NAD83 UTM in meters)					
									6416	4	Sec	Tws	Rng	X	Y				
<u>L 04021</u>		MUN	0	MESCALERO RIDGE COOPERATIVE	LE	<u>L 04021</u>			3	4	03	17S	32E	616761	3636252*				
					LE	<u>L 04021 S</u>		Shallow	4	3	2	03	17S	32E	616850	3636955*			
<u>L 12369</u>		DOL	3	LINDA GIDEON	LE	<u>L 12369 POD1</u>			2	3	2	12	17S	32E	620088	3635557			
<u>RA 08855</u>		DOM	3	KENEMORE GEORGE A	LE	<u>RA 08855</u>			4	1	1	10	17S	32E	616061	3635742*			
<u>RA 09126</u>		DOM	0	MANÑ CLIF	LE	<u>RA 09126</u>			2	2	2	09	17S	32E	615659	3635938*			
<u>RA 09505</u>		PDL	40	BEN LINDSEY	LE	<u>RA 09505</u>		Shallow	2	2	1	10	17S	32E	616462	3635944			
					LE	<u>RA 09505 S</u>			2	2	1	10	17S	32E	616463	3635945*			
					LE	<u>RA 09505 S-2</u>			2	2	1	10	17S	32E	616463	3635945*			
<u>RA 10175</u>		SAN	3	RELIANT PROCESSING FLO CO2	LE	<u>RA 10175</u>		Shallow	2	1	28	17S	32E	614814	3631005*				
<u>RA 10846</u>		DOM	0	MESCALERO PURE TRUST	LE	<u>RA 10846</u>			2	2	2	09	17S	32E	615659	3635938*			

**Record Count:** 10

**PLSS Search:**

**Township:** 17S **Range:** 32E

**Sorted by:** File Number

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.





United States  
Department of  
Agriculture



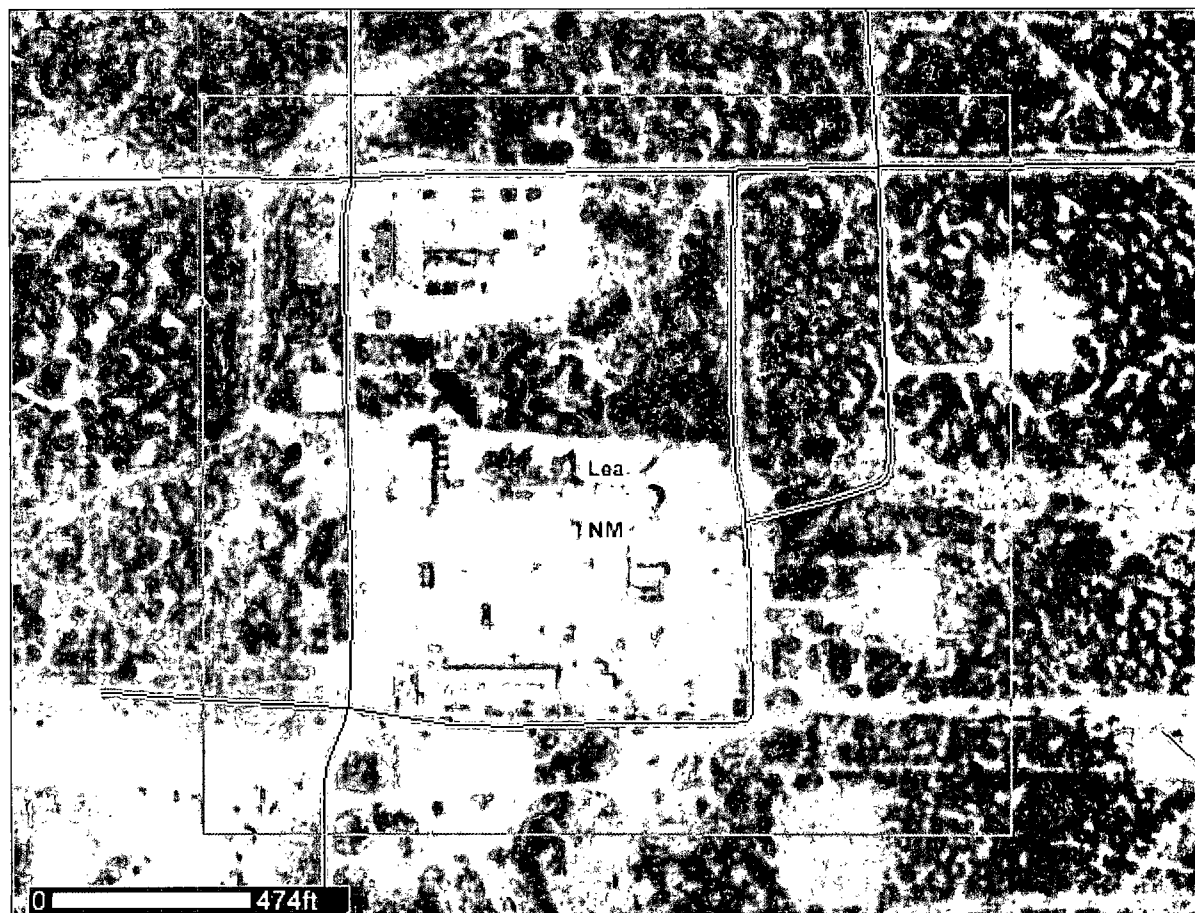
NRCS

Natural  
Resources  
Conservation  
Service

A product of the National  
Cooperative Soil Survey,  
a joint effort of the United  
States Department of  
Agriculture and other  
Federal agencies, State  
agencies including the  
Agricultural Experiment  
Stations, and local  
participants

# Custom Soil Resource Report for Lea County, New Mexico

Maljamar Gas Plant



January 14, 2010

# Preface

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Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://soils.usda.gov/sqi/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<http://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://soils.usda.gov/contact/state\\_offices/](http://soils.usda.gov/contact/state_offices/)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Soil Data Mart Web site or the NRCS Web Soil Survey. The Soil Data Mart is the data storage site for the official soil survey information.

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for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

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# **How Soil Surveys Are Made**

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Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil scientists classified and named the soils in the survey area, they compared the

## Custom Soil Resource Report

individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

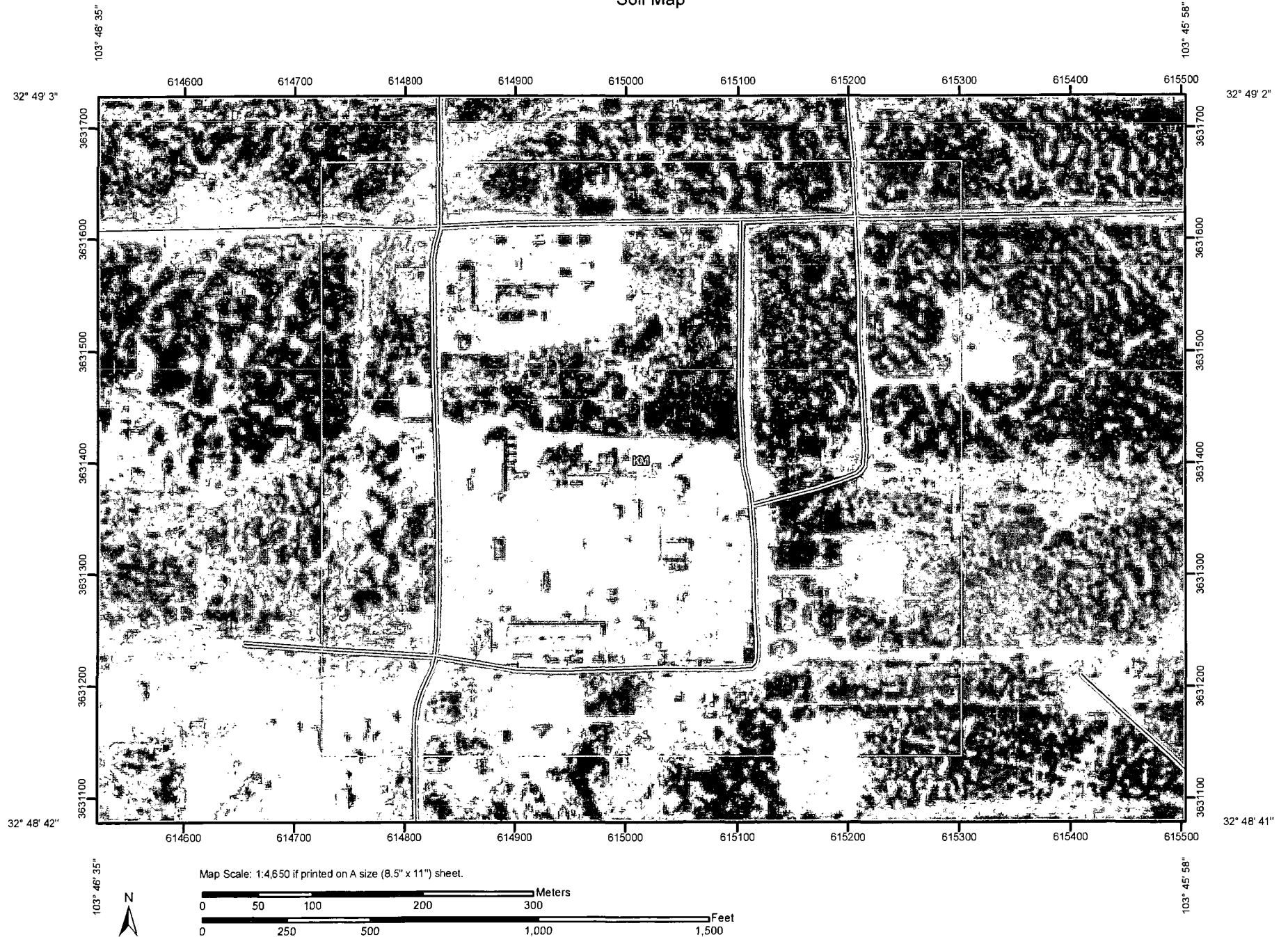
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

