GW - 34

GENERAL CORRESPONDENCE

YEAR(S):

1996-1990

EPFS

EL PASO FIELD SERVICES

January 30, 1996

Mr. Roger Anderson
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505

Re: Facility Closure Plan

Dear Mr. Anderson:

In accordance with Mr. Chris Eustice's letter of June 30, 1995, this is to notify you that El Paso Field Services Company (EPFS) has completed the construction and demolition project at the Kutz Station (Discharge Plan GW-186).

1. The only area of soil contamination identified was near the lined hydrostatic test water discharge pond, located on the southeastern edge of the station site. This contamination was remediated in accordance with OCD's "Spill, Leak Remediation Guidelines." Five samples were collected from the pond area following cleanup, one from each corner and one from the center. Results from those samples are attached.

2. The old compressors, motors, piping, valves, the compressor building, and ancillary buildings were removed for resale by Olshan Demolishing Co., a commercial salvage company. All concrete foundations were broken down to a depth of one foot below the natural grade, then covered with clean fill. The removed upper portions of the foundations were broken into easily manageable size, then buried on-site.

3. All asbestos containing material was removed by Philip Environmental and disposed of at an approved landfill.

If you need any additional information regarding the Angel Peak closure, please call me at (505) 599-2256.

Sincerely yours,

David Bays

David Bays, REM

cc: Denny Foust - OCD - Aztec
S. D. Miller/P. J. Marquez/Kutz file

El Paso Natural Gas Company

FIELD SERVICES LABORATORY
ANALYTICAL REPORT

SAMPLE IDENTIFICATION

SAMPLE NUMBER: 951166
MATRIX: Soil
SAMPLE DATE: 1-Nov-95
SAMPLE TIME (Hrs.): 1408
SAMPLED BY: Dennis Bird
PROJECT: Lined Pond Closure
FACILITY ID: 5201
SAMPLE LOCATION: Kutz Plant
SAMPLE POINT: Pond Sample Point #1
DATE OF ANALYSIS: 2-Nov-95

REMARKS: None.

EPA Method 8020 (BTEX) and Method 418.1 (TPH) RESULTS

PARAMETER	RESULT MG/KG	QUALIFIER	LIMIT MG/KG
BENZENE	<0.5	None	10
TOLUENE	<0.5	None	None
ETHYL BENZENE	<0.5	None	None
TOTAL XYLENES	<1.5	None	None
TOTAL BTEX	<3.0	None	50
TPH by EPA 418.1	32	None	100
PERCENT SOLIDS		93	
SURROGATE % RECOVERY	103	Allowed Range 80 to 120 %	

NOTES:
Acceptable Quality Control.
The limits shown are based on New Mexico Requlations.

Approved By: _____ 8-Nov-95
Date

El Paso Natural Gas Company

FIELD SERVICES LABORATORY
ANALYTICAL REPORT

SAMPLE IDENTIFICATION

SAMPLE NUMBER: 951167
MATRIX: Soil
SAMPLE DATE: 1-Nov-95
SAMPLE TIME (Hrs.): 1412
SAMPLED BY: Dennis Bird
PROJECT: Lined Pond Closure
FACILITY ID: 5201
SAMPLE LOCATION: Kutz Plant
SAMPLE POINT: Pond Sample Point #2
DATE OF ANALYSIS: 2-Nov-95

REMARKS: None.

EPA Method 8020 (BTEX) and Method 418.1 (TPH) RESULTS

PARAMETER	RESULT MG/KG	QUALIFIER	LIMIT MG/KG
BENZENE	<0.5	None	10
TOLUENE	<0.5	None	None
ETHYL BENZENE	<0.5	None	None
TOTAL XYLENES	<1.5	None	None
TOTAL BTEX	<3.0	None	50
TPH by EPA 418.1	<10	None	100
PERCENT SOLIDS	91		
SURROGATE % RECOVERY	103	Allowed Range 80 to 120 %	

NOTES:
Acceptable Quality Control.
The limits shown are based on New Mexico Regulations.

Approved By: _____ 8-Nov-95
Date

El Paso Natural Gas Company

FIELD SERVICES LABORATORY
ANALYTICAL REPORT

SAMPLE IDENTIFICATION

SAMPLE NUMBER: 951168
MATRIX: Soil
SAMPLE DATE: 1-Nov-95
SAMPLE TIME (Hrs.): 1418
SAMPLED BY: Dennis Bird
PROJECT: Lined Pond Closure
FACILITY ID: 5201
SAMPLE LOCATION: Kutz Plant
SAMPLE POINT: Pond Sample Point #3
DATE OF ANALYSIS: 2-Nov-95

REMARKS: None.

EPA Method 8020 (BTEX) and Method 418.1 (TPH) RESULTS

PARAMETER	RESULT MG/KG	QUALIFIER	LIMIT MG/KG
BENZENE	<0.5	None	10
TOLUENE	<0.5	None	None
ETHYL BENZENE	<0.5	None	None
TOTAL XYLENES	<1.5	None	None
TOTAL BTEX	<3.0	None	50
TPH by EPA 418.1	74	None	100
PERCENT SOLIDS	92		
SURROGATE % RECOVERY	103	Allowed Range 80 to 120 %	

NOTES:
Acceptable Quality Control.
The limits shown are based on New Mexico Regulations.

Approved By: John Landers

8-Nov-95
Date

El Paso Natural Gas Company

FIELD SERVICES LABORATORY
ANALYTICAL REPORT

SAMPLE IDENTIFICATION

SAMPLE NUMBER: 951169
MATRIX: Soil
SAMPLE DATE: 1-Nov-95
SAMPLE TIME (Hrs.): 1426
SAMPLED BY: Dennis Bird
PROJECT: Lined Pond Closure
FACILITY ID: 5201
SAMPLE LOCATION: Kutz Plant
SAMPLE POINT: Pond Sample Point #4
DATE OF ANALYSIS: 2-Nov-95

REMARKS: None.

EPA Method 8020 (BTEX) and Method 418.1 (TPH) RESULTS

PARAMETER	RESULT MG/KG	QUALIFIER	LIMIT MG/KG
BENZENE	<0.5	None	10
TOLUENE	<0.5	None	None
ETHYL BENZENE	<0.5	None	None
TOTAL XYLENES	<1.5	None	None
TOTAL BTEX	<3.0	None	50
TPH by EPA 418.1	500	None	100
PERCENT SOLIDS	95		
SURROGATE % RECOVERY	104	Allowed Range 80 to 120 %	

NOTES:
Acceptable Quality Control.
The limits shown are based on New Mexico Requlations.

Approved By: John Fowler

8-Nov-95
Date

El Paso Natural Gas Company

FIELD SERVICES LABORATORY
ANALYTICAL REPORT

SAMPLE IDENTIFICATION

SAMPLE NUMBER: 951170
MATRIX: Soil
SAMPLE DATE: 1-Nov-95
SAMPLE TIME (Hrs.): 1430
SAMPLED BY: Dennis Bird
PROJECT: Lined Pond Closure
FACILITY ID: 5201
SAMPLE LOCATION: Kutz Plant
SAMPLE POINT: Pond Sample Point #5
DATE OF ANALYSIS: 2-Nov-95

REMARKS: None.

EPA Method 8020 (BTEX) and Method 418.1 (TPH) RESULTS

PARAMETER	RESULT MG/KG	QUALIFIER	LIMIT MG/KG
BENZENE	<0.5	None	10
TOLUENE	<0.5	None	None
ETHYL BENZENE	<0.5	None	None
TOTAL XYLENES	<1.5	None	None
TOTAL BTEX	<3.0	None	50
TPH by EPA 418.1	<10	None	100
PERCENT SOLIDS	92		
SURROGATE % RECOVERY	103	Allowed Range 80 to 120 %	

NOTES:
Acceptable Quality Control.
The limits shown are based on New Mexico Regulations.

Approved By: John Larson

8-Nov-95
Date

El Paso Natural Gas Company

FIELD SERVICES LABORATORY
ANALYTICAL REPORT

SAMPLE IDENTIFICATION

SAMPLE NUMBER: 951171
MATRIX: Soil
SAMPLE DATE: 1-Nov-95
SAMPLE TIME (Hrs.): 1437
SAMPLED BY: Dennis Bird
PROJECT: Lined Pond Closure
FACILITY ID: 5201
SAMPLE LOCATION: Kutz Plant
SAMPLE POINT: Pond 5-Point Composite
DATE OF ANALYSIS: 2-Nov-95

REMARKS: None.

EPA Method 8020 (BTEX) and Method 418.1 (TPH) RESULTS

PARAMETER	RESULT MG/KG	QUALIFIER	LIMIT MG/KG
BENZENE	<0.5	None	10
TOLUENE	<0.5	None	None
ETHYL BENZENE	<0.5	None	None
TOTAL XYLENES	<1.5	None	None
TOTAL BTEX	<3.0	None	50
TPH by EPA 418.1	78	None	100
PERCENT SOLIDS	93		
SURROGATE % RECOVERY	104	Allowed Range 80 to 120 %	

NOTES:
Acceptable Quality Control.
The limits shown are based on New Mexico Requlations.

Approved By: John Laidlaw

8-Nov-95
Date

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☒ Telephone ☐ Personal	Time 9:10 AM	Date 1-2-96

Originating Party	Other Parties
Pat Sanchez - OCD	David Bays - EPFS

Subject: Kutz (old Plant) GW-034 closure.

Discussion: I asked David if he wanted to Renew the discharge Plan for GW-034 - He said no - the final closure is just about done - Note: The Discharge Plan expires 12-29-96.

Note: The new Kutz Plant under GW-186.

Conclusions or Agreements: David will submit the final closure on the Facility. No need to mail them a renewal letter as facility closure will be completed before discharge Plan expire date.

Distribution: File.

Signed: Patricia W. Sanchez

El Paso Natural Gas Company
P.O. Box 4990
FARMINGTON, NEW MEXICO 87499

November 2, 1995

Mr. Pat Sanchez
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505

RE: Closure of Kutz Plant, Discharge Plan GW-034

Dear Mr. Sanchez:

On April 6, 1995, El Paso Natural Gas Co. (EPNG) notified the New Mexico Oil Conservation Division (NMOCD) of our intention to close six obsolete natural gas compressor stations in the San Juan basin. A closure plan was submitted with the notification. I have attached a copy of that notice and the closure plan for your information.

On June 30, 1995, Mr. Chris Eustice of the NMOCD sent a letter to EPNG approving the closure plan. The approval included five special conditions to be followed at each location. I have also included a copy of Mr. Eustice's letter for your reference.

This letter is to let you know that closure is currently underway at the Kutz Plant. As part of the closure, we are also removing the lined pond located on the southeast side of the station property. The pond is being closed in accordance with NMOCD Guidelines for Surface Impoundment Closure.

As required by NMOCD's approval, condition 3, a final closure report will be submitted at the end of the project. If you need any additional information before the final closure report is submitted, please call me at (505) 599-2256.

Sincerely yours,

David Bays

David Bays

cc: Mr. Denny Foust, NMOCD, Aztec
S. D. Miller/P. J. Marquez/Kutz File

Pat Marquez 599-2175

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

June 30, 1995

CERTIFIED MAIL
RETURN RECEIPT NO. P-176-012-151

Mr. David Bays
El Paso Natural Gas Company
P.O. Box 4990
Farmington, New Mexico 87499

Re: Facility Closure Plan

Dear Mr. Bays:

The New Mexico Oil Conservation Division (OCD has completed a review of El Paso Natural Gas Company's (EPNG) May, 1995 "PROPOSED DEMOLITION PLAN" which was received by the OCD May 15, 1995. This document contains EPNG's plan for closure of six (6) facilities in the San Juan Basin. The six facilities are:

Angel Peak
3B-1
Kutz Plant
Lindrith Plant
Largo Plant
Ballard Plant

The above referenced facility closure plan is approved with the following conditions:

1 All soil samples for verification of completion of remedial activities will be sampled and analyzed for benzene, toluene, ethylbenzene, xylene and total petroleum hydrocarbons in accordance with the OCD's "SPILL, LEAK REMEDIATION GUIDELINES".

2. EPNG will notify the OCD-Environmental Bureau Chief and the OCD Aztec District Office within 24 hours of the discovery of groundwater contamination related to any facility closure activity.

3. For each facility closed, upon completion of all closure activities, EPNG will submit to the OCD for approval a completed closure report which will detail the

final results of each facility closure describing all assessments, dirt work, pit closures, and any other associated remedial activity.

4. All wastes removed from any of the facilities will be disposed of at an OCD approved facility.

5. All original documents submitted for approval will be submitted to the OCD Santa Fe Office with copies provided to the OCD Aztec Office.

Please be advised that OCD approval does not relieve EPNG of liability should closure activities determine that contamination exists which is beyond the scope of the work plan or if closure activities fail to adequately remediate contamination related to the facility. In addition, OCD approval does not receive EPNG of responsibility for compliance with any other federal, state or local laws and/or regulations.

If you have any questions, please call me at (505) 827-7153.

Sincerely,

Chris Eustice
Environmental Geologist

cc: OCD Aztec Office - Denny Foust

El Paso Natural Gas Company

P. O. Box 4990
FARMINGTON, NM 87499
PHONE: 505-599-2202

April 6, 1995

Certified Mail
Return Receipt Number P 645 521 837

Mr. William L. LeMay, Director
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505

Re: Proposed Demolition Plan

Dear Mr. LeMay:

El Paso Natural Gas Company is constructing six new compressor stations to replace six existing "grandfathered" stations. These station are:

Facility	Estimated Start of Demolition
Angel Peak	June 19, 1995
3B-1	July 3, 1995
Kutz Plant	July 3, 1995
Lindrith Plant	September 4, 1995
Largo Plant	September 18, 1995
Ballard Plant	October 9, 1995

A plan for removal and disposition of the existing station is attached. For any additional information needed, please contact me at the above address, or at (505) 599-2256.

Sincerely yours,

David Bays

David Bays, REM
Sr. Environmental Scientist

cc: w/o attachments
Mr. David Hall
Ms. Sandra Miller

EL PASO NATURAL GAS COMPANY
COMPRESSOR STATION CLOSURE PLAN

I. ENGINES, COMPRESSORS, PIPING, AND ANCILLARY STATION EQUIPMENT

All usable station hardware will be either reused by EPNG or sold for reuse in natural gas service. Unusable equipment will be sold as scrap metal.

II. HAZARDOUS WASTE

EPNG does not anticipate generating any hazardous waste during the demolition project. However, any wastes generated which are determined to be hazardous as defined by EPA and NMED regulations will be disposed of off-site at a properly permitted hazardous waste disposal facility.

III. SPECIAL WASTE

A. Insulation

All insulation will be checked to determine presence of asbestos. Any asbestos containing material (ACM) will be disposed of in an approved ACM landfill. Non-asbestos insulation will be disposed of as solid waste.

B. Used Oil

All used oil will be containerized and transported off-site for recycling. If an oil spill occurs, the contractor will take immediate steps to contain the spill and recover as much free liquid as is possible. Spill notifications will be made in accordance with NMOCD Rule 116.

C. Used Antifreeze

Glycol based coolants will be reused to the extent possible. If the coolant is not reusable, it will be either recycled or disposed off-site in accordance with OCD regulations.

D. Oil/Hydrocarbon Contaminated Soil

Presence of oil or hydrocarbon contamination will be determined using a Photo-ionization Detector (PID). All soils containing oil or hydrocarbons over 100 ppm will remediated in accordance with NMOCD Guidelines for Remediation of Leaks, Spills, and Releases.

E. Pits, Ponds, or Lagoons

Pits or ponds (if any) which do not meet current OCD guidelines for leak detection and secondary containment will be closed in accordance with NMOCD Unlined Surface Impoundment Closure Guidelines. For any pits or ponds which require closure and/or remediation, a site specific closure plan will be developed. The site specific plans will address remediation methods and procedures for determining any potential groundwater impact.

F. Chlorofluorocarbons

If any refrigeration equipment is to be removed, it will first have all freon evacuated for reuse in other similar equipment.

IV. BUILDING FOUNDATIONS

Steel foundation supports and tie downs will be sold as scrap metal. All above ground sections of concrete, including the above grade portions of the compressor building foundations, will be removed or demolished to a depth of 12 inches below grade. The removed and/or demolished concrete will be placed in the existing station basement for on-site burial.

V. GENERAL DEMOLITION DEBRIS

All non-degradable inert waste (rocks, concrete, etc.) generated by the demolition will be placed in the basement of the existing compressor building for burial on-site. Degradable waste (scrap lumber, vegetation, etc.) will be transported off-site for disposal at an approved public landfill.

NAME OF OPERATOR	El Paso Natural Gas Co.				ADDRESS	P.O. Box 1492	El Paso, TX 79978
REPORT OF	FIRE	BREAK	SPILL x	LEAK	BLOWOUT	OTHER*	
TYPE OF FACILITY	DRLG WELL	PROD WELL	TANK BTTY	PIPE LINE	GASO PLNT	OIL RFY	OTHER* compressor station
NAME OF FACILITY	Kutz Plant						
LOCATION OF FACILITY (QUARTER/QUARTER SECTION OR FOOTAGE DESCRIPTION)					SEC. 15	TWP. 29N	RGE. 12W	COUNTY San Juan
DISTANCE AND DIRECTION FROM NEAREST TOWN OR PROMINENT LANDMARK	3 miles east of Farmington, NM						
DATE AND HOUR OF OCCURENCE	7/7/93 @ 8:30 a.m.				DATE AND HOUR OF DISCOVERY	7/7/93 @ 8:30 a.m.	
WAS IMMEDIATE NOTICE GIVEN?	YES x	NO	NOT REQUIRED		IF YES, TO WHOM	NRC	
BY WHOM	Sandra D. Miller				DATE AND HOUR	7/7/93 @ 3:30 p.m.	
TYPE OF FLUID LOST	ethylene glycol				QUANTITY OF LOSS	220 lbs.	VOLUME RECOVERED 220 lbs.
DID ANY FLUIDS REACH A WATERCOURSE?	YES	NO xx	QUANTITY				

IF YES, DESCRIBE FULLY**

RECEIVED
JUL1 5 1993
OIL CON. DIV
DIST. 3

DESCRIBE CAUSE OF PROBLEM AND REMEDIAL ACTION TAKEN**

Engine drain valves were partially open causing overflow as personnel filled the ~~valves~~ engine.

DESCRIBE AREA AFFECTED AND CLEANUP ACTION TAKEN**

All visible contamination was excavated.

DESCRIPTION OF AREA	FARMING		GRAZING		URBAN	OTHER*	
SURFACE CONDITIONS	SANDY & gravel	SANDY LOAM	CLAY	ROCKY	WET	DRY	SNOW

DESCRIBE GENERAL CONDITIONS PREVAILING (TEMPERATURE, PRECIPITATION, ETC.)**

Clear, 75°

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF

SIGNED W. D. Hall TITLE W. D. Hall DATE 7/12/93

SPECIFY **ATTACH ADDITIONAL SHEETS IF NECESSARY

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No [redacted] dated 5/28/92,
or cash received on 6/10/92 in the amount of $ 690.00
from El Paso Natural Gas Co.
for Kutz Compressor Station (Facility Name) GW-34 (DP No.)
Submitted by: / Date:
Submitted to ASD by: Kathy Brown Date: 6/10/92
Received in ASD by: Sherry Gonzales Date: 6/9/92

Filing Fee ____ New Facility ____ Renewal X

Modification ___ Other _____ (specify)

Organization Code 521.07 Applicable FY 80

To be deposited in the Water Quality Management Fund.

Full Payment X or Annual Increment ____

EL PASO NATURAL GAS COMPANY
EL PASO, TEXAS

CONTROL NO. 232 CBD
62-20
311

CHECK NO. [redacted]

05/28/92
Date

PAYABLE AT
CITIBANK - DELAWARE
WILMINGTON, DEL
PAY TO THE ORDER OF

PAY AMOUNT
$690.00
Void After 1 Year

NEW MEXICO OIL CONSERVATION
DIVISON
ENERGY MINERALS & NATURAL
RESOURCES DEPARTMENT
P O BOX 2088
SANTA FE NM 87504

Thomas E. Roberts
Authorized Signatory

[redacted]

Detach and retain this statement for your records

EL PASO NATURAL GAS COMPANY

REMITTANCE ADVICE

Vendor Number
015452 002

Check Date
05/28/92

Check Number
[redacted]

VOUCHER NUMBER	INVOICE NUMBER	AMOUNT		
		Invoice	Discount	Net
REFER PAYMENT INQUIRIES TO ACCOUNTS PAYABLE (915) 541-5354				
VOUCHER NO	INVOICE NO	GROSS	DISCOUNT	NET
000076402	CKREQ920520	690.00	.00	690.00
DISCHARGE PLAN FLAT FEE FOR RENEWAL @ KUTZ COMPRESSOR STATION, SAN JUAN COUNTY, NEW MEXICO				
	TOTALS	690.00	.00	690.00

FM SS0044 (REV. 8-90)

El Paso
Natural Gas Company

P. O. BOX 1492
EL PASO, TEXAS 79978
PHONE: 915-541-2600

May 29, 1992

William L. LeMay, Director
New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, NM 87504

Re: Discharge Plan GW-34
Kutz Compressor Station
San Juan County, NM

Dear Mr. LeMay:

Enclosed is our check number 07178160 in the amount of $690 covering renewal of the discharge plan for our Kutz Compressor Station as stated in Roger Anderson's letter dated May 18, 1992.

Very truly yours,

W. David Hall, gb

Wm. David Hall, P.E.
Manager
Field Services Engineering

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

May 18, 1992

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

MAY 1992
FIELD SERVICES

Mr W. David Hall
El Paso Natural Gas Company
P.O. Box 1492
El Paso, Texas 79978

Re: Discharge Plan GW-34
Kutz Compressor Station
San Juan County, New Mexico

Dear Mr Hall:

On April 8, 1992, El Paso Natural Gas Company was given approval for renewal of the previously approved discharge plan for the above referenced facility. The approval letter stated, in error, the discharge plan flat fee for renewal of a compressor station of more than 3000 hp is $1667.50. The correct flat fee for this type facility is $690.00.

I apologize for any inconvenience this error has caused your company. If you have any questions, please call me at (505) 827-5812.

Sincerely

Roger C. Anderson
Acting Bureau Chief

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

May 18, 1992

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

Mr W. David Hall
El Paso Natural Gas Company
P.O. Box 1492
El Paso, Texas 79978

Re: Discharge Plan GW-34
Kutz Compressor Station
San Juan County, New Mexico

Dear Mr Hall:

On April 8, 1992, El Paso Natural Gas Company was given approval for renewal of the previously approved discharge plan for the above referenced facility. The approval letter stated, in error, the discharge plan flat fee for renewal of a compressor station of more than 3000 hp is $1667.50. The correct flat fee for this type facility is $690.00.

I apologize for any inconvenience this error has caused your company. If you have any questions, please call me at (505) 827-5812.

Sincerely

Roger C. Anderson
Acting Bureau Chief

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

New Mexico DRUG FREE It's a State of Mind!

BRUCE KING
GOVERNOR

April 8, 1992

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

CERTIFIED MAIL
RETURN RECEIPT NO. P-670-683-502

Mr. Larry R. Tarver, Vice President
North Region
El Paso Natural Gas Company
P.O. Box 1492
El Paso, Texas 79978

RE: Discharge Plan GW-34
Kutz Compressor Station
San Juan County, New Mexico

Dear Mr. Tarver:

The groundwater discharge plan GW-34 for the El Paso Natural Gas Company Kutz Compressor Station located in Section 15, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico is hereby renewed under the conditions contained in the enclosed attachment. The discharge plan consists of the original discharge plan as approved on December 11, 1986, the renewal application dated December 18, 1991 and correspondence dated April 3,1992 submitted as a supplement to the renewal application.

The discharge plan was submitted pursuant to Section 3-106 of the Water Quality Control Commission Regulations. It is approved pursuant to section 3-109.A. Please note Section 3-109.F., which provides for possible future amendment of the plan. Please be advised that approval of this plan does not relieve you of liability should your operation result in actual pollution of surface or ground waters 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 top tanks (tanks exceeding 16 feet in diameter) shall be screened, netted or otherwise rendered nonhazardous to wildlife including migratory birds.

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 change in the discharge of water quality or volume.

Pursuant to Section 3-109.g.4., this plan approval is for a period of five years. This approval will expire December 29, 1996 and you should submit an application for renewal in ample time before that date.

The discharge plan application for the El Paso Natural Gas Company Kutz Compressor Station is subject to the 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 a flat rate based on the type of facility.

The OCD has received your $50 filing fee. The flat fee for renewal of a discharge plan for a compressor station of more than 3000 hp is $1667.50 and may be paid in a single payment or in equal installments over the duration of the plan. The flat fee (either total payment or first installment) is 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 Oil Conservation Division, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,

William J. LeMay
Director

WJL/rca

xc: OCD Aztec Office

ATTACHMENT TO DISCHARGE PLAN GW-34 APPROVAL
EL PASO NATURAL GAS COMPANY KUTZ COMPRESSOR STATION
DISCHARGE PLAN REQUIREMENTS
(April 8, 1992)

1. Payment of Discharge Plan Fees: The $1667.50 flat fee or first installment will be paid upon receipt of this approval.

2. Drum Storage: All drums will be stored on pad and curb type containment. Compliance by December 31,1993.

3. Sump Inspection: All pre-existing sumps at this facility will be cleaned and visually inspected on an annual basis. Any new sumps or below-grade will be approved by the OCD prior to installation and will incorporate leak detection in their designs.

4. Leak Detection: The leak detection sump at the double lined evaporation pond will be inspected on a monthly basis.

5. Berms: A berm encompassing the three oil tanks on the west side of the compressor building will be constructed by August 31, 1992

El Paso
Natural Gas Company

P.O. BOX 1492
EL PASO, TEXAS 79978
PHONE: 915-541-5050

LARRY R. TARVER VICE PRESIDENT

April 3, 1992

Mr. Roger Anderson
Acting Bureau Chief
New Mexico Oil Conservation Division
P.O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87504

Re: Discharge Plant GW-34
Kutz Compressor Station
San Juan County, New Mexico

Dear Mr. Anderson:

In response to your letter dated February 4, 1992 regarding the Kutz Plant Discharge Plan, El Paso Natural Gas Company offers the following information:

1. EPNG plans to build a berm around the three oil tanks on the west side of the compressor building. The berm will contain one and one-third times the capacity of the two interconnected tanks as required by the NMOCD's policy. This work is scheduled to be completed prior to August 1992.

2. During the inspection on March 6, 1991, OCD requested EPNG to inspect the cooling tower pump sump for large cracks. If large cracks were present, soil samples beneath and adjacent to the sump would be required.

   During August 1991, the sump was inspected for large cracks. No large cracks were discovered. Since the concrete sump is approximately nine inches thick and there was no evidence of large cracks, EPNG does not suspect chromium beneath or adjacent to the sump. The sump was left in place and filled with native soil. A concrete pad with curbing, currently used for drum storage, was built over the sump.

3. The oil stained soils near the oil storage tank outside of the north fence were removed and remediated. A concrete pad was installed around the loading valve. The below-grade fiberglass storage tank will be visually inspected annually to insure integrity.

If there are any questions, please call David Hall, Manager, Compliance Engineering at (915) 541-3531.

Thank you for your prompt consideration in this matter.

Sincerely,

Larry R. Tarver
Vice President
Field Services Division

LRT/wdh

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

New Mexico DRUG FREE It's a State of Mind!

February 4, 1992

BRUCE KING
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

CERTIFIED MAIL
RETURN RECEIPT NO. P-327-278-285

Mr. Larry R. Tarver, Vice President
El Paso Natural Gas Company
304 Texas Street
El Paso, Texas 79901

Re: Discharge Plan GW-34
Kutz Compressor Station
San Juan County, New Mexico

Dear Mr Tarver:

The Oil Conservation Division (OCD) has received the discharge plan renewal application, dated December 19, 1991, for the above referenced facility. The following comments and requests for additional information are based on review of the application and observations from the March 6, 1991 OCD inspection of the facility:

1. There are three oil tanks on the west side of the first compressor building that are mounted on a cement pad without berming or curbing. Two of the tanks are interconnected and EPNG stated the third tank will be converted into a glycol storage tank. It is OCD's policy that all on-ground storage/waste tanks be bermed to contain one and one-third times the capacity of the largest tank or one and one-third times the capacity of all interconnected tanks within the berm. Submit a schedule for installation of containment for these tanks.

2. During the inspection, EPNG stated they plan to remove the walls of the old cooling tower sump and leave the concrete floor. Since chromium compounds were used in the past in the cooling tower, as a part of this demolition, the soils adjacent to and under this sump must be analyzed to determine if any chromium compounds are present and at what concentrations.

3. The oil storage tank outside of the north fence has oil

spilled within the berm. the oil stained soils need to be cleaned up and spill containment is required for the loading valve area. A below grade fiberglass wastewater tank is also located within this berm. Since this tank is not equipped with leak detection, annual visual inspection is required to insure integrity.

Submission of the above requested information and/or commitments will allow review of the renewal application to continue.

If there are any questions, please call me at (505) 827-5812.

Sincerely;

Roger C. Anderson
Environmental Engineer

xc: Denny Foust - OCD Aztec
Thomas D. Hutchins - EPNG

EPNG KUTZ CS REVIEW

PROCESS

Compress gas with 4-733 HP engines & 1-550 HP engine (3482 HP total). Cool compressed gas in heat exchangers using cooling tower water as cooling median. Gas is then routed through scrubbers to remove condensed liquids, and then run through a triethylene glycol dehydrator to remove water vapor. Gas then flows into pipeline at 250-300 psi and onto EPNG Blanco, Chaco, or San Juan River Plants.

Average gas discharge volume in 1985 was 37.5 MMCF/day (82% capacity). Average wastewater discharge in 1985 was 795,000 gal/year.

HYDOGEOLOGY

Groundwater is located at approximately 30-75 feet deep in an alluvial gravel valley aquifer. Groundwater flow is to the south along the unnamed arroyo to the San Juan Basin.

DP RENEWAL CHANGES

Replace cooling towers with fan-fan coolers.

INSPECTION NOTES, MARCH 6,1991

(EPNG stated that drain lines from utility building, compressor basement drains, dehyrator, and reboiler all go to lined pond).

1. Cement berm around glycol tank has a break. EPNG stated they will move this tank to where the oil tanks are located.
2. 3 oil tanks are on cement berm, but no berm. 2 are interconnected. EPNG stated they would make the other tank into a glycol storage tank.
3. Solvent (Varsol) saddle tank needs curbing, has pad.
4. Oil tank (saddle) outside Compressor Building A needs to be on pad with curb. Drums in this area need to be on pad with curb.
5. Glycol tanks sitting on gravel - O.K. at this time, no evidence of spillage.
6. Old cooling tower sump no longer used. EPNG stated they plan to remove walls and leave cement floor (2-3' thick). Need to check for leakage of chrome before closing.

7. Oil storage (waste ?) tank outside of north side fencing has oil spilled within the berm. Need containment for the loading valve for thsi tank. Berm needs beefed up. Also, have a fiberglass water tank located here; needs inspection for cracks. annual + soils

8. Quit using cooling tower in 1989, quit using chromates in 1980. Sampled wood of cooling tower for chromates, none. Possibly should sample soils for chromates.

9. Nothing needed for the glycol tanks at this time since no evidence of spillage or leaks.

Affidavit of Publication

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

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

That the notice which is hereto attached, entitled

Notice Of Publication

and numbered ..... in the

..... Court of Lea County, New Mexico, was published in a regular and entire issue of THE LOVINGTON DAILY LEADER and not in any supplement thereof, ~~once each week on the same day of the week~~, for one (1) day ~~consecutive weeks~~, beginning with the issue of

January 29, 19 92

and ending with the issue of

January 29, 19 92

And that the cost of publishing said notice is the sum of $ 34.92

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

Joyce Clemens

Subscribed and sworn to before me this 29th day of January, 19 92

Notary Public, Lea County, New Mexico

My Commission Expires Sept. 28, 19 94

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

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following discharge plan applications have been submitted to the Director of the Oil Conservation Division, State Land Office Building, P.O. Box 2088, Santa Fe, New Mexico 87504-2088, Telephone (505) 827-5800:

(GW-7) - Christie Gas Corporation, Joe Christie, President, Barton Oaks Plaza Two, Suite 515, 901 MoPac Expressway South, Austin, Texas 78746, has submitted a discharge plan renewal application for their Jal #4 Gas Processing Plant located in Sections 31 and 32, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico. The plant is not in operation at this time. On start-up of the plant, wastewater will be transported via pipeline to an offsite OCD approved Class II disposal well. The volume and quality of the wastewater will be determined after plant start-up. Groundwater most likely to be affected by an accidental discharge is at a depth of approximately 105 feet with a total dissolved solids concentration of approximately 7500 mg/1. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

(GW-71) - El Paso Natural Gas Company, Larry R. Tarver, Vice President, North Region, 304 Texas Street, El Paso, Texas, 79901, has submitted a discharge plan renewal application for their Kutz Compressor Station located in Section 15, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico. Approximately 100 gallons per day of process waste water is discharged to a double lined wastewater evaporation pond equipped with leak detection. Groundwater most likely to be affected by an accidental discharge is at a depth of approximately 33 feet with a total dissolved solids concentration of approximately 774 mg/1. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 5:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

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

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 4th day of December, 1991.

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

SEAL

Published in the Lovington Daily Leader January 29, 1992.

AFFIDAVIT OF PUBLICATION

No. 28867

STATE OF NEW MEXICO,
County of San Juan:

CHRISTINE HILL being duly sworn, says: "That she is the NATIONAL AD MANAGER of The Farmington Daily Times, a daily newspaper of general circulation published in English in Farmington, said county and state, and that the hereto attached LEGAL NOTICE

was published in a regular and entire issue of the said Farmington Daily Times, a daily newspaper duly qualified for the purpose within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico for ONE consecutive (days) (/////) on the same day as follows:

First Publication WEDNESDAY, JANUARY 29, 1992

Second Publication

Third Publication

Fourth Publication

and that payment therefore in the amount of $ 47.99 has been made.

Christine Hill

Subscribed and sworn to before me this 31st day of JANUARY, 1992.

Connie Andrae

Notary Public, San Juan County, New Mexico

My Comm expires: JULY 3, 1993

COPY OF PUBLICATI

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

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GIVEN under the Seal of New Mexico Oi Conservation Commission at Santa Fe, New Mexico on this 4th day of December, 1991.

STATE OF NEW MEXICO

OIL CONSERVATION DIVISION
RECEIVED

'92 FEB 11 AM 9 20

STATE OF NEW MEXICO
County of Bernalillo ss

Thomas J. Smithson being duly sworn declares and says that he is National Advertising manager of the **Albuquerque Journal** , and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Session Laws of 1937, and that payment therefore has been made or assessed as court costs; that the notice, a copy of which is hereto attached, was published in said paper in the regular daily edition,

for 1 times, the first publication being on the 6 day

of Feb., 1992, and the subsequent consecutive

publications on ....., 1992.

Thomas J. Smithson

Sworn and subscribed to before me, a Notary Public in and for the County of Bernalillo and State of New Mexico, this 6 day of Feb., 1992.

OFFICIAL SEAL
Bernadette Ortiz
BERNADETTE ORTIZ
NOTARY PUBLIC-NEW MEXICO
NOTARY BOND FILED WITH SECRETARY OF STATE
My Commission Expires 12-18-93

PRICE $ NO CHARGE

Statement to come at end of month.

CLA-22-A (R-12/92) ACCOUNT NUMBER C31184

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

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(GW-71) - El Paso Natural Gas Company, Larry R. Tarver, Vice President, North Region, 304 Texas Street, El Paso, Texas, 79901, has submitted a discharge plan renewal application for their Kutz Compressor Station located in Section 15, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico. Approximately 100 gallons per day of process waste water is discharged to a double lined wastewater evaporation pond equipped with leak detection. Groundwater most likely to be affected by an accidental discharge is at a depth of approximately 35 feet with a total dissolved solids concentration of approximately 774 mg/l. The discharge plan addresses how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan application may be viewed at the above address between 8:00 a.m. and 5:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Requests for public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

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GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 4th day of December, 1991.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION
s/William J. Lemay
Director

Journal: February 6, 1992

NOTICE OF PUBLICATION

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

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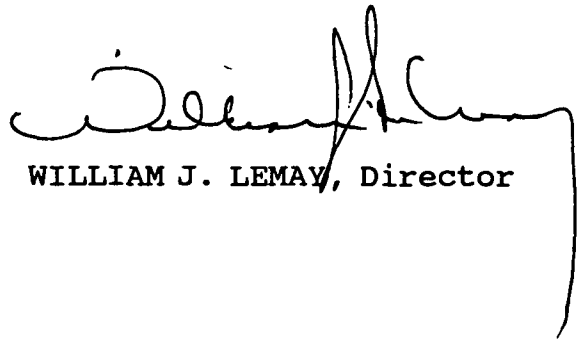
GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 4th day of December, 1991.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION



S E A L

WILLIAM J. LEMAY, Director

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Ecological Services
Suite D, 3530 Pan American Highway, NE
Albuquerque, New Mexico 87107

December 20, 1991

Mr. William J. Lemay
New Mexico Energy, Minerals and
Natural Resources Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Dear Mr. Lemay:

This responds to the Public Notice dated December 4, 1991, regarding the effects of granting State of New Mexico groundwater discharge permits on fish, shellfish, and wildlife resources in New Mexico.

The U.S. Fish and Wildlife Service (Service) comments are for the following permits.

(GW-93) - Meridian Oil Inc., Rattlesnake Compressor Station, NW/4, Section 36, T31N, R9W, NMPM, San Juan County, New Mexico. Wastewater is to be stored in an above ground steel tank prior to transport to an OCD approved off-site disposal facility.

(GW-71) - El Paso Natural Gas Company, Chaco Canyon Gas Processing Plant, Section 16, T26N, R12W, NMPM, San Juan County, New Mexico. Wastewater is disposed of in four unlined lagoons.

(GW-92) - El Paso Natural Gas Company, Rio Vista Compressor Station, Section 27, T29N, R11W, NMPM, San Juan County, New Mexico. Waste from a compressor station will be stored in a below grade steel tank.

(GW-88) - BHP-Petroleum (Americas), Inc., Gallegos Canyon Compressor Station, Section 21, T29N, R12W, NMPM, San Juan County, New Mexico. Wastewater will be stored in an above grade steel tank prior to transport to an OCD approved offsite Class II disposal well.

(GW-91) - Williams Fields Services, 32-9 Central Delivery Point, NE/4 SE/4, Section 15, and NW/4 SW/4, Section 14, T31N, R10W, NMPM, San Juan County, New Mexico. Wastewater will be stored in an above grade steel tank prior to transport to an OCD approved offsite disposal facility.