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The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report  
Soil Map







# Custom Soil Resource Report

## MAP LEGEND






















### Area of Interest (AOI)


 Area of Interest (AOI)


### Soils

 Soil Map Units

### Special Point Features




-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot
-  Spoil Area
-  Stony Spot

 Very Stony Spot

 Wet Spot

 Other



### Special Line Features

-  Gully
-  Short Steep Slope
-  Other






### Political Features

 Cities

### Water Features

-  Oceans
-  Streams and Canals

### Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

## MAP INFORMATION

Map Scale: 1:4,660 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: UTM Zone 13N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lea County, New Mexico  
Survey Area Data: Version 9, Dec 9, 2008

Date(s) aerial images were photographed: 10/22/1996

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Lea County, New Mexico (NM025)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KM	Kermit soils and dune land, 0 to 12 percent slopes	76.0	100.0%
<b>Totals for Area of Interest</b>		<b>76.0</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

## Custom Soil Resource Report

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Lea County, New Mexico

### KM—Kermit soils and dune land, 0 to 12 percent slopes

#### Map Unit Setting

*Elevation:* 3,000 to 4,400 feet  
*Mean annual precipitation:* 10 to 15 inches  
*Mean annual air temperature:* 60 to 62 degrees F  
*Frost-free period:* 195 to 205 days

#### Map Unit Composition

*Dune land:* 45 percent  
*Kermit and similar soils:* 45 percent

#### Description of Kermit

##### Setting

*Landform:* Dunes  
*Landform position (two-dimensional):* Shoulder, backslope, footslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Concave, convex, linear  
*Across-slope shape:* Convex  
*Parent material:* Calcareous sandy eolian deposits derived from sedimentary rock

##### Properties and qualities

*Slope:* 5 to 12 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Excessively drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Very high (20.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum content:* 3 percent  
*Gypsum, maximum content:* 1 percent  
*Maximum salinity:* Nonsaline (0.0 to 2.0 mmhos/cm)  
*Sodium adsorption ratio, maximum:* 2.0  
*Available water capacity:* Low (about 3.1 inches)

##### Interpretive groups

*Land capability (nonirrigated):* 7e  
*Ecological site:* Sandhills (R042XC022NM)

##### Typical profile

*0 to 8 inches:* Fine sand  
*8 to 60 inches:* Fine sand

#### Description of Dune Land

##### Setting

*Landform:* Dunes  
*Landform position (two-dimensional):* Shoulder, backslope, footslope  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Linear, concave, convex  
*Across-slope shape:* Convex

## Custom Soil Resource Report

### **Interpretive groups**

*Land capability (nonirrigated): 8e*

### **Typical profile**

*0 to 6 inches: Fine sand*

*6 to 60 inches: Fine sand*

## References

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## Custom Soil Resource Report

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RECEIVED

2007 NOV 16 PM 1 49

November 8, 2007

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

**Re: GW-020 Minor Permit Modification – Request to Discontinue Sump Inspection**

Dear Mr. Price:

This letter is submitted to the New Mexico Oil Conservation Division (OCD) on behalf of Frontier Field Services, LLC (Frontier) by Larson & Associates, Inc. (LAI), its consultant, to request a minor modification for discharge permit GW-020, which was issued for the Maljamar Gas Plant (Facility) located in unit N (SE/4, SW/4), Section 21, Township 17 South, Range 32 East in Lea County, New Mexico. Frontier requests this modification to remove the condition (Item #10) requiring Frontier to inspect the cellar of the #8 Clark engine.

On May 14, 2005, Frontier submitted a renewal application for discharge permit GW-020 that included inspection records for the #8 Clark cellar. On April 14 and 15, 2005, Frontier inspected the Clark #8 cellar after the engine was shut down and the cellar was emptied, at which time the cellar was mopped, steam cleaned and visually inspected for cracks or evidence that fluids may have leaked from the cellar. No evidence of leakage was found and the engine was returned to service. Attachment A presents the inspection records.

In early 2007, Frontier replaced the #8 Clark engine with a high-efficiency electric engine rendering the #8 Clark out of service. Frontier requests permission from the OCD to discontinue cellar inspections for the Clark #8 engine. Closure will occur when the building is dismantled according to the requirements of discharge permit GW-020.

Thank you for your consideration in this matter. Please contact Mr. Chad Cagle with Frontier at (918) 388-8442 or email [ccagle@frontierfieldservices.com](mailto:ccagle@frontierfieldservices.com). I may be reached with questions at (432) 687-0901 or email [mark@laenvironmental.com](mailto:mark@laenvironmental.com).

Sincerely,

**Larson & Associates, Inc.**

Mark J. Larson  
Sr. Project Manager / President  
Enc.

Cc: Mike Hicks – Frontier  
Chad Cagle – Frontier  
Chris Williams – OCD District 1



**ATTACHMENT A**

**Inspection Records  
April 14 – 15, 2005**

**Frontier Field Services, LLC**  
*Southern Ute Indian Tribe*

Randy McCollum  
Manager of Compliance

Phone (505) 676-3505  
Cell (505) 361-0128  
rmccollum@frontierfieldservices.com

May 14, 2005

CERTIFIED MAIL # 7004 0750 0002 5384 6137  
RETURN RECEIPT REQUESTED

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

**Re: GW-020 Discharge Plan  
Maljamar Gas Plant  
Annual Sump and Five Year Underground Piping Inspection  
Frontier Field Services**

Dear Mr. Price:

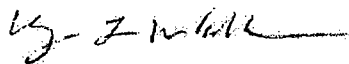
On April 10, 2005 notice was given to Paul Sheeley and Chris Williams of the local NMOCD office in Hobbs, NM that a planned inspection of sumps and underground piping as required in our Discharge Plan would be performed beginning April 14, 2005.

During the time period from April 14 through April 27, 2005 the #8 Clark cellar, plant sumps, and underground piping was inspected. Copies of the inspection records are attached. A copy of this letter is also appended to the GW-020 renewal application.

For the underground piping inspection a circular chart was used to record each inspection. The recorder was calibrated by a Frontier Field Services employee skilled in meter calibration. The chart range is from 0% to 100%, calibrated to 50 psig at 100%. The piping inspections were performed at approximately 20 psig held for at least 4 hours.

If you have any questions or require more information please contact me at 505-676-3505.

Sincerely,



Randy L. McCollum

Paul Sheeley, OCD-Hobbs  
File: Env 1054

# Frontier Field Services, LLC

*Southern Ute Indian Tribe*

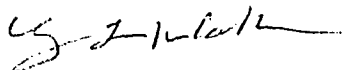
April 15, 2005

#8 Clark was shutdown and the cellar surrounding the unit was emptied, mopped and steam cleaned. The cellar was allowed to dry overnight, April 14, 2005, and was visually inspected on April 15 by Randy McCollum.

The inspection consisted of entry into the cellar and making a close examination of the cellar floor and walls, looking for cracks or other evidence that fluids might be leaking.

No evidence of leaks was found during the inspection. The unit was left down for several hours to give NMOCD personnel time to arrive at the site. The unit was then returned to service.

Randy McCollum



**Price, Wayne, EMNRD**

---

**From:** Price, Wayne, EMNRD  
**Sent:** Friday, February 15, 2008 1:09 PM  
**To:** 'rspencer@frontierfieldservices.com'  
**Cc:** Williams, Chris, EMNRD; Johnson, Larry, EMNRD  
**Subject:** GW-20 Maljamar Gas Plant  
**Attachments:** Final recreated permit\_2\_15\_08 by wp.doc

*DIA RECEIVED  
JD*

Dear Mr. Spencer:

The GW-20 Maljamar Gas Plant was permitted back in 2005. OCD records reflect that the permit was never signed and the flat Fee of \$4000 was not received by OCD.

Please find attached a copy of the permit conditions which requires a signature on the last page. Please submit a check for \$4000 made out to the New Mexico Water Quality Management Fund.

Please provide this within 30 days of receipt of the E-mail.

Wayne Price-Environmental Bureau Chief  
Oil Conservation Division  
1220 S. Saint Francis  
Santa Fe, NM 87505  
E-mail [wayne.price@state.nm.us](mailto:wayne.price@state.nm.us)  
Tele: 505-476-3490  
Fax: 505-476-3462

2/15/2008



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

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

Director

**Oil Conservation Division**

June 13, 2005

**Attention: Mr. Ray Spencer**

Randy L. McCollum  
Frontier Field Services, LLC  
P.O. Box 07  
1001 Conoco Road  
Maljamar, New Mexico 88260

Re: Discharge Permit GW-020 Renewal  
Maljamar Gas Permit

Dear Mr. McCollum:

The groundwater discharge permit renewal for the Frontier Field Services, LLC Maljamar Gas Plant GW-020 located in the SE/4 SW/4 of Section 21, Township 17 South, Range 32 East, NMPM, Lea County, New Mexico, **is hereby approved** under the conditions contained in the enclosed attachment. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 30 working days of receipt of this letter.**

The original discharge permit was approved on June 10, 1985 with an expiration date of June 10, 1990 and subsequently renewed on February 24, 1995, May 18, 2000 and amended on July 27, 2000. The discharge permit renewal application dated May 14, 2005 including attachments, submitted pursuant to Section 3106 of the New Mexico Water Quality Control Commission (WQCC) Regulations also includes all earlier applications and all conditions later placed on those approvals.

The discharge permit is renewed pursuant to Section 3109.C. Please note Section 3109.G, which provides for possible future amendment of the permit. Please be advised that approval of this permit does not relieve Frontier Field Services, LLC of responsibility should operations result in pollution of surface water, groundwater or the environment. Nor does it relieve Frontier Field Services, LLC of its responsibility to comply with any other governmental authority's rules and regulations. Please be advised that all exposed pits, including lined pits and open top tanks (exceeding 16 feet in diameter) shall be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

*Please note that Section 3104. of the regulations requires that "when a permit has been approved, discharges must be consistent with the terms and conditions of the permit." Pursuant to Section 3107.C., the OCD Director shall be notified of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.*

Pursuant to Section 3109.H.4., this approval is for a period of five years. **This approval will expire July 27 2010** and an application for renewal should be submitted in ample time before that date. Pursuant to Section 3106.F. of the regulations, if a discharger submits a discharge permit renewal application at least 120 days before the discharge permit expires and is in compliance with the approved permit, then the existing discharge permit will not expire until the application for renewal has been approved or disapproved.

The discharge permit application is subject to the WQCC Regulation 3114. Every billable facility submitting discharge permit will be assessed a fee equal to the filing fee of \$100 plus a renewal flat fee of \$4000.00 for Gas Plant.

**Please make all checks payable to:** Water Quality Management Fund  
C/o: Oil Conservation Division  
1220 S. Saint Francis  
Santa Fe, New Mexico 87505.

If you have any questions, please contact Wayne Price of my staff at (505-476-3487) or E-mail [wayne.price@state.nm.us](mailto:wayne.price@state.nm.us). On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge permit review.

Sincerely,

Original recreated by Wayne Price 2/15/08

Roger C. Anderson  
Environmental Bureau Chief

RCA/lwp  
Attachments-1  
xc: OCD District Office

**ATTACHMENT TO THE DISCHARGE PERMIT**  
**Frontier Field Services, LLC, Maljamar Gas Plant (GW-020)**  
**DISCHARGE PERMIT APPROVAL CONDITIONS**  
**June 13, 2005**

1. Payment of Discharge Permit Fees: The \$100.00 filing fee has been received. The \$4000.00 flat fee shall be submitted upon receipt of this approval. The required flat fee may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the permit, with the first payment due upon receipt of this approval.
2. Commitments: The permit holder will abide by all commitments submitted in the discharge permit renewal application and these conditions for approval.
3. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums should be stored on their sides with the bung in place and lined on a horizontal plan. Chemicals in other containers such as sacks or buckets must also be stored on an impermeable pad with curbing.
4. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.
5. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new facilities or modifications to existing facilities must place the tank on an impermeable type pad within the berm.
6. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.
7. Labeling: All tanks, drums, and other containers should be clearly labeled to identify their contents and other emergency information necessary if the tank were to rupture, spill, or ignite.
8. Below Grade Tanks/Sumps/Pits/Ponds: All below grade tanks, sumps, pits and ponds must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design, unless approved otherwise. All below grade tanks, sumps and pits must be tested annually or as specified herein, except systems that have secondary containment with leak detection. These systems with leak detection shall have a monthly inspection of the leak detection to determine if the primary containment is leaking. Results of tests and inspections shall be maintained at the facility covered by this discharge permit and available for OCD inspection. Any system found to be leaking shall be reported to OCD within 15 days. Permit holders may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCI will be notified at least 72 hours prior to all testing.

9. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be approved by the OCD prior to installation and must be tested to demonstrate their mechanical integrity every five (5) years. Results of such tests shall be maintained at the facility covered by this discharge permit and available for OCD inspection. Permit holders may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. Any system found to be leaking shall be reported to OCD within 15 days. The OCD will be notified at least 72 hours prior to all testing.
10. Class V Wells: No Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be approved for construction and/or operation unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA U program. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.
11. Housekeeping: All systems designed for spill collection/prevention, and leak detection will be inspected daily to ensure proper operation and to prevent over topping or system failure. All spill collection and/or secondary containment devices will be emptied of fluids within 48 hours of discovery.
12. Spill Reporting: All spills/releases shall be reported pursuant to OCD Rule 116, and WQCC 120.
13. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous must be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261. Any waste stream that is not listed in the discharge permit will be approved by OCD on a case-by-case basis.  
  
Rule 712 Waste: Pursuant to Rule 712, disposal of certain non-domestic waste is allowed at solid waste facilities permitted by the New Mexico Environment Department as long as the waste stream is identified in the discharge permit, and existing process knowledge of the waste stream does not change without notification to the Oil Conservation Division.
14. OCD Inspections: Additional requirements may be placed on the facility based upon results from OCD inspections.
15. Storm Water Plan: Stormwater runoff plans and controls shall be maintained. As a result of operations if any water contaminant that exceeds the WQCC standards listed in 20 NMAC 6.2.3101 is discharged in any stormwater run-off then immediate corrective actions shall be taken to stop the discharge. OCD shall be notified within 24 hours of discovery and the permit shall be modified within 15 days and submitted for OCD approval.
16. Vadose Zone and Water Pollution: The previously submitted investigation(s) and remediation plan were submitted pursuant to the discharge permit and all future discoveries of contamination will be addressed through the discharge permit.



Special Note: The existing groundwater investigation and remediation systems are being maintained the previous owner ConocoPhillips.