The Service is concerned with potential adverse effects of the proposed discharge plans upon migratory bird species. A significant number of migratory birds use evaporative ponds, tanks, and adjacent wetlands as a stopover during spring and fall migrations. There are also resident birds that nest and raise young in the area. Mortality due to poisoning or hypothermia may occur if migratory birds ingest or become covered with petroleum hydrocarbons and/or other organic or inorganic constituents present in these wastewaters. To avoid this consequence, the Service recommends that

all wastewater impoundments be designed and constructed to prevent access by migratory birds.

The pits, tanks, or impoundment should be screened, fenced, netted, or covered with material of sufficient size to prevent access by migratory birds. All pits, tanks, or impoundments should be lined to prevent seepage and possible access by migratory birds to contaminated water. These comments represent the views of the Service.

If you have any questions concerning our comments, please contact Richard Roy at FTS 474-7877 or (505) 883-7877.

Sincerely,

Jennifer Fowler-Propst
Field Supervisor

cc:
Assistant Regional Director, Fish and Wildlife Service, Fish and Wildlife Enhancement, Albuquerque, New Mexico

El Paso
Natural Gas Company

P. O. BOX 1492
EL PASO, TEXAS 79978
PHONE: 915-541-2600

December 18, 1991

Mr. Roger Anderson
New Mexico Oil Conservation Division
P.O. Box 2088
State Land Office Building
Santa Fe, N.M. 87504

Re: Discharge Plan GW-34
Kutz Gas Plant
San Juan County, New Mexico

Dear Mr. Anderson:

El Paso Natural Gas Company (EPNG) requests renewal of the Kutz Discharge Plan.

My letter dated January 31, 1991 noted several physical changes to the plant. Specifically, the cooling tower was replaced with a fin fan cooler and the boiler and attendant water treatment facility was removed.

Attached is the Kutz Compressor Station Discharge Plan Renewal. Several items are the same as in the October 1986 discharge plan and these items are noted in the renewal. Also attached is a fifty dollar check for the filing fee.

If you have any questions, please contact me at (915) 541-3531.

Sincerely,

Thomas D. Hutchins

Thomas D. Hutchins
Manager
North Region Compliance

Attachment

KUTZ COMPRESSOR STATION
DISCHARGE PLAN

El Paso Natural Gas Company

PREPARED FOR:

NEW MEXICO OIL CONSERVATION DIVISION
NOVEMBER 27, 1991

EL PASO NATURAL GAS COMPANY
304 TEXAS STREET
EL PASO, TEXAS 79901
(915) 541-3531

Kutz Compressor Station
Discharge Plan

This Discharge Plan has been prepared in accordance with New Mexico Oil Conservation Division (NMOCD) "Guidelines for the Preparation of Ground Water Discharge Plans at Natural Gas Processing Plants."

I. General Information

A. Discharger: All correspondence regarding this discharge plan should be sent to EPNG North Region headquarters at the address below:

Mr. Larry R. Tarver
North Region Vice President
El Paso Natural Gas Company
304 Texas Street
El Paso, Texas 79901
(915) 541-5050

B. Local Representative: A copy of all correspondence and all questions should be directed to the North Region Compliance Engineering Manager.

Mr. Thomas D. Hutchins
Manager, North Region Compliance Engineering
El Paso Natural Gas Company
304 Texas Street
El Paso, Texas 79901
(915) 541-3531

C. Location of Discharge, Land Use
(Same as Section 2.3 and 2.4 in October 1986 Plan)

D. Type of Natural Gas Operation (Same as Section 2.5 in October 1986 Plan except the replacement of the cooling tower with fan-fan coolers.)

Affirmation

I hereby certify that I am familiar with the information contained in this renewal plan submitted for the Kutz Compressor Station Discharge Plan and that such information is true, accurate and complete to the best of my knowledge and belief.

Thomas D. Hutchins for — 12/19/91
Signature — Date

Larry R. Tarver — Vice President
Printed Name — Title

II. Effluent Sources and Disposal

Compressors

The compressors are installed in such a manner to ensure containment of any drips, spills and engine wash down water. A six foot deep concrete basement below the compressors will contain any drips, spills and engine wash down water. Any wastewater will be contained in the basement and pumped out on an as needed basis. Wastewater will be trucked for further processing at an oil/water separator located approximately one half mile north of Blanco Plant. The water from the separator discharges a double lined pond. The oil from the separator is collected and sent to an oil recycler.

Distance Piece Drains and Used Compressor Engine Oil

Distance piece drains from the compressor and used engine oil are collected in a 275 gallon above ground skid mounted metal tank located immediately north of the compressor building.

The hydrocarbons from the skid mounted tank are collected and trucked to Blanco Plant. At Blanco Plant, the hydrocarbons are sent to an oil recycler.

Inlet and Fuel Gas Scrubbers

The inlet, interstage and fuel gas scrubbers discharge through a pressurized drain to a 300 barrel above ground metal storage tank located north of the facility. An adjacent 4200 gallon fiberglass reinforced plastic underground storage tank collects water from the above ground storage tank. In September 1991, a concrete pad was constructed around the north 300 barrel above ground metal storage tank loading valve.

The hydrocarbon liquids from the scrubbers are collected and trucked to Blanco Plant. At Blanco Plant, the hydrocarbons are sent to an oil recycler.

The water and traces of hydrocarbons from the fiberglass reinforced plastic tank are collected and trucked to the oil/water separator located approximately one half mile north of Blanco Plant.

Air Receiver Tank Blowdown

A buried 55 gallon metal drum collects water and condensate from the air receivers. The wastewater is pumped and transported to Blanco Plant for recycling.

Glycol Dehydration

The glycol dehydration unit suction scrubber discharges to the 300 barrel above ground metal tank located north of the plant.

Glycol dehydration is used to remove any remaining water vapor before gas enters the transmission line. The wastewater from the unit discharges to a 100 barrel above ground metal storage tank. Wastewater is trucked to Blanco Plant and sent to an oil recycler.

Domestic Sewage

The wastewater from the office restroom is discharged to a septic tank and leach field. The leach field was installed in May 1989.

Aboveground Storage Tanks

1. Two 3750 gallon new lube oil storage tanks
2. One 3750 gallon ethylene glycol antifreeze tank
3. One 100 barrel glycol dehydration wastewater tank
4. One 100 barrel triethylene glycol storage tank
5. One 250 gallon triethylene glycol storage tank
6. One 1461 gallon triethylene glycol storage tank
7. One 250 gallon Varsol storage tank
8. One 275 gallon used oil storage tank
9. One 300 barrel scrubber liquids storage tank
10. One 600 gallon ethylene glycol antifreeze recovery tank (This tank is used for temporary storage when the cooling water system is drained.)

Office and Industrial Solid Waste

Office solid waste, drained used engine oil filters and used glycol filters are taken to the Crouch Mesa Landfill. EPNG obtained approval from Waste Management of North America, Crouch Mesa landfill operator, for solid waste disposal.

Effluent Handling and Site Housekeeping

The Kutz Compressor Station is operated in a manner to prevent and mitigate any unplanned releases to the environment. Plant processes and storage tanks are regularly inspected by a number of personnel during daily operations, and any evidence or sign of spills or leaks are routinely reported to supervisory personnel so that repairs or cleanup can be made in a timely manner. Regularly scheduled maintenance procedures also help to assure that equipment remains functional and thus the possibility of spills or leaks is minimized.

Chemical and Environmental Hazards

Triethylene glycol, ethylene glycol, Shell Oil, Mobil Pegasus 490 Oil, Varsol, paint supplies, lubricating grease, sealants, industrial soap are stored at the plant. A list of chemicals and Material Safety Data Sheets are under Tab 1.

The chemical drums are stored in a small building located east of the compressor building. The drums are on concrete pads with berms.

Other paint supplies, lubricating grease and sealants are stored in a small warehouse south of the plant office.

A concrete berm was constructed in September 1991 around the 250 gallon aboveground Varsol tank.

Cleanup Procedures

Cleanup procedures would obviously vary with the nature and extent of any unplanned release. The waste generated from spills will be characterized and recycled if possible. If the waste is not recycled, waste will be disposed according to its analytical profile.

Verbal and written notification of leaks or spills will be made to NMOCD in accordance with NMOCD Rule 116. Any spills which meet or exceed the reportable quantities listed in 40 CFR Parts 300 through 372 will be reported to the National Response Center and where applicable, the New Mexico Environment Department and NMOCD.

III. Proposed Modifications

A concrete berm will be constructed around the oil tanks behind the utility building in 1993. The existing oil tanks are on concrete pads. A concrete berm will be constructed around the skid mounted 275 gallon used oil storage tank in 1992.

Although a earthen berm was installed around the 100 barrel glycol wastewater tank, EPNG plans to construct a concrete berm in 1992.

New drain lines will be installed or the existing drain lines from the glycol dehydrator will be hydrostatically tested at 1-1/2 times their design pressure for a minimum of eight hours in 1992. In case the hydrostatic test procedure is not feasible, test pressures and duration of test will be determined using procedures specified for drainage and vent systems as set forth in the 1979 International Conference of Building Officials Plumbing Code, Sections 1004(A)1 and 1006. The hydrostatic test results will be forwarded to NMOCD.

Since the glycol dehydrator wastewater discharge and domestic wastewater have been rerouted, the double lined pond normally does not receive any wastewater from the plant. However, it is being retained to receive liquids in emergency situations from either plant or field operations.

IV. Site Characteristics

(Same as Section 5.0,5.1,5.2,5.3,5.4 in October 1986 plan)

V. Basis for Approval

The existing site conditions and proposed modifications to the wastewater management system at EPNG's Kutz Plant act together to ensure that there will be no adverse effects to groundwater as a result of discharges to existing or proposed wastewater management units. In addition, the berming of tanks will help to ensure that any spills or leaks will be contained within plant property.

EPNG INVENTORY SHEET FOR HAZARDOUS CHEMICALS

1. LOCATION (Check One) N X S ____ C/O ____ M/O ____ 2. FACILITY /FUNCTION Gate Apt.

3. CHEMICAL TYPE (Check One) Plant/Warehouse X Consumer Chemicals ____ Other (Specify) ____

	4. CHEMICAL NAME	5. MANUFACTURER NAME	6. CHECK IF NO MSDS	7. CHECK IF NO LABEL	8. MAX AMOUNT OF CHEM. KEPT ON HAND	9. GENERAL LOCATION WHERE STORED
1	Glycol	Weskem Incorporated			4,384 gallons	East of pump house building
2	Antifreeze	Peak Antifreeze			3,756 gallons	West of shop building
3	Pegasus 490	Mobil Oil Company			7,512 gallons	West of shop building
4	Mobile 15/40	Mobil Oil Company			2 barrels	Warehouse
5	Mobil DTE BB	Mobil Oil Company			1 barrel	Pump house building
6	Mobil DTE Heavy	Mobil Oil Company			1 barrel	Pump house building
7	Mobil Grease	Mobil Oil Company			12 tubes	Warehouse
8	Shell 15/40	Shell Oil Company			12 cans	Warehouse
9	Regal Oil R&O 32	Texaco Incorporated			5 gallons	Pump house building
0	Solvent	Fraley Oil Company			300 gallons	West of shop building
1	Enamel Paint	MObil Chemical			30 gallons	Warehouse
2	Paint Thinner	T & R Chemical			5 gallons	Warehouse
3	Acetylene	Noels, Incorporated			2 tbls 750 cuft	Shop
4	Oxygen	Noels, Incorporated			2 tbls 488 cuft	Shop
5	Used Motor Oil				275 gallons	North of "A" Compressor
6	Marvel Mystery Oil	Marvel Oil Company			50 gallons	Warehouse
7	WD-40	WD-40 Corporation			12 spray cans	Warehouse and Shop
8	Knocker-loose	K & W Products, Inc.			12 spray cans	Warehouse and Shop
9	Almatek 1232 Grease	Lubricating Engine Inc.			12 tubes	Warehouse
10						

INVENTORY CONDUCTED BY Robert B. Nelson (Please PRINT or WRITE Legibly) DATE October 08, 1991

YOUR FACILITY /LOCATION Farmington Field Compressor Group (If Different From Above) PHONE (505) 632-2390 (Where You Can Be Reached)

EPNG INVENTORY SHEET FOR HAZARDOUS CHEMICALS

1. LOCATION (Check One) N X S _____ C/O _____ M/O _____ 2. FACILITY /FUNCTION Gate Plt

3. CHEMICAL TYPE (Check One) Plant/Warehouse X Consumer Chemicals _____ Other (Specify) _____

	4. CHEMICAL NAME	5. MANUFACTURER NAME	6. CHECK IF NO MSDS	7. CHECK IF NO LABEL	8. MAX AMOUNT OF CHEM. KEPT ON HAND	9. GENERAL LOCATION WHERE STORED
1	Rockwell Sealant	Rockwell International			10 gallons	Warehouse
2	Tribol 890 Heavy	IMP Oil and Grease			50 gallons	Pump house buildings
3	Shield Soap	Crafn Chemical			1 barrel	Pump house buildings
4	Shell Donax TG Fluid	Shell Oil Company			50 gallons	Warehouse
5	Climax Lubricant	Climax Lubricant Equip. Co.			20 gallons	Warehouse
6	Silite RTV Silicone	Silicone Co.			20 tubes	Warehouse
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

INVENTORY CONDUCTED BY Robert B. Nelson (Please PRINT or WRITE Legibly) DATE October 08, 1991

YOUR FACILITY /LOCATION Farmington Field Compressor Group PHONE (505) 632-2390

MATERIAL SAFETY DATA SHEET

UNION CARBIDE

An explanation of the terms used herein may be found in OSHA 29 CFR 1910.1200, available from OSHA regional or area offices.
(Essentially similar to U.S. Department of Labor Form OSHA-20 and generally accepted in Canada for information purposes)
Do Not Duplicate This Form: Request an Original.

I. PRODUCT IDENTIFICATION

PRODUCT	Acetylene		
CHEMICAL NAME	Acetylene	**SYNONYMS**	Acetylen, Ethine, Ethyne, Narcylene
FORMULA	C_2H_2	**CHEMICAL FAMILY**	Alkyne
		MOLECULAR WEIGHT	26.038

TRADE NAME Acetylene (This product is intended for welding and cutting use)

II. HAZARDOUS INGREDIENTS

This section covers the materials from which this product is manufactured. The fumes and gases produced during welding and cutting with the normal use of this product are covered by Section VI. The term "hazardous" should be interpreted as a term required and defined in OSHA 29 CFR 1910.1200 and does not necessarily imply the existance of any hazard.

MATERIAL (CAS NO.)	Vol (%)	1984-1985 ACGIH-TLV-TWA (OSHA-PEL)
Acetylene (74-86-2)	100	Simple asphyxiant (None currently established)

III. PHYSICAL DATA

BOILING POINT, 760 mm. Hg	Not Applicable	**SUBLIMATION POINT**	−84°C (−119.2°F) @ 760mm Hg
SPECIFIC GRAVITY (H_2O = 1)	Not Applicable	**VAPOR PRESSURE AT 21°C**	635 psig
VAPOR DENSITY (air = 1)	0.91	**SOLUBILITY IN WATER, % by wt.**	Slight
PERCENT VOLATILES BY VOLUME	100	**EVAPORATION RATE (Butyl Acetate = 1)**	Not Applicable

APPEARANCE AND ODOR Colorless gas at normal temperature and pressure; garlic-like odor.

EMERGENCY PHONE NUMBER

IN CASE OF EMERGENCIES involving this material, further information is available at all times:
In the USA 304 — 744-3487 In Canada 514 — 645-5311
For routine information contact your local supplier

Union Carbide requests the users of this product to study this Material Safety Data Sheet (MSDS) and become aware of product hazards and safety information. To promote safe use of this product a user should (1) notify its employees, agents and contractors of the information on this MSDS and any product hazards and safety information, (2) furnish this same information to each of its customers for the product, and (3) request such customers to notify their employees and customers for the product of the same product hazards and safety information.

UNION CARBIDE CORPORATION ☐ LINDE DIVISION
UNION CARBIDE CANADA LIMITED ☐ LINDE DIVISION

L-4559-C

IV. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

The ACGIH 1984-85 recommended limit for welding fume, not otherwise classified (NOC), is 5mg/m³.
TLV-TWA's should be used as a guide in the control of health hazards and not as fine lines between safe and dangerous concentrations. See Section VI for specific fume constituents which may modify this TLV-TWA.

EFFECTS OF OVEREXPOSURE AND EMERGENCY AND FIRST AID PROCEDURES

working with welding and cutting may create one or more of the following health hazards:

FUMES AND GASES can be dangerous to your health and may cause serious lung disease.*

HEAT RAYS *(INFRARED RADIATION* from the flame or hot metal) can injure eyes.

NOISE can damage hearing.

Acetylene is an asphyxiant. Moderate concentrations may cause headache, drowsiness, dizziness and unconsciousness. Lack of oxygen can cause death. Keep your head out of the fumes. Do not breathe fumes and gases caused by the process. Use enough ventilation, local exhaust, or both to keep fumes and gases from your breathing zone and the general area. The type and amount of fumes and gases depend on the equipment and supplies used. Possibly dangerous materials may be found in fluxes, coatings, gases, and metals. Get a Material Safety Data Sheet (MSDS) for every material used. Air samples can be used to find out what respiratory protection is needed.

Wear correct ear, eye, and body protection.

Short term overexposure to fumes may result in discomfort such as dizziness, nausea, or dryness or irritation of nose, throat, or eyes.

MIXTURES: When two or more gases, or liquefied gases are mixed, their hazardous properties may combine to create additional, unexpected hazards. Obtain and evaluate the safety information for each component before you produce the mixture. Consult an Industrial Hygienist, or other trained person when you make your safety evaluation of the end product. Remember, gases and liquids have properties which can cause serious injury or death.

A detailed description of the Health Hazards and their consequences may be found in Linde's free safety booklet L-2035. You may obtain copies from your local supplier, or by writing to Union Carbide Corporation, Linde Division, Communications Department, 39 Old Ridgebury Road, Danbury, Connecticut, 06817-0001.

FIRST AID IN CASE OF EMERGENCY — Call for medical aid. Employ First Aid techniques recommended by the American Red Cross. IF BREATHING IS DIFFICULT give oxygen. Call a physician. IF NOT BREATHING, begin artificial respiration, preferably mouth-to-mouth. If no detectable pulse, begin external heart massage. Immediately call a physician. IN CASE OF EYE BURN call a physician.

***NOTES TO PHYSICIAN:**

Acute — Gases, fumes, and dusts may cause irritation to the eyes, lungs, nose, and throat. Some toxic gases associated with welding and related processes may cause pulmonary edema, asphyxiation, and death. Acute overexposure may include signs and symptoms such as watery eyes, nose and throat irritation, headache, dizziness, difficulty breathing, frequent coughing, or chest pains.

Chronic — Protracted inhalation of air contaminants may lead to their accumulation in the lungs, a condition which may be seen as dense areas on chest x-rays. The severity of change is proportional to the length of exposure. The changes seen are not necessarily associated with symptoms or signs of reduced lung function or disease. In addition, the changes on x-rays may be caused by non-work related factors such as smoking, etc.

V. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (test method)	−17.8°C (0°F) T.C.C.	**AUTOIGNITION TEMPERATURE**	299°C (571°F)
FLAMMABLE LIMITS IN AIR, % by volume	**LOWER** 2.3%	**UPPER**	100%

EXTINGUISHING MEDIA

See paragraphs below.

SPECIAL FIRE FIGHTING PROCEDURES

Refer to CGA pamphlet SB-4, "Handling Acetylene Cylinders in Fire Situations."

Evacuate all personnel from danger area. Immediately cool containers with water spray from maximum distance taking care not to extinguish flames. Remove ignition sources if without risk. If flames are accidentally extinguished, explosive re-ignition may occur. Use self-contained breathing apparatus. Stop flow of gas if without risk while continuing cooling water spray. Remove all containers from area of fire if without risk. Allow fire to burn out. On-site fire brigades must comply with OSHA 29 CFR 1910.156.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Extremely flammable gas. Forms explosive mixtures with air and oxidizing agents. Container may rupture due to heat of fire. Do not extinguish flames due to possibility of explosive re-ignition. Flammable vapors may spread from leak. Explosive atmospheres may linger. Before entering area, especially confined areas, check atmosphere with approved explosion meter. No part of a container should be subjected to a temperature higher than 52°C (approximately 125°F). All containers are provided with a pressure relief device designed to vent contents when they are exposed to elevated temperature. Contact with copper, silver, or mercury or their alloys or halogens can cause explosion.

VI. REACTIVITY DATA

STABILITY		CONDITIONS TO AVOID
UNSTABLE	STABLE	Stable as shipped. Avoid use at pressures above 15 psig.
X		

INCOMPATIBILITY (materials to avoid)

Copper, silver, mercury or their alloys, oxidizing agents, acids, halogens, moisture.

HAZARDOUS DECOMPOSITION PRODUCTS

Thermal decomposition or burning may produce $CO/CO_2/H_2$. The welding and cutting process may form reaction products such as carbon monoxide and carbon dioxide. Other decomposition products of normal operation originate from the volatilization, reaction or oxidation of the material being worked.

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
May Occur	Will not Occur	Elevated temperature and pressure and/or the presence of a catalyst.
X		

VII. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

Forms explosive mixtures with air (See Section V). Immediately evacuate all personnel from danger area. Use self-contained breathing apparatus where needed. Remove all sources of ignition if without risk. Reduce vapors with fog or fine water spray. Shut off leak if without risk. Ventilate area of leak or move leaking container to well-ventilated area. Flammable gas may spread from leak. Before entering area, expecially confined areas, check atmosphere with appropriate device.

WASTE DISPOSAL METHOD Prevent waste from contaminating surrounding environment. Keep personnel away. Discard any product, residue, disposable container or liner in an environmentally acceptable manner, in full compliance with Federal, State and local regulations.

VIII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type) — Use respirable fume respirator or air supplied respirator when working in confined space or where local exhaust or ventilation does not keep exposure below TLV. Select as per OSHA29 CFR1910.134.

VENTILATION	**LOCAL EXHAUST** — Use enough ventilation, local exhaust or both, to keep the fumes and gases below TLV's in the worker's breathing zone and the general area. Train the worker to keep his head out of the fumes.	
	MECHANICAL (general)	ALWAYS WORK WITH ENOUGH VENTILATION
	SPECIAL	Not applicable
	OTHER Depends on specific use conditions, and location. Use adequate ventilation or personal respiratory protection. See Section IX and OSHA29 CFR1910.252.	

PROTECTIVE GLOVES Welding gloves recommended

EYE PROTECTION — Wear goggles with filter lens selected as per ANSI Z49.1. Provide protective screens and goggles if necessary, to protect others. Select as per OSHA29 CFR1910.133.

OTHER PROTECTIVE EQUIPMENT — As needed, wear hand, head, and body protection which help to prevent injury from radiation, and sparks. See ANSI Z49.1. At a minimum this includes welder's gloves and protective goggles, and may include arm protectors, aprons, hats, shoulder protection, as well as substantial clothing. Train the worker not to touch live electrical parts.

IX. SPECIAL PRECAUTIONS

Fumes and gases cannot be classified simply. The composition and quantity of both are dependent upon the metal being worked, the process, procedure and electrodes used. Other conditions which also influence the composition and quantity of the fumes and gases to which workers may be exposed include: coatings on the metal being worked (such as paint, plating, or galvanizing), the number of workers and the volume of the work area, the quality and amount of ventilation, the position of the worker's head with respect to the fume plume, as well as the presence of contaminants in the atmosphere (such as chlorinated hydrocarbon vapors from cleaning and degreasing activities).

One recommended way to determine the composition and quantity of fumes and gases to which workers are exposed is to take an air sample from inside the worker's helmet if worn or in the worker's breathing zone. See ANSI/AWS F1.1, available from the American Welding Society, 550 N.W. Le Jeune Rd., Miami, FL 33126.

Read and understand the manufacturer's instructions and the precautionary label on the product. See American National Standard Z49.1, "Safety In Welding And Cutting" published by the American Welding Society and OSHA Publication 2206 (29CFR1910), U.S. Government Printing Office, Washington, D.C. 20402 for more details. For further safety and health information refer to Linde's free safety booklet L-2035.

OTHER HANDLING AND STORAGE CONDITIONS

Heat and sparks during use could be the source of ignition of combustible materials. Prevent fires.
Refer to NFPA 51B "Cutting and Welding Processes" and NFPA 50 "Oxygen-Fuel Gas Systems." Use piping and equipment adequately designed to withstand pressures to be encountered. Gas can cause rapid suffocation due to oxygen deficiency. Store and use with adequate ventilation. Close valve when not in use and when empty. Never work on a pressurized system.

LINDE
UNION CARBIDE

GENERAL OFFICES

IN THE USA:
Union Carbide Corporation
Linde Division
39 Old Ridgebury Road
Danbury, CT 06817-0001

IN CANADA:
Union Carbide Canada Limited
Linde Division
123 Eglinton Avenue East
Toronto, Ontario M4P IJ3

Other offices in principal cities all over the world.

WD-40 CO.

U.S. DEPARTMENT OF LABOR

WAGE AND LABOR STANDARDS ADMINISTRATION
Bureau of Labor Standards

MATERIAL SAFETY DATA SHEET (SPRAY)

9-1-84

SECTION I

MANUFACTURER'S NAME	EMERGENCY TELEPHONE NO.
WD-40 Company	619/275-1400
ADDRESS (Number, Street, City, State, and ZIP Code)	
1061 Cudahy Place (92110), P. O. Box 80607, San Diego, California 92138-9021	
CHEMICAL NAME AND SYNONYMS	TRADE NAME AND SYNONYMS
Organic mixture	WD-40 spray cans
CHEMICAL FAMILY	FORMULA

SECTION II HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS Not applicable			BASE METAL Not applicable		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES	%	TLV (Units)
(1) Aliphatic petroleum distillate (stoddard solvent) CAS 8052-41-3 over	50	500ppm
(2) Petroleum base oil (CAS 8012-95-1) over	15	
(3) A-70 hydrocarbon propellant (liquified petroleum gas)(CAS 68476 85 7*	25	1000ppm
(4) Proprietary corrosion inhibitors and wetting agents *	Balance	

SECTION III PHYSICAL DATA

BOILING POINT (°F.)		SPECIFIC GRAVITY (H_2O=1) Total mix in can	.710
VAPOR PRESSURE (mm Hg.) in cans @ 70° F.	50 psig	PERCENT VOLATILE BY VOLUME (%) Total can contents	80
VAPOR DENSITY (AIR=1) greater than	1	EVAPORATION RATE (=1)	
SOLUBILITY IN WATER Insoluble - forms unstable emulsion.			
APPEARANCE AND ODOR light amber colored liquid slight characteristic odor.			

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
Not applicable to spray cans	propellant portion	1.8 vol	9.5 vol

EXTINGUISHING MEDIA CO_2, dry chemical, foam

SPECIAL FIRE FIGHTING PROCEDURES

UNUSUAL FIRE AND EXPLOSION HAZARDS Considered "extremely flammable" under Consumer Product Safety Commission regulations.

*These do not constitute any special toxicity or handling hazards

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SECTION V HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE
For thinner (lowest TLV of all components) 500 ppm.

EFFECTS OF OVEREXPOSURE Drying of skin, eye irritation, inhalation of vapor may cause anesthesia, headache, dizziness, nausea & upper respiratory irritation. Swallowing can cause irritation, nausea, vomiting, and diarrhea. Aspiration into lungs can cause chemical pneumonitis.

EMERGENCY AND FIRST AID PROCEDURES
For ingestion, do not induce vomiting, call a physician. For eye contact, flush with plenty of water, remove contact lenses if worn. For skin contact, wash with soap and water, apply skin cream. For inhalation, remove to fresh air, give artificial respiration if necessary; if breathing is difficult, give oxygen.

SECTION VI REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATABILITY *(Materials to avoid)*

HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Spills unlikely from cans. Leaking cans should be placed in plastic bag or open pail until pressure has dissipated.

WASTE DISPOSAL METHOD
Empty spray cans should not be punctured or incinerated, bury in land fill. Liquid should be incinerated or buried in land fill.

SECTION VIII SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION *(Specify type)*

VENTILATION	LOCAL EXHAUST: Sufficient to keep solvent vapor less than TLV.	SPECIAL: None OTHER: None

PROTECTIVE GLOVES: None required
EYE PROTECTION: None required
OTHER PROTECTIVE EQUIPMENT: None required.

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Keep from sources of ignition. Do not take internally. Avoid excessive inhalation of spray particles. Do not store above 120°F. Do not incinerate or puncture containers.

OTHER PRECAUTIONS

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Imperial Oil & Grease Company

MATERIAL SAFETY DATA SHEET

PART ONE

SECTION I

PRODUCT NAME OR NUMBER (as it appears on label)	EMERGENCY TELEPHONE NO.
[redacted]	(213)-679-0271
ADDRESS (Number, Street, City, State and Zip Code)	MANUFACTURER'S D-U-N-S NO.
4801 West 147th St., Hawthorne, California, 90250	07-964-5248
HAZARDOUS MATERIAL DESCRIPTION, PROPER SHIPPING NAME, HAZARD CLASS, HAZARD ID NO. (49 CFR 172.101)	
None - does not apply	
ADDITIONAL HAZARD CLASSES (as applicable)	
CHEMICAL FAMILY: Mixture	FORMULA: Mixture

SECTION II — INGREDIENTS

CAS REGISTRY NO.	%W	%V	CHEMICAL NAME(S)	Listed as a Carcinogen in NTP, IARC or OSHA 1910(z) (specify)
			(REFER TO SECTION V ON REVERSE SIDE)	

TO THE BEST OF OUR KNOWLEDGE, THIS PRODUCT CONTAINS NO HAZARDOUS INGREDIENTS, AS DEFINED BY 29 CFR 1910.1200.

SECTION III — PHYSICAL DATA

BOILING POINT >600 °F	SPECIFIC GRAVITY (H2O = 1) @ 60°F Typical 0.977	
APPEARANCE AND ODOR: yellow to dark amber, mild odor	IS MATERIAL: GAS / LIQUID / PASTE / POWDER	

SECTION IV — FIRE AND EXPLOSION HAZARD DATA

FLASH POINT >460 °F	method used: ASTM D92	FLAMMABLE LIMITS: not explosive	LEL / UEL
EXTINGUISHING MEDIA: CO_2, foam, or dry chemicals			
SPECIAL FIRE FIGHTING PROCEDURES: None; fight as petroleum fire			
UNUSUAL FIRE AND EXPLOSION HAZARDS: None			

SECTION V-HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE — Conditions to Avoid	THRESHOLD LIMIT VALUE / PERMISSIBLE EXPOSURE LIMIT
Mild skin irritation	OTHER LIMIT ☐ It is recommended that the generalized ACGIH limit be followed TWA 5 mg/m³, if sprayed in air.
PRIMARY ROUTES OF ENTRY Inhalation ☒ Skin Contact ☐ Other (specify)	
EMERGENCY AND FIRST AID PROCEDURES Rinse material from eye with warm water; [redacted] do not induce vomiting; call a physician.	

SECTION VI-REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	Sources of ignition

INCOMPATIBILITY (Materials to avoid): Strong oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS: None in normal use

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	None

SECTION VII-SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Dike spill - clean up promptly with oil absorbent - place in impervious container

WASTE DISPOSAL METHOD: Reclaim, incinerate or transport to licensed disposal facility per applicable regulations.

SECTION VIII-SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type): Use with adequate ventilation.

VENTILATION	LOCAL EXHAUST (Specify Rate)	None required in normal use	SPECIAL
	MECHANICAL (General) (Specify Rate)		OTHER

PROTECTIVE GLOVES (specify type): Not required	EYE PROTECTION (specify type): Protective eyeware always recommended
OTHER PROTECTIVE EQUIPMENT	

SECTION IX-SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store neatly to detect leaks.

OTHER PRECAUTIONS: Maintain cleanliness

THE INFORMATION PRESENTED HEREIN HAS BEEN COMPILED FROM SOURCES CONSIDERED TO BE DEPENDABLE AND [illegible] ACCURATE TO THE BEST OF SELLER'S KNOWLEDGE, HOWEVER, SELLER MAKES NO WARRANTY WHATSOEVER, EXPRESSED, IMPLIED OR OF MERCHANTABILITY REGARDING THE ACCURACY OF SUCH DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. SELLER ASSUMES NO RESPONSIBILITY FOR INJURY TO BUYER OR TO THIRD PERSONS OR FOR ANY DAMAGE TO ANY PROPERTY AND BUYER ASSUMES ALL SUCH RISKS.

Name (print)	MICHAEL BOWSHOW [illegible]
Signature	Michael Bowshow
Title	Environmental Chemist
Date	JANUARY 7, 1986

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing, Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

MANUFACTURER'S NAME	EMERGENCY TELEPHONE NO.
T&R CHEMICALS, INC.	915-851- 2761

ADDRESS (Number, Street, City, State, and ZIP Code)
P. O. BOX 330, 700 CELUM RD. CLINT, TEXAS 79836

CHEMICAL NAME AND SYNONYMS	TRADE NAME AND SYNONYMS
	TEXASOL

CHEMICAL FAMILY	FORMULA
PETROLEUM DISTILLATE - HYDROCARBONE	

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS	100	500ppm	FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES	%	TLV (Units)
PETROLEUM DISTILLATE	100	500ppm

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	300	SPECIFIC GRAVITY (H_2O=1)	0.78
VAPOR PRESSURE (mm Hg.)	2	PERCENT, VOLATILE BY VOLUME (%)	100
VAPOR DENSITY (AIR=1)	4.9	EVAPORATION RATE (ETHER =1)	<1
SOLUBILITY IN WATER	NEGLIGIBLE		
APPEARANCE AND ODOR			

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
(T.C.C.) 100°F		1.0	1.0

EXTINGUISHING MEDIA: CO_2, FOAM, DRY CHEMICAL

SPECIAL FIRE FIGHTING PROCEDURES

NONE

UNUSUAL FIRE AND EXPLOSION HAZARDS

NONE

(Continued on reverse side)

Form OSHA-20
Rev. May 72

	500 ppm
EFFECTS OF OVEREXPOSURE	SEVERE EYE IR[redacted]ATION, DRYING OF SKIN, EXCESSIV[redacted]USE
	HEADACHE, DIZZINESS, VOMITING, NARCOSIS, COMA
EMERGENCY AND FIRST AID PROCEDURES	[redacted] SKIN CONTACT-FLUSH[redacted] SOAP AND WATER.
	INHALATION-REMOVE TO FRESH AIR. IF SWALLOWED, [redacted]
	CALL A PHYSICIAN IMMEDIATELY.

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	
INCOMPATABILITY *(Materials to avoid)*	STRONG OXIDIZING AGENTS		
HAZARDOUS DECOMPOSITION PRODUCTS	CO, CO_2		
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

ELIMINATE IGNITION SOURCE, STOP SPILL AT ONCE, CONTAIN SPILL BY DIKE ETC, PUMP, INTO SALVAGE TANK.

WASTE DISPOSAL METHOD

LIQUID INCENERATION

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION *(Specify type)*

SELF-CONTAINED BREATHING APPARATUS FOR CONCENTRATIONS ABOVE TLV LIMIT.

VENTILATION	LOCAL EXHAUST: RECOMMENDED	SPECIAL
	MECHANICAL *(General)*	OTHER

PROTECTIVE GLOVES: RECOMMENDED	EYE PROTECTION: SAFETY GLASSES OR (GOGGLES)

OTHER PROTECTIVE EQUIPMENT

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME. USE ONLY WITH ADAQUATE VANTILATION.

KEEP CONTAINER CLOSED. AVOID CONTACT WITH EYES AND PROLONGED CONTACT WITH SKIN, WASH

OTHER PRECAUTIONS: AFTER HANDLING.

GPO 934-910

MOBIL OIL CORPORATION MATERIAL SAFETY DATA BULLETIN

REVISED: 01/12/89

********** I. PRODUCT IDENTIFICATION **********

MOBIL DTE OIL HEAVY

SUPPLIER:
MOBIL OIL CORP.

CHEMICAL NAMES AND SYNONYMS:
PET. HYDROCARBONS AND ADDITIVES

USE OR DESCRIPTION:
STEAM TURBINE OIL

HEALTH EMERGENCY TELEPHONE:
(212) 883-4411

TRANSPORT EMERGENCY TELEPHONE:
(800) 424-9300 (CHEMTREC)

PRODUCT TECHNICAL INFORMATION:
(800) 662-4525

********** II. TYPICAL CHEMICAL AND PHYSICAL PROPERTIES **********

APPEARANCE: ASTM 2.5 LIQUID ODOR: MILD PH: NA
VISCOSITY AT 100 F, SUS: 493.4 AT 40 C, CS: 95.0
VISCOSITY AT 210 F, SUS: 65.4 AT 100 C, CS: 11.4
FLASH POINT F(C): > 410(210) (ASTM D-92)
MELTING POINT F(C): NA POUR POINT F(C): 20(-7)
BOILING POINT F(C): > 600(316)
RELATIVE DENSITY, 15/4 C: 0.881 SOLUBILITY IN WATER: NEGLIGIBLE
VAPOR PRESSURE-MM HG 20C: < .1

NA=NOT APPLICABLE NE=NOT ESTABLISHED D=DECOMPOSES

FOR FURTHER INFORMATION, CONTACT YOUR LOCAL MARKETING OFFICE.

********** III. INGREDIENTS **********

	WT PCT (APPROX)	EXPOSURE LIMITS MG/M3	PPM	SOURCES (AND NOTES)
POTENTIALLY HAZARDOUS INGREDIENTS:				
NONE				
OTHER INGREDIENTS:				
REFINED MINERAL OILS	>95			
ADDITIVES AND/OR OTHER INGREDS.	< 5			

SEE SECTION XII FOR COMPONENT REGULATORY INFORMATION.

SOURCES: A=ACGIH-TLV, A*=SUGGESTED-TLV, M=MOBIL, O=OSHA, S=SUPPLIER
NOTE: LIMITS SHOWN FOR GUIDANCE ONLY. FOLLOW APPLICABLE REGULATIONS.

********** IV. HEALTH HAZARD DATA **********

--- INCLUDES AGGRAVATED MEDICAL CONDITIONS, IF ESTABLISHED ---

THRESHOLD LIMIT VALUE: 5.00 MG/M3 SUGGESTED FOR OIL MIST
EFFECTS OF OVEREXPOSURE: SLIGHT SKIN IRRITATION.