17. Transfer of Discharge Permit: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge permit. A written commitment to comply with the terms and conditions of the previously approved discharge permit must be submitted by the purchaser approved by the OCD prior to transfer.
18. Closure: The OCD will be notified when operations of the facility are discontinued for a period in excess of six months. Prior to closure of the facility a closure permit will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.
19. Certification: **Frontier Field Services, LLC** by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. **Frontier Field Services, LLC** further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Conditions accepted by: **Frontier Field Services, LLC**

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

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

\_\_\_\_\_  
Title

ACKNOWLEDGEMENT OF RECEIPT  
OF CHECK/CASH

I hereby acknowledge receipt of check No.                      dated 2/19/08

or cash received on                      in the amount of \$ 4000<sup>00</sup>

from Frontier Field Services

for GW-20

Submitted by: Lawrence Romero Date: 2/27/08

Submitted to ASD by: Juan Torres Date: 2/27/08

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

## Frontier Field Services, LLC

*Southern Ute Indian Tribe*

4200 E. Skelly Drive, Suite 700, Tulsa, OK 74135

Phone (918) 492-4450 • Fax (918) 492-4701

February 19, 2008

Mr. Wayne Price  
Water Quality Management Fund  
New Mexico Oil Conservation Division  
1220 S. Saint Francis  
Santa Fe, NM 87505

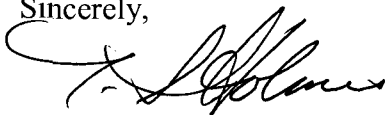
RE: Discharge Permit GW-020 Renewal  
Maljamar Gas Plant, Frontier Field Services, LLC

Dear Mr. Price:

Please find enclosed the signed groundwater discharge permit renewal for the Maljamar Gas Plant along with a check for the \$4,000 fee made payable to the Water Quality Management Fund as requested in your email of February 15, 2008 to Mr. Ray Spencer of Frontier Field Services, LLC.

Thank you for bringing this oversight to our attention. Should there be any further necessary actions, please contact me at (918) 388-8401 or at my email address [tholmes@frontierfieldservices.com](mailto:tholmes@frontierfieldservices.com) and I will make all efforts to address the situation immediately.

Sincerely,



Teri S. Holmes  
Environmental Compliance Manager

Cc: John Prentiss  
Chad Cagle

Enclosures



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

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

Director

**Oil Conservation Division**

June 13, 2005

**Attention: Mr. Ray Spencer**

Randy L. McCollum  
Frontier Field Services, LLC  
P.O. Box 07  
1001 Conoco Road  
Maljamar, New Mexico 88260

Re: Discharge Permit GW-020 Renewal  
Maljamar Gas Permit

Dear Mr. McCollum:

The groundwater discharge permit renewal for the Frontier Field Services, LLC Maljamar Gas Plant GW-020 located in the SE/4 SW/4 of Section 21, Township 17 South, Range 32 East, NMPM, Lea County, New Mexico, **is hereby approved** under the conditions contained in the enclosed attachment. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 30 working days of receipt of this letter.**

The original discharge permit was approved on June 10, 1985 with an expiration date of June 10, 1990 and subsequently renewed on February 24, 1995, May 18, 2000 and amended on July 27, 2000. The discharge permit renewal application dated May 14, 2005 including attachments, submitted pursuant to Section 3106 of the New Mexico Water Quality Control Commission (WQCC) Regulations also includes all earlier applications and all conditions later placed on those approvals.

The discharge permit is renewed pursuant to Section 3109.C. Please note Section 3109.G, which provides for possible future amendment of the permit. Please be advised that approval of this permit does not relieve Frontier Field Services, LLC of responsibility should operations result in pollution of surface water, ground water or the environment. Nor does it relieve Frontier Field Services, LLC of its responsibility to comply with any other governmental authority's rules and regulations. Please be advised that all exposed pits, including lined pits and open top tanks

(exceeding 16 feet in diameter) shall be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

*Please note that Section 3104. of the regulations requires that "when a permit has been approved, discharges must be consistent with the terms and conditions of the permit." Pursuant to Section 3107.C., the OCD Director shall be notified of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.*

Pursuant to Section 3109.H.4., this approval is for a period of five years. **This approval will expire July 27, 2010** and an application for renewal should be submitted in ample time before that date. Pursuant to Section 3106.F. of the regulations, if a discharger submits a discharge permit renewal application at least 120 days before the discharge permit expires and is in compliance with the approved permit, then the existing discharge permit will not expire until the application for renewal has been approved or disapproved.

The discharge permit application is subject to the WQCC Regulation 3114. Every billable facility submitting a discharge permit will be assessed a fee equal to the filing fee of \$100 plus a renewal flat fee of \$4000.00 for a Gas Plant.

**Please make all checks payable to: Water Quality Management Fund  
C/o: Oil Conservation Division  
1220 S. Saint Francis  
Santa Fe, New Mexico 87505.**

If you have any questions, please contact Wayne Price of my staff at (505-476-3487) or E-mail [wayne.price@state.nm.us](mailto:wayne.price@state.nm.us). On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge permit review.

Sincerely,

Original recreated by Wayne Price 2/15/08

Roger C. Anderson  
Environmental Bureau Chief

RCA/lwp  
Attachments-1  
xc: OCD District Office

**ATTACHMENT TO THE DISCHARGE PERMIT**  
**Frontier Field Services, LLC, Maljamar Gas Plant (GW-020)**  
**DISCHARGE PERMIT APPROVAL CONDITIONS**  
**June 13, 2005**

1. Payment of Discharge Permit Fees: The \$100.00 filing fee has been received. The \$4000.00 flat fee shall be submitted upon receipt of this approval. The required flat fee may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the permit, with the first payment due upon receipt of this approval.
2. Commitments: The permit holder will abide by all commitments submitted in the discharge permit renewal application and these conditions for approval.
3. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums should be stored on their sides with the bungs in place and lined up on a horizontal plan. Chemicals in other containers such as sacks or buckets must also be stored on an impermeable pad with curbing.
4. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.
5. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new facilities or modifications to existing facilities must place the tank on an impermeable type pad within the berm.
6. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.
7. Labeling: All tanks, drums, and other containers should be clearly labeled to identify their contents and other emergency information necessary if the tank were to rupture, spill, or ignite.
8. Below Grade Tanks/Sumps/Pits/Ponds: All below grade tanks, sumps, pits and ponds must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design, unless approved otherwise. All below grade tanks, sumps and pits must be tested annually or as specified herein, except systems that have secondary containment with leak detection. These

systems with leak detection shall have a monthly inspection of the leak detection to determine if the primary containment is leaking. Results of tests and inspections shall be maintained at the facility covered by this discharge permit and available for OCD inspection. Any system found to be leaking shall be reported to OCD within 15 days. Permit holders may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing.

9. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be approved by the OCD prior to installation and must be tested to demonstrate their mechanical integrity every five (5) years. Results of such tests shall be maintained at the facility covered by this discharge permit and available for OCD inspection. Permit holders may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. Any system found to be leaking shall be reported to OCD within 15 days. The OCD will be notified at least 72 hours prior to all testing.
10. Class V Wells: No Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be approved for construction and/or operation unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.
11. Housekeeping: All systems designed for spill collection/prevention, and leak detection will be inspected daily to ensure proper operation and to prevent over topping or system failure. All spill collection and/or secondary containment devices will be emptied of fluids within 48 hours of discovery.
12. Spill Reporting: All spills/releases shall be reported pursuant to OCD Rule 116. and WQCC 1203.
13. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261. Any waste stream that is not listed in the discharge permit will be approved by OCD on a case-by-case basis.

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

14. OCD Inspections: Additional requirements may be placed on the facility based upon results from OCD inspections.
15. Storm Water Plan: Stormwater runoff plans and controls shall be maintained. As a result of operations if any water contaminant that exceeds the WQCC standards listed in 20 NMAC 6.2.3101 is discharged in any stormwater run-off then immediate corrective actions shall be taken to stop the discharge. OCD shall be notified within 24 hours of discovery and the permit shall be modified within 15 days and submitted for OCD approval.
16. Vadose Zone and Water Pollution: The previously submitted investigation(s) and remediation plans were submitted pursuant to the discharge permit and all future discoveries of contamination will be addressed through the discharge permit.

**Special Note:** The existing groundwater investigation and remediation systems are being maintained by the previous owner ConocoPhillips.

17. Transfer of Discharge Permit: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge permit. A written commitment to comply with the terms and conditions of the previously approved discharge permit must be submitted by the purchaser and approved by the OCD prior to transfer.
18. Closure: The OCD will be notified when operations of the facility are discontinued for a period in excess of six months. Prior to closure of the facility a closure permit will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.
19. Certification: **Frontier Field Services, LLC** by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. **Frontier Field Services, LLC** further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Conditions accepted by:

**Frontier Field Services, LLC**

Michael Hicks  
Company Representative- print name

Michael Hicks Date 2/19/08  
Company Representative- Sign

Title President





# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

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

May 21, 2001

**Lori Wrotenbery**  
Director  
Oil Conservation Division

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. 5357 8253**

Mr. Mark Bishop  
Conoco Inc.  
P.O. Box 90  
Maljamar, New Mexico 88264

Re: Minor Modification of Discharge Plan GW-020  
Proposal to Discharge Treated RO Water From the Conoco Maljamar Gas Plant to the  
Conoco MCA Playa Lake Project located in West 1/2 of NE/4 of Sec 27-Ts17s-R32E  
Lea County, New Mexico.

Dear Mr. Bishop:

The New Mexico Oil Conservation Division (OCD) is in receipt of the above captioned proposal dated February 21, 2001. The OCD hereby approves of the minor modification of the discharge plan GW-020 to discharge treated plant waste water into the MCA Playa Lake Project located in West 1/2 of the NE 1/4, Section 27, T17S, R32E Lea County, New Mexico with the following conditions:

1. The water discharged to the playa lake shall not exceed the groundwater standards as found in 20 NMAC 6.2.3103 of the New Mexico Water Quality Control Commission (WQCC) Regulations. Any exceedence of the standards shall be report immediately to the OCD and Conoco Inc. shall immediately cease discharging into the playa lake.
2. The water discharged to the MCA Playa Lake Project shall be sampled and analyzed annually for concentrations of Volatile Organics EPA method 8260, Semi-Volatile Organics method 8270, total dissolved solids (TDS) and New Mexico Water Quality Control Commission (WQCC) metals and major cations and anions using EPA approved methods and quality assurance/quality control (QA/QC) procedures.
3. Conoco shall meter the volume of water being discharged to the playa lake on a monthly basis and the results submitted along with of the test results from item (2) in the annual report due on **September 15**, of each year.

Mr. Mark Bishop

May 21, 2001

Page 2

Please be advised that NMOCD approval of this plan does not relieve Conoco Inc. of liability should their operations pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Conoco Inc. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

If you have any questions, please contact Wayne Price of my staff at (505-476-3487). On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,

A handwritten signature in cursive script, appearing to read "Roger C. Anderson".

Roger C. Anderson  
Environmental Bureau Chief

RCA/lwp



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**GARY E. JOHNSON**

Governor

**Jennifer A. Salisbury**

Cabinet Secretary

**Lori Wrotenbery**

Director

**Oil Conservation Division**

July 27, 2000

**CERTIFIED MAIL**

**RETURN RECEIPT NO. 5051 5208**

Mr. Rudy Quiroz-PSM  
Conoco Inc.  
P.O. Box 90  
Maljamar, New Mexico 88264

Re: Maljamar Gas Plant  
Discharge Plan GW-020  
Work Plan to Address Materials/Waste Stored in South Plant Area, including an Investigation of  
the Vadose Zone Pursuant to Section 14 A. Discharge Plan GW-020 Renewal.

Dear Mr. Rudy Quiroz:

The New Mexico Oil Conservation Division (OCD) is in receipt of Conoco Inc.'s Work Plan dated July 13, 2000. The plan is hereby approved subject to the following additional conditions:

1. The south plant storage area shall be screened for TPH, BTEX, and Total WQCC Metals. There shall be a minimum of four composite surface samples collected (0-6") and analyzed for the above constituents using EPA methods.
2. All soil samples collected from borings that are retained for laboratory analysis will also be analyzed for General Chemistry (major cations and anions) using EPA methods.
3. All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261. NMOCD approves on a one-time basis the disposal of Items 1, 2, and 4, of the Conoco Maljamar Gas Plant "Scope of Work for the South Plant storage area. to be disposed of at the Lea County Landfill. Conoco shall retain all waste disposal records.

Oil Conservation Division \* 2040 South Pacheco Street \* Santa Fe, New Mexico 87505

Phone: (505) 827-7131 \* Fax (505) 827-8177 \* <http://www.emnrd.state.nm.us>

Mr. Rudy Quiroz-PSM

07/28/00

Page 2

Please be advised that NMOCD approval of this plan does not relieve Conoco Inc. of liability should their operations fail to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD approval does not relieve Conoco Inc. of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Sincerely Yours;



Wayne Price-Pet. Engr. Spec.

cc:   OCD Hobbs Office  
      Joyce Woodfin-Conoco Inc.  
      Don Beardsley-NMED-SWB

Mr. Rudy Quiroz:  
07/27/00  
Page 3

**ATTACHMENT TO THE DISCHARGE PLAN GW-020 APPROVAL**  
**Conoco Inc., Maljamar Gas Plant (GW-020)**  
**DISCHARGE PLAN APPROVAL CONDITIONS**  
**Amended July 27, 2000**

1. Payment of Discharge Plan Fees: The \$50.00 filing fee and the \$1667.50 flat fee has been received by OCD.
2. Commitments: Conoco Inc. will abide by all commitments submitted in the discharge plan renewal application dated February 01, 2000, **supplemental information dated June 21, 2000, July 13, 2000** and these conditions for approval.
3. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums should be stored on their sides with the bungs in place and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets must also be stored on an impermeable pad with curbing.
4. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.
5. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new facilities or modifications to existing facilities must place the tank on an impermeable type pad within the berm.
6. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.
7. Labeling: All tanks, drums, and other containers should be clearly labeled to identify their contents and other emergency information necessary if the tank were to rupture, spill, or ignite.
8. Below Grade Tanks/Sumps: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must be tested to demonstrate their mechanical integrity no later than July 15, 2000 and every year from tested date, thereafter. Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing. The test results will be submitted to OCD in an annual report due on **September 15**, of each year.

Mr. Rudy Quiroz:  
07/27/00  
Page 4

9. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity no later than July 15, 2000 and every 5 years, from tested date, thereafter. Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing. The test results will be submitted to OCD in the annual report due on **September 15, 2000.**
10. Class V Wells: No Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be approved for construction and/or operation unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only **is regulated and** permitted by the New Mexico Environment Department.
11. Housekeeping: All systems designed for spill collection/prevention, and leak detection will be inspected daily to ensure proper operation and to prevent over topping or system failure. All spill collection and/or secondary containment devices, **except the Clark engine room vaults**, will be emptied of fluids, **other than fresh water**, within 48 hours of discovery. **The Clark engine room vaults shall be emptied a minimum of once a month.**
12. Spill Reporting: All spills/releases shall be reported pursuant to OCD Rule 116. and WQCC 1203. to the OCD Hobbs District Office **and Santa Fe Environmental Bureau.**
13. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261. Any waste stream that is not listed in the discharge plan will be approved by OCD on a case-by-case basis.
14. OCD Inspections: Additional requirements may be placed on the facility based upon results from OCD inspections. As a result of NMOCD's recent inspection of the facility conducted on May 09, 2000 (copy enclosed) the following additional conditions will be required:
  - A. Conoco Inc. will submit for OCD approval by July 15, 2000 a plan to address materials and waste being stored at the plant's south storage area including a site investigation of the vadose zone.
  - B. Conoco Inc. will submit the results of the recent investigation of the wastewater /skimmer tank and pit area by **September 15, 2000.**

Mr. Rudy Quiroz:

07/27/00

Page 5

- C. Conoco Inc. will include the Clark Compressor Building containment sumps and the plant wastewater discharge line in the testing programs as outlined above in conditions 8.(Below Grade Tanks/Sumps:); and 9.(Underground Process/Wastewater Lines:).

**Special Condition: The Clark engine room vaults shall be inspected on an semi-annual basis.**

- D. Conoco Inc. will submit for OCD approval by **September 15, 2000** a plan to install impermeable containment and berms at the plant's wastewater /skimmer tank and pit area.
15. Storm Water Plan: Conoco Inc. will submit a storm water run-off plan for OCD approval by **September 15, 2000.**
16. Transfer of Discharge Plan: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge plan. A written commitment to comply with the terms and conditions of the previously approved discharge plan must be submitted by the purchaser and approved by the OCD prior to transfer.
17. Closure: The OCD will be notified when operations of the facility are discontinued for a period in excess of six months. Prior to closure of the facility a closure plan will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.
18. Certification: *Conoco Inc.* by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. *Conoco Inc.* further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Conditions accepted by: *Conoco Inc.*

Joyce Miley  
Company Representative- print name

Joyce Miley Date 8-16-00  
Company Representative- Sign

Title Environmental Consultant



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Jennifer A. Salisbury

Cabinet Secretary

July 27, 2000

Lori Wrotenbery

Director

Oil Conservation Division

**CERTIFIED MAIL**

**RETURN RECEIPT NO. 5051 5208**

Mr. Rudy Quiroz-PSM  
Conoco Inc.  
P.O. Box 90  
Maljamar, New Mexico 88264

Re: Discharge Plan GW-020 Renewal  
Maljamar Gas Plant

Dear Mr. Rudy Quiroz:

The groundwater discharge plan renewal for the Conoco Inc. Maljamar Gas Plant GW-020 operated by Conoco Inc. located in the SE/4 SW/4 of Section 21, Township 17 South, Range 32 East, NMPM, Lea County, New Mexico, **was approved** on May 18, 2000. On June 21, 2000 Conoco Inc. requested certain changes be made to the "Discharge Plan Approval Conditions". Please find enclosed an amended "Discharge Plan Approval Conditions" dated July 27, 2000. Please note the NMOCDD was able to incorporate all of your request, except item #15. **Storm Water Plan**. Conoco shall submit a plan that ensures that contamination will not run-off of your property.