********** V. EMERGENCY AND FIRST AID PROCEDURES **********

--- FOR PRIMARY ROUTES OF ENTRY ---

EYE CONTACT: FLUSH WITH WATER.
SKIN CONTACT: WASH CONTACT AREAS WITH SOAP AND WATER.
INHALATION: NOT EXPECTED TO BE A PROBLEM.
INGESTION: NOT EXPECTED TO BE A PROBLEM. HOWEVER, IF GREATER THAN 1/2 LITER(PINT) INGESTED, IMMEDIATELY GIVE 1 TO 2 GLASSES OF WATER AND CALL A PHYSICIAN, HOSPITAL EMERGENCY ROOM OR POISON CONTROL CENTER FOR ASSISTANCE. DO NOT INDUCE VOMITING OR GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

********** VI. FIRE AND EXPLOSION HAZARD DATA **********
FLASH POINT F(C): > 410(210) (ASTM D-92)
FLAMMABLE LIMITS. LEL: .6 UEL: 7.0
EXTINGUISHING MEDIA: CARBON DIOXIDE, FOAM, DRY CHEMICAL AND WATER FOG.
SPECIAL FIRE FIGHTING PROCEDURES: WATER OR FOAM MAY CAUSE FROTHING. USE WATER TO KEEP FIRE EXPOSED CONTAINERS COOL. WATER SPRAY MAY BE USED TO FLUSH SPILLS AWAY FROM EXPOSURE. FOR FIRES IN ENCLOSED AREAS, FIREFIGHTERS MUST USE SELF-CONTAINED BREATHING APPARATUS. PREVENT RUNOFF FROM FIRE CONTROL OR DILUTION FROM ENTERING STREAMS OR DRINKING WATER SUPPLY.
UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE
NFPA HAZARD ID: HEALTH: 0, FLAMMABILITY: 1, REACTIVITY: 0

********** VII. REACTIVITY DATA **********
STABILITY (THERMAL, LIGHT, ETC.): STABLE
CONDITIONS TO AVOID: EXTREME HEAT
INCOMPATIBILITY (MATERIALS TO AVOID): STRONG OXIDIZERS
HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE.
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

********** VIII. SPILL OR LEAK PROCEDURE **********
ENVIRONMENTAL IMPACT: REPORT SPILLS AS REQUIRED TO APPROPRIATE AUTHORITIES. U. S. COAST GUARD REGULATIONS REQUIRE IMMEDIATE REPORTING OF SPILLS THAT COULD REACH ANY WATERWAY INCLUDING INTERMITTENT DRY CREEKS. REPORT SPILL TO COAST GUARD TOLL FREE NUMBER 800-424-8802.
PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: ADSORB ON FIRE RETARDANT TREATED SAWDUST, DIATOMACEOUS EARTH, ETC. SHOVEL UP AND DISPOSE OF AT AN APPROPRIATE WASTE DISPOSAL FACILITY IN ACCORDANCE WITH CURRENT APPLICABLE LAWS AND REGULATIONS, AND PRODUCT CHARACTERISTICS AT TIME OF DISPOSAL.
WASTE MANAGEMENT: PRODUCT IS SUITABLE FOR BURNING IN AN ENCLOSED, CONTROLLED BURNER FOR FUEL VALUE OR DISPOSAL BY SUPERVISED INCINERATION. SUCH BURNING MAY BE LIMITED PURSUANT TO THE RESOURCE CONSERVATION AND RECOVERY ACT. IN ADDITION, THE PRODUCT IS SUITABLE FOR PROCESSING BY AN APPROVED RECYCLING FACILITY OR CAN BE DISPOSED OF AT ANY GOVERNMENT APPROVED WASTE DISPOSAL FACILITY. USE OF THESE METHODS IS SUBJECT TO USER COMPLIANCE WITH APPLICABLE LAWS AND REGULATIONS AND CONSIDERATION OF PRODUCT CHARACTERISTICS AT TIME OF DISPOSAL.

********** IX. SPECIAL PROTECTION INFORMATION **********
EYE PROTECTION: NO SPECIAL EQUIPMENT REQUIRED.
SKIN PROTECTION: NO SPECIAL EQUIPMENT REQUIRED. HOWEVER, GOOD PERSONAL HYGIENE PRACTICES SHOULD ALWAYS BE FOLLOWED.
RESPIRATORY PROTECTION: NO SPECIAL REQUIREMENTS UNDER ORDINARY CONDITIONS OF USE AND WITH ADEQUATE VENTILATION.
VENTILATION: NO SPECIAL REQUIREMENTS UNDER ORDINARY CONDITIONS OF USE AND WITH ADEQUATE VENTILATION.

********** X. SPECIAL PRECAUTIONS **********
NO SPECIAL PRECAUTIONS REQUIRED.

********** XI. TOXICOLOGICAL DATA **********

---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): LD50: > 5 G/KG SLIGHTLY TOXIC(ESTIMATED) --- BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

DERMAL TOXICITY (RABBITS): LD50: > 2 G/KG SLIGHTLY TOXIC(ESTIMATED) --- BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

INHALATION TOXICITY (RATS): NOT APPLICABLE ---HARMFUL CONCENTRATIONS OF MISTS AND/OR VAPORS ARE UNLIKELY TO BE ENCOUNTERED THROUGH ANY CUSTOMARY OR REASONABLY FORESEEABLE HANDLING, USE, OR MISUSE OF THIS PRODUCT.

EYE IRRITATION (RABBITS): EXPECTED TO BE NON-IRRITATING. ---BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

SKIN IRRITATION (RABBITS): MAY CAUSE SLIGHT IRRITATION ON PROLONGED OR REPEATED CONTACT. ---BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

---SUBCHRONIC TOXICOLOGY (SUMMARY)---

SEVERELY SOLVENT REFINED AND SEVERELY HYDROTREATED MINERAL BASE OILS HAVE BEEN TESTED AT MOBIL ENVIRONMENTAL AND HEALTH SCIENCES LABORATORY BY DERMAL APPLICATION TO RATS 5 DAYS/WEEK FOR 90 DAYS AT DOSES SIGNIFICANTLY HIGHER THAN THOSE EXPECTED DURING NORMAL INDUSTRIAL EXPOSURE. EXTENSIVE EVALUATIONS INCLUDING MICROSCOPIC EXAMINATION OF INTERNAL ORGANS AND CLINICAL CHEMISTRY OF BODY FLUIDS, SHOWED NO ADVERSE EFFECTS.

---CHRONIC TOXICOLOGY (SUMMARY)---

THE BASE OILS IN THIS PRODUCT ARE SEVERELY SOLVENT REFINED AND/OR SEVERELY HYDROTREATED. TWO YEAR MOUSE SKIN PAINTING STUDIES OF SIMILAR OILS SHOWED NO EVIDENCE OF CARCINOGENIC EFFECTS.

********** XII. REGULATORY INFORMATION **********

GOVERNMENTAL INVENTORY STATUS: ALL COMPONENTS REGISTERED IN ACCORDANCE WITH TSCA.

D.O.T. SHIPPING NAME: NOT APPLICABLE

D.O.T. HAZARD CLASS: NOT APPLICABLE

US OSHA HAZARD COMMUNICATION STANDARD: PRODUCT ASSESSED IN ACCORDANCE WITH OSHA 29 CFR 1910.1200 AND DETERMINED NOT TO BE HAZARDOUS.

RCRA INFORMATION: THE UNUSED PRODUCT, IN OUR OPINION, IS NOT SPECIFICALLY LISTED BY THE EPA AS A HAZARDOUS WASTE (40 CFR, PART 261D); DOES NOT EXHIBIT THE HAZARDOUS CHARACTERISTICS OF IGNITABILITY, CORROSIVITY, OR REACTIVITY, AND IS NOT FORMULATED WITH THE METALS CITED IN THE EP TOXICITY TEST. HOWEVER, USED PRODUCT MAY BE REGULATED.

U.S. SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) TITLE III:
THIS PRODUCT CONTAINS NO "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (302) REPORTABLE HAZARD CATEGORIES: NONE

THIS PRODUCT CONTAINS NO CHEMICALS REPORTABLE UNDER SARA (313) TOXIC RELEASE PROGRAM.

THE FOLLOWING PRODUCT INGREDIENTS ARE CITED ON THE LISTS BELOW:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
*** NO REPORTABLE INGREDIENTS ***		

--- KEY TO LIST CITATIONS ---

1 = OSHA Z, 2 = ACGIH, 3 = IARC, 4 = NTP, 5 = NCI,
6 = EPA CARC, 7 = NFPA 49, 8 = NFPA 325M, 9 = DOT HMT, 10 = CA RTK,
11 = IL RTK, 12 = MA RTK, 13 = MN RTK, 14 = NJ RTK, 15 = MI 293,
16 = FL RTK, 17 = PA RTK, 18 = CA P65.

--- NTP, IARC, AND OSHA INCLUDE CARCINOGENIC LISTINGS ---

NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

****

INFORMATION GIVEN HEREIN IS OFFERED IN GOOD FAITH AS ACCURATE, BUT WITHOUT GUARANTEE. CONDITIONS OF USE AND SUITABILITY OF THE PRODUCT FOR PARTICULAR USES ARE BEYOND OUR CONTROL; ALL RISKS OF USE OF THE PRODUCT ARE THEREFORE ASSUMED BY THE USER AND WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE USE OR SUITABILITY OF THE PRODUCT. NOTHING IS INTENDED AS A RECOMMENDATION FOR USES WHICH INFRINGE VALID PATENTS OR AS EXTENDING LICENSE UNDER VALID PATENTS. APPROPRIATE WARNINGS AND SAFE HANDLING PROCEDURES SHOULD BE PROVIDED TO HANDLERS AND USERS.

****

PREPARED BY: MOBIL OIL CORPORATION
ENVIRONMENTAL AFFAIRS AND TOXICOLOGY DEPARTMENT, PRINCETON, NJ
FOR FURTHER INFORMATION, CONTACT:
MOBIL OIL CORPORATION, PRODUCT FORMULATION AND QUALITY CONTROL
3225 GALLOWS ROAD, FAIRFAX, VA 22037 (703) 849-3265

********** APPENDIX **********

FOR MOBIL USE ONLY: (FILL NO: RL1286D2**00) MCN: , MHC: 1* 1* NA 0* 1*, MPPEC: A, PPEC: A, US88-477 APPROVE 11/28/88

Rockwell International

MATERIAL SAFETY DATA SHEET

PROGRAM NCBEV159
MSDS# 021

I - PRODUCT IDENTIFICATION

TRADE NAME :ROCKWELL 555 SEALANT (STICK GRADE)
SYNONYMS :ROCKWELL STICK SEALANT NO. 555

II - MATERIAL ANALYSIS (- HAZARDOUS MATERIAL)

COMPONENT	CAS NO.	% BY WT.	TLV (PPM)
VEGETABLE OIL		55-65	
TREATED CLAY	68953-58-2	15-20	
POLYAMIDE RESIN	37219-83-3	15-20	
EPOXY RESIN	25068-38-6	2-5	
PROPYLENE CARBONATE	108-32-7	<1	
POLYTETRAFLUOROETHYLENE	9002-84-0	<1	
ANTI-OXIDANT		<1	

NO INGREDIENT LISTED AS CARCINOGENIC BY NAT. TOXICOLOGY PROGRAM

III - PHYSICAL DATA

VAPOR PRESSURE: NIL MM HG @20 DEG C EVAPORATION RATE (ETHER=1): NIL
SOLUBILITY IN WATER: NEGLIGIBLE BOILING POINT (@14.7 PSIA): N.A. DEG F
SPECIFIC GRAVITY: 1.05 @ 75 DEG F VAPOR DENSITY (AIR=1): N.A.
% OF VOLATILES BY VOL.:NIL
APPEARANCE AND ODOR:
BROWN GREASE IN STICK FORM. VEGETABLE OIL ODOR.

IV - FIRE AND EXPLOSION DATA

FLASH POINT 535 F COC FLAMMABLE (EXPLOSIVE) LIMITS
UPPER : N.A. LOWER :N.A.

EXTINGUISHING MEDIA :
DRY CHEMICAL POWDER, CARBON DIOXIDE, CHEMICAL FOAM.

SPECIAL FIRE FIGHTING PROCEDURES :
WEAR SELF-CONTAINED BREATHING APPARATUS WHEN FIGHTING FIRE IN CONFINED AREAS.
TREAT AS BURNING LIQUID.

UNUSUAL FIRE AND EXPLOSION HAZARDS :
NONE KNOWN.

MATERIAL SAFETY DATA SHEET

TRADE NAME: ROCKWELL 555 SEALANT (STICK GRADE)
SYNONYMS:ROCKWELL STICK SEALANT NO. 555

V - EMERGENCY AND FIRST AID PROCEDURES

EYES:
FLUSH EYES FOR 15 MINUTES WITH CLEAR WATER.
CONTACT PHYSICIAN.

SKIN:
WASH THOROUGHLY WITH SOAP AND WATER.

INHALATION:
VAPOR PRESSURE IS VERY LOW.
VAPOR INHALATION UNDER AMBIENT CONDITIONS IS NOT NORMALLY A PROBLEM.

INGESTION:
CONSULT PHYSICIAN.

VI - HEALTH EFFECTS

INHALATION:
NONE EXPECTED.

INGESTION:
MAY CAUSE GASTROINTESTINAL IRRITATION.

SKIN:
PROLONGED OR REPEATED SKIN CONTACT MAY CAUSE IRRITATION.

EYES:
PRODUCT CONTACTING THE EYES MAY CAUSE TEMPORARY IRRITATION.

VII - REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY:
PRODUCT IS STABLE.

INCOMPATIBILITY:
AVOID CONTACT WITH STRONG OXIDANTS.

HAZARDOUS DECOMPOSITION PRODUCTS:
CARBON MONOXIDE, CARBON DIOXIDE AND ASPHYXIANTS.

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION:
NONE

VIII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
RECOVER FREE MATERIAL. ADD SUITABLE ABSORBANT TO SPILL AREA.
CLEAN SPILL AREA WITH DETERGENT SOLUTION.

WASTE DISPOSAL METHOD:
WASTE MATERIAL SHOULD BE BURIED IN AN APPROVED LANDFILL OR INCINERATED.
DISPOSAL MUST COMPLY WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.

MATERIAL SAFETY DATA SHEET

TRADE NAME: ROCKWELL 555 SEALANT (STICK GRADE)
SYNONYMS :ROCKWELL STICK SEALANT NO. 555

IX - VENTILATION AND PERSONAL PROTECTIVE EQUIPMENT

VENTILATION REQUIREMENTS:
ADEQUATE VENTILATION IN ACCORDANCE WITH GOOD ENGINEERING PRACTICE IS SUFFICIENT.

RESPIRATORY:
RESPIRATORY PROTECTION NOT NEEDED UNDER NORMAL CONDITIONS.

EYE:
SAFETY GLASSES ADVISED AS STANDARD SAFETY PRECAUTION.

GLOVE:
USE CHEMICALLY RESISTANT GLOVES AS NEEDED TO MINIMIZE CONTACT.

OTHER CLOTHING AND EQUIPMENT:
NONE NORMALLY NEEDED.

X - SPECIAL PRECAUTIONS INCLUDING STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:
STORE IN SEALED CONTAINERS AWAY FROM HEAT AND OXIDIZING MATERIALS.

OTHER PRECAUTIONS:
THIS PRODUCT NOT LISTED AS CARCINOGENIC BY NATIONAL TOXICOLOGY PROGRAM.

THESE DATA ARE OFFERED IN GOOD FAITH AS TYPICAL VALUE AND NOT AS A PRODUCT SPECIFICATION. NO WARRANTY, EITHER EXPRESS OR IMPLIED, IS HEREBY MADE. THE RECOMMENDED INDUSTRIAL HYGIENE AND SAFE HANDLING PROCEDURES ARE BELIEVED TO BE GENERALLY APPLICABLE. HOWEVER, EACH USER SHOULD REVIEW THESE RECOMMENDATIONS IN THE SPECIFIC CONTEXT OF THE INTENDED USE AND DETERMINE WHETHER THEY ARE APPROPRIATE.

ROCKWELL INTERNATIONAL
MEASUREMENT & FLOW CONTROL DIVISION
MATERIALS ENGINEERING DEPT.
400 NORTH LEXINGTON AVE.
PITTSBURGH, PA 15208
(412) 247-3000

REVISION DATE: 03-87

TEXACO INC.

INDUSTRIAL HYGIENE, TOXICOLOGY, AND MATERIAL SAFETY DATA SHEET

NOTE: NO REPRESENTATION IS MADE AS TO THE ACCURACY OF THE INFORMATION HEREIN. SEE PAGE 7 FOR CONDITIONS UNDER WHICH DATA ARE FURNISHED.

Trade Name and Synonyms
00700 REGAL OIL R&O 32

Manufacturer's Name
Texaco Inc.

Emergency Telephone No.
(914) 831-3400 ext. 204

Address
P.O. Box 509 Beacon, NY 12508

Chemical Name and/or Family or Description
[redacted]

THIS PRODUCT IS CLASSIFIED AS: X NOT HAZARDOUS:

____ HAZARDOUS BY DEFINITION NO.(S) ____ ON ATTACHED EXPLANATION SHEETS

WARNING STATEMENT:
NONE CONSIDERED NECESSARY

OCCUPATIONAL CONTROL PROCEDURES

Protective Equipment (Type)

Eyes: Chemical type goggles or face shield optional.

Skin: Exposed employes should exercise reasonable personal cleanliness; this includes cleansing exposed skin areas several times daily with soap and water, and laundering or dry cleaning soiled work clothing at least weekly.

Inhalation: None required if exposures are within permissible concentrations; see below.

Ventilation: Adequate to meet component permissible concentrations.

Permissible Concentrations:

Air: None established for product; refer to page 4 for component permissible concentrations.

EMERGENCY AND FIRST AID PROCEDURES

First Aid

Eyes: As with most foreign materials, should eye contact occur, flush eyes with plenty of water.

Skin: Wash exposed areas with soap and water.

[redacted]

Inhalation: None considered necessary.

Other Instructions: None.

N.D. - Not Determined N.A. - Not Applicable
< - Less Than > - Greater Than

PHYSIOLOGICAL EFFECTS:

Code No. 00700

Effects of Exposure

Acute:

Eyes: Believed to be minimally irritating.

Skin: Believed to be minimally irritating.

Respiratory System: Believed to be minimally irritating if not in excess of permissible concentrations; see page 1.

Chronic: N.D.

Other: -

Sensitization Properties:

Skin: Yes ___ No ___ Unknown X Respiratory: Yes ___ No ___ Unknown X

Median Lethal Dose (LD_{50} LC_{50})(Species)

Oral: Similar product >10 g/kg (rat); practically non-toxic

Inhalation: N.D.

Dermal: Similar product >8 g/kg (rabbit); practically non-toxic

Other: N. D.

Irritation Index, Estimation of Irritation (Species)

Skin: Similar product 0.13/8.0 (rabbit); no appreciable effect

Eyes: Similar product 2.33/110 (rabbit); no appreciable effect

Symptoms of Exposure: See above

FIRE PROTECTION INFORMATION

Ignition Temp. °F. N.D. Flash Point °F. (Method) 335° F (PM)

Flammable Limits (%) Lower N.D. Upper N.D.

Products Evolved When Subjected to Heat or Combustion:

Carbon monoxide, carbon dioxide, and aldehydes and ketones may be formed.

Recommended Fire Extinguishing Agents And Special Procedures:

According to the National Fire Protection Association Guide, use water spray, dry chemical, foam, or carbon dioxide.
Water or foam may cause frothing. Use water to cool fire-exposed containers. If a leak or spill has not ignited, use water spray to disperse the vapors and to provide protection for persons attempting to stop the leak.

Unusual or Explosive Hazards:

None.

ENVIRONMENTAL PROTECTION

Code No. 00700

Waste Disposal Method:
Under RCRA, it is the responsibility of the user of products to determine, at the time of disposal, whether product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixture, processes, etc. may render the resulting material hazardous. (See Remarks for Waste Classification.)

Procedures in Case of Breakage or Leakage: (Transportation Spills Call CHEMTREC (800) 424-9300)
Contain spill if possible. Wipe up or absorb on suitable material and shovel up.

Remarks:
Waste Classification: Product has been evaluated for RCRA characteristics and does not meet criteria of a hazardous waste if discarded in its purchased form.

PRECAUTIONS

NONE CONSIDERED NECESSARY

Requirements for Transportation, Handling and Storage:
Minimum feasible handling temperatures should be maintained. Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.

DOT Proper Shipping Name: N.A.
DOT Hazard Class (if applicable): N.A.

CHEMICAL AND PHYSICAL PROPERTIES

Boiling Point (°F) N.D. Vapor Pressure N.D. (mmHg)

Specific Gravity 0.8681 (H_2O=1) Vapor Density N.D. (Air=1)

Appearance and Odor Mobile liquid

pH of undiluted product N.A. Solubility N.D.

Percent Volatile by Volume N.D. Evaporation N.D. ( )=1

Viscosity 30.5 cSt @40°C Other -

Hazardous Polymerizations _____ Occur X Do not occur

The Material Reacts Violently With: (If others is checked below, see additional comments on page 6 for futher details)

Air	Water	Heat	Strong Oxidizers	Others	None of These
			X		

N.D. - Not Determined N.A. - Not Applicable
< - Less Than > - Greater Than

COMPOSITION

Code No. 00700

Chemical/Common Name	CAS No.	Exposure Limit	Range in %
Solvent-dewaxed heavy paraffinic petroleum distillates	64742650	5mg/m3 ACGIH (MIST) 5mg/m3 OSHA (MIST) 10mg/m3 STEL (MIST)	95.00 - 99.99

To the best of our knowledge, none of the above listed components is hazardous according to OSHA (1910.1200) or one or more state Right-To-Know lists.

PRODUCT SHIPPING LABEL | Code No. 00700

00700 REGAL OIL R&O 32

NONE CONSIDERED NECESSARY

Chemical/Common Name	CAS No.	Range in %
Solvent-dewaxed heavy paraffinic petroleum distillates	64742650	95.00 - 99.99

To the best of our knowledge, none of the above listed components is hazardous according to OSHA (1910.1200) or one or more state Right-To-Know lists.

HMIS

Health : 0 Reactivity : 0
Flammability: 1 Special : -

CAUTION: Misuse of empty containers can be hazardous. Empty containers can be hazardous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flame or heat. Keep container closed and drum bungs in place.

HEALTH EMERGENCY TELEPHONE: (914) 831-3400 (EXT. 204)

Texaco Inc.
2000 Westchester Avenue
White Plains, New York 10650

For Additional Information Concerning:

Fuels/Lubricants/Antifreezes
call (914) 831-3400 (EXT.204)
Chemicals
call (512) 459-6543
Transportation Spills
call CHEMTREC (800) 424-9300

ADDITIONAL COMMENTS	Code No. 00700

TEXACO INTENDS TO COMPLY FULLY WITH PROVISIONS OF THE TOXIC SUBSTANCES CONTROL ACT
STATE OF MICHIGAN CRITICAL MATERIALS ACT (REVISED 1986)
No critical materials present.

To determine applicability or effect of any law or regulation with respect to the product, users should consult his legal advisor or the appropriate government agency. Texaco does not undertake to furnish advice on such matters.

By R. T. Richards Title Mgr. Env. Conservation & Toxicology

Date 01-05-87 ☐ New ☒ Revised, Supersedes 11-27-85

N.D. - Not Determined N.A. - Not Applicable
< - Less Than > - Greater Than

THE INFORMATION CONTAINED HEREIN IS BELIEVED TO BE ACCURATE. IT IS PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT AS PART OF TEXACO'S PRODUCT SAFETY PROGRAM. IT IS NOT INTENDED TO CONSTITUTE PERFORMANCE INFORMATION CONCERNING THE PRODUCT. NO EXPRESS WARRANTY, OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE WITH RESPECT TO THE PRODUCT OR THE INFORMATION CONTAINED HEREIN. DATA SHEETS ARE AVAILABLE FOR ALL TEXACO PRODUCTS. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL TEXACO PRODUCTS YOU BUY, PROCESS, USE OR DISTRIBUTE AND YOU ARE ENCOURAGED AND REQUESTED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

EXPLANATION OF THE INDUSTRIAL HYGIENE, TOXICOLOGY, AND MATERIAL SAFETY DATA SHEET

PRODUCT INFORMATION

Trade Name and Synonyms

Refer to the code number and name under which the product is marketed and the common commercial name of the product.

Manufacturer's Name and Address Self explanatory.

Chemical Name and/or Family or Description

Refer to chemical, generic, or descriptive name of single elements and compounds.

For purposes of this form, a product is defined as hazardous if it possesses one or more of the following characteristics: (1) has a flash-point below 200 degrees Fahrenheit, closed cup or subject to spontaneous heating; (2) has a threshold limit value as established by the American Conference of Governmental Industrial Hygenists and/or the Occupational Safety and Health Administration (with exception to petroleum oil mist). (3) a single dose oral LD50 below 500 mg/kg; (4) causes burns to the skin in the short-term exposure or is systemically toxic by skin contact; (5) has been demonstrated to be a skin or eye irritant or causes respiratory irritation; (6) may cause skin or respiratory sensitization; (7) has teratogenic, mutagenic or other toxic effects; (8) may cause asphyxia or pneumoconiosis; (9) in the course of normal operations may produce dusts, gases, fumes, vapor, mist, or smoke which have one or more of the above characteristics; (10) contains a component which may be carcinogenic according to NTP (National Toxicology Program), IARC (International Agency for Research on Cancer), OSHA (Occupational Safety and Health Administration), EPA (Environmental Protection Agency) and/or NCI (National Cancer Institute.); (11) has a median LC50 (RATS) in air of 200 ppm or less by volume of gas or vapor or 2.0 mg/l or less of mist, fume or dust when administered by continuous inhalation for one hour; (12) is a hazard as identified in the Product Shipping Label on page 5.

OCCUPATIONAL CONTROL PROCEDURES

(Consult your Industrial Hygienist or Occupational Health Specialist.)

Protective Equipment

Type of protective equiment that is necessary for the safe handling and use of this product.

Ventilation

Normal means adequate to maintain permissible concentrations.
Ventilation type, i.e. local exhaust, mechanical, etc.

Permissible Concentrations

Indicates worker exposure limits, such as the Threshold Limit Value (TLV) as established by the American Conference of Governmental Industrial Hygienists or standards, promulgated by the Occupational Safety and Health Administration (e.g., PEL).

TLV-Time Weighted Average (TWA) is the concentration in air averaged over an 8 hour daily exposure.

TLV-Ceiling (C) is the ceiling limit on concentration that should not be exceeded during any part of the working exposure "skin".

"Skin" Notation (ACGIH) indicates that dermal absorption can contribute to overall exposure following direct contact or exposure to airborne material.

Permissible Exposure Level (PEL) is the time weighted concentration in air averaged over an 8 hour daily exposure.

EMERGENCY AND FIRST AID PROCEDURES

Administer first aid and emergency procedures in case of eye and/or skin contact, ingestion and inhalation.

PHYSIOLOGICAL EFFECTS

Acute Exposures (Eye, Skin, Respiratory System)

Refers to the most common effects that would be expected to occur from direct contact with the product.

Chronic

Refers to the effects that are most likely to occur from repeated or prolonged exposure.

Sensitizer

Means a substance which will cause on or in normal living tissue, through an allergic or photodynamic process, a hypersensitivity which becomes evident on reapplication of, or exposure to, the same substance.

Median Lethal Dose or Concentration (LD50,LC50)

Refers to that dose or concentration of the material which will produce death in 50 per cent of the animals. For inhalation, exposure time is indicated.

Irritation Index

Refers to an empirical score (Draize Method) for eye and skin irritation when tested by the method described. If numbers are not available, an estimated score indicates whether or not the material is an irritant.

FIRE PROTECTION INFORMATION

Ignition Temperature

Refers to the temperature in degrees Fahrenheit, at which a liquid will give off enough flammable vapor to ignite and burn continuously for 5 seconds.

Flash Point (Method used)

Refers to the temperature in degrees Fahrenheit, at which a liquid will give off enough flammable vapor to ignite.

Flammable Limits

Refers to the range of gas or vapor concentration (percent by volume in air) which will burn or explode if an ignition source is present. Lower means the lower flammable limit and upper means the upper flammable limit given in percent.

Products Evolved When Subjected to Heat or Combustion.

The products evolved when this material is subjected to heat or combustion. Includes temperature at which oxidation or other forms of degradation occurs.

Recommended Fire Extinguishing Agents and Special Procedures

Specifies the fire fighting agents that should be used to extinguish fires. If unusual fire hazards are involved or special procedures indicated, this is specified.

Unsusual Fire or Explosive Hazards

Specifies hazards to personnel in case of fire, explosive danger.

ENVIRONMENTAL PROTECTION

Specifies how this product may be disposed.

Indicates precautions necessary in the event that leakage or breakage occurs. Included are (a) clean-up procedures, (b) personal protective equipment if necessary, (c) hazards that may be created, i.e. fire, explosion, etc.

PRECAUTIONS

Label that is required or recommended.

Requirements for Transportation, Handling and Storage

Specifies handling and storage procedures. Gives ICC, DOT, or other regulations related to safety and health for transportation.

CHEMICAL AND PHYSICAL PROPERTIES

Boiling Point (or Range)

In degrees Fahrenheit or Celsius Boiling Point at 760 mmHg.

Vapor Pressure

Pressure exerted when a solid or liquid is in equilibrium with its own vapor.

Specific Gravity

The ratio of the density of the product to the density of water.

Vapor Density

The ratio of the density of the vapor at saturation concentration (20 degrees Celsius or 68 degrees Fahrenheit) to the density of air at 760 mmHg.

Appearance and Odor

Refers to the general characterization of the material, e.g. powder, colorless liquid, aromatic odor, etc.

pH

Refers to the degree of acidity or basicity of the material in a specific concentration.

pH1-5 - STRONGLY ACIDIC
pH5-7 - WEAKLY ACIDIC
pH7-9 - WEAKLY BASIC
pH9-14 - STRONGLY BASIC

Solubility

Refers to the solubility of a material by weight in water at room temperature. The term negligible, less than 0.1 %; slight, 0.1 to 1%; moderate, 1 to 10%; appreciable, 10% or greater. Gives solubility in organic solvents where appropriate.

Percent Volatile By Volume

Refers to the amount volatilized at 20 degrees Celsius or 68 degrees Fahrenheit when allowed to evaporate.

Evaporation

Gives the rate of evaporation compared to a standard

Viscosity

Measure of flow characteristics in Kinematic viscosity in Centistokes.

Hazardous Polymerization

Hazardous polymerization is that reaction which takes place at a rate which produces large amounts of energy. Indicates whether it may or may not occur and under what storage conditions.

Does the Material React Violently

Indicates whether the material will react violently, releasing large amounts of energy when exposed under conditions listed.

Composition

Components of the product as required by OSHA (1910.1200) and one or more state Right to Know laws.

Texaco Inc.
2000 Westchester Avenue
White Plains, New York 10650
Phone (914) 831-3400 (Beacon)

MOBIL OIL CORPORATION MATERIAL SAFETY DATA BULLETIN

REVISED: 01/12/89

********** I. PRODUCT IDENTIFICATION **********

MOBILGREASE SPECIAL

SUPPLIER:
MOBIL OIL CORP.

CHEMICAL NAMES AND SYNONYMS:
PET. HYDROCARBONS AND ADDITIVES

USE OR DESCRIPTION:
WATER RESISTANT GREASE

HEALTH EMERGENCY TELEPHONE:
(212) 883-4411

TRANSPORT EMERGENCY TELEPHONE:
(800) 424-9300 (CHEMTREC)

PRODUCT TECHNICAL INFORMATION:
(800) 662-4525

********** II. TYPICAL CHEMICAL AND PHYSICAL PROPERTIES **********

APPEARANCE: GRAY-BLACK GREASE ODOR: MILD PH: NA
VISCOSITY AT 100 F, SUS: 900.0 AT 40 C, CS: 170.0
VISCOSITY AT 210 F, SUS: 75.0 AT 100 C, CS: 13.8
FLASH POINT F(C): > 400(204) (ESTIMATED (OIL COC))
MELTING POINT F(C): NE POUR POINT F(C): NA
BOILING POINT F(C): > 600(316)
RELATIVE DENSITY, 15/4 C: 0.867 SOLUBILITY IN WATER: NEGLIGIBLE
VAPOR PRESSURE-MM HG 20C: < .1
NOTE: MOST PHYSICAL PROPERTIES FOR OIL COMPONENT.
NA=NOT APPLICABLE NE=NOT ESTABLISHED D=DECOMPOSES
FOR FURTHER INFORMATION, CONTACT YOUR LOCAL MARKETING OFFICE.

********** III. INGREDIENTS **********

	WT PCT (APPROX)	EXPOSURE LIMITS MG/M3	EXPOSURE LIMITS PPM	SOURCES (AND NOTES)
POTENTIALLY HAZARDOUS INGREDIENTS:				
NONE				
OTHER INGREDIENTS:				
REFINED MINERAL OILS	>80			
ADDITIVES AND/OR OTHER INGREDS.	<10			
LITHIUM-SOAP THICKENER	<10			

SEE SECTION XII FOR COMPONENT REGULATORY INFORMATION.

SOURCES: A=ACGIH-TLV, A*=SUGGESTED-TLV, M=MOBIL, O=OSHA, S=SUPPLIER
NOTE: LIMITS SHOWN FOR GUIDANCE ONLY. FOLLOW APPLICABLE REGULATIONS.

********** IV. HEALTH HAZARD DATA **********

--- INCLUDES AGGRAVATED MEDICAL CONDITIONS, IF ESTABLISHED ---

EFFECTS OF OVEREXPOSURE: SLIGHT EYE IRRITATION. SLIGHT SKIN IRRITATION.

********** V. EMERGENCY AND FIRST AID PROCEDURES **********

--- FOR PRIMARY ROUTES OF ENTRY ---

EYE CONTACT: FLUSH WITH WATER.

SKIN CONTACT: WASH CONTACT AREAS WITH SOAP AND WATER. HIGH PRESSURE ACCIDENTAL INJECTION THROUGH THE SKIN REQUIRES IMMEDIATE MEDICAL ATTENTION FOR POSSIBLE INCISION, IRRIGATION AND/OR DEBRIDEMENT.

INHALATION: NOT EXPECTED TO BE A PROBLEM.

INGESTION: NOT EXPECTED TO BE A PROBLEM. HOWEVER, IF GREATER THAN 1/2 LITER(PINT) INGESTED, IMMEDIATELY GIVE 1 TO 2 GLASSES OF WATER AND CALL A PHYSICIAN, HOSPITAL EMERGENCY ROOM OR POISON CONTROL CENTER FOR ASSISTANCE. DO NOT INDUCE VOMITING OR GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

********** VI. FIRE AND EXPLOSION HAZARD DATA **********

FLASH POINT F(C): > 400(204) (ESTIMATED (OIL COC))

FLAMMABLE LIMITS. LEL: .6 UEL: 7.0

EXTINGUISHING MEDIA: CARBON DIOXIDE, FOAM, DRY CHEMICAL AND WATER FOG.

SPECIAL FIRE FIGHTING PROCEDURES: WATER OR FOAM MAY CAUSE FROTHING. USE WATER TO KEEP FIRE EXPOSED CONTAINERS COOL. WATER SPRAY MAY BE USED TO FLUSH SPILLS AWAY FROM EXPOSURE. FOR FIRES IN ENCLOSED AREAS, FIREFIGHTERS MUST USE SELF-CONTAINED BREATHING APPARATUS. PREVENT RUNOFF FROM FIRE CONTROL OR DILUTION FROM ENTERING STREAMS OR DRINKING WATER SUPPLY.

UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE

NFPA HAZARD ID: HEALTH: 0, FLAMMABILITY: 1, REACTIVITY: 0

********** VII. REACTIVITY DATA **********

STABILITY (THERMAL, LIGHT, ETC.): STABLE

CONDITIONS TO AVOID: EXTREME HEAT

INCOMPATIBILITY (MATERIALS TO AVOID): STRONG OXIDIZERS

HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

********** VIII. SPILL OR LEAK PROCEDURE **********

ENVIRONMENTAL IMPACT: REPORT SPILLS AS REQUIRED TO APPROPRIATE AUTHORITIES. U. S. COAST GUARD REGULATIONS REQUIRE IMMEDIATE REPORTING OF SPILLS THAT COULD REACH ANY WATERWAY INCLUDING INTERMITTENT DRY CREEKS. REPORT SPILL TO COAST GUARD TOLL FREE NUMBER 800-424-8802. IN CASE OF ACCIDENT OR ROAD SPILL NOTIFY CHEMTREC (800) 424-9300.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: SHOVEL UP AND DISPOSE OF AT AN APPROPRIATE WASTE DISPOSAL FACILITY IN ACCORDANCE WITH CURRENT APPLICABLE LAWS AND REGULATIONS, AND PRODUCT CHARACTERISTICS AT TIME OF DISPOSAL.

WASTE MANAGEMENT: DISPOSE OF WASTE AT AN APPROPRIATE WASTE DISPOSAL FACILITY IN ACCORDANCE WITH CURRENT APPLICABLE LAWS AND REGULATIONS, AND PRODUCT CHARACTERISTICS AT TIME OF DISPOSAL.

********** IX. SPECIAL PROTECTION INFORMATION **********

EYE PROTECTION: NORMAL INDUSTRIAL EYE PROTECTION PRACTICES SHOULD BE EMPLOYED.

SKIN PROTECTION: IF PROLONGED OR REPEATED SKIN CONTACT IS LIKELY, OIL IMPERVIOUS GLOVES SHOULD BE WORN. GOOD PERSONAL HYGIENE PRACTICES SHOULD ALWAYS BE FOLLOWED.

RESPIRATORY PROTECTION: NO SPECIAL REQUIREMENTS UNDER ORDINARY CONDITIONS OF USE AND WITH ADEQUATE VENTILATION.

VENTILATION: NO SPECIAL REQUIREMENTS UNDER ORDINARY CONDITIONS OF USE AND WITH ADEQUATE VENTILATION.

********** X. SPECIAL PRECAUTIONS **********

STORAGE: THIS PRODUCT HAS A LIMITED SHELF LIFE.

********** XI. TOXICOLOGICAL DATA **********

---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): LD50: > 5 G/KG SLIGHTLY TOXIC(ESTIMATED) --- BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

DERMAL TOXICITY (RABBITS): LD50: > 2 G/KG SLIGHTLY TOXIC(ESTIMATED) --- BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

INHALATION TOXICITY (RATS): NOT APPLICABLE ---HARMFUL CONCENTRATIONS OF MISTS AND/OR VAPORS ARE UNLIKELY TO BE ENCOUNTERED THROUGH ANY CUSTOMARY OR REASONABLY FORESEEABLE HANDLING, USE, OR MISUSE OF THIS PRODUCT.

EYE IRRITATION (RABBITS): MAY CAUSE SLIGHT IRRITATION. ---BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

SKIN IRRITATION (RABBITS): MAY CAUSE SLIGHT IRRITATION ON PROLONGED OR REPEATED CONTACT. ---BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

---SUBCHRONIC TOXICOLOGY (SUMMARY)---

SEVERELY SOLVENT REFINED AND SEVERELY HYDROTREATED MINERAL BASE OILS HAVE BEEN TESTED AT MOBIL ENVIRONMENTAL AND HEALTH SCIENCES LABORATORY BY DERMAL APPLICATION TO RATS 5 DAYS/WEEK FOR 90 DAYS AT DOSES SIGNIFICANTLY HIGHER THAN THOSE EXPECTED DURING NORMAL INDUSTRIAL EXPOSURE. EXTENSIVE EVALUATIONS INCLUDING MICROSCOPIC EXAMINATION OF INTERNAL ORGANS AND CLINICAL CHEMISTRY OF BODY FLUIDS, SHOWED NO ADVERSE EFFECTS.