The "Discharge Plan Approval Conditions" amended items are bold face for your reference. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within ten working days of receipt of this letter.**

Sincerely Yours;

Wayne Price-Pet. Engr. Spec.

Cc: OCD Hobbs Office  
Joyce Woodfin-Conoco Inc.



**ATTACHMENT TO THE DISCHARGE PLAN GW-020 APPROVAL**  
**Conoco Inc., Maljamar Gas Plant (GW-020)**  
**DISCHARGE PLAN APPROVAL CONDITIONS**  
**Amended July 27, 2000**

1. Payment of Discharge Plan Fees: The \$50.00 filing fee and the \$1667.50 flat fee has been received by OCD.
2. Commitments: Conoco Inc. will abide by all commitments submitted in the discharge plan renewal application dated February 01, 2000, **supplemental information dated June 21, 2000, July 13, 2000** and these conditions for approval.
3. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums should be stored on their sides with the bungs in place and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets must also be stored on an impermeable pad with curbing.
4. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.
5. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new facilities or modifications to existing facilities must place the tank on an impermeable type pad within the berm.
6. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.
7. Labeling: All tanks, drums, and other containers should be clearly labeled to identify their contents and other emergency information necessary if the tank were to rupture, spill, or ignite.
8. Below Grade Tanks/Sumps: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must be tested to demonstrate their mechanical integrity no later than July 15, 2000 and every year from tested date, thereafter. Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing. The test results will be submitted to OCD in an annual report due on **September 15**, of each year.

9. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity no later than July 15, 2000 and every 5 years, from tested date, thereafter. Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing. The test results will be submitted to OCD in the annual report due on **September 15, 2000.**
10. Class V Wells: No Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be approved for construction and/or operation unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only **is regulated and permitted** by the New Mexico Environment Department.
11. Housekeeping: All systems designed for spill collection/prevention, and leak detection will be inspected daily to ensure proper operation and to prevent over topping or system failure. All spill collection and/or secondary containment devices, **except the Clark engine room vaults**, will be emptied of fluids, **other than fresh water**, within 48 hours of discovery. **The Clark engine room vaults shall be emptied a minimum of once a month.**
12. Spill Reporting: All spills/releases shall be reported pursuant to OCD Rule 116. and WQCC 1203. to the OCD Hobbs District Office **and Santa Fe Environmental Bureau.**
13. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261. Any waste stream that is not listed in the discharge plan will be approved by OCD on a case-by-case basis.
14. OCD Inspections: Additional requirements may be placed on the facility based upon results from OCD inspections. As a result of NMOCD's recent inspection of the facility conducted on May 09, 2000 (copy enclosed) the following additional conditions will be required:
  - A. Conoco Inc. will submit for OCD approval by July 15, 2000 a plan to address materials and waste being stored at the plant's south storage area including a site investigation of the vadose zone.
  - B. Conoco Inc. will submit the results of the recent investigation of the wastewater /skimmer tank and pit area by **September 15, 2000.**

- C. Conoco Inc. will include the Clark Compressor Building containment sumps and the plant wastewater discharge line in the testing programs as outlined above in conditions 8.(Below Grade Tanks/Sumps:); and 9.(Underground Process/Wastewater Lines:).

**Special Condition: The Clark engine room vaults shall be inspected on an semi-annual basis.**

- D. Conoco Inc. will submit for OCD approval by **September 15, 2000** a plan to install impermeable containment and berms at the plant's wastewater /skimmer tank and pit area.
15. Storm Water Plan: Conoco Inc. will submit a storm water run-off plan for OCD approval by **September 15, 2000**.
16. Transfer of Discharge Plan: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge plan. A written commitment to comply with the terms and conditions of the previously approved discharge plan must be submitted by the purchaser and approved by the OCD prior to transfer.
17. Closure: The OCD will be notified when operations of the facility are discontinued for a period in excess of six months. Prior to closure of the facility a closure plan will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.
18. Certification: *Conoco Inc.* by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. *Conoco Inc.* further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Conditions accepted by: *Conoco Inc.*

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

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

\_\_\_\_\_  
Title \_\_\_\_\_



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON  
Governor  
Jennifer A. Salisbury  
Cabinet Secretary

May 18, 2000

Lori Wrotenbery  
Director  
Oil Conservation Division

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. 5051 5833**

Mr. Rudy Quiroz-PSM  
Conoco Inc.  
P.O. Box 90  
Maljamar, New Mexico 88264

Re: Discharge Plan GW-020 Renewal  
Maljamar Gas Plant

Dear Mr. Rudy Quiroz:

The groundwater discharge plan renewal for the Conoco Inc. Maljamar Gas Plant GW-020 operated by Conoco Inc. located in the SE/4 SW/4 of Section 21, Township 17 South, Range 32 East, NMPM, Lea County, New Mexico, **is hereby approved** under the conditions contained in the enclosed attachment. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within ten working days of receipt of this letter.**

The original discharge plan was approved on June 10, 1985 with an expiration date of June 10, 1990 and subsequently renewed on February 24, 1995. The discharge plan renewal application dated February 01, 2000 including attachments, submitted pursuant to Section 3106 of the New Mexico Water Quality Control Commission (WQCC) Regulations also includes all earlier applications and all conditions later placed on those approvals.

The discharge plan is renewed pursuant to Section 3109.C. Please note Section 3109.G., which provides for possible future amendment of the plan. Please be advised that approval of this plan does not relieve Conoco Inc. of liability should operations result in pollution of surface or ground waters, or the environment.

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

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

Pursuant to Section 3109.H.4., this approval is for a period of five years. **This approval will expire June 10, 2005** and an application for renewal should be submitted in ample time before that date. Pursuant to Section 3106.F. of the regulations, if a discharger submits a discharge plan renewal application at least 120 days before the discharge plan expires and is in compliance with the approved plan, then the existing discharge plan will not expire until the application for renewal has been approved or disapproved. It should be noted that all discharge plan facilities will be required to submit plans for, or the results of, an underground drainage testing program as a requirement for discharge plan renewal.

The discharge plan application for the Conoco Inc., Maljamar Gas Plant is subject to the WQCC Regulation 3114. Every billable facility submitting a discharge plan will be assessed a fee equal to the filing fee of \$50 plus a renewal flat fee of \$1667.50 for a Gas Plant. The OCD has not received the \$1667.50 flat fee. The flat fee of \$1667.50 may be paid in a single payment due on the date of the discharge plan approval or in five equal installments over the expected duration of the discharge plan. Installment payments shall be remitted yearly, with the first installment due on the date of the discharge plan approval and subsequent installments due on this date of each calendar year.

Please make all checks payable to: Water Quality Management Fund  
C/o: Oil Conservation Division  
2040 South Pacheco  
Santa Fe, New Mexico 87505.

If you have any questions, please contact Wayne Price of my staff at (505-827-7155). On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,



Roger C. Anderson  
Environmental Bureau Chief

RCA/lwp  
Attachment-2

xc: OCD Hobbs Office

**ATTACHMENT TO THE DISCHARGE PLAN GW-020 APPROVAL**  
**Conoco Inc., Maljamar Gas Plant (GW-020)**  
**DISCHARGE PLAN APPROVAL CONDITIONS**  
**May 18, 2000**

1. Payment of Discharge Plan Fees: The \$50.00 filing fee has been received by OCD. The \$1667.50 flat fee shall be submitted upon receipt of this approval. The required flat fee may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the plan, with the first payment due upon receipt of this approval.
2. Commitments: Conoco Inc. will abide by all commitments submitted in the discharge plan renewal application dated February 01, 2000 and these conditions for approval.
3. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums should be stored on their sides with the bungs in place and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets must also be stored on an impermeable pad with curbing.
4. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.
5. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new facilities or modifications to existing facilities must place the tank on an impermeable type pad within the berm.
6. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at atmospheric temperature and pressure.
7. Labeling: All tanks, drums, and other containers should be clearly labeled to identify their contents and other emergency information necessary if the tank were to rupture, spill, or ignite.
8. Below Grade Tanks/Sumps: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must be tested to demonstrate their mechanical integrity no later than July 15, 2000 and every year from tested date, thereafter. Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing. The test results will be submitted to OCD in an annual report due on August 15, of each year.

9. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity no later than July 15, 2000 and every 5 years, from tested date, thereafter. Permittees may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing. The test results will be submitted to OCD in the annual report due on August 15, 2000.
10. Class V Wells: No Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be approved for construction and/or operation unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.
11. Housekeeping: All systems designed for spill collection/prevention, and leak detection will be inspected daily to ensure proper operation and to prevent over topping or system failure. All spill collection and/or secondary containment devices will be emptied of fluids within 48 hours of discovery.
12. Spill Reporting: All spills/releases shall be reported pursuant to OCD Rule 116. and WQCC 1203. to the OCD Hobbs District Office.
13. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261. Any waste stream that is not listed in the discharge plan will be approved by OCD on a case-by-case basis.
14. OCD Inspections: Additional requirements may be placed on the facility based upon results from OCD inspections. As a result of NMOCD's recent inspection of the facility conducted on May 09, 2000 (copy enclosed) the following additional conditions will be required:
  - A. Conoco Inc. will submit for OCD approval by July 15, 2000 a plan to address materials and waste being stored at the plant's south storage area including a site investigation of the vadose zone.
  - B. Conoco Inc. will submit the results of the recent investigation of the wastewater /skimmer tank and pit area by July 15, 2000.
  - C. Conoco Inc. will include the Clark Compressor Building containment sumps and the plant wastewater discharge line in the testing programs as outlined above in conditions 8.(Below Grade Tanks/Sumps:); and 9.(Underground Process/Wastewater Lines:).

- D. Conoco Inc. will submit for OCD approval by July 15, 2000 a plan to install impermeable containment and berms at the plant's wastewater /skimmer tank and pit area.
15. Storm Water Plan: Conoco Inc. will submit a storm water run-off plan for OCD approval by July 15, 2000.
16. Transfer of Discharge Plan: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge plan. A written commitment to comply with the terms and conditions of the previously approved discharge plan must be submitted by the purchaser and approved by the OCD prior to transfer.
17. Closure: The OCD will be notified when operations of the facility are discontinued for a period in excess of six months. Prior to closure of the facility a closure plan will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.
18. Certification: **Conoco Inc.** by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. **Conoco Inc.** further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Conditions accepted by: **Conoco Inc.**

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

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

\_\_\_\_\_  
Title





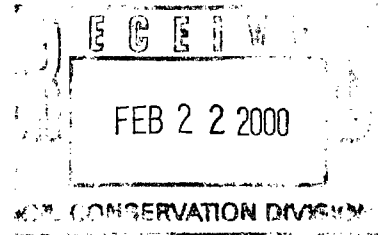
Joyce M. Woodfin  
Environmental Consultant  
Engineering and Compliance  
Natural Gas & Gas Products Department

Conoco Inc.  
600 N. Dairy Ashford Rd.  
P.O. Box 2197, HU3036  
Houston, TX 77252  
Telephone: (281) 293-4498  
Facsimile: (281) 293-1214

**Certified Mail No. P 365 861 683**  
Return Receipt Requested

February 16, 2000

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
2040 South Pacheco  
Santa Fe, NM 87505  
Attn: Wayne Price



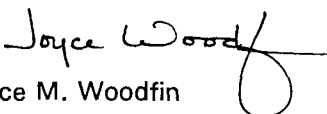
Re: Discharge Plan Renewal  
Maljamar Gas Processing Plant  
Conoco Inc., Natural Gas & Gas Products Department

Dear Mr. Price:

As requested, please find attached a check in the amount of \$50.00 for the Discharge Plan Renewal filing fee for the Maljamar Gas Processing Plant.

If you have any questions, please call Ms. Ashley Finnan at (281) 293-3438 or myself at (281) 293-4498. Thank you for your assistance in this matter.

Sincerely,

  
Joyce M. Woodfin

Vendor Code: 216596R01

Company: 001 - CONOCO INC

Check No.:

S H	Voucher Reference	Invoice Date	Inv. Num	1099 CD	Gross Amount	ADJ CD	Adjustment Amount	Discount Amount	Net Amount
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VENDOR NAME: STATE OF NEW MEXICO

IN CASE OF QUESTIONS ABOUT THE FOLLOWING INVOICES, PLEASE CALL (281) 293-6742

S 0206115DC0451001 20000204 RQC129005

50.00

.00

.00

50.00

\*MALJAMAR DISCHARGE PLAN RENEWAL (FILING FEE)

\* \* \* INQUIRIES ON ABOVE INVOICES SHOULD BE DIRECTED TO PHONE NO. LISTED ABOVE

TOTAL NET AMOUNT

\$50.00

1099 CODES - R=RENTAL L=ROYALTIES P=PERSONAL SERVICES M=MEDICAL I=INTEREST F=FOREIGN VDR PYMT N=NET PROFIT  
D=PERMIT/DAMAGE G=PRIZES/AWARDS C=BWP REFUND/INTEREST B=BWP REFUND/MISC A=NON-REPORTABLE TYPES

ADJ CODES - Q=WRONG QUANTITY P=WRONG PRICE C=WRONG CALCULATION M=MULTIPLE ERRORS F=CORRECTED FREIGHT CHARGES  
D=CORRECTED DISCOUNT T=TAX REMOVAL B=BACKUP WITHHOLDING OF 31% PER IRS REGULATIONS O=OTHER

ACKNOWLEDGEMENT OF RECEIPT  
OF CHECK/CASH

I hereby acknowledge receipt of check No. [REDACTED] dated 2/15/2000  
or cash received on \_\_\_\_\_ in the amount of \$ 50<sup>00</sup>

from CONOCO

for MALJANAR GAS PLANT

GW-020

Submitted by: WAYNE PRICE Date: 2/22/00

Submitted to ASD by: [Signature] Date: 2/24/00

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

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

Modification \_\_\_\_\_ Other \_\_\_\_\_  
(specify)

Organization Code 521.07 Applicable FY 2000

To be deposited in the Water Quality Management Fund.

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



CONOCO INC  
PONCA CITY, OK 74602

No. [REDACTED]

62-2  
311

To: Citibank Delaware  
New Castle, DE 19720

FEBRUARY 15, 2000

\*\*\* VOID AFTER 90 DAYS \*\*\*

Vendor Code: 216596R01

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

Pay  
To the  
Order  
Of

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION  
ENERGY & MINERALS DEPT  
STATE LAND OFFICE BLDG  
PO BOX 2088  
SANTA FE NM 87504-2088

[Signature]  
Authorized Signature

GW-020

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



February 24, 1995

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. Z-765-962-825**

Mr. Rick McCalip  
Director of Safety & Environmental Services  
Conoco, Inc., Natural Gas and Gas Products Department  
P.O. Box 2197 - HU3000  
Houston, Texas 77252-2197

**RE: Discharge Plan Renewal GW-20**  
**Maljamar Gas Plant**  
**Lea County, New Mexico**

Dear Mr. McCalip:

The discharge plan renewal GW-20 for the Conoco, Inc. Maljamar Gas Processing Plant located in the SE/4 of the SW/4 of Section 21, Township 17 South, Range 32 East, NMPM, Lea County, New Mexico, is **hereby approved** under the conditions contained in the enclosed attachment. The discharge plan renewal consists of the application dated November 29, 1994.

The discharge plan renewal was submitted pursuant to Section 3-106 of the New Mexico Water Quality Control Commission (WQCC) Regulations. It is approved pursuant to Section 3-109.A. Please note Sections 3-109.E and 3-109.F, which provide for possible future amendments or modifications of the plan. Please be advised the approval of this plan does not relieve you of liability should your operation result in actual pollution of surface water, ground water, or the environment which may be actionable under other laws and/or regulations.