---CHRONIC TOXICOLOGY (SUMMARY)---

THE BASE OILS IN THIS PRODUCT ARE SEVERELY SOLVENT REFINED AND/OR SEVERELY HYDROTREATED. TWO YEAR MOUSE SKIN PAINTING STUDIES OF SIMILAR OILS SHOWED NO EVIDENCE OF CARCINOGENIC EFFECTS.

********** XII. REGULATORY INFORMATION **********

GOVERNMENTAL INVENTORY STATUS: ALL COMPONENTS REGISTERED IN ACCORDANCE WITH TSCA AND EINECS.

D.O.T. SHIPPING NAME: NOT APPLICABLE

D.O.T. HAZARD CLASS: NOT APPLICABLE

US OSHA HAZARD COMMUNICATION STANDARD: PRODUCT ASSESSED IN ACCORDANCE WITH OSHA 29 CFR 1910.1200 AND DETERMINED NOT TO BE HAZARDOUS.

RCRA INFORMATION: THE UNUSED PRODUCT, IN OUR OPINION, IS NOT SPECIFICALLY LISTED BY THE EPA AS A HAZARDOUS WASTE (40 CFR, PART 261D); DOES NOT EXHIBIT THE HAZARDOUS CHARACTERISTICS OF IGNITABILITY, CORROSIVITY, OR REACTIVITY, AND IS NOT FORMULATED WITH THE METALS CITED IN THE EP TOXICITY TEST. HOWEVER, USED PRODUCT MAY BE REGULATED.

U.S. SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) TITLE III:
THIS PRODUCT CONTAINS NO "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (302) REPORTABLE HAZARD CATEGORIES: NONE

THIS PRODUCT CONTAINS THE FOLLOWING SARA (313) TOXIC RELEASE CHEMICALS:

ZEINS (ZINC RESINATE)	9010-69-9	1%
ZINC DIALKYL DITHIOPHOSPHATE	68457-79-4	1.28%

THE FOLLOWING PRODUCT INGREDIENTS ARE CITED ON THE LISTS BELOW:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
ZEINS (ZINC RESINATE)	9010-69-9	9

--- KEY TO LIST CITATIONS ---

1 = OSHA Z, 2 = ACGIH, 3 = IARC, 4 = NTP, 5 = NCI,
6 = EPA CARC, 7 = NFPA 49, 8 = NFPA 325M, 9 = DOT HMT, 10 = CA RTK,
11 = IL RTK, 12 = MA RTK, 13 = MN RTK, 14 = NJ RTK, 15 = MI 293,
16 = FL RTK, 17 = PA RTK, 18 = CA P65.

--- NTP, IARC, AND OSHA INCLUDE CARCINOGENIC LISTINGS ---

NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

****

INFORMATION GIVEN HEREIN IS OFFERED IN GOOD FAITH AS ACCURATE, BUT WITHOUT GUARANTEE. CONDITIONS OF USE AND SUITABILITY OF THE PRODUCT FOR PARTICULAR USES ARE BEYOND OUR CONTROL; ALL RISKS OF USE OF THE PRODUCT ARE THEREFORE ASSUMED BY THE USER AND WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE USE OR SUITABILITY OF THE PRODUCT. NOTHING IS INTENDED AS A RECOMMENDATION FOR USES WHICH INFRINGE VALID PATENTS OR AS EXTENDING LICENSE UNDER VALID PATENTS. APPROPRIATE WARNINGS AND SAFE HANDLING PROCEDURES SHOULD BE PROVIDED TO HANDLERS AND USERS.

****

PREPARED BY: MOBIL OIL CORPORATION
ENVIRONMENTAL AFFAIRS AND TOXICOLOGY DEPARTMENT, PRINCETON, NJ
FOR FURTHER INFORMATION, CONTACT:
MOBIL OIL CORPORATION, PRODUCT FORMULATION AND QUALITY CONTROL
3225 GALLOWS ROAD, FAIRFAX, VA 22037 (703) 849-3265

********** APPENDIX **********

FOR MOBIL USE ONLY: (FILL NO: RR175C2MOLB1) MCN: , MHC: 1* 1* NA 1* 1*, MPPEC: A, PPEC: A, US86-083 APPROVE 12/18/88

MATERIAL SAFETY DATA SHEET

Shell

97002 (REV 1-83)

MSDS NUMBER ▶ 67,290-2 PAGE 1 OF

SECTION I NAME

PRODUCT ▶	Shell DONAX® TD Fluid
CHEMICAL/ SYNONYMS ▶	Lubricating Oil
CHEMICAL FAMILY ▶	Hydrocarbon
SHELL CODE ▶ 53004	C.A.S. NUMBER ▶ Mixture

24 HOUR EMERGENCY ASSISTANCE

SHELL 713-473-9461
CHEMTREC 800-424-9300

HAZARD RATING
LEAST 0 ▶ SLIGHT 1 ▶ MODERATE 2 ▶ HIGH 3 ▶ EXTREME 4

HEALTH	1
FIRE	1
REACTIVITY	0

SECTION II INGREDIENTS

COMPOSITION	%	TOXICITY DATA
Shell DONAX TD Fluid	100	Not Determined
Petroleum Hydrocarbons	90	Oral LD_{50},rat >5g/kg*
		Dermal LD_{50}, rabbit >2g/kg*
Additives Containing Ca, P, S, Zn	10	
Polymethacrylate	0.1	

*Values are estimates based upon tests using similar oils.

SECTION III HEALTH INFORMATION

Lubricating oils are generally considered to be of a low order of acute toxicity to humans and experimental animals.

Exposure to vapors or mist of this product may cause pulmonary irritation, dizziness and nausea. Prolonged or repeated contact may cause various skin disorders such as dermatitis, folliculitis or oil acne.

The petroleum hydrocarbons in this product are a complex mixture of paraffinic, naphthenic and aromatic hydrocarbons. As in other petroleum oils, the aromatics contain polycyclic compounds of various concentrations and structures. Some of these polycyclics may be those which have been shown to induce cancer in animals under laboratory conditions. Epidemiologic studies on other petroleum products containing polycyclic aromatics suggested the possibility of skin cancer induction in man after prolonged and repeated contact. Inhalation of mists arising from oils containing these materials may also present a cancer hazard.

This specific product has not been tested in long-term, chronic exposure tests. Therefore, the presence of polycyclic aromatic hydrocarbons requires that handling procedures and safety precautions in this MSDS be followed to minimize employees' exposure.

SECTION IV OCCUPATIONAL EXPOSURE LIMITS

Oil Mist:
ACGIH-TLV/TWA = 5 mg/m³; ACGIH-TLV/STEL = 10 mg/m³
OSHA-PEL/TWA = 5 mg/m³ (see NIOSH/OSHA Occupational Health Guidelines for Chemical Hazards)

SECTION V — EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT: Flush with water for 15 minutes while holding eyelids open. Get medical attention.

SKIN CONTACT: Remove contaminated clothing and wipe excess off. Wash with soap and water or a waterless hand cleaner followed by soap and water. Do not reuse clothing until thoroughly cleaned. If irritation persists, get medical attention.

INHALATION: Remove victim to fresh air and provide oxygen if breathing is difficult. Get medical attention.

INGESTION: Do not induce vomiting. In general, no treatment is necessary unless large quantities of product are ingested. However, get medical advice.*

*NOTE TO THE PHYSICIAN: In general, emesis induction is unnecessary in high viscosity, low volatility products, i.e. most oils and greases.

SECTION VI — PHYSICAL DATA

BOILING POINT (°F) ▶ N.A.	MELTING POINT (°F) ▶ N.A.	VAPOR PRESSURE (mmHg) ▶ N.A.
SPECIFIC GRAVITY (H_2O=1) ▶ 0.88	% VOLATILE BY VOLUME ▶ N.A.	VAPOR DENSITY (AIR=1) ▶ N.A.
SOLUBILITY IN WATER ▶ Insoluble	EVAPORATION RATE (BUTYL ACETATE=1) ▶ N.A.	N.A. = Not Available

APPEARANCE AND ODOR

Dark amber oil. Slight odor.

SECTION VII — FIRE AND EXPLOSION HAZARDS

FLASH POINT AND METHOD USED	FLAMMABLE LIMITS/% VOLUME IN AIR ▶	LOWER	UPPER
365°F PMCC	--	N.A.	N.A.

EXTINGUISHING MEDIA

Use water fog, foam, dry chemical or CO_2. Do not use a direct stream of water. Product will float and can be reignited on surface of water.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS

Do not enter confined fire space without proper protective equipment including a NIOSH approved self-contained breathing apparatus. Cool fire-exposed containers with water.

UNUSUAL FIRE AND EXPLOSION HAZARDS

No. unusual

SECTION VIII REACTIVITY

STABILITY ▶ [ ] UNSTABLE [X] STABLE

HAZARDOUS POLYMERIZATION ▶ [ ] MAY OCCUR [X] WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID

Avoid heat, open flames, oxidizing materials and mist formation.

HAZARDOUS DECOMPOSITION PRODUCTS

Carbon monoxide, sulfur oxides, phosphorus oxides and unidentified organic compounds may be formed during combustion.

SECTION IX EMPLOYEE PROTECTION

RESPIRATORY PROTECTION

If exposure may or does exceed occupational exposure limits (Sec.IV) use a NIOSH-approved respirator to prevent overexposure. In accord with 29 CFR 1910.134 use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors and particulates.

PROTECTIVE CLOTHING

Wear gloves and other protective clothing as required to minimize skin contact. Wear safety glasses or goggles to prevent eye contact.

ADDITIONAL PROTECTIVE MEASURES

--

SECTION X ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES

May burn although not readily ignitable. Use cautious judgment when cleaning up large spills.

Large spills: Wear respirator and protective clothing as appropriate. Shut off source of leak if safe to do so. Dike and contain. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material; dispose of properly. Flush area with water to remove trace residue.
Small spills: take up with an absorbent material and dispose of properly.

WASTE DISPOSAL

Dispose of in an appropriate disposal facility in compliance with local regulations.

ENVIRONMENTAL HAZARDS

This product is an "oil" under the Clean Water Act. KEEP OUT OF SURFACE WATERS AND ANY WATER COURSES OR SEWERS ENTERING OR LEADING TO SURFACE WATERS. See Section XIII.

MATERIAL SAFETY DATA SHEET

Shell 97005 (REV. 11-84)

MSDS NUMBER ▶ 67,290-2

SECTION XI SPECIAL PRECAUTIONS

M[illegible]imize skin contact. Wash with soap and water before eating, drinking, s[illegible]ng or using toilet facilities. Launder contaminated clothing before reu[illegible]. Properly dispose of contaminated leather articles, including shoes, that cannot be decontaminated.

SECTION XII TRANSPORTATION REQUIREMENTS

DEPARTMENT OF TRANSPORTATION CLASSIFICATION

☐ FLAMMABLE LIQUID	☐ COMBUSTIBLE LIQUID	☐ OXIDIZING MATERIAL	☐ NON-FLAMMABLE GAS	
☐ FLAMMABLE SOLID	☐ POISON,CLASS A	☐ CORROSIVE MATERIAL	☒ NOT HAZARDOUS BY D.O.T. REGULATIONS	
☐ FLAMMABLE GAS	☐ POISON,CLASS B	☐ IRRITATING MATERIAL	☐ OTHER–Specify below	

D.O.T. PROPER SHIPPING NAME

N.A.

OTHER REQUIREMENTS

B[illegible] of Lading Commodity Description: Petroleum Lubricating Oil

SECTION XIII SUPPLEMENTARY HEALTH/REGULATORY INFORMATION

EPA - Clean Water Act (CWA)
This product is classified as an oil under Section 311 of the Clean Water Act. Spills entering (a) surface waters or (b) any watercourses or sewers entering/leading to surface waters that cause a sheen MUST be reported to the National Response Center, 800-424-8802.

BE SAFE

READ OUR PRODUCT SAFETY INFORMATION ... AND PASS IT ON

[PRODUCT LIABILITY LAW REQUIRES IT]

John P Lepori
Manager

SHELL OIL COMPANY
PRODUCT SAFETY AND COMPLIANCE
P.O. BOX 4320
HOUSTON, TEXAS 77210
(713) 241-4819

DATE PREPARED

June 08, 1982

INTERSTATE NATURAL GAS ASSOCIATION OF AMERICA
1660 L STREET, N.W. • WASHINGTON, D.C. 20036-5611 • 202/293-5770

October 7, 1986

MEMORANDUM TO CONSTRUCTION & OPERATIONS COMMITTEE

Re: New Degreasing Solvent

During discussion at the recent Committee meeting, Bob Pierce (Columbia) referred to a new degreasing solvent his company has used to replace Varsol in an effort to reduce the generation of hazardous waste. It is manufactured by Ashland Chemical Company and is called 140 Solvent.

The Committee expressed an interest in receiving additional information about this solvent. Accordingly, Bob has provided the attached material which includes the Material Safety Data Sheet, pertinent pages from an Ashland products catalog, the business card of the sales representative they've used, and an Office Memorandum from one of their Area Superintendents describing the use of the solvent.

Lawrence J. Ogden
Vice President
Construction & Operations

TLK/jda

Enclosures

cc: Environmental Committee

THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (THE HAZARD COMMUNICATION STANDARD)

PRODUCT NAME: SOLVENT 140-66
CAS NUMBER: 64742 88 7

DISTRICT MANAGER
ASHLAND CHEMICAL CO. IC&S DIV.
P.O. BOX 391
ASHLAND, KENTUCKY 41101

05 004
DATA SHEET NO: 0014074-004
LATEST REVISION DATE: 10/85-85274
PRODUCT: 2614000
INVOICE: ACCLOC
INVOICE DATE: 09/11/85
TO:

**** INTERCOMPANY MAIL ****

SECTION I-PRODUCT IDENTIFICATION

GENERAL OR GENERIC ID: ALIPHATIC HYDROCARBON

HAZARD CLASSIFICATION: (10) COMBUSTIBLE (173.115)

SECTION II-HAZARDOUS COMPONENTS

INGREDIENT	% (BY WT)	PEL	TLV	NOTE
ALIPHATIC PETROLEUM DISTILLATES	100	500	100 PPM	(1)

(1): NIOSH RECOMMENDS A LIMIT OF 350 MG/CUM - 8 HOUR TIME WEIGHTED AVERAGE, 1800 MG/CUM AS DETERMINED BY A 15 MINUTE SAMPLE.

SECTION III-PHYSICAL DATA

PROPERTY	REFINEMENT	MEASUREMENT
INITIAL BOILING POINT	FOR PRODUCT	355.00 DEG F (179.44 DEG C) @ 760.00 MMHG
VAPOR PRESSURE	FOR PRODUCT	0.50 MMHG @ 68.00 DEG F (20.00 DEG C)
VAPOR DENSITY	AIR = 1	5.4
SPECIFIC GRAVITY		.770 @ 60.00 DEG F (15.56 DEG C)
PERCENT VOLATILES		100.00%
EVAPORATION RATE	(ETHER = 1)	151.00

SECTION IV-FIRE AND EXPLOSION DATA

FLASH POINT 140.00 DEG F
(60.00 DEG C)

EXPLOSIVE LIMIT (PRODUCT) LOWER - 1.0%

EXTINGUISHING MEDIA: REGULAR FOAM OR CARBON DIOXIDE OR DRY CHEMICAL

HAZARDOUS DECOMPOSITION PRODUCTS: MAY FORM TOXIC MATERIALS:, CARBON DIOXIDE AND CARBON MONOXIDE, VARIOUS HYDROCARBONS, ETC.

SPECIAL FIREFIGHTING PROCEDURES: WEAR SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN PRESSURE-DEMAND OR OTHER POSITIVE PRESSURE MODE WHEN FIGHTING FIRES.

UNUSUAL FIRE & EXPLOSION HAZARDS: VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND OR BE MOVED BY VENTILATION AND IGNITED BY HEAT, PILOT LIGHTS, OTHER FLAMES AND IGNITION SOURCES AT LOCATIONS DISTANT FROM MATERIAL HANDLING POINT.

NEVER USE WELDING OR CUTTING TORCH ON OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLOSIVELY.

NFPA CODES: HEALTH- 1 FLAMMABILITY- 2 REACTIVITY- 0

SECTION V-HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL 500 PPM

THRESHOLD LIMIT VALUE 100 PPM

EFFECTS OF OVEREXPOSURE: FOR PRODUCT

EYE - CAN CAUSE SEVERE IRRITATION, REDNESS, TEARING, BLURRED VISION.
SKIN - PROLONGED OR REPEATED CONTACT CAN CAUSE MODERATE IRRITATION, DEFATTING, DERMATITIS.
BREATHING - EXCESSIVE INHALATION OF VAPORS CAN CAUSE NASAL AND RESPIRATORY IRRITATION, DIZZINESS, WEAKNESS, FATIGUE, NAUSEA, HEADACHE, POSSIBLE UNCONSCIOUSNESS, AND EVEN ASPHYXIATION.
SWALLOWING - CAN CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, VOMITING, AND DIARRHEA. ASPIRATION OF MATERIAL INTO THE LUNGS CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL.

SECTION V-HEALTH HAZARD DATA (CONTINUED)

FIRST AID:

IF ON SKIN: THOROUGHLY WASH EXPOSED AREA WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING. LAUNDER CONTAMINATED CLOTHING BEFORE RE-USE.

IF IN EYES: FLUSH WITH LARGE AMOUNTS OF WATER, LIFTING UPPER AND LOWER LIDS OCCASIONALLY, GET MEDICAL ATTENTION.

IF SWALLOWED: DO NOT INDUCE VOMITING, KEEP PERSON WARM, QUIET, AND GET MEDICAL ATTENTION. ASPIRATION OF MATERIAL INTO THE LUNGS DUE TO VOMITING CAN CAUSE CHEMICAL PNEUMONITIS WHICH CAN BE FATAL.

IF BREATHED: IF AFFECTED, REMOVE INDIVIDUAL TO FRESH AIR. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF BREATHING HAS STOPPED GIVE ARTIFICIAL RESPIRATION. KEEP PERSON WARM, QUIET AND GET MEDICAL ATTENTION.

PRIMARY ROUTE(S) OF ENTRY:

INHALATION

SKIN CONTACT

SECTION VI-REACTIVITY DATA

HAZARDOUS POLYMERIZATION: CANNOT OCCUR

STABILITY: STABLE

INCOMPATIBILITY: AVOID CONTACT WITH:, STRONG OXIDIZING AGENTS.

SECTION VII-SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

SMALL SPILL: ABSORB LIQUID ON PAPER, VERMICULITE, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND TRANSFER TO HOOD.

LARGE SPILL: ELIMINATE ALL IGNITION SOURCES (FLARES, FLAMES INCLUDING PILOT LIGHTS, ELECTRICAL SPARKS). PERSONS NOT WEARING PROTECTIVE EQUIPMENT SHOULD BE EXCLUDED FROM AREA OF SPILL UNTIL CLEAN-UP HAS BEEN COMPLETED. STOP SPILL AT SOURCE, DIKE AREA OF SPILL TO PREVENT SPREADING, PUMP LIQUID TO SALVAGE TANK. REMAINING LIQUID MAY BE TAKEN UP ON SAND, CLAY, EARTH, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND SHOVELED INTO CONTAINERS. PREVENT RUN-OFF TO SEWERS, STREAMS OR OTHER BODIES OF WATER. IF RUN-OFF OCCURS, NOTIFY PROPER AUTHORITIES AS REQUIRED, THAT A SPILL HAS OCCURED.

WASTE DISPOSAL METHOD:

SMALL SPILL: ALLOW VOLATILE PORTION TO EVAPORATE IN HOOD. ALLOW SUFFICIENT TIME FOR VAPORS TO COMPLETELY CLEAR HOOD DUCT WORK. DISPOSE OF REMAINING MATERIAL IN ACCORDANCE WITH APPLICABLE REGULATIONS.

LARGE SPILL: DESTROY BY LIQUID INCINERATION. CONTAMINATED ABSORBENT MAY BE DEPOSITED IN A LANDFILL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

SECTION VIII-PROTECTIVE EQUIPMENT TO BE USED

RESPIRATORY PROTECTION: IF TLV OF THE PRODUCT OR ANY COMPONENT IS EXCEEDED, A NIOSH/MSHA JOINTLY APPROVED AIR SUPPLIED RESPIRATOR IS ADVISED IN ABSENCE OF PROPER ENVIRONMENTAL CONTROL. OSHA REGULATIONS ALSO PERMIT OTHER NIOSH/MSHA RESPIRATORS UNDER SPECIFIED CONDITIONS. (SEE YOUR SAFETY EQUIPMENT SUPPLIER). ENGINEERING OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURE.

VENTILATION: PROVIDE SUFFICIENT MECHANICAL (GENERAL AND/OR LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW TLV(S).

PROTECTIVE GLOVES: WEAR RESISTANT GLOVES SUCH AS:, NITRILE RUBBER

EYE PROTECTION: CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS ARE ADVISED, HOWEVER, OSHA REGULATIONS ALSO PERMIT OTHER TYPE SAFETY GLASSES. (CONSULT YOUR SAFETY EQUIPMENT SUPPLIER)

OTHER PROTECTIVE EQUIPMENT: TO PREVENT REPEATED OR PROLONGED SKIN CONTACT, WEAR IMPERVIOUS CLOTHING AND BOOTS.

SECTION IX-SPECIAL PRECAUTIONS OR OTHER COMMENTS

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTIED. SINCE EMPTIED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID, AND/OR SOLID), ALL HAZARD PRECAUTIONS GIVEN IN THE DATA SHEET MUST BE OBSERVED.

OVEREXPOSURE TO MATERIAL HAS APPARENTLY BEEN FOUND TO CAUSE THE FOLLOWING EFFECTS IN LABORATORY ANIMALS:, ANEMIA, KIDNEY DAMAGE

THE INFORMATION ACCUMULATED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH ASHLAND OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OMB No. 44-R1387

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing, Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

MANUFACTURER'S NAME	EMERGENCY TELEPHONE NO.
Northern Petrochemical Company	(815) 942-7301
ADDRESS (Number, Street, City, State, and ZIP Code) P. O. Box 459, Morris, Illinois 60450	
CHEMICAL NAME AND SYNONYMS Antifreeze Ethylene Glycol Base	TRADE NAME AND SYNONYMS PEAK Antifreeze and Coolant
CHEMICAL FAMILY Dihydric Alcohol	FORMULA $HO-CH_2-CH_2-OH$

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES	%	TLV (Units)
Ethylene Glycol	90	
Other Glycols	5	
Alkaline Earths and Metal Borates	3	

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	325	SPECIFIC GRAVITY (H_2O=1)	1,130
VAPOR PRESSURE (mm Hg.)	N/A	PERCENT, VOLATILE BY VOLUME (%)	N/A
VAPOR DENSITY (AIR=1)	N/A	EVAPORATION RATE (_____ =1)	N/A
SOLUBILITY IN WATER	100%		
APPEARANCE AND ODOR			

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Lel	Uel
250°F Cleveland Open Cup			
EXTINGUISHING MEDIA: Water			
SPECIAL FIRE FIGHTING PROCEDURES: None			
UNUSUAL FIRE AND EXPLOSION HAZARDS: None			

(Continued on reverse side)

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: Not Available

EFFECTS OF OVEREXPOSURE: None

EMERGENCY AND FIRST AID PROCEDURES: If swallowed: Induce vomiting. For method, call a physician, a hospital emergency room, or a Poison Control Center. Always see a physician.

SECTION VI - REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATABILITY *(Materials to avoid)*

HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS POLYMERIZATION			CONDITIONS TO AVOID
	MAY OCCUR		
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Dilute with water.

WASTE DISPOSAL METHOD

Incinerate or liquid disposal according to local, state, and federal regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION *(Specify type)*: N/A

VENTILATION				
	LOCAL EXHAUST	N/A	SPECIAL	N/A
	MECHANICAL *(General)*	N/A	OTHER	N/A

PROTECTIVE GLOVES: N/A

EYE PROTECTION: N/A

OTHER PROTECTIVE EQUIPMENT: N/A

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Protect against freezing. Freeze point is approximately 0°F.

OTHER PRECAUTIONS: None

MATERIAL SAFETY DATA SHEET

Dow Chemical U.S.A. Midland, MI 48674 Emergency Phone: 517-636-4400

MSD: 000271 Page: 1

PRODUCT NAME: TRIETHYLENE GLYCOL - TECHNICAL

Effective Date: 06/11/81 Date Printed: 10/16/85 Product Code: 87792

1. INGREDIENTS:

Triethylene glycol	99%

2. PHYSICAL DATA:

BOILING POINT: 545.9F; 286C
VAP PRESS: < 1.0 mmHg @ 20C
VAP DENSITY: 5.18
SOL. IN WATER: Completely miscible
SP. GRAVITY: 1.1 @ 25/25C
APPEARANCE: Colorless liquid.
ODOR: Mild odor.

3. FIRE AND EXPLOSION HAZARD DATA:

FLASH POINT: 350F; 177C
METHOD USED: PMCC

6. FLAMMABLE LIMITS

LFL: 0.9%
UFL: 9.2%

EXTINGUISHING MEDIA: Water fog, alcohol foam, CO2, dry chemical.

FIRE & EXPLOSION HAZARDS: Not available.

FIRE-FIGHTING EQUIPMENT: Not available.

(Continued on Page 2)

9. ADDITIONAL INFORMATION:

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:
Practice reasonable care to avoid exposure.

MSDS STATUS: Revised 6 and 7.

CLIMAX VALVE LUBRICANTS
7915 EAST ELM STREET • 713-923-2626 • P.O. BOX 5235 • HOUSTON, TEXAS 77262
FAX 713-928-9025 • TWX 910-881-1192 CABLE CLIMAX LUBE HOU

Climax Specialty Manufacturing Co.
Manufactures of:
Climax Lubricants
Climax Lubrication Equipment
Spin-Out Thread Compounds

Climax Lubricants & Equipment Co.
Representing:
G. E. Silicone (Compounds & R.T.V.)
Kiene Compressor Access.
Alemite Products
Kolor Kut Products
Lufkin Tapes
Kessler Thermometers

CLIMAX LUBRICANTS SPEC SHEET ON #650 LUBRICANT

MELTING POINT	NON DROPPING
BASE OIL	VEGETABLE
THICKNER	SILICA
SHELF LIFE	INDEFINITE
OXIDATION STABILITY	GOOD
TEMPERATURE RANGE	$-40^{o}F$ to $500^{o}F$

Non Hazardous Material
Flash point above $400^{o}F$
Non Flammable

A superior Plug Valve Lubricant and Sealant for Hydrocarbon and LPG Service.

Dennis M. Frauenberger, President
Climax Lubricants and Equipment Co.

Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

U.S. Department of Labor
Occupational Safety and Health Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072

IDENTITY *(As Used on Label and List)* Climax #650

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

Section I

Manufacturer's Name: Climax Lubricants & Equipment Co.	Emergency Telephone Number: 713-485-3181
Address *(Number, Street, City, State, and ZIP Code)*: 7915 E. Elm	Telephone Number for Information: 713-923-2626
Houston Texas 77012	Date Prepared: June 17, 1990
	Signature of Preparer *(optional)*: Dennis M. Frauenberger

Section II — Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% *(optional)*
Castor Oil	Non-Hazardous	Non Petroleum Hydro Carbon		

Section III — Physical/Chemical Characteristics

Boiling Point	+400°F.	Specific Gravity (H_2O = 1)	1.10
Vapor Pressure (mm Hg.)	N/A	Melting Point	None
Vapor Density (AIR = 1)	N/A	Evaporation Rate (Butyl Acetate = 1)	N/A

Solubility in Water: None

Appearance and Odor: Odorless

Section IV — Fire and Explosion Hazard Data

Flash Point (Method Used)	+500°F.	Flammable Limits	LEL / UEL

Extinguishing Media: Dry Chemical or Water

Special Fire Fighting Procedures: None

Unusual Fire and Explosion Hazards: None

Section V — Reactivity Data

Stability	Unstable		Conditions to Avoid
	Stable	XXX	

Incompatibility (*Materials to Avoid*) Acidic in Nature Avoid Alkaline Contact

Hazardous Decomposition or Byproducts None

Hazardous Polymerization	May Occur		Conditions to Avoid None Special
	Will Not Occur	XXX	

Section VI — Health Hazard Data

Route(s) of Entry: Inhalation? Skin? Ingestion?

Health Hazards (*Acute and Chronic*) None

Carcinogenicity: NTP? IARC Monographs? OSHA Regulated?

Signs and Symptoms of Exposure None Known

Medical Conditions Generally Aggravated by Exposure None Known

Emergency and First Aid Procedures

Section VII — Precautions for Safe Handling and Use

Steps to Be Taken in Case Material Is Released or Spilled Clean and dispose of in the normal manner

Waste Disposal Method Normal

Precautions to Be Taken in Handling and Storing None

Other Precautions

Section VIII — Control Measures

Respiratory Protection (*Specify Type*) None Required

Ventilation	Local Exhaust	Special
	Mechanical (*General*)	Other

Protective Gloves None required | Eye Protection None required

Other Protective Clothing or Equipment None required

Work/Hygienic Practices Clean as normal

* USGPO: 1986-491-529/45775

SECTION 1 - MANUFACTURER INFORMATION

MANUF/DIST : K & W PRODUCTS
5901 EASTERN AVENUE EMERGENCY PHONE.....: 213-724-8650
PREPARATION/REVISION DATE: 8/3/89
CITY OF COMMERCE CA 90040
PREPARER/CONTACT: PAT PATEL

TRADE NAME/SYNONYMS...: STOCK # 1724-KNOCK'ER LOOSE
CHEMICAL NAME/SYNONYMS: N/A (AEROSOL)
CHEMICAL FAMILY.....: NOT APPLICABLE
FORMULA.....: NOT APPLICABLE
PRODUCT CODE.....: 1724

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS)

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*                        *
*    HEALTH..... 2       *
*    FLAMMABILITY.. 4    *
*    REACTIVITY.... 0    *
*    PROTECTION.... D    *
*                        *
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SECTION 2 - HAZARDOUS INGREDIENTS

THIS PRODUCT CONTAINS HAZARDOUS INGREDIENTS : YES

CHEMICAL/COMMON NAME	CAS-NUMBER	%	PEL-OSHA	TLV-ACGIH
THERMINOL (ALKYLATED AROMATICS)	68855-24-3	N/A	N/A	N/A
ALIPHATIC STODDARD SOLVENT	64741-85-1	N/A	200 PPM	200 PPM
KEROSENE	08008-20-6	N/A	500 PPM	500 PPM
LUBRICATING BASE OIL	64742-52-5	N/A	5000 PPM	5000 PPM
THIS PRODUCT DOES NOT CONTAIN CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III SECTION 313 AND 40 CFR 372.				
ISOBUTANE	00075-28-5	N/A	1000 PPM	1000 PPM
PROPANE	00074-98-6	N/A	1000 PPM	1000 PPM

THIS PRODUCT CONTAINS CARCINOGENS (NTP, IARC, or OSHA):NO

SECTION 3 - HEALTH HAZARD DATA

HEALTH EFFECTS (Acute And Chronic)-
HIGH VAPOR CONCENTRATIONS ARE IRRITATING TO THE EYES AND THE RESPIRATORY TRACT MAY CAUSE HEADACHES AND DIZZINESS, ARE ANESTHETIC, AND MAY HAVE OTHER CENTRAL NERVOUS SYSTEM EFFECTS
PROLONGED OR REPEATED SKIN CONTACT WITH THIS PRODUCT TENDS TO REMOVE SKIN OIL, POSSIBLY LEADING TO IRRITATION AND DERMATITIS.
PRODUCT CONTACTING THE EYES MAY CAUSE IRRITATION.

PRODUCT HAS A LOWER OF ACUTE ORAL AND DERMAL TOXICITY, BUT MINUTE AMOUNTS ASPIRATED INTO THE LUNGS DURING INGESTION OR VOMITING MAY CAUSE MILD TO SEVERE PULMONARY INJURY.

PRIMARY ROUTES OF ENTRY-
INHALATION, SKIN, EYE AND INGESTION.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE-
SEE HEALTH EFFECTS ABOVE.
PREEXISTING EYE, SKIN AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

EMERGENCY FIRST AID PROCEDURES-
INHALATION : REMOVE TO FRESH AIR. ADMINISTER OXYGEN IF NEEDED. APPLY ARTIFICIAL RESPIRATION IF BREATHING HAS STOPPED. SEEK MEDICAL ATTENTION.
SKIN : WIPE WITH TOWEL. WASH WITH SOAP AND WATER. GET MEDICAL ATTENTION IF IRRITATION PERSISTS AFTER WASHING.
EYES : IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR 15 MINUTES, LIFTING THE UPPER AND LOWER EYELIDS OCCASIONALLY. GET MEDICAL ATTENTION.
SWALLOWING : IF SWALLOWED, DO NOT INDUCE VOMITING. GET IMMEDIATE MEDICAL ATTENTION.

SECTION 4 - CHEMICAL DATA

BOILING POINT (F)....: < 0 SPECIFIC GRAVITY (WATER=1).....: N/A
VAPOR PRESSURE (mmHg): N/A PERCENT VOLATILE BY VOLUME (%).....: 60
VAPOR DENSITY (AIR=1): >1 EVAPORATION RATE (BUTYL ACETATE =1): > 1

SOLUBILITY IN WATER-
N/A

APPEARANCE AND ODOR INFORMATION-
AEROSOL PRODUCT.

SECTION 5 - PHYSICAL HAZARD DATA

FLASH POINT (Method Used): < 20F T.O.C FLAMMABLE LIMITS : Lel=1.11. UEL=2.3

EXTINGUISHING MEDIA-
FOAM, CARBON DIOXIDE, DRY CHEMICAL AND WATER FOG.

SPECIAL FIRE FIGHTING PROCEDURES-
USE WATER SPRAY TO COOL CONTAINERS EXPOSED TO FLAMES. WEAR GOGGLES AND SELF-CONTAINED BREATHING APPARTUS.

UNUSUAL FIRE AND EXPLOSION HAZARDS-
EXTINGUISH ALL NEAR BY SOURCES OF IGNITION SINCE CONTAINERS MAY EXPLODE FROM PRESSURE BUILD-UP WHEN EXPOSED TO EXTREME HEAT AND VAPORS WILL DECOMPOSE TO HAZARDOUS PRODUCTS AT HIGH TEMPERATURES.

INCOMPATIBILITY (Materials To Avoid)-
STRONG OXIDIZING CHEMICALS AND ALKALIS.

HAZARDOUS DECOMPOSITION PRODUCTS-
MAY PRODUCE FUMES WHEN HEATED TO DECOMPOSITION. FUMES MAY CONTAIN CARBON MONOXIDE OR CARBON DIOXIDE.

WILL HAZARDOUS POLYMERIZATION OCCUR-
WILL NOT OCCUR.

CONDITIONS TO AVOID FOR POLYMERIZATION-
N/A

IS THE PRODUCT STABLE-
YES

CONDITIONS TO AVOID FOR STABILITY-
THIS MATERIAL IS FLAMMABLE AND CAN BE IGNITED BY HEAT, SPARKS AND FLAMES.

SECTION 6 - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED-
AVOID BREATHING OF VAPORS. VENTILATE AREA. REMOVE ALL SOURCES OF IGNITION. CLEAN UP AREA WITH ABSORBENT MATERIAL AND PLACE IN CLOSED CONTAINER FOR DISPOSAL. KEEP OUT OF SEWERS, STORM DRAINS, SURFACE WATERS AND SOIL.

WASTE DISPOSAL METHODS-
DO NOT INCINERATE. DISPOSE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL GOVERNMENTAL REGULATIONS.

SECTION 7 - EXPOSURE CONTROL INFORMATION

VENTILATION-
LOCAL EXHAUST: SUFFICIENT — MECHANICAL (General): N/A
SPECIAL.....: N/A OTHER.....: N/A

RESPIRATORY PROTECTION-
NONE UNDER NORMAL USE. AVOID BREATHING OF VAPOR OR SPRAY MIST.

PROTECTIVE GLOVES-
NONE UNDER NORMAL USE. FOR PROLONGED OR REPEATED CONTACT USE SOLVENT RESISTANT GLOVES.

OTHER PROTECTIVE EQUIPMENT-
EYE PROTECTION :NONE UNDER NORMAL USE; HOWEVER, USE OF SAFETY GLASSES WITH SPLASH GUARDS OR FULL FACE SHIELD IS RECOMMENDED.

OTHER ENGINEERING CONTROLS-
N/A

WORK PRACTICES-
EYE WASHES AND SAFETY SHOWERS IN THE WORKPLACE IS RECOMMENDED.

HYGIENIC PRACTICES-
AVOID BREATHING OF VAPORS AND SKIN CONTACT.

SECTION 8 - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE-
STORE AND USE IN COOL, DRY, WELL-VENTILATED AREAS. DO NOT STORE ABOVE 120 DEG F, DO NOT PUNCTURE OR INCENERATE CONTAINERS. DO NOT SPRAY IN EYES. DO NOT TAKE INTERNALLY. AVOID BREATHING OF VAPORS AND PHYSICAL CONTACT WITH SKIN.

MAINTENANCE PRECAUTIONS-
N/A

OTHER PRECAUTIONS-
N/A

ADDITIONAL COMMENTS-
THE ABOVE INFORMATION IS ACCURATE TO THE BEST OF OUR KNOWLEDGE. HOWEVER SINCE DATA, SAFETY STANDARDS, AND GOVERNMENT REGULATIONS ARE SUBJECT TO CHANGE AND THE CONDITIONS OF HANDLING AND USE, OR MISUSE ARE BEYOND OUR CONTROL, K & W PRODUCTS MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR RELIANCE THEREON. USER SHOULD SATISFY THEMSELF THAT THEY HAVE ALL CURRENT DATA RELEVANT TO THEIR PARTICULAR USE.

Material Safety Data Sheet

Devcon.

DEVCON CORPORATION/30 ENDICOTT STREET/DANVERS, MASSACHUSETTS 01923/(617) 777-1100

H HEALTH	1
F FLAMMABILITY	1
R REACTIVITY	1

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM

SECTION 1 - IDENTITY AND EMERGENCY INFORMATION

TRADE NAME
SILITE RTV SILICONE - CLEAR, WHITE, HIGH TEMPERATURE RED

EMERGENCY TELEPHONE NO. (617) 777-1100

CHEMICAL FAMILY SILICONE

OTHER INFORMATION CALLS:
DEVCON SAFETY DEPT. (617) 777-1100

OTHER PRODUCT INFORMATION

SECTION 2 - HAZARDOUS INGREDIENTS

INGREDIENTS	CAS NUMBER	%	NATURE OF HAZARD
Acetoxysilane	Not issued	5	Eye and skin irritant

SECTION 3. PHYSICAL DATA

BOILING POINT (F.)	> 300	VAPOR DENSITY (AIR = 1)	> 1	EVAPORATION RATE (BuAc = 1)	< 1
MELTING POINT (F.)	n.a.	SPECIFIC GRAVITY	1.05	SOLUBILITY IN WATER	Negligible
VAPOR PRESSURE (mm Hg.) @ 77°F	< 5	PRECENT VOLATILE BY VOLUME (%)	< 5	pH (5 wt. % in H_2O)	3-4

APPEARANCE AND ODOR
White, clear or red paste - odor of acetic acid

SECTION 4. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (F.) (Method Used)	FLAMMABLE LIMITS IN AIR	LEL	UEL
> 250 (TOC)		n.a.	n.a.

EXTINGUISHED MEDIA CO_2, dry chemical, foam, water fog

SPECIAL FIRE FIGHTING PROCEDURES

Wear self-contained breathing apparatus and protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS

None

SECTION 5. HEALTH HAZARD DATA

EMERGENCY AND FIRST AID PROCEDURES

EYES: Flush with water for 15 minutes. Obtain medical attention.

SKIN: Wipe off and flush with water.

INGESTION: Obtain immediate medical attention.

INHALATION: Remove to fresh air. Obtain immediate medical attention.

SECTION 5. HEALTH HAZARD DATA (Continued)

THRESHOLD LIMIT VALUE	ORAL LD_{50}(RAT):	DERMAL LD_{50}(RABBIT):	INHALATION LC_{50}(RAT)
10ppm(Acetic Acid)*	3310mg/[redacted]	1060mg/kg	>15,000 ppm[redacted] All data for acetic acid

ROUTE OF EXPOSURE — EFFECTS OF OVEREXPOSURE

ACUTE:

EYES: Mild irritation

SKIN: Possible irritation

INHALATION: Respiratory toxicant

CHRONIC: No data

SECTION 6. REACTIVITY DATA

STABILITY			CONDITIONS TO AVOID
	UNSTABLE		
	STABLE	X	

INCOMPATIBILITY (Materials to Avoid): Strong oxidizing agents

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon

HAZARDOUS POLYMERIZATION			CONDITIONS TO AVOID
	MAY OCCUR		
	WILL NOT OCCUR	X	

SECTION 7. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Scrape up excess. Apply absorbent.

WASTE DISPOSAL METHOD

Dispose of in accordance with federal, state and local regulations.

SECTION 8. SPECIAL PROTECTION INFORMATION

EYES: Safety glasses with side shields

SKIN: Wear protective clothing

INHALATION: Use respiratory protection unless ventilation is adequate. Use acid gas organic vapor type.

VENTILATION: Use sufficient ventilation to maintain exposure levels with TLV guidelines.

SECTION 9. SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING, STORING, ETC.

Store below 90°F.

* Acetic acid is generated during the curing process

D.O.T. PROPER SHIPPING NAME: Not regulated

D.O.T. HAZARD CLASS (IF APPLICABLE): _____

DATE: October 1985

SECTION 1 - MANUFACTURER INFORMATION

MANUF/DIST : K & W PRODUCTS
5901 EASTERN AVENUE EMERGENCY PHONE.....: 213-724-8650
PREPARATION/REVISION DATE: 8/3/89
CITY OF COMMERCE CA 90040
PREPARER/CONTACT: PAT PATEL

TRADE NAME/SYNONYMS...: STOCK # 1712-KNOCK'ER LOOSE
CHEMICAL NAME/SYNONYMS: N/A (AEROSOL)
CHEMICAL FAMILY.....: NOT APPLICABLE
FORMULA.....: NOT APPLICABLE
PRODUCT CODE.....: 1712

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS)

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**************************
*                        *
*   HEALTH..... 2        *
*   FLAMMABILITY.. 4     *
*   REACTIVITY.... 0     *
*   PROTECTION.... D     *
*                        *
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SECTION 2 - HAZARDOUS INGREDIENTS

THIS PRODUCT CONTAINS HAZARDOUS INGREDIENTS : YES

CHEMICAL/COMMON NAME	CAS-NUMBER	%	PEL-OSHA	TLV-ACGIH
THERMINOL (ALKYLATED AROMATICS)	68855-24-3	N/A	N/A	N/A
ALIPHATIC STODDARD SOLVENT	64741-85-1	N/A	200 PPM	200 PPM
KEROSENE	08008-20-6	N/A	500 PPM	500 PPM
LUBRICATING BASE OIL	64742-52-5	N/A	5000 PPM	5000 PPM
THIS PRODUCT DOES NOT CONTAIN CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III SECTION 313 AND 40 CFR 372.				
ISOBUTANE	00075-28-5	N/A	1000 PPM	1000 PPM
PROPANE	00074-98-6	N/A	1000 PPM	1000 PPM

THIS PRODUCT CONTAINS CARCINOGENS (NTP, IARC, or OSHA):NO

SECTION 3 - HEALTH HAZARD DATA

HEALTH EFFECTS (Acute And Chronic)-
HIGH VAPOR CONCENTRATIONS ARE IRRITATING TO THE EYES AND THE RESPIRATORY TRACT MAY CAUSE HEADACHES AND DIZZINESS, ARE ANESTHETIC, AND MAY HAVE OTHER CENTRAL NERVOUS SYSTEM EFFECTS
PROLONGED OR REPEATED SKIN CONTACT WITH THIS PRODUCT TENDS TO REMOVE SKIN OIL, POSSIBLY LEADING TO IRRITATION AND DERMATITIS.
PRODUCT CONTACTING THE EYES MAY CAUSE IRRITATION.

PRODUCT HAS A LOWER OF ACUTE ORAL AND DERMAL TOXICITY, BUT MINUTE AMOUNTS ASPIRATED INTO THE LUNGS DURING INGESTION OR VOMITING MAY CAUSE MILD TO SEVERE PULMONARY INJURY.

PRIMARY ROUTES OF ENTRY-
INHALATION, SKIN, EYE AND INGESTION.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE-
SEE HEALTH EFFECTS ABOVE.
PREEXISTING EYE, SKIN AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

EMERGENCY FIRST AID PROCEDURES-
INHALATION : REMOVE TO FRESH AIR. ADMINISTER OXYGEN IF NEEDED. APPLY ARTIFICIAL RESPIRATION IF BREATHING HAS STOPPED. SEEK MEDICAL ATTENTION.
SKIN : WIPE WITH TOWEL. WASH WITH SOAP AND WATER. GET MEDICAL ATTENTION IF IRRITATION PERSISTS AFTER WASHING.
EYES : IMMEDIATELY FLUSH WITH PLENTY OF WATER FOR 15 MINUTES, LIFTING THE UPPER AND LOWER EYELIDS OCCASIONALLY. GET MEDICAL ATTENTION.
SWALLOWING : IF SWALLOWED, DO NOT INDUCE VOMITING. GET IMMEDIATE MEDICAL ATTENTION.

SECTION 4 - CHEMICAL DATA

BOILING POINT (F)....: < 0
VAPOR PRESSURE (mmHg): N/A
VAPOR DENSITY (AIR=1): >1
SPECIFIC GRAVITY (WATER=1).....: N/A
PERCENT VOLATILE BY VOLUME (%).....: 60
EVAPORATION RATE (BUTYL ACETATE =1): > 1

SOLUBILITY IN WATER-
N/A

APPEARANCE AND ODOR INFORMATION-
AEROSOL PRODUCT.

SECTION 5 - PHYSICAL HAZARD DATA

FLASH POINT (Method Used): < 20F T.O.C FLAMMABLE LIMITS : Lel=1.11. UEL=2.3

EXTINGUISHING MEDIA-
FOAM, CARBON DIOXIDE, DRY CHEMICAL AND WATER FOG.

SPECIAL FIRE FIGHTING PROCEDURES-
USE WATER SPRAY TO COOL CONTAINERS EXPOSED TO FLAMES. WEAR GOGGLES AND SELF-CONTAINED BREATHING APPARTUS.

UNUSUAL FIRE AND EXPLOSION HAZARDS-
EXTINGUISH ALL NEAR BY SOURCES OF IGNITION SINCE CONTAINERS MAY EXPLODE FROM PRESSURE BUILD-UP WHEN EXPOSED TO EXTREME HEAT AND VAPORS WILL DECOMPOSE TO HAZARDOUS PRODUCTS AT HIGH TEMPERATURES.

INCOMPATIBILITY (Materials To Avoid)-
STRONG OXIDIZING CHEMICALS AND ALKALIS.

HAZARDOUS DECOMPOSITION PRODUCTS-
MAY PRODUCE FUMES WHEN HEATED TO DECOMPOSITION. FUMES MAY CONTAIN CARBON MONOXIDE OR CARBON DIOXIDE.

WILL HAZARDOUS POLYMERIZATION OCCUR-
WILL NOT OCCUR.

CONDITIONS TO AVOID FOR POLYMERIZATION-
N/A

IS THE PRODUCT STABLE-
YES

CONDITIONS TO AVOID FOR STABILITY-
THIS MATERIAL IS FLAMMABLE AND CAN BE IGNITED BY HEAT, SPARKS AND FLAMES.

SECTION 6 - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED-
AVOID BREATHING OF VAPORS. VENTILATE AREA. REMOVE ALL SOURCES OF IGNITION. CLEAN UP AREA WITH ABSORBENT MATERIAL AND PLACE IN CLOSED CONTAINER FOR DISPOSAL. KEEP OUT OF SEWERS, STORM DRAINS, SURFACE WATERS AND SOIL.

WASTE DISPOSAL METHODS-
DO NOT INCINERATE. DISPOSE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL GOVERNMENTAL REGULATIONS.

SECTION 7 - EXPOSURE CONTROL INFORMATION

VENTILATION-
LOCAL EXHAUST: SUFFICIENT MECHANICAL (General): N/A
SPECIAL.....: N/A OTHER.....: N/A

RESPIRATORY PROTECTION-
NONE UNDER NORMAL USE. AVOID BREATHING OF VAPOR OR SPRAY MIST.

PROTECTIVE GLOVES-
NONE UNDER NORMAL USE. FOR PROLONGED OR REPEATED CONTACT USE SOLVENT RESISTANT GLOVES.

OTHER PROTECTIVE EQUIPMENT-
EYE PROTECTION :NONE UNDER NORMAL USE; HOWEVER, USE OF SAFETY GLASSES WITH SPLASH GUARDS OR FULL FACE SHIELD IS RECOMMENDED.

OTHER ENGINEERING CONTROLS-
N/A

WORK PRACTICES-
EYE WASHES AND SAFETY SHOWERS IN THE WORKPLACE IS RECOMMENDED.

HYGIENIC PRACTICES-
AVOID BREATHING OF VAPORS AND SKIN CONTACT.

SECTION 8 - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE-
STORE AND USE IN COOL, DRY, WELL-VENTILATED AREAS. DO NOT STORE ABOVE 120 DEG F, DO NOT PUNCTURE OR INCENERATE CONTAINERS. DO NOT SPRAY IN EYES. DO NOT TAKE INTERNALLY. AVOID BREATHING OF VAPORS AND PHYSICAL CONTACT WITH SKIN.

MAINTENANCE PRECAUTIONS-
N/A

OTHER PRECAUTIONS-
N/A

ADDITIONAL COMMENTS-
THE ABOVE INFORMATION IS ACCURATE TO THE BEST OF OUR KNOWLEDGE. HOWEVER SINCE DATA, SAFETY STANDARDS, AND GOVERNMENT REGULATIONS ARE SUBJECT TO CHANGE AND THE CONDITIONS OF HANDLING AND USE, OR MISUSE ARE BEYOND OUR CONTROL, K & W PRODUCTS MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN AND DISCLAIMS ALL LIABILITY FOR RELIANCE THEREON. USER SHOULD SATISFY THEMSELF THAT THEY HAVE ALL CURRENT DATA RELEVANT TO THEIR PARTICULAR USE.

MATERIAL SAFETY DATA SHEET

Shell

97002 (REV 1-83)

MSDS NUMBER ▶ 71,630-3 PAGE 1 OF

SECTION I NAME

PRODUCT ▶	Shell ROTELLA T Multigrade 15W/40
CHEMICAL/ SYNONYMS ▶	Lubricating Oil
CHEMICAL FAMILY ▶	Hydrocarbon
SHELL CODE ▶ 50012	C.A.S. NUMBER ▶ Mixture

24 HOUR EMERGENCY ASSISTANCE

SHELL 713-473-9461
CHEMTREC 800-424-9300

HAZARD RATING
LEAST 0 ▶ SLIGHT 1 ▶ MODERATE 2 ▶ HIGH 3 ▶ EXTREME 4

HEALTH	1
FIRE	1
REACTIVITY	0

SECTION II INGREDIENTS

COMPOSITION	%	TOXICITY DATA
Shell ROTELLA T Multigrade 15W/40	100	Not Determined
Petroleum Hydrocarbons	87	Oral LD_{50}, rat >5g/kg* 1-200 Dermal LD_{50}, rabbit >2g/kg*
Ashless Dispersant	7	
Substituted Calcium Benzoates	2	
Calcium Sulfonates	1	
Organic Zinc Dithiophosphate	1	
Hydrocarbon Polymer	1	
Polymethacrylate	<0.5	
Polyether Alcohol	<0.5	
		*Values are estimates based upon tests using similar oils.

SECTION III HEALTH INFORMATION

Lubricating oils are generally considered to be of a low order of acute toxicity to humans and experimental animals.

Exposure to vapors or mist of this product may cause pulmonary irritation, dizziness and nausea. Prolonged or repeated contact may cause various skin disorders such as dermatitis, folliculitis or oil acne.

The petroleum hydrocarbons in this product are a complex mixture of paraffinic, naphthenic and aromatic hydrocarbons. As in other petroleum oils, the aromatics contain polycyclic compounds of various concentrations and structures. Some of these polycyclics may be those which have been shown to induce cancer in animals under laboratory conditions. Epidemiologic studies on other petroleum products containing polycyclic aromatics suggested the possibility of skin cancer induction in man after prolonged and repeated contact. Inhalation of mists arising from oils containing these materials may also present a cancer hazard.

This specific product has not been tested in long-term, chronic exposure tests. Therefore, the presence of polycyclic aromatic hydrocarbons requires that handling procedures and safety precautions in this MSDS be followed to minimize employees' exposure.

SECTION IV OCCUPATIONAL EXPOSURE LIMITS

Oil Mist:
ACGIH-TLV/TWA = 5 mg/m³; ACGIH-TLV/STEL = 10 mg/m³
OSHA-PEL/TWA = 5 mg/m³ (see NIOSH/OSHA Occupational Health Guidelines for Chemical Hazards)

SECTION V EMERGENCY AND FIRST AID PROCEDURES

NTACT: Flush with water for 15 minutes while holding eyelids open. Get medical attention.

IN CONTACT: Remove contaminated clothing and wipe excess off. Wash with soap and water or a waterless hand cleaner followed by soap and water. Do not reuse clothing until thoroughly cleaned. If irritation persists, get medical attention.

HALATION: Remove victim to fresh air and provide oxygen if breathing is difficult. Get medical attention.

GESTION: Do not induce vomiting. In general, no treatment is necessary unless large quantities of product are ingested. However, get medical advice.*

IOTE TO THE PHYSICIAN: In general, emesis induction is unnecessary high viscosity, low volatility products, i.e. most oils and greases.

SECTION VI PHYSICAL DATA

...ING POINT (°F) ▶ N.A.	MELTING POINT (°F) ▶ N.A.	VAPOR PRESSURE (mmHg) ▶ N.A.
SPECIFIC GRAVITY (H_2O=1) ▶ 0.88-0.89	% VOLATILE BY VOLUME ▶ N.A.	VAPOR DENSITY (AIR=1) ▶ N.A.
...LUBILITY IN WATER ▶ Insoluble	EVAPORATION RATE (BUTYL ACETATE=1) ▶ N.A.	N.A. = Not Available

...EARANCE AND ODOR

...rk amber oil. Slight odor.

SECTION VII FIRE AND EXPLOSION HAZARDS

...ASH POINT AND METHOD USED	FLAMMABLE LIMITS/% VOLUME IN AIR ▶ LOWER	UPPER
70°F PMCC	N.A.	N.A.

...TINGUISHING MEDIA

...se water fog, foam, dry chemical or CO_2. Do not use a direct stream of ...ater. Product will float and can be reignited on surface of water.

...ECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS

...o not enter confined fire space without proper protective equipment ...ncluding a NIOSH approved self-contained breathing apparatus. Cool ...ire-exposed containers with water.

...AL FIRE AND EXPLOSION HAZARDS

...ion unusual.

CTION VIII REACTIVITY

ABILITY ▶ [ ] UNSTABLE [X] STABLE | HAZARDOUS POLYMERIZATION ▶ [ ] MAY OCCUR [X] WILL NOT OCCU

CONDITIONS AND MATERIALS TO AVOID

Avoid heat, open flames, oxidizing materials and mist formation.

HAZARDOUS DECOMPOSITION PRODUCTS

Carbon monoxide, sulfur oxides and unidentified organic compounds may be formed during combustion.

SECTION IX EMPLOYEE PROTECTION

RESPIRATORY PROTECTION

If exposure may or does exceed occupational exposure limits (Sec.IV) use a NIOSH-approved respirator to prevent overexposure. In accord with 29 CFR 1910.134 use either an atmosphere-supplying respirator or an air-purifying respirator for organic vapors and particulates.

PROTECTIVE CLOTHING

ar gloves and other protective clothing as required to minimize skin contact. Wear safety glasses or goggles to avoid eye contact.

ADDITIONAL PROTECTIVE MEASURES

--

SECTION X ENVIRONMENTAL PROTECTION

SPILL OR LEAK PROCEDURES

May burn although not readily ignitable. Use cautious judgment when cleaning up large spills.

Large spills: Wear respirator and protective clothing as appropriate. Shut off source of leak if safe to do so. Dike and contain. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material; dispose of properly.
Small spills: take up with an absorbent material and dispose of properly.

WASTE DISPOSAL

Place in an appropriate disposal facility in compliance with local ·gulations.

ENVIRONMENTAL HAZARDS

This product is an "oil" under the Clean Water Act. KEEP OUT OF SURFACE WATERS AND ANY WATER COURSES OR SEWERS ENTERING OR LEADING TO SURFACE WATERS. See Section XIII.

SPECIAL PRECAUTIONS

skin contact. Wash with soap and water before eating, drinking, or using toilet facilities. Launder contaminated clothing before Properly dispose of contaminated leather articles, including shoes, t cannot be decontaminated.

CTION XII TRANSPORTATION REQUIREMENTS

EPARTMENT OF ISPORTATION SSIFICATION

- ☐ FLAMMABLE LIQUID
- ☐ COMBUSTIBLE LIQUID
- ☐ OXIDIZING MATERIAL
- ☐ NON-FLAMMABLE GAS
- ☐ FLAMMABLE SOLID
- ☐ POISON,CLASS A
- ☐ CORROSIVE MATERIAL
- ☒ NOT HAZARDOUS BY D.O.T. REGULATIONS
- ☐ FLAMMABLE GAS
- ☐ POISON,CLASS B
- ☐ IRRITATING MATERIAL
- ☐ OTHER–Specify below

. PROPER SHIPPING NAME

1e

ER REQUIREMENTS

1) * Lading Commodity Description-Petroleum Lubricating Oil

CTION XIII SUPPLEMENTARY HEALTH/REGULATORY INFORMATION

- Clean Water Act (CWA)
s product is classified as an oil under Section 311 of the Clean Water . Spills entering (a) surface waters or (b) any watercourses or sewers ering/leading to surface waters that cause a sheen MUST be reported to National Response Center, 800-424-8802.

BE SAFE
READ OUR PRODUCT SAFETY INFORMATION
...AND
PASS IT ON
(PRODUCT LIABILITY LAW REQUIRES IT)

John P Lepori
Manager
SHELL OIL COMPANY
PRODUCT SAFETY AND COMPLIANCE
P.O. BOX 4320
HOUSTON,TEXAS 77210
(713) 241-4819

DATE PREPARED
November 09, 1982

Justice Supply
Farmington

THE MARVEL OIL COMPANY,INC.
331 North Main Street
Port Chester,New York,10573
914-937-4000

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: Marvel Mystery Oil
REVISION DATE: 11/25/85
TRANSPORATION EMERGENCY NO.914-937-4000
CHEMICAL NAME: Fuel and Oil additive
NFPA CODE: CAS NO.: N/A-Mixture

SECTION 1-HAZARDOUS INGREDIENTS

Solvents-Mineral Spirits-30%-CAS # 64742-88-7
Napthenic base oil distillate-67%-CAS # 64742-34-3
OSHA-ACGIH see section 4 - Exposure limit 5 mg/m3

SECTION 2-PHYSICAL DATA

Vapor pressure:2mm Hg.@ 68
Specific gravity:.9
Water solubility:negligible
Percent volatile:not determined
Vapor density:not determined
Evaporation rate:not determined
Odor:Mild
Appearance:red color liquid

SECTION 3-FIRE AND EXPLOSION DATA

Flash point:140 F
Upper flammable limit:not determined
Lower flammable limit:not determined
Extinguiushing media:CO2,dry chemical,foam,water spray;water fog
Unusual fire & explosion hazards:do not store or mix with strong oxidants

SECTION 4-HEALTH HAZARD DATA

Eye irritation:mild
Skin irritation:mild irritation may occur with prolonged or repeated contact.Testing of similiar oils has produced skin tumors in experimental animals after prolonged and repeated contact.
Oral:Pulmonary aspiration hazard if swallowed
EXPOSURE LIMITS: Threshold Limit Value(TLV)=5 mg/m3 as a mist.

SECTION 5-EMERGENCY FIRST AID PROCEDURES

Eye:flush with water until irritation subsides
Skin:wash with soap and water
Oral:do not induce vomiting,give milk or water to dilute stomach contents

SECTION 6-STABILITY

Stability: stable
Incompatibity: oxidizing agents
Polymerization: will not occur

SECTION 7-SPILL OR LEAK PROCEDURES

Spill procedures:recover free liquid,add absorbent to spill area
Waste disposal:keep product out of sewers and watercourses
disposal should be in compliance with federal, state and local laws

SECTION 8-SPECIAL PROTECTION

Ventilation:mechanical ventilation as needed
Gloves:use chemical resistant gloves if needed to avoid prolonged or repeated skin contact
Eye protection:product minimally irritating to eyes,use saftey glasses when eye contact may occur
Other:use chemical resistant apron or other impervious clothing if needed to avoid prolonged or repeated skin contact

SECTION 9-SPECIAL PRECAUTIONS

Keep away from heat and open flame,contains refined petroleum distillates,if swallowed do not induce vomiting,if ingested call physican immediately

SECTION 10-TRANSPORTATION INFORMATION

DOT shipping name:cleaning compound
DOT hazard class:combustible liquid
DOT ID number:NA 1270
NMFC ID number:155250

Material Safety Data Sheet

From Genium's Reference Collection

Genium Publishing Corporation
1145 Catalyn Street
Schenectady, NY 12303-1836 USA
(518) 377-8855

GENIUM PUBLISHING CORP.

No. 62
OXYGEN
(Revision A)
Issued: April 1980
Revised: April 1986

SECTION 1: MATERIAL IDENTIFICATION

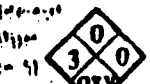
MATERIAL NAME: OXYGEN

DESCRIPTION: Compressed gas (2100 psig) supplied in cylinders or cold liquid supplied in Dewar containers.

OTHER DESIGNATIONS: O_2; CAS #7782-44-7.

MANUFACTURER/SUPPLIER: Available from several suppliers, including: Airco Industrial Gases of the BOC Group, Inc., 575 Mountain Avenue, Murray Hill, NJ 07974; Telephone: (201) 464-8100

Union Carbide Corporation, Linde Div., 39 Old Ridgebury Road, Danbury, CT 06817; Telephone: (203) 794-5300



HMIS
H: 3
F: 0
R: 0 (Liq.)
PPE*

(Liquid)
R - 1
I -
S - 2 (Liquid)
K -

*See Sect. 8

SECTION 2: INGREDIENTS AND HAZARDS

	%	HAZARD DATA
Oxygen, CAS #7782-44-7	>99.5	No TLV Established.*

* The minimum oxygen content in workplace air is 18 % by volume (ACGIH 1985-86).

Note: Ambient air contains 21% O_2 by volume.

SECTION 3: PHYSICAL DATA

Boiling Point, 760 mm Hg ... -297.4°F (-183°C)
Vapor Pressure @ -199°C, mm Hg ... ca 100
Vapor Density (Air = 1) ... 1.1
Solubility in Water, cm^3/100g, @ 25°C ... 3.16
Expansion Ratio, Liquid to Gas @ 70°F ... 1:860
Specific Gravity @ -183°C ... 1.14

Freezing Point ... -361.1°F (-218.4°C)
Viscosity, cps, @ 25°C ... 0.0206
Critical Temperature ... -245°F (-118.38°C)
Critical Pressure, Atm ... 50.14
Molecular Weight ... 32.00

Appearance and odor: Colorless gas, bluish liquid, or blue solid with hexagonal crystals. Odorless and tasteless.

SECTION 4: FIRE AND EXPLOSION DATA

Flash Point and Method	Autoignition Temp.	Flammability Limits in Air	LOWER	UPPER
Not Found	Not Found	Not Found	Not Found	Not Found

EXTINGUISHING MEDIA: Stop flow if you can do so without risk. Use media that are appropriate to the surrounding fire. Immediately cool fire-exposed container, standing at a safe distance and using a water spray. If feasible, remove oxygen containers from fire area. Containers may explode in the heat of fire. Though not flammable itself, oxygen vigorously supports combustion. Materials that do not burn in air may burn in oxygen-enriched air. Materials can become spontaneously flammable at high oxygen levels. Oxygen released in a fire situation greatly increases fire and explosion hazards. (Oxygen cylinders are equipped with safety devices to release O_2 at excessive temperature or pressure.) Liquid oxygen can explode on contact with flammables. Do not direct water spray into liquid oxygen.

SECTION 5: REACTIVITY DATA

Oxygen is stable when kept isolated as a compressed gas in cylinders or as a cold liquid in vented, insulated containers. Stainless steel, aluminum, copper, and its alloys are useful materials for oxygen or liquid oxygen service. This material is an oxidizing agent that vigorously accelerates combustion. Oxygen will undergo highly exothermic reactions or explosions with many materials. The greater the concentration of O_2 in contact with a fuel or reducing agent, the greater the violence of the reaction. Air contains 21% oxygen; reactivity with environmental materials is substantially increased at above 23% oxygen by volume. Oxygen reacts explosively with phosphine, hydrazine, hydrogen sulfide, ethers, alcohols, hydrocarbons, etc. Liquid oxygen mixed with powdered metals can be detonated. Red-hot steel burns in an oxygen atmosphere. This material is incompatible with oils, grease, lubricants, and flammable materials.

No. 62 4/86 OXYGEN

SECTION 6. HEALTH HAZARD INFORMATION

Oxygen is not listed as a carcinogen by the IARC, NTP, or OSHA.

SUMMARY OF RISKS: Adults can satisfactorily breathe pure oxygen for extended periods at 0.33 atm, or at 1 atm for several days at less than 5 hours a day. However, irritation to mucous membranes may occur when 100% oxygen is inhaled continuously for several hours. Chest pains and cough can result from breathing O_2 at 1 atm for 8 to 24 hours or 2 atm for 2 to 3 hours or from an atmosphere of 60% oxygen for several days. A variety of central nervous system effects can occur from breathing oxygen at partial pressures greater than 2 atm, including dizziness, impaired coordination, visual and hearing disturbances, and seizures. Contact with liquid oxygen can cause severe frostbite/freeze burns. Prolonged breathing of very cold atmospheres can produce lung damage. Prolonged exposure to cold areas can result in hypothermia.

PRIMARY ENTRY: Inhalation

FIRST AID: EYE AND SKIN CONTACT: Contact with liquid oxygen: Remove victim from the source of contact. Flush affected areas with lots of tepid water. (Do not apply direct heat to affected area!) Do not rub frozen area. Loosely apply dry, sterile, bulky dressings to protect area from infection/injury. Get medical help.* INHALATION: Get medical help for overexposure.* INGESTION: Get medical help.* HYPOTHERMIA: Remove victim to a warm (not hot) area. Remove contaminated clothing, if possible. Wrap him in blankets. Slowly restore his body temperature. Get medical help.*

* GET MEDICAL ASSISTANCE = In plant, paramedic, community. Get medical help for further treatment, observation, and support after first aid.

SECTION 7. SPILL, LEAK, AND DISPOSAL PROCEDURES

Notify safety personnel of significant leaks or spills. Evacuate all personnel from the danger area. Provide optimum exhaust ventilation. Shut off the source of the oxygen leak if you can do so without risk. Remove sources of heat, ignition and, if feasible, separate combustibles from the leak. Small leaks in an oxygen system in an enclosed, unventilated area can build up a hazardous oxygen level.

To increase the rate of controlled evaporation of spilled liquid oxygen (when desired), spray the spill with large amounts of water. (This may generate a fog and reduce visibility.)

DISPOSAL: Remove waste containers or leaking cylinders to an open outdoor area away from combustibles and allow the oxygen to discharge at a moderate rate. Tag a leaking cylinder to indicate a defect, close the valve, and return the cylinder to its supplier.

SECTION 8. SPECIAL PROTECTION INFORMATION

Where oxygen may be released, provide adequate ventilation to prevent excessive oxygen enrichment of the workplace atmosphere (holding at <23% O_2 by volume is recommended for fire safety). Personnel who have been exposed to high concentrations of oxygen should stay in a well-ventilated or open area for 15 minutes before going into a confined space or near an ignition source.

Workers handling liquid oxygen should wear safety glasses; clean, approved insulated gloves; and other approved protective clothing as required to prevent skin contact. (Gloves and protective clothing must be of material that is resistant to ignition on contact with liquid oxygen; leather gloves and safety shoes have been recommended.) Safety shoes and safety glasses are recommended when handling cylinders of compressed gas. Clothing that has been overexposed or contaminated with oxygen should be removed and considered unsafe (highly flammable) to wear for at least 30 minutes. If oxygen-enriched clothing catches fire, extinguish the flame under a safety shower; a fire blanket may not be effective in this situation. Use a continuous water spray to soak the clothing of a rescuer who must operate in an oxygen-enriched fire area.

Contact lenses pose a special hazard; soft lenses may absorb irritants, and all lenses concentrate them.

SECTION 9. SPECIAL PRECAUTIONS AND COMMENTS

Store oxygen containers in a clean, cool, dry, well-ventilated, low fire-risk area, away from combustible materials and acetylene cylinders or other flammable gases or gas mixtures. Protect containers against physical damage. Follow general safety procedures for handling compressed-gas cylinders. Never expose any part of a cylinder to temperature above 125°F (51.5°C). Ground equipment to eliminate buildup of static charge. Make sure that containers of liquid oxygen are properly vented to prevent pressure buildup and that suitable materials are used to contact liquid oxygen and high-purity oxygen. Some materials are unsuitable for service at low temperatures because they become brittle and can be easily shattered by impact. Many materials are unsuitable for oxygen service; do not use oil or grease to lubricate the valves on oxygen cylinders.

DOT Classification: Nonflammable Gas UN1072 (Compressed Gas); UN1073 (Cryogenic Liquid)

Data Source(s) Code: 1, 2, 4-12, 17, 24, 25, 51, 63, 82, 84. CK

Approvals J. O. [illegible] 11/87

Indust. Hygiene/Safety [illegible] 12-86

Medical Review [illegible]

MOBIL OIL CORPORATION MATERIAL SAFETY DATA BULLETIN

REVISED:09/21/90

********** I. PRODUCT IDENTIFICATION **********

MOBIL DELVAC 1200 SUPER 15W-40

SUPPLIER:
MOBIL OIL CORP.

CHEMICAL NAMES AND SYNONYMS:
PET. HYDROCARBONS AND ADDITIVES

USE OR DESCRIPTION:
AUTOMOTIVE ENGINE OIL

HEALTH EMERGENCY TELEPHONE:
(609) 737-4411

TRANSPORT EMERGENCY TELEPHONE:
(800) 424-9300 (CHEMTREC)

PRODUCT TECHNICAL INFORMATION:
(800) 662-4525

********** II. TYPICAL CHEMICAL AND PHYSICAL PROPERTIES **********

APPEARANCE: Brown Liquid
ODOR: Mild
PH: NA
VISCOSITY AT 100 F, SUS: 541.0
AT 40 C, CS: 105.0
VISCOSITY AT 210 F, SUS: 75.0
AT 100 C, CS: 14.0
FLASH POINT F(C): > 390(199) (ASTM D-92)
MELTING POINT F(C): NA
POUR POINT F(C): -20(-29)
BOILING POINT F(C): > 600(316)
RELATIVE DENSITY, 15/4 C: 0.89
SOLUBILITY IN WATER: Negligible
VAPOR PRESSURE-mm Hg 20C: < .1

NA=Not Applicable NE=Not Established D=Decomposes

FOR FURTHER INFORMATION, CONTACT YOUR LOCAL MARKETING OFFICE.

********** III. POTENTIALLY HAZARDOUS INGREDIENTS **********

None

SEE SECTIONS XII AND XIII FOR REGULATORY AND FURTHER COMPOSITIONAL DATA.

SOURCES: A=ACGIH-TLV, A*=Suggested-TLV, M=Mobil, O=OSHA, S=Supplier
NOTE: Limits shown for guidance only. Follow applicable regulations.

********** IV. HEALTH HAZARD DATA **********

--- INCLUDES AGGRAVATED MEDICAL CONDITIONS, IF ESTABLISHED ---

THRESHOLD LIMIT VALUE: 5.00 MG/M3 Suggested for Oil Mist
EFFECTS OF OVEREXPOSURE: Slight eye irritation. Slight skin irritation.

********** V. EMERGENCY AND FIRST AID PROCEDURES **********

--- FOR PRIMARY ROUTES OF ENTRY ---

EYE CONTACT: Flush with water.
SKIN CONTACT: Wash contact areas with soap and water.
INHALATION: Not expected to be a problem.
INGESTION: Not expected to be a problem. However, if greater than 1/2 liter(pint) ingested, immediately give 1 to 2 glasses of water and call a physician, hospital emergency room or poison control center for assistance. Do not induce vomiting or give anything by mouth to an unconscious person.

********** VI. FIRE AND EXPLOSION HAZARD DATA **********

FLASH POINT F(C): > 390(199) (ASTM D-92)
FLAMMABLE LIMITS. LEL: .6 UEL: 7.0
EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical and water fog.
SPECIAL FIRE FIGHTING PROCEDURES: Water or foam may cause frothing. Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. For fires in enclosed areas, firefighters must use self-contained breathing apparatus. Prevent runoff from fire control or dilution from entering streams or drinking water supply.
UNUSUAL FIRE AND EXPLOSION HAZARDS: None.
NFPA HAZARD ID: Health: 0, Flammability: 1, Reactivity: 0

********** VII. REACTIVITY DATA **********

STABILITY (Thermal, Light, etc.): Stable
CONDITIONS TO AVOID: Extreme heat.
INCOMPATIBILITY (Materials to Avoid): Strong oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide. Metal oxides. Nitrogen oxides. Sulfur oxides.
HAZARDOUS POLYMERIZATION: Will not occur.

********** VIII. SPILL OR LEAK PROCEDURE **********

ENVIRONMENTAL IMPACT: Report spills as required to appropriate authorities. U. S. Coast Guard regulations require immediate reporting of spills that could reach any waterway including intermittent dry creeks. Report spill to Coast Guard toll free number (800) 424-8802. In case of accident or road spill notify CHEMTREC (800) 424-9300.
PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: Adsorb on fire retardant treated sawdust, diatomaceous earth, etc. Scrape up and remove. Dispose of at an appropriate waste disposal facility in accordance with current applicable laws and regulations, and product characteristics at time of disposal.
WASTE MANAGEMENT: Product is suitable for burning in an enclosed, controlled burner for fuel value or disposal by supervised incineration. Such burning may be limited pursuant to the resource conservation and recovery act. In addition, the product is suitable for processing by an approved recycling facility or can be disposed of at any government approved waste disposal facility. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

********** IX. SPECIAL PROTECTION INFORMATION **********

EYE PROTECTION: Normal industrial eye protection practices should be employed.
SKIN PROTECTION: No special equipment required. However, good personal hygiene practices should always be followed.
RESPIRATORY PROTECTION: No special requirements under ordinary conditions of use and with adequate ventilation.
VENTILATION: No special requirements under ordinary conditions of use and with adequate ventilation.

********** X. SPECIAL PRECAUTIONS **********

No special precautions required.

********** XI. TOXICOLOGICAL DATA **********

---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): LD50: > 5 g/kg Slightly toxic (estimated) --- Based on testing of similar products and/or the components.

DERMAL TOXICITY (RABBITS): LD50: > 2 g/kg Slightly toxic (estimated) --- Based on testing of similar products and/or the components.

INHALATION TOXICITY (RATS): Not applicable ---Harmful concentrations of mists and/or vapors are unlikely to be encountered through any customary or reasonably foreseeable handling, use, or misuse of this product.

EYE IRRITATION (RABBITS): May cause slight irritation. ---Based on testing of similar products and/or the components.

SKIN IRRITATION (RABBITS): May cause slight irritation on prolonged or repeated contact. ---Based on testing of similar products and/or the components.

---SUBCHRONIC TOXICOLOGY (SUMMARY)---

Severely solvent refined and severely hydrotreated mineral base oils have been tested at Mobil Environmental and Health Sciences Laboratory by dermal application to rats 5 days/week for 90 days at doses significantly higher than those expected during normal industrial exposure. Extensive evaluations including microscopic examination of internal organs and clinical chemistry of body fluids, showed no adverse effects.

---CHRONIC TOXICOLOGY (SUMMARY)---

The base oils in this product are severely solvent refined and/or severely hydrotreated. Chronic mouse skin painting studies of similar oils showed no evidence of carcinogenic effects.

---OTHER TOXICOLOGY DATA---

Studies have shown that mice developed skin cancer after repeated application of used gasoline engine oil to the skin for the lifetime of the animals. No effort was made to wash the oil off between applications. Used oil from diesel engines did not produce this effect. Because of the effects observed in the laboratory tests, service station workers, engine mechanics, and all persons who regularly handle used motor oil should take precautions to minimize contact with the oil. Good personal hygiene practices, including washing any skin contact areas and removing oil soaked clothing, should be followed.

********** XII. REGULATORY INFORMATION **********

GOVERNMENTAL INVENTORY STATUS: All components registered in accordance with TSCA.

DOT:

Shipping Name: Not applicable
Hazard Class: Not applicable

US OSHA HAZARD COMMUNICATION STANDARD: Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined not to be hazardous.