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

**VILLAGRA BUILDING - 408 Galisteo**

Forestry and Resources Conservation Division  
P.O. Box 1948 87504-1948  
827-5830

Park and Recreation Division  
P.O. Box 1147 87504-1147  
827-7485

**2040 South Pacheco**

Office of the Secretary  
827-5950

Administrative Services  
827-5925

Energy Conservation & Management  
827-5900

Mining and Minerals  
827-5970

Oil Conservation  
827-7131

Mr. Rick McCalip  
February 24, 1995  
Page 2

Please note that Section 3-104 of the regulations require "When a facility has been approved, discharges must be consistent with the terms and conditions of the plan". Pursuant to Section 3-107.C. you are required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.

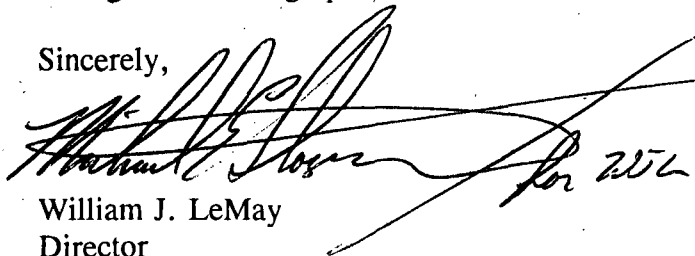
Pursuant to Section 3-109.G.4., this plan is for a period of five (5) years. This approval will expire on June 10, 2000, and you should submit an application in ample time before this date. It should be noted that all gas processing plants will be required to submit plans for, or the results of, an underground drainage testing program as a requirement for discharge plan renewal.

The discharge plan application for the Conoco, Inc. Maljamar Gas Processing Plant is subject to WQCC Regulation 3-114 discharge plan fee. Every billable facility submitting a discharge plan will be assessed a fee equal to the filing fee of fifty (50) dollars plus one-half of the flat fee, or sixteen-hundred sixty-seven dollars and fifty cents (\$1667.50) for gas plants. The New Mexico Oil Conservation Division (OCD) has not received your filing fee or flat fee. The fifty (50) dollar filing fee is due upon receipt of this approval. The flat fee for an approved discharge plan may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the plan, with the first payment due upon receipt of this approval.

Please make all checks payable to: **NMED-Water Quality Management** and addressed to the OCD Santa Fe Office.

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

Sincerely,



William J. LeMay  
Director

WJL/mwa  
Attachment

xc: OCD Hobbs Office  
David Westmoreland, Plant Manager, Maljamar, NM

ATTACHMENT TO THE DISCHARGE PLAN GW-20 APPROVAL  
CONOCO, INC.  
MALJAMAR GAS PROCESSING PLANT  
DISCHARGE PLAN REQUIREMENTS  
(February 24, 1995)

1. Payment of Discharge Plan Fees: The flat fee of sixteen-hundred sixty-seven dollars and fifty cents (\$1667.50) may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the plan, with the first payment due upon receipt of this approval.
2. Drum Storage: All drums will be stored on pad and curb type containment.
3. Sump Inspection: All pre-existing single-lined sumps at this facility will be cleaned and visually inspected on an annual basis. The inspection will coincide with the annual scheduled plant shutdown.  
  
Any new or rebuilt sumps or below-grade tanks will incorporate leak detection in their designs and will be approved by the OCD prior to installation.
3. Berms: All tanks that contain materials other than freshwater will be bermed to contain one and one-third (1-1/3) the capacity of the largest tank within the berm or one and one-third (1-1/3) the total capacity of all interconnected tanks.
4. Above Grade Tanks: All above ground tanks (saddle tanks) will be on impermeable pad and curb type containment.
5. Pressure Testing: All discharge plan facilities are required to pressure test all underground piping at the time of discharge plan renewal. All new underground piping shall be designed and installed to allow for isolation and pressure testing at 3 psi above normal operating pressure.
6. Spills: All spills and/or leaks will be reported to the OCD Santa Fe and Hobbs District Offices pursuant to WQCC Rule 1-203 and OCD Rule 116.
7. Pads: All compressor pads will have lips or curb type containment installed to prevent contaminants from running onto the ground surface.

All containment areas must remain free of any sediments and/or fluids. Routine inspections will be made of all such areas and any sediments and/or fluids found will be removed and disposed of at an approved facility.



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

March 13, 1995

**CERTIFIED MAIL**  
**RETURN RECEIPT NO. Z-765-962-828**

Mr. Jeff Driver  
Maljamar Gas Plant  
P.O. Box 90  
Maljamar, NM 88264

**RE: Amine Cleaning Solution Disposal  
Lea County, New Mexico**

Dear Mr. Driver:

The New Mexico Oil Conservation Division (OCD) has received your request dated, March 10, 1995, for approval to dispose of approximately 800 barrels of amine system cleaning solution from the Maljamar Gas Plant.

Based on the total metal analysis provided, the disposal is approved under the following condition:

1. The cleaning solution will be disposed of in an OCD approved class I or II well, or an OCD approved surface disposal facility.

Please be advised that OCD approval does not relieve Maljamar Gas Plant of liability should it later be found that contamination exists which could pose a threat to surface water, ground water, human health or the environment. In addition, OCD approval does not relieve Maljamar Gas Plant of responsibility for compliance with any other federal, state or local laws and/or regulations.

If you have any questions regarding this matter, please feel free to call me at (505) 827-7155

Sincerely,

Mark Ashley  
Environmental Geologist

xc: Jerry Sexton, OCD Hobbs  
Wayne Price, OCD Hobbs

ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION



July 21, 1987

GARREY CARRUTHERS  
GOVERNOR

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87501  
(505) 827-5800

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. Rick McCalip, Coordinator  
Natural Gas Products Department  
Conoco, Inc.  
P.O. Box 2197  
Houston, Texas 77252

RE: Discharge Plan (GW-20) Modification  
Maljamar Gas Processing Plant  
Lea County, New Mexico

Dear Mr. McCalip:

The Oil Conservation Division has received your letter dated July 2, 1987 outlining minor revisions in the operations of the above referenced facility. The revisions were reviewed as modifications to the original discharge plan that was approved on June 10, 1985. The notification of modification was pursuant to WQCC regulation 3-107.C.

Based on the information contained in your letter, the Oil Conservation Division has determined that the proposed changes do not require a public notice and administrative approval is hereby granted. Please be advised that the approval of this modification does not relieve you of liability should your operation result in actual pollution of surface or ground waters which may be actionable under other laws and/or regulations.

There will be no routine monitoring or reporting requirements other than those mentioned in the plan.

Please note that Section 3-104 of the regulations requires that "When a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3-107.C. you are required to notify the Director of any facility expansion, production increase, or process modification that would result in any significant modification in the discharge of water contaminants.

Sincerely,

WILLIAM J. LEMAY  
Director

WJL/RA/cr

xc: OCD-Hobbs





TONEY ANAYA  
GOVERNOR

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION



1935 - 1985

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87501  
(505) 827-5800

June 10, 1985

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Conoco Inc.  
P.O. Box 2197  
Suite 410 RT  
Houston, Texas 77252

Attention: Ms. L. Daniel

Dear Ms. Daniel:

The ground water discharge plan (GW-20) for Conoco Inc.'s Maljamar gas processing plant located in Sections 21 and 28, Township 17 South, Range 32 East, NMPM, Lea County, New Mexico, is hereby approved. The approved discharge plan consists of the plan dated May 31, 1984, and the materials dated March 7, 1985, May 28, 1985, May 31, 1985, and June 7, 1985, submitted as supplements to the discharge plan.

The discharge plan was submitted pursuant to Section 3-106 of the NM Water Quality Control Commission Regulations. It is approved pursuant to Section 3-109. Please note that subsections 3-109.E. and 3-109.F, which provide for possible future amendment of the plan. Please be advised that the approval of this plan does not relieve you of liability should your operation result in actual pollution of surface or ground waters which may be actionable under other laws and/or regulations.

There will be no routine monitoring or reporting requirements. Reporting of spills or leaks will be made to the OCD District Office in Hobbs, New Mexico.

Please note that Section 3-104 of the regulations requires that "When a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3-107.C., you are required to notify the director of any facility expansion, production increase, or process modification that would result in any significant modification in the discharge of water contaminants.

Pursuant to subsection 3-109.G.4., this plan approval is for a period of five years. This approval will expire June 10, 1990, and you should submit an application for new approval in ample time before that date.

On behalf of the staff of the Oil Conservation Division, I wish to thank you (and your staff and/or consultants) for your cooperation during this discharge plan review.

Sincerely,

A handwritten signature in cursive script, appearing to read "R. L. Stamets", with a long horizontal flourish extending to the right.

R. L. STAMETS  
Director

RLS/PB/dp

cc: OCD-Hobbs