RCRA INFORMATION: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D); does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity, and is not formulated with the contaminants listed in the Toxicity Characteristic (TC) Rule as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

U.S. Superfund Amendments and Reauthorization Act (SARA) TITLE III:
This product contains no "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (302) REPORTABLE HAZARD CATEGORIES: NONE

THIS PRODUCT CONTAINS THE FOLLOWING SARA (313) TOXIC RELEASE CHEMICALS:

ZINC DIALKYL DITHIOPHOSPHATE 68457-79-4 1.18%

THE FOLLOWING PRODUCT INGREDIENTS ARE CITED ON THE LISTS BELOW:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
ZINC (ELEMENTAL ANALYSIS) (.12%)	7440-66-6	15

--- KEY TO LIST CITATIONS ---

1 = OSHA Z, 2 = ACGIH, 3 = IARC, 4 = NTP, 5 = NCI,
6 = EPA CARC, 7 = NFPA 49, 8 = NFPA 325M, 9 = DOT HMT, 10 = CA RTK,
11 = IL RTK, 12 = MA RTK, 13 = MN RTK, 14 = NJ RTK, 15 = MI 293,
16 = FL RTK, 17 = PA RTK, 18 = CA P65.

--- NTP, IARC, AND OSHA INCLUDE CARCINOGENIC LISTINGS ---

NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

********** XIII. INGREDIENTS **********

INGREDIENT DESCRIPTION	PERCENT	CAS NUMBER
CONTAINS ONE OR MORE OF THE FOLLOWING	> 90.00	
BASE OILS:		
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC		64742-54-7
DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC		64742-65-0
DISTILLATES (PETROLEUM), HYDROTREATED LIGHT NAPHTHENIC		64742-53-6
DISTILLATES (PETROLEUM), SOLVENT-DEWAXED LIGHT PARAFFINIC		64742-56-9
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC		64742-52-5
DISTILLATES (PETROLEUM), SOLVENT-REFINED HEAVY PARAFFINIC		64741-88-4
MAY CONTAIN ONE OR MORE OF THE FOLLOWING	< 10.00	
ADDITIVE COMPONENTS:		
POLYOLEFIN AMIDE ALKENEAMINE	PMN	86-903
BORONATED SUBSTITUTED SUCCINIMIDE	NJT	800962-5016P
CALCIUM SULFONATE OVERBASED	NJT	800962-5010P
SUBSTITUTED SUCCINIMIDE	NJT	800962-5009P
BUTENE, HOMOPOLYMER		9003-29-6
OLEFIN POLYMERS		

********** APPENDIX **********

FOR MOBIL USE ONLY: (FILL NO: MTN745BBD110) MCN: , MHC: 1* 1* NA 1* 1*, MPPEC: A, PPEC: A, US90-289 APPROVE 07/26/90

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INFORMATION GIVEN HEREIN IS OFFERED IN GOOD FAITH AS ACCURATE, BUT WITHOUT GUARANTEE. CONDITIONS OF USE AND SUITABILITY OF THE PRODUCT FOR PARTICULAR USES ARE BEYOND OUR CONTROL; ALL RISKS OF USE OF THE PRODUCT ARE THEREFORE ASSUMED BY THE USER AND WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE USE OR SUITABILITY OF THE PRODUCT. NOTHING IS INTENDED AS A RECOMMENDATION FOR USES WHICH INFRINGE VALID PATENTS OR AS EXTENDING LICENSE UNDER VALID PATENTS. APPROPRIATE WARNINGS AND SAFE HANDLING PROCEDURES SHOULD BE PROVIDED TO HANDLERS AND USERS.

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PREPARED BY: MOBIL OIL CORPORATION
ENVIRONMENTAL HEALTH AND SAFETY DEPARTMENT, PRINCETON, NJ
FOR FURTHER INFORMATION, CONTACT:
MOBIL OIL CORPORATION, PRODUCT FORMULATION AND QUALITY CONTROL
3225 GALLOWS ROAD, FAIRFAX, VA 22037 (800) 227-0707 X3265

MOBIL OIL CORPORATION MATERIAL SAFETY DATA BULLETIN

REVISED:01/21/91

********** I. PRODUCT IDENTIFICATION **********

MOBIL PEGASUS 490

SUPPLIER:
MOBIL OIL CORP.

CHEMICAL NAMES AND SYNONYMS:
PET. HYDROCARBONS AND ADDITIVES

USE OR DESCRIPTION:
GAS ENGINE OIL

HEALTH EMERGENCY TELEPHONE:
(609) 737-4411

TRANSPORT EMERGENCY TELEPHONE:
(800) 424-9300 (CHEMTREC)

PRODUCT TECHNICAL INFORMATION:
(800) 662-4525

********** II. TYPICAL CHEMICAL AND PHYSICAL PROPERTIES **********

APPEARANCE: AMBER LIQUID ODOR: MILD PH: NA
VISCOSITY AT 100 F, SUS: 694.0 AT 40 C, CS: 132.0
VISCOSITY AT 210 F, SUS: 72.0 AT 100 C, CS: 13.0
FLASH POINT F(C): > 425(218) (ASTM D-92)
MELTING POINT F(C): NA POUR POINT F(C): 5(-15)
BOILING POINT F(C): > 600(316)
RELATIVE DENSITY, 15/4 C: 0.88 SOLUBILITY IN WATER: NEGLIGIBLE
VAPOR PRESSURE-MM HG 20C: < .1

NA=NOT APPLICABLE NE=NOT ESTABLISHED D=DECOMPOSES

FOR FURTHER INFORMATION, CONTACT YOUR LOCAL MARKETING OFFICE.

********** III. POTENTIALLY HAZARDOUS INGREDIENTS **********

NONE

SEE SECTIONS XII AND XIII FOR REGULATORY AND FURTHER COMPOSITIONAL DATA.

SOURCES: A=ACGIH-TLV, A*=SUGGESTED-TLV, M=MOBIL, O=OSHA, S=SUPPLIER
NOTE: LIMITS SHOWN FOR GUIDANCE ONLY. FOLLOW APPLICABLE REGULATIONS.

********** IV. HEALTH HAZARD DATA **********

--- INCLUDES AGGRAVATED MEDICAL CONDITIONS, IF ESTABLISHED ---

THRESHOLD LIMIT VALUE: 5.00 MG/M3 SUGGESTED FOR OIL MIST
EFFECTS OF OVEREXPOSURE: SLIGHT EYE IRRITATION. SLIGHT SKIN IRRITATION.

********** V. EMERGENCY AND FIRST AID PROCEDURES **********

--- FOR PRIMARY ROUTES OF ENTRY ---

EYE CONTACT: FLUSH WITH WATER.
SKIN CONTACT: WASH CONTACT AREAS WITH SOAP AND WATER.
INHALATION: NOT EXPECTED TO BE A PROBLEM.
INGESTION: NOT EXPECTED TO BE A PROBLEM. HOWEVER, IF GREATER THAN 1/2 LITER(PINT) INGESTED, IMMEDIATELY GIVE 1 TO 2 GLASSES OF WATER AND CALL A PHYSICIAN, HOSPITAL EMERGENCY ROOM OR POISON CONTROL CENTER FOR ASSISTANCE. DO NOT INDUCE VOMITING OR GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

********** VI. FIRE AND EXPLOSION HAZARD DATA **********

FLASH POINT F(C): > 425(218) (ASTM D-92)
FLAMMABLE LIMITS. LEL: .6 UEL: 7.0
EXTINGUISHING MEDIA: CARBON DIOXIDE, FOAM, DRY CHEMICAL AND WATER FOG.
SPECIAL FIRE FIGHTING PROCEDURES: WATER OR FOAM MAY CAUSE FROTHING. USE WATER TO KEEP FIRE EXPOSED CONTAINERS COOL. WATER SPRAY MAY BE USED TO FLUSH SPILLS AWAY FROM EXPOSURE. FOR FIRES IN ENCLOSED AREAS, FIREFIGHTERS MUST USE SELF-CONTAINED BREATHING APPARATUS. PREVENT RUNOFF FROM FIRE CONTROL OR DILUTION FROM ENTERING STREAMS OR DRINKING WATER SUPPLY.
UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE.
NFPA HAZARD ID: HEALTH: 0, FLAMMABILITY: 1, REACTIVITY: 0

********** VII. REACTIVITY DATA **********

STABILITY (THERMAL, LIGHT, ETC.): STABLE
CONDITIONS TO AVOID: EXTREME HEAT.
INCOMPATIBILITY (MATERIALS TO AVOID): STRONG OXIDIZERS
HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE.
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.

********** VIII. SPILL OR LEAK PROCEDURE **********

ENVIRONMENTAL IMPACT: REPORT SPILLS AS REQUIRED TO APPROPRIATE AUTHORITIES. U. S. COAST GUARD REGULATIONS REQUIRE IMMEDIATE REPORTING OF SPILLS THAT COULD REACH ANY WATERWAY INCLUDING INTERMITTENT DRY CREEKS. REPORT SPILL TO COAST GUARD TOLL FREE NUMBER (800) 424-8802. IN CASE OF ACCIDENT OR ROAD SPILL NOTIFY CHEMTREC (800) 424-9300.
PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: ADSORB ON FIRE RETARDANT TREATED SAWDUST, DIATOMACEOUS EARTH, ETC. SHOVEL UP AND DISPOSE OF AT AN APPROPRIATE WASTE DISPOSAL FACILITY IN ACCORDANCE WITH CURRENT APPLICABLE LAWS AND REGULATIONS, AND PRODUCT CHARACTERISTICS AT TIME OF DISPOSAL.
WASTE MANAGEMENT: PRODUCT IS SUITABLE FOR BURNING IN AN ENCLOSED, CONTROLLED BURNER FOR FUEL VALUE OR DISPOSAL BY SUPERVISED INCINERATION. SUCH BURNING MAY BE LIMITED PURSUANT TO THE RESOURCE CONSERVATION AND RECOVERY ACT. IN ADDITION, THE PRODUCT IS SUITABLE FOR PROCESSING BY AN APPROVED RECYCLING FACILITY OR CAN BE DISPOSED OF AT ANY GOVERNMENT APPROVED WASTE DISPOSAL FACILITY. USE OF THESE METHODS IS SUBJECT TO USER COMPLIANCE WITH APPLICABLE LAWS AND REGULATIONS AND CONSIDERATION OF PRODUCT CHARACTERISTICS AT TIME OF DISPOSAL.

********** IX. SPECIAL PROTECTION INFORMATION **********

EYE PROTECTION: NORMAL INDUSTRIAL EYE PROTECTION PRACTICES SHOULD BE EMPLOYED.
SKIN PROTECTION: NO SPECIAL EQUIPMENT REQUIRED. HOWEVER, GOOD PERSONAL HYGIENE PRACTICES SHOULD ALWAYS BE FOLLOWED.
RESPIRATORY PROTECTION: NO SPECIAL REQUIREMENTS UNDER ORDINARY CONDITIONS OF USE AND WITH ADEQUATE VENTILATION.
VENTILATION: NO SPECIAL REQUIREMENTS UNDER ORDINARY CONDITIONS OF USE AND WITH ADEQUATE VENTILATION.

********** X. SPECIAL PRECAUTIONS **********

NO SPECIAL PRECAUTIONS REQUIRED.

********** XI. TOXICOLOGICAL DATA **********

---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): SLIGHTLY TOXIC (ESTIMATED) ---BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

DERMAL TOXICITY (RABBITS): SLIGHTLY TOXIC (ESTIMATED) ---BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

INHALATION TOXICITY (RATS): NOT APPLICABLE ---HARMFUL CONCENTRATIONS OF MISTS AND/OR VAPORS ARE UNLIKELY TO BE ENCOUNTERED THROUGH ANY CUSTOMARY OR REASONABLY FORESEEABLE HANDLING, USE, OR MISUSE OF THIS PRODUCT.

EYE IRRITATION (RABBITS): MAY CAUSE SLIGHT IRRITATION. ---BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

SKIN IRRITATION (RABBITS): MAY CAUSE SLIGHT IRRITATION ON PROLONGED OR REPEATED CONTACT. ---BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

---SUBCHRONIC TOXICOLOGY (SUMMARY)---

SEVERELY SOLVENT REFINED AND SEVERELY HYDROTREATED MINERAL BASE OILS HAVE BEEN TESTED AT MOBIL ENVIRONMENTAL AND HEALTH SCIENCES LABORATORY BY DERMAL APPLICATION TO RATS 5 DAYS/WEEK FOR 90 DAYS AT DOSES SIGNIFICANTLY HIGHER THAN THOSE EXPECTED DURING NORMAL INDUSTRIAL EXPOSURE. EXTENSIVE EVALUATIONS INCLUDING MICROSCOPIC EXAMINATION OF INTERNAL ORGANS AND CLINICAL CHEMISTRY OF BODY FLUIDS, SHOWED NO ADVERSE EFFECTS.

---CHRONIC TOXICOLOGY (SUMMARY)---

THE BASE OILS IN THIS PRODUCT ARE SEVERELY SOLVENT REFINED AND/OR SEVERELY HYDROTREATED. CHRONIC MOUSE SKIN PAINTING STUDIES OF SIMILAR OILS SHOWED NO EVIDENCE OF CARCINOGENIC EFFECTS.

********** XII. REGULATORY INFORMATION **********

GOVERNMENTAL INVENTORY STATUS: ALL COMPONENTS REGISTERED IN ACCORDANCE WITH TSCA.

DOT:

SHIPPING NAME: NOT APPLICABLE
HAZARD CLASS: NOT APPLICABLE

US OSHA HAZARD COMMUNICATION STANDARD: PRODUCT ASSESSED IN ACCORDANCE WITH OSHA 29 CFR 1910.1200 AND DETERMINED NOT TO BE HAZARDOUS.

RCRA INFORMATION: THE UNUSED PRODUCT, IN OUR OPINION, IS NOT SPECIFICALLY LISTED BY THE EPA AS A HAZARDOUS WASTE (40 CFR, PART 261D); DOES NOT EXHIBIT THE HAZARDOUS CHARACTERISTICS OF IGNITABILITY, CORROSIVITY, OR REACTIVITY, AND IS NOT FORMULATED WITH THE CONTAMINANTS LISTED IN THE TOXICITY CHARACTERISTIC (TC) RULE AS DETERMINED BY THE TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP). HOWEVER, USED PRODUCT MAY BE REGULATED.

U.S. SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) TITLE III:
THIS PRODUCT CONTAINS NO "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (302) REPORTABLE HAZARD CATEGORIES: NONE

THIS PRODUCT CONTAINS NO CHEMICALS REPORTABLE UNDER SARA (313) TOXIC RELEASE PROGRAM.

THE FOLLOWING PRODUCT INGREDIENTS ARE CITED ON THE LISTS BELOW:

CHEMICAL NAME	CAS NUMBER	LIST CITATIONS
FORMALDEHYDE	50-00-0	12
ZINC (ELEMENTAL ANALYSIS) (.03%)	7440-66-6	15

--- KEY TO LIST CITATIONS ---

1 = OSHA Z, 2 = ACGIH, 3 = IARC, 4 = NTP, 5 = NCI,
6 = EPA CARC, 7 = NFPA 49, 8 = NFPA 325M, 9 = DOT HMT, 10 = CA RTK,
11 = IL RTK, 12 = MA RTK, 13 = MN RTK, 14 = NJ RTK, 15 = MI 293,
16 = FL RTK, 17 = PA RTK, 18 = CA P65.

--- NTP, IARC, AND OSHA INCLUDE CARCINOGENIC LISTINGS ---

NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

********** XIII. INGREDIENTS **********

INGREDIENT DESCRIPTION	PERCENT	CAS NUMBER
CONTAINS THE FOLLOWING BASE OILS:	> 90.00	
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC		64742-54-7
CONTAINS ONE OR MORE OF THE FOLLOWING ADDITIVE COMPONENTS:		
ALKYL AMIDES	< 5.00 NJT	003066009-5094P
POLYISOBUTENYL BUTANEDIOIC ACID, ZINC SALT	< 5.00	68610-89-9

********** APPENDIX **********

FOR MOBIL USE ONLY: (FILL NO: RN612D2*340) MCN: , MHC: 1* 1* NA 1* 1*, MPPEC: A, PPEC: A, US90-837 APPROVE 01/21/91

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INFORMATION GIVEN HEREIN IS OFFERED IN GOOD FAITH AS ACCURATE, BUT WITHOUT GUARANTEE. CONDITIONS OF USE AND SUITABILITY OF THE PRODUCT FOR PARTICULAR USES ARE BEYOND OUR CONTROL; ALL RISKS OF USE OF THE PRODUCT ARE THEREFORE ASSUMED BY THE USER AND WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE USE OR SUITABILITY OF THE PRODUCT. NOTHING IS INTENDED AS A RECOMMENDATION FOR USES WHICH INFRINGE VALID PATENTS OR AS EXTENDING LICENSE UNDER VALID PATENTS. APPROPRIATE WARNINGS AND SAFE HANDLING PROCEDURES SHOULD BE PROVIDED TO HANDLERS AND USERS.

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PREPARED BY: MOBIL OIL CORPORATION
ENVIRONMENTAL HEALTH AND SAFETY DEPARTMENT, PRINCETON, NJ
FOR FURTHER INFORMATION, CONTACT:
MOBIL OIL CORPORATION, PRODUCT FORMULATION AND QUALITY CONTROL
3225 GALLOWS ROAD, FAIRFAX, VA 22037 (800) 227-0707 X3265

MOBIL OIL CORPORATION MATERIAL SAFETY DATA BULLETIN

REVISED: 04/07/90

********** I. PRODUCT IDENTIFICATION **********

MOBIL DTE OIL BB

SUPPLIER:
MOBIL OIL CORP.

CHEMICAL NAMES AND SYNONYMS:
PET. HYDROCARBONS AND ADDITIVES

USE OR DESCRIPTION:
HYDRAULIC OIL

HEALTH EMERGENCY TELEPHONE:
(609) 737-4411

TRANSPORT EMERGENCY TELEPHONE:
(800) 424-9300 (CHEMTREC)

PRODUCT TECHNICAL INFORMATION:
(800) 662-4525

********** II. TYPICAL CHEMICAL AND PHYSICAL PROPERTIES **********

APPEARANCE: DARK AMBER LIQUID ODOR: MILD PH: NA
VISCOSITY AT 100 F, SUS: 1217.9 AT 40 C, CS: 230.0
VISCOSITY AT 210 F, SUS: 98.0 AT 100 C, CS: 19.3
FLASH POINT F(C): > 440(227) (ASTM D-92)
MELTING POINT F(C): NA POUR POINT F(C): 25(-4)
BOILING POINT F(C): > 600(316)
RELATIVE DENSITY, 15/4 C: 0.89 SOLUBILITY IN WATER: NEGLIGIBLE
VAPOR PRESSURE-MM HG 20C: < .1

NA=NOT APPLICABLE NE=NOT ESTABLISHED D=DECOMPOSES

FOR FURTHER INFORMATION, CONTACT YOUR LOCAL MARKETING OFFICE.

********** III. POTENTIALLY HAZARDOUS INGREDIENTS **********

NONE

SEE SECTIONS XII AND XIII FOR REGULATORY AND FURTHER COMPOSITIONAL DATA.

********** IV. HEALTH HAZARD DATA **********

--- INCLUDES AGGRAVATED MEDICAL CONDITIONS, IF ESTABLISHED ---

THRESHOLD LIMIT VALUE: 5.00 MG/M3 SUGGESTED FOR OIL MIST
EFFECTS OF OVEREXPOSURE: NOT EXPECTED TO BE A PROBLEM.

********** V. EMERGENCY AND FIRST AID PROCEDURES **********

--- FOR PRIMARY ROUTES OF ENTRY ---

EYE CONTACT: FLUSH WITH WATER.
SKIN CONTACT: WASH CONTACT AREAS WITH SOAP AND WATER.
INHALATION: NOT EXPECTED TO BE A PROBLEM.
INGESTION: NOT EXPECTED TO BE A PROBLEM. HOWEVER, IF GREATER THAN 1/2 LITER(PINT) INGESTED, IMMEDIATELY GIVE 1 TO 2 GLASSES OF WATER AND CALL A PHYSICIAN, HOSPITAL EMERGENCY ROOM OR POISON CONTROL CENTER FOR ASSISTANCE. DO NOT INDUCE VOMITING OR GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

********** VI. FIRE AND EXPLOSION HAZARD DATA **********

FLASH POINT F(C): > 440(227) (ASTM D-92)
FLAMMABLE LIMITS. LEL: .6 UEL: 7.0
EXTINGUISHING MEDIA: CARBON DIOXIDE, FOAM, DRY CHEMICAL AND WATER FOG.
SPECIAL FIRE FIGHTING PROCEDURES: WATER OR FOAM MAY CAUSE FROTHING. USE WATER TO KEEP FIRE EXPOSED CONTAINERS COOL. WATER SPRAY MAY BE USED TO FLUSH SPILLS AWAY FROM EXPOSURE. FOR FIRES IN ENCLOSED AREAS, FIREFIGHTERS MUST USE SELF-CONTAINED BREATHING APPARATUS. PREVENT RUNOFF FROM FIRE CONTROL OR DILUTION FROM ENTERING STREAMS OR DRINKING WATER SUPPLY.
UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE
NFPA HAZARD ID: HEALTH: 0, FLAMMABILITY: 1, REACTIVITY: 0

********** VII. REACTIVITY DATA **********

STABILITY (THERMAL, LIGHT, ETC.): STABLE
CONDITIONS TO AVOID: STRONG OXIDATION
INCOMPATIBILITY (MATERIALS TO AVOID): STRONG OXIDIZERS
HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE.
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

********** VIII. SPILL OR LEAK PROCEDURE **********

ENVIRONMENTAL IMPACT: REPORT SPILLS AS REQUIRED TO APPROPRIATE AUTHORITIES. U. S. COAST GUARD REGULATIONS REQUIRE IMMEDIATE REPORTING OF SPILLS THAT COULD REACH ANY WATERWAY INCLUDING INTERMITTENT DRY CREEKS. REPORT SPILL TO COAST GUARD TOLL FREE NUMBER 800-424-8802.
PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: ADSORB ON FIRE RETARDANT TREATED SAWDUST, DIATOMACEOUS EARTH, ETC. SHOVEL UP AND DISPOSE OF AT AN APPROPRIATE WASTE DISPOSAL FACILITY IN ACCORDANCE WITH CURRENT APPLICABLE LAWS AND REGULATIONS, AND PRODUCT CHARACTERISTICS AT TIME OF DISPOSAL.
WASTE MANAGEMENT: PRODUCT IS SUITABLE FOR BURNING IN AN ENCLOSED, CONTROLLED BURNER FOR FUEL VALUE OR DISPOSAL BY SUPERVISED INCINERATION. SUCH BURNING MAY BE LIMITED PURSUANT TO THE RESOURCE CONSERVATION AND RECOVERY ACT. IN ADDITION, THE PRODUCT IS SUITABLE FOR PROCESSING BY AN APPROVED RECYCLING FACILITY OR CAN BE DISPOSED OF AT ANY GOVERNMENT APPROVED WASTE DISPOSAL FACILITY. USE OF THESE METHODS IS SUBJECT TO USER COMPLIANCE WITH APPLICABLE LAWS AND REGULATIONS AND CONSIDERATION OF PRODUCT CHARACTERISTICS AT TIME OF DISPOSAL.

********** IX. SPECIAL PROTECTION INFORMATION **********

EYE PROTECTION: NO SPECIAL EQUIPMENT REQUIRED.
SKIN PROTECTION: NO SPECIAL EQUIPMENT REQUIRED. HOWEVER, GOOD PERSONAL HYGIENE PRACTICES SHOULD ALWAYS BE FOLLOWED.
RESPIRATORY PROTECTION: NO SPECIAL REQUIREMENTS UNDER ORDINARY CONDITIONS OF USE AND WITH ADEQUATE VENTILATION.
VENTILATION: NO SPECIAL REQUIREMENTS UNDER ORDINARY CONDITIONS OF USE AND WITH ADEQUATE VENTILATION.

********** X. SPECIAL PRECAUTIONS **********

NO SPECIAL PRECAUTIONS REQUIRED.

********** XI. TOXICOLOGICAL DATA **********

---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): LD50: > 5 G/KG SLIGHTLY TOXIC(ESTIMATED) --- BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

DERMAL TOXICITY (RABBITS): LD50: > 2 G/KG SLIGHTLY TOXIC(ESTIMATED) --- BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

INHALATION TOXICITY (RATS): NOT APPLICABLE ---HARMFUL CONCENTRATIONS OF MISTS AND/OR VAPORS ARE UNLIKELY TO BE ENCOUNTERED THROUGH ANY CUSTOMARY OR REASONABLY FORESEEABLE HANDLING, USE, OR MISUSE OF THIS PRODUCT.

EYE IRRITATION (RABBITS): EXPECTED TO BE NON-IRRITATING. ---BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

SKIN IRRITATION (RABBITS): EXPECTED TO BE NON-IRRITATING. ---BASED ON TESTING OF SIMILAR PRODUCTS AND/OR THE COMPONENTS.

---SUBCHRONIC TOXICOLOGY (SUMMARY)---

SEVERELY SOLVENT REFINED AND SEVERELY HYDROTREATED MINERAL BASE OILS HAVE BEEN TESTED AT MOBIL ENVIRONMENTAL AND HEALTH SCIENCES LABORATORY BY DERMAL APPLICATION TO RATS 5 DAYS/WEEK FOR 90 DAYS AT DOSES SIGNIFICANTLY HIGHER THAN THOSE EXPECTED DURING NORMAL INDUSTRIAL EXPOSURE. EXTENSIVE EVALUATIONS INCLUDING MICROSCOPIC EXAMINATION OF INTERNAL ORGANS AND CLINICAL CHEMISTRY OF BODY FLUIDS, SHOWED NO ADVERSE EFFECTS.

---CHRONIC TOXICOLOGY (SUMMARY)---

THE BASE OILS IN THIS PRODUCT ARE SEVERELY SOLVENT REFINED AND/OR SEVERELY HYDROTREATED. TWO YEAR MOUSE SKIN PAINTING STUDIES OF SIMILAR OILS SHOWED NO EVIDENCE OF CARCINOGENIC EFFECTS.

********** XII. REGULATORY INFORMATION **********

GOVERNMENTAL INVENTORY STATUS: ALL COMPONENTS REGISTERED IN ACCORDANCE WITH TSCA.

D.O.T. SHIPPING NAME: NOT APPLICABLE

D.O.T. HAZARD CLASS: NOT APPLICABLE

US OSHA HAZARD COMMUNICATION STANDARD: PRODUCT ASSESSED IN ACCORDANCE WITH OSHA 29 CFR 1910.1200 AND DETERMINED NOT TO BE HAZARDOUS.

RCRA INFORMATION: THE UNUSED PRODUCT, IN OUR OPINION, IS NOT SPECIFICALLY LISTED BY THE EPA AS A HAZARDOUS WASTE (40 CFR, PART 261D); DOES NOT EXHIBIT THE HAZARDOUS CHARACTERISTICS OF IGNITABILITY, CORROSIVITY, OR REACTIVITY, AND IS NOT FORMULATED WITH THE METALS CITED IN THE EP TOXICITY TEST. HOWEVER, USED PRODUCT MAY BE REGULATED.

U.S. SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT (SARA) TITLE III:
THIS PRODUCT CONTAINS NO "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (302) REPORTABLE HAZARD CATEGORIES: NONE

THIS PRODUCT CONTAINS NO CHEMICALS REPORTABLE UNDER
SARA (313) TOXIC RELEASE PROGRAM.

THE FOLLOWING PRODUCT INGREDIENTS ARE CITED ON THE LISTS BELOW:

CHEMICAL NAME		CAS NUMBER	LIST CITATIONS
ZINC (ELEMENTAL ANALYSIS)	(0.045%)	7440-66-6	15

--- KEY TO LIST CITATIONS ---

1 = OSHA Z, 2 = ACGIH, 3 = IARC, 4 = NTP, 5 = NCI,
6 = EPA CARC, 7 = NFPA 49, 8 = NFPA 325M, 9 = DOT HMT, 10 = CA RTK,
11 = IL RTK, 12 = MA RTK, 13 = MN RTK, 14 = NJ RTK, 15 = MI 293,
16 = FL RTK, 17 = PA RTK, 18 = CA P65.

--- NTP, IARC, AND OSHA INCLUDE CARCINOGENIC LISTINGS ---

NOTE: MOBIL PRODUCTS ARE NOT FORMULATED TO CONTAIN PCBS.

********** XIII. INGREDIENTS **********

INGREDIENT DESCRIPTION	PERCENT	CAS NUMBER
CONTAINS TWO OR MORE OF THE FOLLOWING BASE OILS:	> 95.00	
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY PARAFFINIC		64742-54-7
RESIDUAL OILS (PETROLEUM), SOLVENT-DEWAXED		64742-62-7
DISTILLATES (PETROLEUM), SOLVENT-DEWAXED HEAVY PARAFFINIC		64742-65-0
LUBRICATING OILS (PETROLEUM), C>25 HYDROTREATED BRIGHT STOCK-BASED		72623-83-7

********** APPENDIX **********

FOR MOBIL USE ONLY: (FILL NO: RL1088FVC011) MCN: , MHC: 1* 1* NA 0* 0*, MPPEC: A, PPEC: A, US89-290 APPROVE 06/15/89

****

INFORMATION GIVEN HEREIN IS OFFERED IN GOOD FAITH AS ACCURATE, BUT WITHOUT GUARANTEE. CONDITIONS OF USE AND SUITABILITY OF THE PRODUCT FOR PARTICULAR USES ARE BEYOND OUR CONTROL; ALL RISKS OF USE OF THE PRODUCT ARE THEREFORE ASSUMED BY THE USER AND WE EXPRESSLY DISCLAIM ALL WARRANTIES OF EVERY KIND AND NATURE, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE IN RESPECT TO THE USE OR SUITABILITY OF THE PRODUCT. NOTHING IS INTENDED AS A RECOMMENDATION FOR USES WHICH INFRINGE VALID PATENTS OR AS EXTENDING LICENSE UNDER VALID PATENTS. APPROPRIATE WARNINGS AND SAFE HANDLING PROCEDURES SHOULD BE PROVIDED TO HANDLERS AND USERS.

****

PREPARED BY: MOBIL OIL CORPORATION
ENVIRONMENTAL AFFAIRS AND TOXICOLOGY DEPARTMENT, PRINCETON, NJ
FOR FURTHER INFORMATION, CONTACT:
MOBIL OIL CORPORATION, PRODUCT FORMULATION AND QUALITY CONTROL
3225 GALLOWS ROAD, FAIRFAX, VA 22037 (800) 227-0707 X3265

LUBRICATION ENGINEERS, Inc.

CABLE: LUBENGEER
TELEX: 75-8344

April 9, 1991

El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79978
Attn: Carol Huish

Dear Carol:

We have received your request for Material Safety Data Sheet(s) for the following product(s):

1232 Almatek General Purpose Lubricant

I am enclosing the latest copy for your records. These Material Safety Data Sheets are in complete compliance with OSHA standards regarding Hazard Communications #29 CFR 1910.1200, Federal Register Vol. 48 No. 228, November 25, 1983.

In addition, should we make any changes or modifications to our Material Safety Data Sheets, we will forward you an updated copy at that time. Should you have any questions concerning compliance, please call me at (817) 834-6321.

Sincerely,

CHARLES L. BRANDT
Executive Vice President

lpa
Attachments
Material Safety Data Sheet(s)

LUBRICATION ENGINEERS, INC.
P. O. BOX 7128 FORT WORTH, TX 76111

MATERIAL SAFETY DATA SHEET

********** SECTION I **********

PRODUCT IDENTIFICATION

SUPPLIER:
Lubrication Engineers, Inc.
3851 Airport Freeway
Fort Worth, TX 76111

EMERGENCY TELEPHONE NO.:
(817) 834-6321

CHEMICAL NAME AND SYNONYMS:
Not Applicable

TRADE NAME AND SYNONYMS:
1232 Almatek General Purpose Lubricant

CHEMICAL FAMILY:
Petroleum-Hydrocarbon

FORMULA:
Not Applicable

********** SECTION II **********

TYPICAL CHEMICAL AND PHYSICAL PROPERTIES

APPEARANCE:
Red lubricant

VISCOSITY: At 210 F, SUS: Not applicable; At 100 C, CS: Not applicable

ODOR:
Lube oil odor

VISCOSITY: At 100 F, SUS: Not applicable; At 40 C, CS: Not applicable

RELATIVE DENSITY: (Air=1)
>1

SOLUBILITY IN WATER:
Negligible

PH: 6-8

MELTING POINT:
360 F

POUR POINT:
Not applicable

BOILING POINT: F
>500

FLASH POINT: F (Method)
430 (C.O.C.)

VAPOR PRESSURE: (MM HG 60F)
<5

SPECIFIC GRAVITY: (H20=1)
Approx. .95

********** SECTION III **********

INGREDIENTS

	WT PCT (APPROX)	TLV	ORAL LD50	DERMAL LD50
HAZARDOUS INGREDIENTS:				
Zinc diamyldithiocarbamate (Oxidation inhibitor)	<1.0	Unknown	14900mg/ kg Rat	>2000mg/ kg Rabbit
Barium dinonylnaphthalene sulfonate (Rust inhibitor)	<1.0	Unknown	3.5ml/kg Rat	2mg/kg Rabbit
Barium compounds	<1.0	Unknown	Unknown	Unknown
Oil mist (Mineral)	>80.0	5mg/m3 TWA	Unknown	Unknown
Zinc and compounds	<1.0	Unknown	Unknown	Unknown

NON-HAZARDOUS INGREDIENTS:

ADDITIVES AND/OR OTHER INGREDIENTS. This product is a mixture. The specific chemical identity of hazardous ingredients and non-hazardous ingredients, their C.A.S. numbers and their exact percent of composition are proprietary to Lubrication Engineers, Inc. and are being withheld as Trade Secrets. The above listing of hazardous ingredients discloses the properties, approximate concentration and known toxicological effects of the hazardous ingredients. This material is an automotive/industrial lubricant with a low order of toxicity and irritancy.

Any Chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372, they will be listed in the above HAZARDOUS INGREDIENTS.

********** SECTION IV **********

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: F (Method Used)	FLAMMABLE LIMITS:	LEL	UEL
430 (C.O.C.)	Unknown		

EXTINGUISHING MEDIA:

Foam, dry chemical, water fog, or carbon dioxide.

SPECIAL FIRE FIGHTING PROCEDURES:

Do not direct a solid stream of water into fire. Treat as a petroleum oil fire. Respiratory protection required for fire fighting personnel.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

None

********** SECTION V **********

HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: (If Established)
Not established. Oil mist = 5mg/m3

EFFECTS OF OVEREXPOSURE:
Although there are no consistent primary routes of entry, the product may cause mild dermititis upon prolonged contact and is expected to be an eye and lung irritant. Any existing skin, eye, or lung irritation may be aggravated by direct contact. No components are listed on OSHA, I.A.R.C., or N.T.P. lists for carcinogens.

********** SECTION VI **********

EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT:
Flush immediately with water until irritation subsides.

SKIN CONTACT:
Wash affected skin area with mild soap and water.

INGESTION:
Do not induce vomiting. Contact a physician.

INHALATION:
Remove to fresh air. If not breathing, give artificial respiration. Contact a physician.

********** SECTION VII **********

REACTIVITY DATA

STABILITY: (Thermal, Light, Etc.)
Stable

CONDITIONS TO AVOID:
Contact with nuclear radiation and strong oxidizing materials.

INCOMPATIBILITY: (Materials to avoid)
Strong oxidizing materials.

HAZARDOUS DECOMPOSITION PRODUCTS:
Dense smoke; oxides of C, Zn, S, and N; Ba compounds; hydrogen sulfide.

HAZARDOUS POLYMERIAZATION:
Will not occur.

********** SECTION VIII **********

SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Remove all sources of ignition. Treat as a petroleum oil spill.

WASTE DISPOSAL METHOD:
Incinerate where permitted under federal, state, and local laws. Used petroleum products may be recycled through re-refining processes.

********** SECTION IX **********

SPECIAL PROTECTION INFORMATION

EYE PROTECTION:
Sufficient to avoid direct contact.

SKIN PROTECTION:
Protective neoprene or plastic gloves may be desired.

RESPIRATORY PROTECTION:
Usually not needed.

VENTILATION:
Usually not needed in open, unconfined areas.

OTHER:
Not needed.

********** SECTION X **********

SPECIAL PRECAUTIONS

Close containers when not in use. Keep away from heat, open flames, and strong oxidants. Avoid eye contact and prolonged skin contact. Avoid breathing oil mists. Wash thoroughly after handling.

********** SECTION XI **********

HAZARD RATINGS

There are several recognized and accepted systems that assign hazard ratings to materials. Although this product has not been evaluated specifically against these systems, the ratings for the National Fire Protection Association (NFPA) and the National Paint and Coatings Association's Hazardous Material Identification System (HMIS) are:

	NFPA	HMIS
Health	2	1
Flammability	1	1
Reactivity	1	1

SHIELD, INC.
337-1571 - P. O. BOX 1708
ODESSA, TEXAS 79760

MATERIAL SAFETY DATA SHEET

1-1-87

CHEMICAL NAME: Shield Concentrate (Purple X)

SYNONYMS: CHEMICAL FAMILY: Detergent

FORMULA: Blended Anionic detergent MOLECULAR WEIGHT:

TRADE NAME AND SYNONYMS: Shield Concentrate

I. PHYSICAL DATA

BOILING POINT, 760 mm. Hg	232 F	FREEZING POINT	28F
SPECIFIC GRAVITY ($H_2O = 1$)	1.05	VAPOR PRESSURE at 20°C.	
VAPOR DENSITY (air = 1)		SOLUBILITY IN WATER, % by wt. at 20°C.	100%
PER CENT VOLATILES BY VOLUME	none	EVAPORATION RATE (Butyl Acetate = 1)	
APPEARANCE AND ODOR	~~Green~~ Purple -- bland odor		

II. HAZARDOUS INGREDIENTS

MATERIAL	%	TLV (Units)
None		

III. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (test method)	over 500	AUTOIGNITION TEMPERATURE			
FLAMMABLE LIMITS IN AIR, % by volume		LOWER	1.1	UPPER	

EXTINGUISHING MEDIA	Water
SPECIAL FIRE FIGHTING PROCEDURES	None
UNUSUAL FIRE AND EXPLOSION HAZARDS	None

EMERGENCY PHONE NUMBERS

[redacted] John Barnett, 915-366-2214 (nig

IV. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	None
EFFECTS OF OVEREXPOSURE	Very mild to skin blend of soaps and synthic detergents
EMERGENCY AND FIRST AID PROCEDURES	if ingested get medical attention

V. REACTIVITY DATA

STABILITY			
UNSTABLE	STABLE	CONDITIONS TO AVOID	Oxidizing agents
--	✓		
INCOMPATIBILITY (materials to avoid)			
HAZARDOUS DECOMPOSITION PRODUCTS			
HAZARDOUS POLYMERIZATION			
May Occur	Will not Occur	CONDITIONS TO AVOID	None

VI. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED	flush with water into sewer or land fill
WASTE DISPOSAL METHOD	Sewage drain disposal - no Special precautions

VII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type)		None		
VENTILATION	LOCAL EXHAUST		SPECIAL --	
	MECHANICAL (general)	None	OTHER --	
PROTECTIVE GLOVES		None	EYE PROTECTION	None
OTHER PROTECTIVE EQUIPMENT		None		

VIII. SPECIAL PRECAUTIONS

PRECAUTIONARY LABELING	Keep away from children
OTHER HANDLING AND STORAGE CONDITIONS	

Printed in U.S.A.

SHIELD, INC.
337-1571 - P. O. BOX 1708
ODESSA, TEXAS 79760

MATERIAL SAFETY DATA SHEET

CHEMICAL NAME: *HAND CLEANER*

SYNONYMS: CHEMICAL FAMILY:

FORMULA: MOLECULAR WEIGHT:

TRADE NAME AND SYNONYMS: *DS70*

I. PHYSICAL DATA

BOILING POINT, 760 mm. Hg	*228 F*	FREEZING POINT	*15 f*
SPECIFIC GRAVITY ($H_2O = 1$)	*1*	VAPOR PRESSURE at 20°C.	
VAPOR DENSITY (air = 1)		SOLUBILITY IN WATER, % by wt at 20°C.	*10 %*
PER CENT VOLATILES BY VOLUME	*29%*	EVAPORATION RATE (Butyl Acetate = 1)	
APPEARANCE AND ODOR	*GREEN LIQUID CITRUS LIGHT GREEN IN COLOR LEMON FRAGRENCE.*		

II. HAZARDOUS INGREDIENTS

MATERIAL	%	TLV (Units)

III. FIRE AND EXPLOSION HAZARD DATA

[illegible]	*Open Cup 450*	AUTOIGNITION TEMPERATURE			
FLAMMABLE LIMITS IN AIR, % by volume		LOWER	XXX	UPPER	
[illegible]NG					

IV. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	*NOT APPLICABLE*
EFFECTS OF OVEREXPOSURE	*SKIN MIGHT BECOME IRRITATED IF CONTACT IS PROLONGED*
EMERGENCY AND FIRST AID PROCEDURES	*IF SKIN IS PROLONGED AND IRRITATED GET MEDICAL ATTN.*

V. REACTIVITY DATA

STABILITY			
UNSTABLE	STABLE	CONDITIONS TO AVOID	*HEAT OVER 150 F AND COLD BELOW 15 F*
--	✓		
INCOMPATIBILITY (materials to avoid)			
HAZARDOUS DECOMPOSITION PRODUCTS			
HAZARDOUS POLYMERIZATION			
May Occur	Will not Occur	CONDITIONS TO AVOID	
	XX		

VI. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED	*PICK UP WITH OIL SORBANT*
WASTE DISPOSAL METHOD	

VII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type)				
VENTILATION	LOCAL EXHAUST		SPECIAL --	
	MECHANICAL (general)		OTHER --	
PROTECTIVE GLOVES		*NONE*	EYE PROTECTION	
OTHER PROTECTIVE EQUIPMENT		*NONE*		

VIII. SPECIAL PRECAUTIONS

PRECAUTIONARY LABELING	*NONE REQUIRED*
OTHER HANDLING AND STORAGE CONDITIONS	*STORE IN COOL PLACE*

Printed in U.S.A.

SHIELD, INC.
337-1571 - P. O BOX 1708
ODESSA, TEXAS 79760

MATERIAL SAFETY DATA SHEET

CHEMICAL NAME: HAND CLEANER

SYNONYMS: CHEMICAL FAMILY:

FORMULA: MOLECULAR WEIGHT:

TRADE NAME AND SYNONYMS: DS70

I. PHYSICAL DATA

BOILING POINT, 760 mm. Hg	228 F	FREEZING POINT	15 f
SPECIFIC GRAVITY ($H_2O = 1$)	1	VAPOR PRESSURE at 20°C.	
VAPOR DENSITY (air = 1)		SOLUBILITY IN WATER, % by wt at 20°C.	100%
PER CENT VOLATILES BY VOLUME	29%	EVAPORATION RATE (Butyl Acetate = 1)	
APPEARANCE AND ODOR	GREEN LIQUID GEL LIGHT GREEN IN COLOR LEMON FRAGRENCE.		

II. HAZARDOUS INGREDIENTS

MATERIAL	%	TLV (Units)
ISOPROPAL	.05%	

III. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (test method)	open Cup 420	AUTOIGNITION TEMPERATURE			
FLAMMABLE LIMITS IN AIR, % by volume		LOWER	XXX XX	UPPER	

EXTINGUISHING MEDIA	SELF EXTINGUISHING
SPECIAL FIRE FIGHTING PROCEDURES	LIQUID FOAM IF SEPARATION OCCURS
UNUSUAL FIRE AND EXPLOSION HAZARDS	NONE

EMERGENCY PHONE NUMBERS

XXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXX
JOHNNY HILL 366-6211 NIGHT

IV. HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE	None
EFFECTS OF OVEREXPOSURE	VERY MILD TO SKIN, BLENDS OF SOAPS AND SYNTHEDIC DETERGENTS
EMERGENCY AND FIRST AID PROCEDURES	If ingested get Medical Attention

V. REACTIVITY DATA

STABILITY			
UNSTABLE	STABLE	CONDITIONS TO AVOID	Oxidizing Agents
--	✓		
INCOMPATIBILITY (materials to avoid)			
HAZARDOUS DECOMPOSITION PRODUCTS			
HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID	None
May Occur	Will not Occur		

VI. SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED	Flush with water into sewer or land fill
WASTE DISPOSAL METHOD	Sewage drain disposal- no special precautions

VII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (specify type)		None		
VENTILATION	LOCAL EXHAUST		SPECIAL --	
	MECHANICAL (general)	None	OTHER --	
PROTECTIVE GLOVES		None	EYE PROTECTION	None
OTHER PROTECTIVE EQUIPMENT		None		

VIII. SPECIAL PRECAUTIONS

PRECAUTIONARY LABELING	KEEP AWAY FROM CHILDREN
OTHER HANDLING AND STORAGE CONDITIONS	

SHIELD, INC.
337-1571 - P. O. BOX 1708
ODESSA, TEXAS 79760

MATERIAL SAFETY DATA SHEET

CHEMICAL NAME: *SHIELD CONCENTRATE*

SYNONYMS: CHEMICAL FAMILY: *DETERGENT*

FORMULA: *BLENDED ANIONIC DETERGENT* MOLECULAR WEIGHT:

TRADE NAME AND SYNONYMS: *SHIELD CONCENTRATE*

I. PHYSICAL DATA

BOILING POINT 760 mm. Hg	*232 F*	FREEZING POINT	*28 F*
SPECIFIC GRAVITY ($H_2O = 1$)	*1.05*	VAPOR PRESSURE at 20°C.	
VAPOR DENSITY (air = 1)		SOLUBILITY IN WATER, % by wt at 20°C.	*100 %*
PER CENT VOLATILES BY VOLUME	*None*	EVAPORATION RATE (Butyl Acetate = 1)	
APPEARANCE AND ODOR	*purple*		

II. HAZARDOUS INGREDIENTS

MATERIAL	%	TLV (Units)
NONE		

III. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (test method)	*OVER 500*	AUTOIGNITION TEMPERATURE			
FLAMMABLE LIMITS IN AIR, % by volume		LOWER	1.1	UPPER	

EXTINGUISHING MEDIA	*WATER*
SPECIAL FIRE FIGHTING PROCEDURES	*NONE*
UNUSUAL FIRE AND EXPLOSION HAZARDS	*NONE*

EMERGENCY PHONE NUMBERS

[redacted] (night) *JOHN BARNETT (915-366-1709*

Mobil Chemical

CCD 2340 - (9/73)
Plainfield
EDISON

TRIAL SAFETY DATA SHEET
(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA 20)

Conforms to Air Pollution Rules & Regulations

SECTION 1

MANUFACTURER'S ADDRESS P.O. Box 250, Edison, N.J. 08817

CHEMICAL NAME OR FAMILY
High Gloss Oil-Alkyd Enamel

EMERGENCY TELEPHONE 212/883-5368

TRADE NAME
M&F Enamel
Accent Red 20-R-3

FORMULA
N.A.

SECTION 2 HAZARDOUS INGREDIENTS

	% WT.	TLV (Units)
BUTYL CELLOSOLVE	<5	50 PPM
EXEMPT MIN. SPIRITS	30	100 PPM
EXEMPT ALIPH SOLVENT	<5	100 PPM
EXEMPT MIN. SPIRITS	10	100 PPM
TOLUENE	<5	100 PPM

SECTION 3 PHYSICAL DATA

BOILING POINT °F	VAPOR PRESSURE mmHg at 68 °F	VAPOR DENSITY (AIR = 1.0)	SPECIFIC GRAVITY (H_2O = 1.0)	% VOLATILE BY VOLUME	EVAP. RATE (BUTYL ACET = 1)
294	2.27	4.3	0.96	54	0.10

SOLUBILITY IN WATER NO

APPEARANCE AND ODOR
NORMAL FOR A PAINT OR COATING TYPE PRODUCT

SECTION 4 FIRE AND EXPLOSION HAZARD

FLASH POINT TCC/PM °F	FLAMMABLE LIMITS LEL	FLAMMABLE LIMITS UEL	EXTINGUISHING MEDIA
104	0.8	10.6	CARBON DIOXIDE, DRY CHEMICAL, FOAM, AND/OR WATER FOG.

SPECIAL FIRE FIGHTING PROCEDURES
Fire fighters must wear self contained breathing apparatus or air masks.
Containers exposed to fire should be kept cool with water spray.

UNUSUAL FIRE AND EXPLOSION HAZARDS

SECTION 5 HEALTH HAZARD DATA 20-R-3

THRESHOLD LIMIT VALUE Not Required for Mixtures

EFFECTS OF OVEREXPOSURE
RESPIRATORY IRRITATION, DIZZINESS, NAUSEA, LOSS OF CONSCIOUSNESS

EMERGENCY AND FIRST AID PROCEDURES
INHALATION: REMOVE PERSON FROM EXPOSURE AREA
IF BREATHING HAS STOPPED, USE MOUTH TO MOUTH RESUSCITATION AND GET MEDICAL ATTENTION
EYE CONTACT: FLUSH WITH WATER FOR 15 MINUTES.
SKIN CONTACT: WASH WITH SOAP AND WATER

SECTION 6 REACTIVITY DATA

STABLE	UNSTABLE	CONDITIONS TO AVOID
X		

INCOMPATIBILITY NONE

HAZARDOUS DECOMPOSITION PRODUCTS
CARBON DIOXIDE AND CARBON MONOXIDE

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
NONE	MAY OCCUR	
X		

SECTION 7 SPILL OR LEAK PROCEDURES

VENTILATE AREA. AVOID BREATHING OF VAPORS
USE SELF-CONTAINED BREATHING APPARATUS OR AIR MASK FOR LARGE SPILLS IN A CONFINED AREA
AVOID CONTACT WITH EYES
WIPE UP OR ARSORB ON SUITABLE MATERIAL AND SHOVEL UP

WASTE DISPOSAL METHOD
Dispose in chemical disposal area or in a manner that complies with local, state and federal regulations. Do not incinerate closed containers.

SECTION 8 SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION
Use appropriate Bureau of Mines approved respiratory device in confined areas and for spray applications.

VENTILATION LOCAL OTHER
Required for spraying or in a confined area.
Ventilation equipment should be explosion proof. NONE

PROTECTIVE GLOVES USUAL HAND PROTECTION FOR PAINT APPLICATION

EYE PROTECTION USUAL EYE PROTECTION FOR APPLYING PAINT

OTHER PROTECTIVE EQUIPMENT
USUAL CLOTHING FOR PAINTING OPERATIONS

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE
Containers should be grounded when pouring. Avoid free fall of liquid in excess of a few inches. Ke- away from heat, sparks and open flames. Keep container closed when not in use. Do not store 120 °F. Based on the product flash point and vapor pressure suitable storage should be provided in accordance with OSHA Regulation 1910.106

ISSUE DATE 5/10/77

This data is based on formulation in effect at date of issue. Consult Manufacturer on current publications.

Mobil Chemical

MATERIAL SAFETY DATA SHEET

(Approved by U. S. Department of Labor "Essentially Similar" to Form OSHA 20)

CONFORMS WITH AIR POLLUTION RULES AND REGULATIONS

SECTION 1

MANUFACTURER'S ADDRESS: MOBIL CHEMICAL CO. 1004 W. TENTH ST. AZUSA, CA 91702

CHEMICAL NAME OR FAMILY: ALKYD

EMERGENCY TELEPHONE: (212) 883-424

TRADE NAME: M & F ENAMEL WHITE

FORMULA: 20-W-9

SECTION 2 HAZARDOUS INGREDIENTS

	% WT.	TLV (Units)
ZINC OXIDE PIGMNT	30	5.00 MG/CU M
EXEMPT MIN. SPIRITS	35	100 PPM

SECTION 3 PHYSICAL DATA

BOILING POINT °F	VAPOR PRESSURE mmHg at 68 °F	VAPOR DENSITY (AIR = 1.0)	SPECIFIC GRAVITY (H_2O = 1.0)	% VOLATILE BY VOLUME	EVAP. RATE (BUTYL ACET = 1)
306	1.68	3.0	1.22	54	0.10

SOLUBILITY IN WATER: NO

APPEARANCE AND ODOR

NORMAL FOR A PAINT OR COATING TYPE PRODUCT

SECTION 4 FIRE AND EXPLOSION HAZARD

FLASH POINT TCC/PM °F	FLAMMABLE LIMITS LEL	FLAMMABLE LIMITS UEL
101	0.8	6.0

EXTINGUISHING MEDIA

CARBON DIOXIDE, DRY CHEMICAL, FOAM, AND/OR WATER FOG.

SPECIAL FIRE FIGHTING PROCEDURES

Fire fighters must wear self contained breathing apporatus or air masks. Containers exposed to fire should be kept cool with water spray.

UNUSUAL FIRE AND EXPLOSION HAZARDS

NONE

SECTION 5 HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE Not Required for Mixtures

EFFECTS OF OVEREXPOSURE

RESPIRATORY IRRITATION, DIZZINESS, NAUSEA, LOSS OF CONSCIOUSNESS

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: REMOVE PERSON FROM EXPOSURE AREA
IF BREATHING HAS STOPPED, USE MOUTH TO MOUTH RESUSCITATION AND GET MEDICAL ATTENTION
EYE CONTACT: FLUSH WITH WATER FOR 15 MINUTES.
SKIN CONTACT: WASH WITH SOAP AND WATER

SECTION 6 REACTIVITY DATA

STABLE	UNSTABLE	CONDITIONS TO AVOID
X		

INCOMPATIBILITY NONE

HAZARDOUS DECOMPOSITION PRODUCTS

CARBON DIOXIDE AND CARBON MONOXIDE

HAZARDOUS POLYMERIZATION		CONDITIONS TO AVOID
NONE	MAY OCCUR	
X		

SECTION 7 SPILL OR LEAK PROCEDURES

VENTILATE AREA. AVOID BREATHING OF VAPORS
USE SELF-CONTAINED BREATHING APPARATUS OR AIR MASK FOR LARGE SPILLS IN A CONFINED AREA
AVOID CONTACT WITH EYES
WIPE UP OR ABSORB ON SUITABLE MATERIAL AND SHOVEL UP

WASTE DISPOSAL METHOD

Dispose in chemical disposal area or in a manner that complies with local, state and federal regulations. Do not incinerate closed containers.

SECTION 8 SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

Use appropriate Bureau of Mines approved respiratory device in confined areas and for spray applications

VENTILATION	LOCAL	OTHER
Required for spraying or in a confined area. Ventilation equipment should be explosion proof.		NONE

PROTECTIVE GLOVES USUAL HAND PROTECTION FOR PAINT APPLICATION

EYE PROTECTION USUAL EYE PROTECTION FOR APPLYING PAINT

OTHER PROTECTIVE EQUIPMENT

USUAL CLOTHING FOR PAINTING OPERATIONS

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Containers should be grounded when pouring. Avoid free fall of liquid in excess of a few inches. Keep away from heat, sparks and open flames. Keep container closed when not in use. Do not store above 120 °F. Based on the product flash point and vapor pressure suitable storage should be provided in accordance with OSHA Regulation 1910.106

ISSUE DATE 8-17-81

This data is based on formulation in effect at date of issue. Consult Manufacturer on current publications.

Mobil Chemical

MATERIAL SAFETY DATA SHEET

(Approved by U. S. Department of Labor "Essentially Similar" to Form OSHA 20)

CONFORMS WITH AIR POLLUTION RULES AND REGULATIONS

SECTION 1

MANUFACTURER'S ADDRESS: MOBIL CHEMICAL CO. 1004 W. TENTH ST. AZUSA CA 917(

CHEMICAL NAME OR FAMILY: ALKYD

EMERGENCY TELEPHONE: (212) 883

FORMULA: 20-Y-5

TRADE NAME: M & F ENAMEL YELLOW

SECTION 2 HAZARDOUS INGREDIENTS

	% WT.	TLV (Units)
EXEMPT MIN. SPIRITS	40	100 PPM
LEAD CHROMATE PIGMNT	30	0.01 MG/CU M

SECTION 3 PHYSICAL DATA

BOILING POINT °F	VAPOR PRESSURE mmHg at 68 °F	VAPOR DENSITY (AIR = 1.0)	SPECIFIC GRAVITY (H_2O = 1.0)	% VOLATILE BY VOLUME	EVAP. RATE (BUTYL ACET
306	1.69	3.0	1.20	60	0.10

SOLUBILITY IN WATER: NO

APPEARANCE AND ODOR

NORMAL FOR A PAINT OR COATING TYPE PRODUCT

SECTION 4 FIRE AND EXPLOSION HAZARD

FLASH POINT TCC/PM °F	FLAMMABLE LIMITS LEL	FLAMMABLE LIMITS UEL
101	0.8	6.0

EXTINGUISHING MEDIA

CARBON DIOXIDE, DRY CHEMICAL, FOAM, AND/OR WATER FOG.

SPECIAL FIRE FIGHTING PROCEDURES

Fire fighters must wear self contained breathing apparatus or air masks. Containers exposed to fire should be kept cool with water spray.

UNUSUAL FIRE AND EXPLOSION HAZARDS

NONE

SECTION 5 HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE *Not Required for Mixtures*

EFFECTS OF OVEREXPOSURE

RESPIRATORY IRRITATION, DIZZINESS, NAUSEA, LOSS OF CONSCIOUSNESS

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: REMOVE PERSON FROM EXPOSURE AREA
IF BREATHING HAS STOPPED, USE MOUTH TO MOUTH RESUSCITATION AND GET MEDICAL ATTENTION
EYE CONTACT: FLUSH WITH WATER FOR 15 MINUTES.
SKIN CONTACT: WASH WITH SOAP AND WATER

SECTION 6 REACTIVITY DATA

STABLE	UNSTABLE	CONDITIONS TO AVOID
X		

INCOMPATIBILITY NONE

HAZARDOUS DECOMPOSITION PRODUCTS

METAL OXIDES CARBON DIOXIDE AND CARBON MONOXIDE

HAZARDOUS POLYMERIZATION **CONDITIONS TO AVOID**

NONE	MAY OCCUR	
X		

SECTION 7 SPILL OR LEAK PROCEDURES

VENTILATE AREA. AVOID BREATHING OF VAPORS
USE SELF-CONTAINED BREATHING APPARATUS OR AIR MASK FOR LARGE SPILLS IN A CONFINED AREA
AVOID CONTACT WITH EYES
WIPE UP OR ABSORB ON SUITABLE MATERIAL AND SHOVEL UP

WASTE DISPOSAL METHOD

Dispose in chemical disposal area or in a manner that complies with local, state and federal regulation Do not incinerate closed containers.

SECTION 8 SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION

Use appropriate Bureau of Mines approved respiratory device in confined areas and for spray applicatio

VENTILATION **LOCAL** **OTHER**

Required for spraying or in a confined area.
Ventilation equipment should be explosion proof. NONE

PROTECTIVE GLOVES USUAL HAND PROTECTION FOR PAINT APPLICATION

EYE PROTECTION USUAL EYE PROTECTION FOR APPLYING PAINT

OTHER PROTECTIVE EQUIPMENT

USUAL CLOTHING FOR PAINTING OPERATIONS

SECTION IX SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE

Containers should be grounded when ppuring. Avoid free fall of liquid in excess of a few inches. Keep away from heat, sparks and open flames. Keep container closed when not in use. Do not store above 120 °F. Based on the product flash point and vapor pressure suitable storage should be provided in accordance with OSHA Regulation 1910.106

ISSUE DATE 6-17-81

This data is based on formulation in effect at date of issue. Consult Manufacturer on current publications.

86- 1344-C

SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud NE
Albuquerque, NM 87106 841-2570

HEALTH ENVIRONMENT — STATE OF NEW MEXICO

754-upgr

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088

S.L.D. No. OR- 1344 A+B
DATE REC. 11-20-86
PRIORITY

PHONE(S): 827-5812
USER CODE: 8 2 2 3 5

SUBMITTER: David Boyer
CODE: 2 6 0

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 8 6 1 1 1 7 1 6 3 0 SLS

SAMPLE TYPE: WATER ☒, SOIL ☐, FOOD ☐, OTHER: _____ CODE: _____

COUNTY: SAN JUAN ; CITY: FARMINGTON CODE: _____

LOCATION CODE: (Township-Range-Section-Tracts) 2 9 N + 1 2 W + 1 5 + 3 1 _____ (10N06E24342)

ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

PURGEABLE SCREENS

- ☐ (753) Aliphatic Purgeables (1-3 Carbons)
- ☒ (754) Aromatic & Halogenated Purgeables
- ☐ (765) Mass Spectrometer Purgeables
- ☐ (766) Trihalomethanes

Other Specific Compounds or Classes

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

EXTRACTABLE SCREENS

- ☐ (751) Aliphatic Hydrocarbons
- ☐ (760) Organochlorine Pesticides
- ☐ (755) Base/Neutral Extractables
- ☐ (758) Herbicides, Chlorophenoxy acid
- ☐ (759) Herbicides, Triazines
- ☐ (760) Organochlorine Pesticides
- ☐ (761) Organophosphate Pesticides
- ☐ (767) Polychlorinated Biphenyls (PCB's)
- ☐ (764) Polynuclear Aromatic Hydrocarbons
- ☐ (762) SDWA Pesticides & Herbicides

Remarks: PIEZOMETER 1
EPNG KUTZ STATION

FIELD DATA:

pH= _____; Conductivity= 700 umho/cm at 15 °C; Chlorine Residual= _____ mg/l

Dissolved Oxygen= _____ mg/l; Alkalinity= _____ mg/l; Flow Rate _____ _____/_____

Depth to water ~35 ft.; Depth of well 40 ft.; Perforation Interval 30 - 40 ft.; Casing: PVC

Sampling Location, Methods and Remarks (i.e. odors, etc.)

Bailed 6'/4 times

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): William Olson Method of Shipment to the Lab: Hand Carried

This form accompanies 2 Septum Vials, _____ Glass Jugs, and/or _____ _____

Samples were preserved as follows:

- ☐ NP: No Preservation; Sample stored at room temperature.
- ☒ P-Ice Sample stored in an ice bath (Not Frozen).
- ☐ P-$Na_2S_2O_3$ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN OF CUSTODY

I certify that this sample was transferred from OCD to SLD

at (location) SLD ALB on 11/20/86 - 09:40 and that the statements in this block are correct. Evidentiary Seals: Not Sealed ☐ Seals Intact: Yes ☒ No ☐

Signatures David M Boyer Mary C. Olson

For OCD Use: Date Owner Notified _____ Phone or Letter? _____ Initials _____

ANALYSES PERFORMED

LAB. No.: OR- 1344

THIS PAGE FOR LABORATORY RESULTS ONLY

This sample was tested using the analytical screening method(s) checked below:

PURGEABLE SCREENS

- ☐ (753) Aliphatic Purgeables (1-3 Carbons)
- ☒ (754) Aromatic & Halogenated Purgeables
- ☐ (765) Mass Spectrometer Purgeables
- ☐ (766) Trihalomethanes

Other Specific Compounds or Classes

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

EXTRACTABLE SCREENS

- ☐ (751) Aliphatic Hydrocarbons
- ☐ (760) Organochlorine Pesticides
- ☐ (755) Base/Neutral Extractables
- ☐ (758) Herbicides, Chlorophenoxy acid
- ☐ (759) Herbicides, Triazines
- ☐ (760) Organochlorine Pesticides
- ☐ (761) Organophosphate Pesticides
- ☐ (767) Polychlorinated Biphenyls (PCB's)
- ☐ (764) Polynuclear Aromatic Hydrocarbons
- ☐ (762) SDWA Pesticides & Herbicides

ANALYTICAL RESULTS

COMPOUND(S) DETECTED	CONC. [PPB]	COMPOUND(S) DETECTED	CONC. [PPB]
halogenated purgeables	ND@		
benzene	6		
* DETECTION LIMIT *	* 2 ppb	+ DETECTION LIMIT +	+

ABBREVIATIONS USED:

N D = NONE DETECTED AT OR ABOVE THE STATED DETECTION LIMIT
T R = DETECTED AT A LEVEL BELOW THE STATED DETECTION LIMIT (NOT CONFIRMED)
[RESULTS IN BRACKETS] ARE UNCONFIRMED AND/OR WITH APPROXIMATE QUANTITATION

LABORATORY REMARKS: @ There is a possible trace of 1,2-dichlorobenzene. One other compound was detected by the aromatic screen that was not identified.

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Intact: Yes ☒ No ☐. Seal(s) broken by: _____ date: 26 Nov 86

I certify that I followed standard laboratory procedures on handling and analysis of this sample unless otherwise noted and that the statements on this page accurately reflect the analytical results for this sample.

Date(s) of analysis: 26 Nov + 17 Dec 86 Analyst's signature: G. Finney

I certify that I have reviewed and concur with the analytical results for this sample and with the statements in this block.

Reviewers signature: R Meyenberg

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

85-9-con't

DATE RECEIVED 11 | 20 | 86 — LAB NO. WC 5396 — USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235

Collection DATE 11 | 17 | 86

Collection TIME 1630

Collected by — Person/Agency: ANDERSON/BAILEY/OLSON/OCD

SITE INFORMATION

Sample location: EPNG KUTZ STATION

Collection site description: PIEZOMETER 1

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5812

Station/well code:

Owner:

SAMPLING CONDITIONS

☒ Bailed ☐ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type
pH (00400)	Conductivity (Uncorrected) 700 µmho	Water Temp. (00010) 15 °C	Conductivity at 25°C (00094) µmho

Field comments: BAILED 6¼ TIMES

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☐ NF: Whole sample (Non-filtered) ☒ F: Filtered in field with 0.45 µmembrane filter ☐ A: 2 ml H_2SO_4/L added

☒ NA: No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☐ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☐ Other:			
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	492.0	mg/l	12-1
☒ Magnesium (00925)	36.6	mg/l	12-1
☒ Sodium (00930)	103.5	mg/l	12-4
☒ Potassium (00935)	1.56	mg/l	12-4
☒ Bicarbonate (00440)	256	mg/l	11/26
☒ Chloride (00940)	64	mg/l	12/2
☒ Sulfate (00945)	735	mg/l	11/26
☒ Total filterable residue (dissolved) (70300)	1578	mg/l	12/4
☒ Other: CO_3	0		11/26
☒ Br	0.6		12/10

NF, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4		
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l
☐ Ammonia-N dissolved (00608)		mg/l
☐ Total Kjeldahl-N ( )		mg/l
☐ Other:		

Analyst	Date Reported	Reviewed by
	12 | 12 | 86	CJ

Laboratory remarks: pH = 7.43

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified _____ Phone or letter? _____ Initials _____

50

SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (5[redacted]41-2555

HEAVY METALS

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED: 11 | 20 | 86 — LAB NO. HM 2353 — USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235

Collection DATE: 11 | 17 | 86
Collection TIME: 1630
Collected by — Person/Agency: ANDERSON/BAILEY/OLSON/OCD

SITE INFORMATION
Sample location: EPNG KUTZ STATION
Collection site description: PIEZOMETER 1

SEND FINAL REPORT TO ►
ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088
Attn: David Boyer
Phone: 827-5812

Station/well code:
Owner:

SAMPLING CONDITIONS

☒ Bailed ☐ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type
pH (00400)	Conductivity (Uncorrected) 700 µmho	Water Temp. (00010) 15 °C	Conductivity at 25°C (00094) µmho

Field comments: BAILED 6¼ TIMES

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☐ NF: Whole sample (Non-filtered) ☒ F: Filtered in field with 0.45 µmembrane filter ☐ A: 2 ml H_2SO_4/L added

☐ NA: No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☒ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

NF, NA	Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)	µmho	
☐ Total non-filterable residue (suspended) (00530)	mg/l	
☒ Other: ICAP		
☒ Other: As		
☐ Other:		

F, NA	Units	Date analyzed
☐ Calcium (00915)	mg/l	
☐ Magnesium (00925)	mg/l	
☐ Sodium (00930)	mg/l	
☐ Potassium (00935)	mg/l	
☐ Bicarbonate (00440)	mg/l	
☐ Chloride (00940)	mg/l	
☐ Sulfate (00945)	mg/l	
☐ Total filterable residue (dissolved) (70300)	mg/l	
☐ Other:		

NF, A-H_2SO_4	Units	Date analyzed
☐ Nitrate-N +, Nitrate-N total (00630)	mg/l	
☐ Ammonia-N total (00610)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l	
☐ Chemical oxygen demand (00340)	mg/l	
☐ Total organic carbon ( )	mg/l	
☐ Other:		
☐ Other:		

F, A-H_2SO_4	Units	Date analyzed
☐ Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
☐ Ammonia-N dissolved (00608)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l	
☐ Other:		

Analyst | Date Reported: 12 | 23 | 86 | Reviewed by: Jim Bailey

Laboratory remarks: Seal intact - broken by JB 11/21/86

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified _____ Phone or letter? _____ Initials _____

ICAP SCAN

SLD Lab No. HM2353 Reviewed by: Jim Kelly

Analyst JB Date Reported: 12/23/86

Date Analyzed 12/5/86

ELEMENT	ICAP VALUE(mg/l)	AA VALUE(mg/l)
Aluminum	<0.1	
Barium	<0.1	
Beryllium	<0.1	
Boron	<0.1	
Cadmium	<0.1	
Calcium	370.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	<0.1	
Iron	0.8	
Lead	<0.1	
Magnesium	28.	
Manganese	0.89	
Molybdenum	<0.1	
Nickel	<0.1	
Silicon	5.1	
Silver	<0.1	
Strontium	5.8	
Tin	<0.1	
Vanadium	<0.1	
Zinc	<0.1	
Arsenic		<0.005
Selenium		
Mercury		

86- 1341-C

SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud NE
Albuquerque, NM 87106 841-2570

STATE OF NEW MEXICO
ENVIRONMENT

754-upw

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088

S.L.D. No. OR- 1341 A+B
DATE REC. 11-20-86
PRIORITY

PHONE(S): 827-5812
USER CODE: 8 2 2 3 5

SUBMITTER: David Boyer
CODE: 2 6 0

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 8 6 1 1 1 7 1 6 1 5 <JB

SAMPLE TYPE: WATER ☒, SOIL ☐, FOOD ☐, OTHER: _____ CODE: _____

COUNTY: SAN JUAN ; CITY: FARMINGTON CODE: _____

LOCATION CODE: (Township-Range-Section-Tracts) 29N+12W+15+31 (10N06E24342)

ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

PURGEABLE SCREENS

- ☐ (753) Aliphatic Purgeables (1-3 Carbons)
- ☒ (754) Aromatic & Halogenated Purgeables
- ☐ (765) Mass Spectrometer Purgeables
- ☐ (766) Trihalomethanes

Other Specific Compounds or Classes

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

EXTRACTABLE SCREENS

- ☐ (751) Aliphatic Hydrocarbons
- ☐ (760) Organochlorine Pesticides
- ☐ (755) Base/Neutral Extractables
- ☐ (758) Herbicides, Chlorophenoxy acid
- ☐ (759) Herbicides, Triazines
- ☐ (760) Organochlorine Pesticides
- ☐ (761) Organophosphate Pesticides
- ☐ (767) Polychlorinated Biphenyls (PCB's)
- ☐ (764) Polynuclear Aromatic Hydrocarbons
- ☐ (762) SDWA Pesticides & Herbicides

Remarks: PIEZOMETER 2
EPNG KUTZ STATION

FIELD DATA:

pH= _____; Conductivity= 750 umho/cm at 16.5 °C; Chlorine Residual= _____ mg/l

Dissolved Oxygen= _____ mg/l; Alkalinity= _____ mg/l; Flow Rate _____ _____/_____

Depth to water ~35 ft.; Depth of well 40 ft.; Perforation Interval 30 - 40 ft.; Casing: PVC

Sampling Location, Methods and Remarks (i.e. odors, etc.)

Bailed 13 times

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): William Olson Method of Shipment to the Lab: Hand carried

This form accompanies 2 Septum Vials, _____ Glass Jugs, and/or _____ _____

Samples were preserved as follows:

- ☐ NP: No Preservation; Sample stored at room temperature.
- ☒ P-Ice Sample stored in an ice bath (Not Frozen).
- ☐ P-$Na_2S_2O_3$ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN OF CUSTODY

I certify that this sample was transferred from OCD to SLD

at (location) SLD ALB on 11/20/86 - 09:40 and that the statements in this block are correct. Evidentiary Seals: Not Sealed ☐ Seals Intact: Yes ☒ No ☐

Signatures David P. Boyer Mary C. Eden

For OCD Use: Date Owner Notified _____ Phone or Letter? _____ Initials _____

ANALYSES PERFORMED

LAB. No.: OR- 1341

THIS PAGE FOR LABORATORY RESULTS ONLY

This sample was tested using the analytical screening method(s) checked below:

PURGEABLE SCREENS

- ☐ (753) Aliphatic Purgeables (1-3 Carbons)
- ☒ (754) Aromatic & Halogenated Purgeables
- ☐ (765) Mass Spectrometer Purgeables
- ☐ (766) Trihalomethanes

Other Specific Compounds or Classes

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

EXTRACTABLE SCREENS

- ☐ (751) Aliphatic Hydrocarbons
- ☐ (760) Organochlorine Pesticides
- ☐ (755) Base/Neutral Extractables
- ☐ (758) Herbicides, Chlorophenoxy acid
- ☐ (759) Herbicides, Triazines
- ☐ (760) Organochlorine Pesticides
- ☐ (761) Organophosphate Pesticides
- ☐ (767) Polychlorinated Biphenyls (PCB's)
- ☐ (764) Polynuclear Aromatic Hydrocarbons
- ☐ (762) SDWA Pesticides & Herbicides

ANALYTICAL RESULTS

COMPOUND(S) DETECTED	CONC. [PPB]	COMPOUND(S) DETECTED	CONC. [PPB]
halogenated purgeables	ND		
benzene	1		
* DETECTION LIMIT *	1 ppb	+ DETECTION LIMIT +	

ABBREVIATIONS USED:

N D = NONE DETECTED AT OR ABOVE THE STATED DETECTION LIMIT
T R = DETECTED AT A LEVEL BELOW THE STATED DETECTION LIMIT (NOT CONFIRMED)
[RESULTS IN BRACKETS] ARE UNCONFIRMED AND/OR WITH APPROXIMATE QUANTITATION

LABORATORY REMARKS: One other compound was detected by the aromatic screen that was not identified.

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Intact: Yes ☐ No ☐. Seal(s) broken by: _____ date: _____

I certify that I followed standard laboratory procedures on handling and analysis of this sample unless otherwise noted and that the statements on this page accurately reflect the analytical results for this sample.

Date(s) of analysis: 26 Nov 86. Analyst's signature: J. Tierney

I certify that I have reviewed and concur with the analytical results for this sample and with the statements in this block.

Reviewers signature: K Meyerhen

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

859-wrf

DATE RECEIVED 11 | 20 | 86 | LAB NO. WC 5394 | USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235

Collection DATE 11 | 17 | 86

Collection TIME 1615

SITE INFORMATION ►

Sample location: EARNS KUTZ STATION

Collection site description: PIEZOMETER 2

Collected by — Person/Agency: ANDERSON/BAILEY/OLSON/OCD

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5812

Station/well code

Owner

SAMPLING CONDITIONS

☒ Bailed ☐ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type
pH (00400)	Conductivity (Uncorrected) 750 µmho	Water Temp. (00010) 16.5 °C	Conductivity at 25°C (00094) µmho

Field comments: BAILED 13 TIMES

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☐ NF: Whole sample (Non-filtered) ☒ F: Filtered in field with 0.45 µmembrane filter ☐ A: 2 ml H_2SO_4/L added

☒ NA: No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☐ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☐ Other:			
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	448.0	mg/l	11-26
☒ Magnesium (00925)	82.9	mg/l	11-26
☒ Sodium (00930)	56.6	mg/l	12-1
☒ Potassium (00935)	3.12	mg/l	12-1
☒ Bicarbonate (00440)	196	mg/l	11/26
☒ Chloride (00940)	12	mg/l	12/2
☒ Sulfate (00945)	1251	mg/l	12/16
☒ Total filterable residue (dissolved) (70300)	2184	mg/l	12/4
☒ Other: CO_3	0		11/26
☒ Other: Br	0.2		12/10

NF, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst	Date Reported	Reviewed by
	12/16/86	CE

Laboratory remarks: pH = 7.25

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified _____ Phone or letter? _____ Initials _____

106

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (5[illegible]41-2555

HEAVY METALS

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 11 | 20 | 86	LAB NO. HM 2352	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 11 | 17 | 86	SITE INFORM-ATION ►	Sample location EDNE KUTZ STATION	
Collection TIME 1615		Collection site description PIEZOMETER 2	
Collected by — Person/Agency AMERICAN/RALEY/OLSON/OCD			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5812

Station/well code

Owner

SAMPLING CONDITIONS

☒ Bailed ☐ Pump ☐ Dipped ☐ Tap	Water level	Discharge	Sample type
pH (00400)	Conductivity (Uncorrected) 750 µmho	Water Temp. (00010) 16.5 °C	Conductivity at 25°C (00094) µmho

Field comments BAILED 13 TIMES

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1

☐ **NF:** Whole sample (Non-filtered) ☒ **F:** Filtered in field with 0.45 µmembrane filter ☐ **A:** 2 ml H_2SO_4/L added

☐ **NA:** No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☒ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

NF, NA	Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)	µmho	
☐ Total non-filterable residue (suspended) (00530)	mg/l	
☒ Other: ICAP		
☒ Other: As		
☐ Other:		

F, NA	Units	Date analyzed
☐ Calcium (00915)	mg/l	
☐ Magnesium (00925)	mg/l	
☐ Sodium (00930)	mg/l	
☐ Potassium (00935)	mg/l	
☐ Bicarbonate (00440)	mg/l	
☐ Chloride (00940)	mg/l	
☐ Sulfate (00945)	mg/l	
☐ Total filterable residue (dissolved) (70300)	mg/l	
☐ Other:		

NF, A-H_2SO_4	Units	Date analyzed
☐ Nitrate-N +, Nitrate-N total (00630)	mg/l	
☐ Ammonia-N total (00610)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l	
☐ Chemical oxygen demand (00340)	mg/l	
☐ Total organic carbon ( )	mg/l	
☐ Other:		
☐ Other:		

F, A-H_2SO_4	Units	Date analyzed
☐ Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
☐ Ammonia-N dissolved (00608)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l	
☐ Other:		

Analyst | Date Reported 12 \| 23 \| 86 | Reviewed by Jim Ashley

Laboratory remarks Seal intact - broken by JB 11/21/86

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified _____ Phone or letter? _____ Initials _____

ICAP SCAN

SLD Lab No. HM 2352 Reviewed by: Jim Ashley

Analyst JB Date Reported: 12/23/86

Date Analyzed 12/5/86

ELEMENT	ICAP VALUE(mg/l)	AA VALUE(mg/l)
Aluminum	<0.1	
Barium	<0.1	
Beryllium	<0.1	
Boron	0.1	
Cadmium	<0.1	
Calcium	500.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	<0.1	
Iron	0.1	
Lead	<0.1	
Magnesium	66.	
Manganese	<0.05	
Molybdenum	<0.1	
Nickel	<0.1	
Silicon	4.8	
Silver	<0.1	
Strontium	7.5	
Tin	<0.1	
Vanadium	<0.1	
Zinc	<0.1	
Arsenic		<0.005
Selenium		
Mercury		

86- 1342-C

SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud NE
Albuquerque, NM 87106 841-2570

HEALTH ENVIRONMENT — STATE OF NEW MEXICO

754-aspen

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088

S.L.D. No. OR- 1342 A+B
DATE REC. 11-20-86
PRIORITY

PHONE(S): 827-5812
USER CODE: 82235

SUBMITTER: David Boyer
CODE: 260

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 861117151 SB

SAMPLE TYPE: WATER [X], SOIL [ ], FOOD [ ], OTHER: _____ CODE: _____

COUNTY: SAN JUAN ; CITY: FARMINGTON CODE: _____

LOCATION CODE: (Township-Range-Section-Tracts) 29N+12W+15+3 (10N06E24342)

ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

PURGEABLE SCREENS

- [ ] (753) Aliphatic Purgeables (1-3 Carbons)
- [X] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes

Other Specific Compounds or Classes

- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (760) Organochlorine Pesticides
- [ ] (755) Base/Neutral Extractables
- [ ] (758) Herbicides, Chlorophenoxy acid
- [ ] (759) Herbicides, Triazines
- [ ] (760) Organochlorine Pesticides
- [ ] (761) Organophosphate Pesticides
- [ ] (767) Polychlorinated Biphenyls (PCB's)
- [ ] (764) Polynuclear Aromatic Hydrocarbons
- [ ] (762) SDWA Pesticides & Herbicides

Remarks: PIEZOMETER 3
EPNG KUTZ STATION

FIELD DATA:

pH=_____; Conductivity= 1100 umho/cm at 17.5 °C; Chlorine Residual=_____ mg/l

Dissolved Oxygen=_____ mg/l; Alkalinity=_____ mg/l; Flow Rate_____ ____/____

Depth to water ~70 ft.; Depth of well 80 ft.; Perforation Interval 70-80 ft.; Casing: PVC.

Sampling Location, Methods and Remarks (i.e. odors, etc.)

Bailed 18 times

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): Mary Eden Method of Shipment to the Lab: Hand carried

This form accompanies 2 Septum Vials, _____ Glass Jugs, and/or _____ _____

Samples were preserved as follows:

- [ ] NP: No Preservation; Sample stored at room temperature.
- [X] P-Ice Sample stored in an ice bath (Not Frozen).
- [ ] P-$Na_2S_2O_3$ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN OF CUSTODY

I certify that this sample was transferred from OCD to SLD

at (location) SLD ALB on 11/20/86 - 09:40 and that the statements in this block are correct. Evidentiary Seals: Not Sealed [ ] Seals Intact: Yes [X] No [ ]

Signatures David K Boyer Mary C. Eden

For OCD Use: Date Owner Notified _____ Phone or Letter?_____ Initials _____

ANALYSES PERFORMED

LAB. No.: OR- 1342

THIS PAGE FOR LABORATORY RESULTS ONLY

This sample was tested using the analytical screening method(s) checked below:

PURGEABLE SCREENS

- ☐ (753) Aliphatic Purgeables (1-3 Carbons)
- ☒ (754) Aromatic & Halogenated Purgeables
- ☐ (765) Mass Spectrometer Purgeables
- ☐ (766) Trihalomethanes

Other Specific Compounds or Classes

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

EXTRACTABLE SCREENS

- ☐ (751) Aliphatic Hydrocarbons
- ☐ (760) Organochlorine Pesticides
- ☐ (755) Base/Neutral Extractables
- ☐ (758) Herbicides, Chlorophenoxy acid
- ☐ (759) Herbicides, Triazines
- ☐ (760) Organochlorine Pesticides
- ☐ (761) Organophosphate Pesticides
- ☐ (767) Polychlorinated Biphenyls (PCB's)
- ☐ (764) Polynuclear Aromatic Hydrocarbons
- ☐ (762) SDWA Pesticides & Herbicides

ANALYTICAL RESULTS

COMPOUND(S) DETECTED	CONC. [PPB]	COMPOUND(S) DETECTED	CONC. [PPB]
halogenated purgeables	ND		
toluene	TR		
* DETECTION LIMIT *	1 ppb	+ DETECTION LIMIT +	

ABBREVIATIONS USED:

N D = NONE DETECTED AT OR ABOVE THE STATED DETECTION LIMIT

T R = DETECTED AT A LEVEL BELOW THE STATED DETECTION LIMIT (NOT CONFIRMED)

[RESULTS IN BRACKETS] ARE UNCONFIRMED AND/OR WITH APPROXIMATE QUANTITATION

LABORATORY REMARKS: A trace amount of one other compound was detected by the aromatic screen that was not identified

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Intact: Yes ☐ No ☐. Seal(s) broken by: _____ date: _____

I certify that I followed standard laboratory procedures on handling and analysis of this sample unless otherwise noted and that the statements on this page accurately reflect the analytical results for this sample.

Date(s) of analysis: 26 Nov 86. Analyst's signature: J. Tierney

I certify that I have reviewed and concur with the analytical results for this sample and with the statements in this block.

Reviewers signature: R Meyerhen

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

859-WMF

DATE RECEIVED 11 | 20 | 86 | LAB NO. WC 5395 | USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235

Collection DATE 11 | 17 | 86
Collection TIME 1515

SITE INFORMATION ►

Sample location: EPNG KUTZ STATION

Collection site description: PIEZOMETER 3

Collected by — Person/Agency: ANDERSON/BAILEY/OLSON/OCD

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5812

Station/ well code

Owner

SAMPLING CONDITIONS

☒ Bailed ☐ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type
pH (00400)	Conductivity (Uncorrected) 1100 µmho	Water Temp. (00010) 17.5 °C	Conductivity at 25 °C (00094) µmho

Field comments: BAILED 18 TIMES

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☐ NF: Whole sample (Non-filtered) ☒ F: Filtered in field with 0.45 µmembrane filter ☐ A: 2 ml H_2SO_4/L added

☒ NA: No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☐ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

NF, NA		Units	Date analyzed
☐ Conductivity (Corrected) 25 °C (00095)		µmho	
☐ Total non-filterable residue (suspended) (00530)		mg/l	
☐ Other:			
☐ Other:			
☐ Other:			

F, NA		Units	Date analyzed
☒ Calcium (00915)	492	mg/l	12-1
☒ Magnesium (00925)	36.6	mg/l	12-1
☒ Sodium (00930)	489.9	mg/l	12-1
☒ Potassium (00935)	3.02	mg/l	12-1
☒ Bicarbonate (00440)	140	mg/l	11/25
☒ Chloride (00940)	15	mg/l	12/2
☒ Sulfate (00945)	2248	mg/l	11/26
☒ Total filterable residue (dissolved) (70300)	3514	mg/l	12/4
☒ Other: CO_3	0		11/26
☒ BR	< 0.2		12/10

NF, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N total (00630)		mg/l	
☐ Ammonia-N total (00610)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Chemical oxygen demand (00340)		mg/l	
☐ Total organic carbon ( )		mg/l	
☐ Other:			
☐ Other:			

F, A-H_2SO_4			
☐ Nitrate-N +, Nitrate-N dissolved (00631)		mg/l	
☐ Ammonia-N dissolved (00608)		mg/l	
☐ Total Kjeldahl-N ( )		mg/l	
☐ Other:			

Analyst | Date Reported 12 | 10 | 86 | Reviewed by

Laboratory remarks

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified _____ Phone or letter? _____ Initials _____

99

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (50[redacted]41-2555

HEAVY METALS ~~GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS~~

DATE RECEIVED 11 20 86	LAB NO. HM 2351	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 11/17/86	SITE INFORM-ATION ►	Sample location EPNG KUTZ STATION	
Collection TIME 1515		Collection site description PIEZOMETER 3	
Collected by — Person/Agency HUERFANO/BAILEY/CESCN/OCD			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5812

Station/well code

Owner

SAMPLING CONDITIONS

☒ Bailed ☐ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type
pH (00400)	Conductivity (Uncorrected) 1100 µmho	Water Temp. (00010) 17.5 °C	Conductivity at 25°C (00094) µmho

Field comments: RAINED 18 TIMES

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted: 1

☐ NF: Whole sample (Non-filtered) ☒ F: Filtered in field with 0.45 µmembrane filter ☐ A: 2 ml H_2SO_4/L added

☐ NA: No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☒ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

NF, NA	Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)	µmho	
☐ Total non-filterable residue (suspended) (00530)	mg/l	
☒ Other: ICAP		
☒ Other: As		
☐ Other:		

F, NA	Units	Date analyzed
☐ Calcium (00915)	mg/l	
☐ Magnesium (00925)	mg/l	
☐ Sodium (00930)	mg/l	
☐ Potassium (00935)	mg/l	
☐ Bicarbonate (00440)	mg/l	
☐ Chloride (00940)	mg/l	
☐ Sulfate (00945)	mg/l	
☐ Total filterable residue (dissolved) (70300)	mg/l	
☐ Other:		

NF, A-H_2SO_4	Units	Date analyzed
☐ Nitrate-N +, Nitrate-N total (00630)	mg/l	
☐ Ammonia-N total (00610)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l	
☐ Chemical oxygen demand (00340)	mg/l	
☐ Total organic carbon ( )	mg/l	
☐ Other:		
☐ Other:		

F, A-H_2SO_4	Units	Date analyzed
☐ Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
☐ Ammonia-N dissolved (00608)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l	
☐ Other:		

Analyst	Date Reported	Reviewed by
	12 23 86	

Laboratory remarks: Seal in tact 11/21/86 JB
Seal Broken 11/21/86 JB

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified _____ Phone or letter? _____ Initials _____

ICAP SCAN

SLD Lab No. HM 2351 Reviewed by: Jim Kelly

Analyst JB 12/5/86 Date Reported: 12/23/86

ELEMENT	ICAP VALUE(mg/l)	AA VALUE(mg/l)
Aluminum	<0.1	
Barium	<0.1	
Beryllium	<0.1	
Boron	0.2	
Cadmium	<0.1	
Calcium	520.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	<0.1	
Iron	0.5	
Lead	<0.1	
Magnesium	30.	
Manganese	0.43	
Molybdenum	<0.1	
Nickel	<0.1	
Silicon	5.9	
Silver	<0.1	
Strontium	9.2	
Tin	<0.1	
Vanadium	<0.1	
Zinc	<0.1	
Arsenic		<0.005
Selenium		
Mercury		

86- 1343-C

SCIENTIFIC LABORATORY DIVISION

700 Camino de Salud NE
Albuquerque, NM 87106 841-2570

HEALTH ENVIRONMENT — STATE OF NEW MEXICO

754-wpm

REPORT TO: David Boyer
N.M. Oil Conservation Division
P. O. Box 2088
Santa Fe, N.M. 87504-2088

S.L.D. No. OR- 1343 AAB
DATE REC. 11-20-86
PRIORITY

PHONE(S): 827-5812 USER CODE: 8 2 2 3 5

SUBMITTER: David Boyer CODE: 2 6 0

SAMPLE COLLECTION CODE: (YYMMDDHHMMIII) 8 6 1 1 1 7 1 6 2 0 SB

SAMPLE TYPE: WATER [X], SOIL [ ], FOOD [ ], OTHER:_____ CODE:

COUNTY: SAN JUAN ; CITY: FARMINGTON CODE:

LOCATION CODE: (Township-Range-Section-Tracts) 2 9 N + 1 2 W + 1 5 + 3 1 (10N06E24342)

ANALYSES REQUESTED: Please check the appropriate box(es) below to indicate the type of analytical screens required. Whenever possible list specific compounds suspected or required.

PURGEABLE SCREENS

- [ ] (753) Aliphatic Purgeables (1-3 Carbons)
- [X] (754) Aromatic & Halogenated Purgeables
- [ ] (765) Mass Spectrometer Purgeables
- [ ] (766) Trihalomethanes

Other Specific Compounds or Classes

- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____
- [ ] _____

EXTRACTABLE SCREENS

- [ ] (751) Aliphatic Hydrocarbons
- [ ] (760) Organochlorine Pesticides
- [ ] (755) Base/Neutral Extractables
- [ ] (758) Herbicides, Chlorophenoxy acid
- [ ] (759) Herbicides, Triazines
- [ ] (760) Organochlorine Pesticides
- [ ] (761) Organophosphate Pesticides
- [ ] (767) Polychlorinated Biphenyls (PCB's)
- [ ] (764) Polynuclear Aromatic Hydrocarbons
- [ ] (762) SDWA Pesticides & Herbicides

Remarks: UNLINED PIT
EPNG KUTZ STATION

FIELD DATA:

pH=_____; Conductivity= 330 umho/cm at 14 °C; Chlorine Residual=_____mg/l

Dissolved Oxygen=_____mg/l; Alkalinity=_____mg/l; Flow Rate_____ ____/____

Depth to water _____ft.; Depth of well_____ft.; Perforation Interval ____-____ft.; Casing:_____

Sampling Location, Methods and Remarks (i.e. odors, etc.)

I certify that the results in this block accurately reflect the results of my field analyses, observations and activities.(signature collector): Gary C. Eden Method of Shipment to the Lab: Hand carried

This form accompanies 2 Septum Vials, _____ Glass Jugs, and/or _____ _____

Samples were preserved as follows:

- [ ] NP: No Preservation; Sample stored at room temperature.
- [X] P-Ice Sample stored in an ice bath (Not Frozen).
- [ ] P-$Na_2S_2O_3$ Sample Preserved with Sodium Thiosulfate to remove chlorine residual.

CHAIN OF CUSTODY

I certify that this sample was transferred from OCD to SLD

at (location) SLD HLR on 11/20/86 - 09:40 and that the statements in this block are correct. Evidentiary Seals: Not Sealed [ ] Seals Intact: Yes [X] No [ ]

Signatures David L. Boyer Gary C. Eden

For OCD Use: Date Owner Notified _____ Phone or Letter?_____ Initials ____

ANALYSES PERFORMED

LAB. No.: OR- 1343

THIS PAGE FOR LABORATORY RESULTS ONLY

This sample was tested using the analytical screening method(s) checked below:

PURGEABLE SCREENS

- ☐ (753) Aliphatic Purgeables (1-3 Carbons)
- ☒ (754) Aromatic & Halogenated Purgeables
- ☐ (765) Mass Spectrometer Purgeables
- ☐ (766) Trihalomethanes

Other Specific Compounds or Classes

- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____
- ☐ _____

EXTRACTABLE SCREENS

- ☐ (751) Aliphatic Hydrocarbons
- ☐ (760) Organochlorine Pesticides
- ☐ (755) Base/Neutral Extractables
- ☐ (758) Herbicides, Chlorophenoxy acid
- ☐ (759) Herbicides, Triazines
- ☐ (760) Organochlorine Pesticides
- ☐ (761) Organophosphate Pesticides
- ☐ (767) Polychlorinated Biphenyls (PCB's)
- ☐ (764) Polynuclear Aromatic Hydrocarbons
- ☐ (762) SDWA Pesticides & Herbicides

ANALYTICAL RESULTS

COMPOUND(S) DETECTED	CONC. [PPB]	COMPOUND(S) DETECTED	CONC. [PPB]
halogenated purgeables	N D		
benzene	17		
toluene	39		
ethylbenzene	N D		
p-xylene	N D		
m-xylene	11		
o-xylene	6		
* DETECTION LIMIT *	2 ppb	+ DETECTION LIMIT +	

ABBREVIATIONS USED:

N D = NONE DETECTED AT OR ABOVE THE STATED DETECTION LIMIT
T R = DETECTED AT A LEVEL BELOW THE STATED DETECTION LIMIT (NOT CONFIRMED)
[RESULTS IN BRACKETS] ARE UNCONFIRMED AND/OR WITH APPROXIMATE QUANTITATION

LABORATORY REMARKS: _____

CERTIFICATE OF ANALYTICAL PERSONNEL

Seal(s) Intact: Yes ☒ No ☐. Seal(s) broken by: _____ date: 26 Nov 86

I certify that I followed standard laboratory procedures on handling and analysis of this sample unless otherwise noted and that the statements on this page accurately reflect the analytical results for this sample.

Date(s) of analysis: 26 Nov + 17 Dec 86 Analyst's signature: _____

I certify that I have reviewed and concur with the analytical results for this sample and with the statements in this block.

Reviewers signature: _____

New Mexico Health and Environment Department
SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

GENERAL WATER CHEMISTRY
NITROGEN ANALYSIS

859-work

DATE RECEIVED 11 20 86	LAB NO. WC 5397	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 11/17/86	SITE INFORM-ATION ►	Sample location EPNG KUTZ STATION	
Collection TIME 1620		Collection site description UNLINED PIT	
Collected by — Person/Agency ANDERSON/BAILEY/OLSON/OCD			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5812

Station/ well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type
pH (00400)	Conductivity (Uncorrected) 330 µmho	Water Temp. (00010) 14 °C	Conductivity at 25°C (00094) µmho

Field comments

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1

☐ **NF:** Whole sample (Non-filtered) ☒ **F:** Filtered in field with 0.45 µmembrane filter ☐ **A:** 2 ml H_2SO_4/L added

☒ **NA:** No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☐ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

NF, NA	Units	Date analyzed	F, NA		Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)	µmho		☒ Calcium (00915)	91.2	mg/l	12-1
☐ Total non-filterable residue (suspended) (00530)	mg/l		☒ Magnesium (00925)	14.7	mg/l	12-11
☐ Other:			☒ Sodium (00930)	62.1	mg/l	12-11
☐ Other:			☒ Potassium (00935)	21.1	mg/l	12-4
☐ Other:			☒ Bicarbonate (00440)	104	mg/l	11/26
			☒ Chloride (00940)	31	mg/l	12/2
			☒ Sulfate (00945)	338	mg/l	11/26 12/16
			☒ Total filterable residue (dissolved) (70300)	736	mg/l	12/4
			☒ Other: CO_3 BR	< 0.2		11/24 12/10

NF, A-H_2SO_4			F, A-H_2SO_4		
☐ Nitrate-N +, Nitrate-N total (00630)	mg/l		☐ Nitrate-N +, Nitrate-N dissolved (00631)	mg/l	
☐ Ammonia-N total (00610)	mg/l		☐ Ammonia-N dissolved (00608)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l		☐ Total Kjeldahl-N ( )	mg/l	
☐ Chemical oxygen demand (00340)	mg/l		☐ Other:		
☐ Total organic carbon ( )	mg/l				
☐ Other:					
☐ Other:					

Analyst	Date Reported	Reviewed by
	1 5 87	

Laboratory remarks

pH = 7.08

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified _____ Phone or letter? _____ Initials _____

p2

SCIENTIFIC LABORATORY DIVISION
700 Camino de Salud NE
Albuquerque, NM 87106 — (505) 841-2555

HEAVY METALS

GENERAL WATER CHEMISTRY and NITROGEN ANALYSIS

DATE RECEIVED 11 20 86	LAB NO. HM 2350	USER CODE ☐ 59300 ☐ 59600 ☒ OTHER: 82235	
Collection DATE 11 17 86	SITE INFORMATION ►	Sample location EPNG KUTZ STATION	
Collection TIME 1620		Collection site description UNLINED PIT	
Collected by — Person/Agency ANDERSON/BAILEY/OLSON/OCD			

SEND FINAL REPORT TO ►

ENVIRONMENTAL BUREAU
NM OIL CONSERVATION DIVISION
State Land Office Bldg, PO Box 2088
Santa Fe, NM 87504-2088

Attn: David Boyer

Phone: 827-5812

Station/ well code

Owner

SAMPLING CONDITIONS

☐ Bailed ☒ Dipped ☐ Pump ☐ Tap	Water level	Discharge	Sample type
pH (00400)	Conductivity (Uncorrected) 330 µmho	Water Temp. (00010) 15 °C	Conductivity at 25°C (00094) µmho

Field comments

SAMPLE FIELD TREATMENT — *Check proper boxes*

No. of samples submitted 1

☐ **NF:** Whole sample (Non-filtered) ☒ **F:** Filtered in field with 0.45 µmembrane filter ☐ **A:** 2 ml H_2SO_4/L added

☐ **NA:** No acid added ☐ Other-*specify:* ☐ A: 5ml conc. HNO_3 added ☒ A: 4ml fuming HNO_3 added

ANALYTICAL RESULTS from SAMPLES

NF, NA	Units	Date analyzed
☐ Conductivity (Corrected) 25°C (00095)	µmho	
☐ Total non-filterable residue (suspended) (00530)	mg/l	
☒ Other: ICAP		
☒ Other: As		
☐ Other:		

F, NA	Units	Date analyzed
☐ Calcium (00915)	mg/l	
☐ Magnesium (00925)	mg/l	
☐ Sodium (00930)	mg/l	
☐ Potassium (00935)	mg/l	
☐ Bicarbonate (00440)	mg/l	
☐ Chloride (00940)	mg/l	
☐ Sulfate (00945)	mg/l	
☐ Total filterable residue (dissolved) (70300)	mg/l	
☐ Other:		

NF, A-H_2SO_4	Units	Date analyzed
☐ Nitrate-N + , Nitrate-N total (00630)	mg/l	
☐ Ammonia-N total (00610)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l	
☐ Chemical oxygen demand (00340)	mg/l	
☐ Total organic carbon ( )	mg/l	
☐ Other:		
☐ Other:		

F, A-H_2SO_4	Units	Date analyzed
☐ Nitrate-N + , Nitrate-N dissolved (00631)	mg/l	
☐ Ammonia-N dissolved (00608)	mg/l	
☐ Total Kjeldahl-N ( )	mg/l	
☐ Other:		

Analyst | Date Reported 12 23 86 | Reviewed by Jim Ashley

Laboratory remarks: Seal in tact 11/21/86 JB
Seal broken 11/21/86 JB

SLD 726 (12/84)

FOR OCD USE -- Date Owner Notified _____ Phone or letter? _____ Initials _____

ICAP SCAN

SLD Lab No. HM 2350 Reviewed by: Jim Ashby

Analyst JB 12/5/86 Date Reported: 12/23/86

ELEMENT	ICAP VALUE(mg/l)	AA VALUE(mg/l)
Aluminum	<0.1	
Barium	0.2	
Beryllium	<0.1	
Boron	<0.1	
Cadmium	<0.1	
Calcium	94.	
Chromium	<0.1	
Cobalt	<0.1	
Copper	<0.1	
Iron	5.5	
Lead	<0.1	
Magnesium	21.	
Manganese	0.19	
Molybdenum	<0.1	
Nickel	<0.1	
Silicon	17.	
Silver	<0.1	
Strontium	0.9	
Tin	<0.1	
Vanadium	<0.1	
Zinc	<0.1	
Arsenic		<0.005
Selenium		
Mercury		

TABLE 1

GROUND-WATER MONITORING WELL COMPLETION DATA
LEE ACRES LANDFILL - FARMINGTON, NM

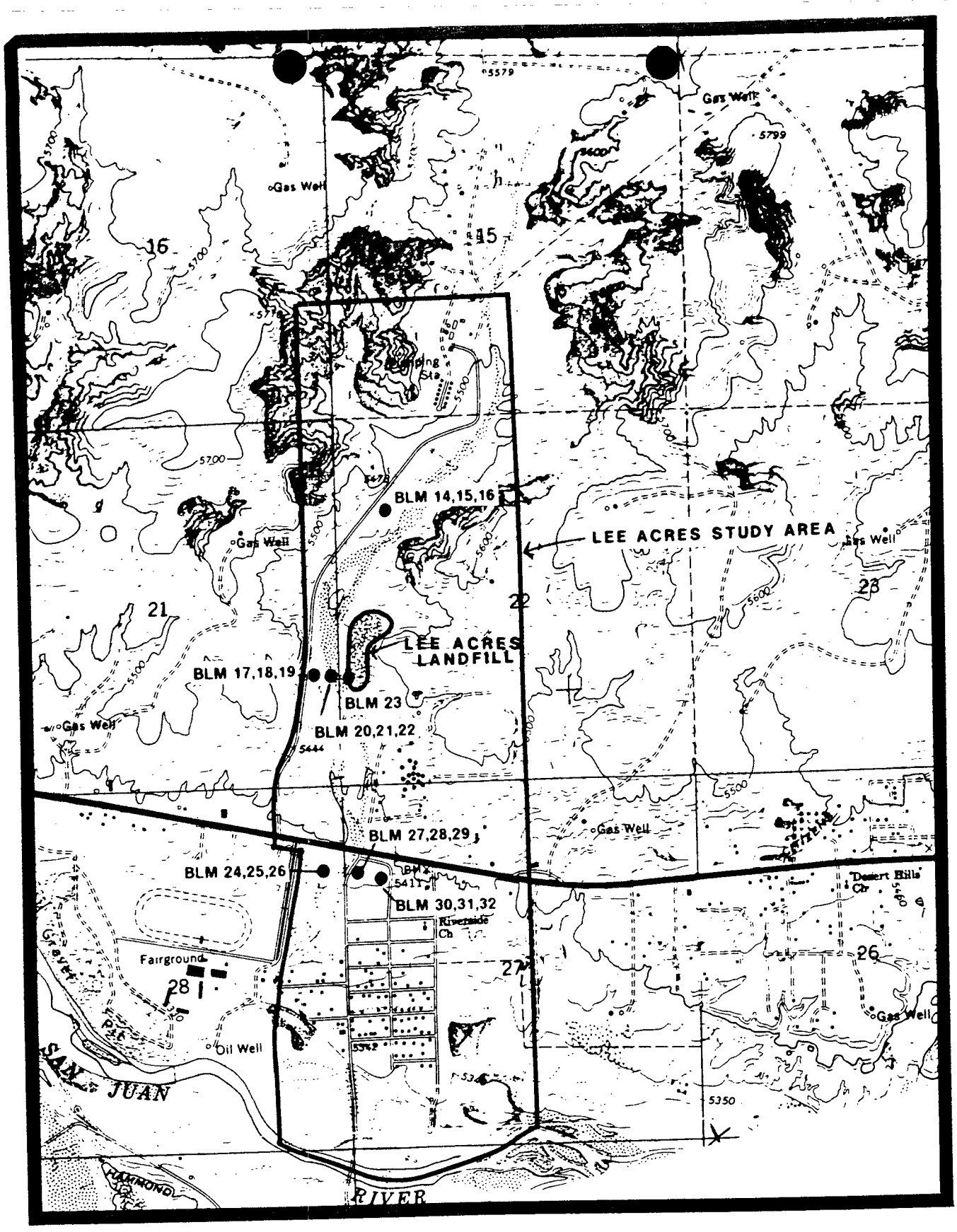
WELL NUMBER	WELL TYPE	COORDINATES *		ELEVATIONS **		SCREEN DEPTH ***		TOTAL DEPTH	DATE INSTALLED	INSTALLED BY
		EAST	NORTH	DATUM	GROUND	TOP	BOTTOM			
BLM-14	SHALLOW	5779	8810	5461.59	5459.8	26.9	37.9	37.4	17-Oct-87	RPW
BLM-15	INTERMEDIATE	5784	8801	5461.67	5459.8	55.9	61.0	61.3	15-Oct-87	RPW
BLM-16	BEDROCK	5776	8794	5461.26	5459.8	89.5	99.8	100.0	23-Nov-87	RPW
BLM-17	SHALLOW	4825	6392	5420.20	5418.0	26.9	37.2	37.4	19-Nov-87	RPW
BLM-18	INTERMEDIATE	4818	6385	5419.82	5418.0	37.3	42.5	42.5	19-Nov-87	RPW
BLM-19	BEDROCK	4811	6379	5419.40	5418.0	89.9	100.2	100.3	24-Nov-87	RPW
BLM-20	SHALLOW	4983	6380	5419.11	5417.0	26.8	38.0	38.2	29-Oct-87	RPW
BLM-21	INTERMEDIATE	4986	6371	5418.15	5417.0	38.1	43.4	43.7	29-Oct-87	RPW
BLM-22	BEDROCK	4977	6363	5418.80	5417.0	89.4	99.8	100.0	05-Dec-87	RPW
BLM-23	BEDROCK	5194	6368	5419.28	5417.5	89.4	99.8	99.9	20-Nov-87	RPW
BLM-24	SHALLOW	4765	3554	5374.42	5372.6	34.6	44.9	45.1	01-Nov-87	RPW
BLM-25	INTERMEDIATE	4764	3544	5374.43	5372.6	53.6	59.0	59.2	31-Oct-87	RPW
BLM-26	BEDROCK	4756	3549	5374.07	5372.6	89.2	99.5	99.7	05-Dec-87	RPW
BLM-27	SHALLOW	5143	3584	5379.01	5376.8	32.6	42.9	43.2	04-Dec-87	RPW
BLM-28	INTERMEDIATE	5133	3585	5378.89	5376.8	64.4	70.0	70.0		RPW
BLM-29	BEDROCK	5132	3572	5379.00	5376.8	89.4	99.8	100.0	22-Nov-87	RPW
BLM-30	SHALLOW	5737	3546	5369.75	5367.8	24.3	34.6	34.7	03-Nov-87	RPW
BLM-31	INTERMEDIATE	5741	3537	5369.79	5367.8	34.2	39.5	39.6	02-Nov-87	RPW
BLM-32	BEDROCK	5728	3541	5369.81	5367.8	89.1	99.7	99.9	03-Dec-87	RPW

* Coordinates based upon the southwest corner of Section 22, Township 29 North, Rang

** Elevations are based on U.S.G.S. datum.

*** Measurements are from ground level.

Shallow and Intermediate wells are alluvial wells



Scale

0 1000 2000 feet

● Well Cluster Locations

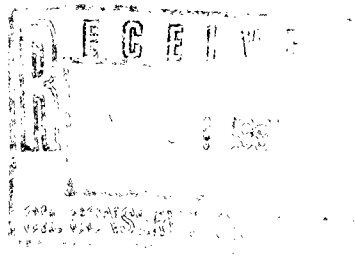
Source: USGS Quadrangle
Horn Canyon 7.5 Minute Quadrangle
New Mexico

FIGURE 2

WELL LOCATION MAP

El Paso Natural Gas Company

P. O. BOX 4990
FARMINGTON, NEW MEXICO 87499
PHONE: 505-325-2841



October 30, 1991

Mr. Roger Anderson
New Mexico Oil Conservation Division
P.O. Box 2088
State Land Office Building
Santa Fe, New Mexico 87504

Re: Citizen Complaint Regarding Odor from Kutz Plant Lined Pond

Dear Mr. Anderson:

On October 23, 1991, Mr. D. Foutz from the NMOCD Aztec office called to notify me of a citizen complaint. A nearby resident complained about odor from the Kutz Plant lined pond.

Mr. D. Foutz recommended addition of chlorine in order to reduce the odor. Plant personnel added five gallons of sodium hypochlorite solution to the pond last week. The odor was due to stagnant water in the lined pond. Most of the water in the pond was from the Manana Mary Wheeler #1E remediation project. Mr. D. Foutz also noticed a thin film of oil on the pond.

El Paso Natural Gas Company (EPNG) attempted to skim the thin oil film last week. Due to a lack of wind, EPNG could not skim the oil. EPNG will remove the oil this week.

There are two lines leading to the lined pond.Earlier, plant personnel believed the basement sump from the Ingersoll Rand (IR) compressor discharged into the lined pond. Further discussions revealed that wastewater from the IR compressor basement sump does not discharge to the lined pond.

In the past, the wastewater from the office restroom discharged to a septic tank. The septic tank discharged into the lined pond. In May 1989, a leach field was installed and the discharge fro the septic tank was routed to the leach field. The line leadin to the lined pond was not removed but abandoned in place.

I told Mr. D. Foutz that there are two discharges to the lined pond, the glycol dehydrator and a basement sump. Further discussions with plant personnel revealed that there is only one discharge to the lined pond, the glycol dehydrator. This week, EPNG is repiping the glycol dehydrator discharge to an aboveground tank. The rerouting of the glycol dehydrator discharge should eliminate discharges of oil to the pond.

The addition of chlorine on an as-needed basis and the rerouting of the glycol dehydrator discharge, should reduce the likelihood of odor problems at the Kutz Plant lined pond.

If you have any questions, please call me at 599-2176 or Mr. Tom Hutchins at (915) 541-3531.

Sincerely,

A. N. Pundari

A. N. Pundari
Compliance Engineer

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

March 18, 1991

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

CERTIFIED MAIL
RETURN RECEIPT NO. P-327-278-104

Mr. Thomas D. Hutchins, Manager
North Region Compliance Engineering
El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79978

RE: **Discharge Plan GW-34**
Kutz Gas Plant
San Juan County, New Mexico

Dear Mr. Hutchins:

The Oil Conservation Division (OCD) has received your letter, dated January 31, 1991, stating El Paso Natural Gas (EPNG) Company's opinion that a discharge plan is no longer required for the above referenced facility. EPNG's justification for this opinion is that there are no longer any planned discharges at the facility.

Discharge plans issued by the OCD are the permitting mechanisms for control and remediation of spills, leaks and other accidental (unplanned) discharges to the surface that may move directly or indirectly into ground waters, surface waters or the environment.

EPNG's Kutz Gas Plant remains in operation and stores and uses oils and chemicals at the plant site that could contribute to spills, leaks and/or accidental discharges, therefore, renewal of your previously approved discahrge plan (GW-34) is required.

As a result of the numerous changes made at the Kutz Gas Plant, primarily the removal of gas treatment facilities, the OCD is changing the classification of the facility from a natural gas processing plant to a gas compressor station.

On March 6, 1991, OCD personnel conducted a site inspection of the station. The following items were observed that require corrections or commitments to correct:

1. The oil tanks behind the utility building were on pads but need berming to contain one and one-third the capacity of all interconnected tanks within the berm.

2. The oil tank north of "A" compressor building showed evidence of spills and leaks on the ground. A pad and curb is required for this tank.

3. All drum storage is require to be on pads with curbs for spill containment.

4. The north waste tank showed evidence of spills, leaks and overflows. There is also a below grade fiberglass water drain tank at this location that had evidence of overflows. The area inside the berm requires clean-up and a method to eliminate spills, leaks and overflows needs to be proposed and initiated. The loading valve outside the berm needs spill containment.

Please submit plans and completion schedules for the above items with your renewal application.

If there are any questions on this matter, please call mat at (505) 827-5884.

Sincerely,

Roger C. Anderson
Environmental Engineer

RCA/sl

cc: OCD Aztec Office

El Paso
Natural Gas Company

P. O. BOX 1492
EL PASO, TEXAS 79978
PHONE: 915-541-2600

January 31, 1991

David G. Boyer, Hydrogeologist
Environmental Bureau Chief
Oil Conservation Division
Energy, Minerals & Natural Resources Dept.
State of New Mexico
Post Office Box 2088
State Land Office Bldg.
Santa Fe, New Mexico 87504

Re: Kutz Gas Plant; Discharge Plan GW-34

Dear Mr. Boyer:

Thank you for your letter of December 11, 1990, providing notification of the December 31, 1991, expiration of our discharge plan for Kutz Plant.

Since the plan was approved in 1986, there have been several physical changes. The station only has compression facilities; the cooling tower has been replaced by a fin fan cooler; and the dehydration facilities, boiler and attendant water treatment facility were removed. As a result, the plant no longer discharges any wastewater other than domestic. The double-lined pond which was planned at the time of the plan's approval was installed, but is not being used. However, it is being maintained to receive liquids from other locations in the event of an emergency.

As a result of these changes, a discharge plan is no longer needed. Therefore, we do not seek renewal or amendment of the current plan. However, we remain open, to requests for additional information and are committed to cooperating with NMOCD and maintaining sound disposal practices.

Your letter noted guidelines which are presently being revised concerning berming of tanks and curbing and paving of process areas. I would greatly appreciate some amplification on the proposals and their application since they could have an impact on our compliance and budgetary planning.

If you have any questions, please do not hesitate to contact me or any of our Farmington compliance personnel.

Sincerely,

Thomas D. Hutchins

Thomas D. Hutchins, Manager
North Region Compliance Engineering

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

December 11, 1990

Certified Mail
Return Receipt No. P-327-278-013

Mr. Thomas D. Hutchins, Manager
North Region Compliance Engineering
El Paso Natural Gas Company
P. O. Box 1492
El Paso, Texas 79978

RE: Discharge Plan GW-34
Kutz Gas Plant
San Juan County, New Mexico

Dear Mr. Hutchins:

On December 29, 1986, the ground water discharge plan, GW-34 for the El Paso Natural Gas Company's Kutz Gas Plant located in Section 15, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico, was approved by the Director of the Oil Conservation Division (OCD). This discharge plan was required and submitted pursuant to Water Quality Control Commission (WQCC) regulations and was approved for a period of five years. The approval will expire on December 29, 1991.

If your facility continues to have effluent or leachate discharges and you wish to continue discharging, please submit your application for renewal of plan approval as quickly as possible. The OCD is reviewing discharge plan submittals and renewals carefully and the review time can often extend for several months. Please indicate whether you have made, or intent to make, any changes in your discharge system, and if so, include an application for plan amendment with your application for renewal. To assist you in preparation of your renewal application, I have enclosed a copy of the OCD's guidelines for preparation of ground water discharge plans at natural gas processing plants. These guidelines are presently being revised to include berming of tanks, curbing and paving of process areas susceptible to leaks or spills and the disposition of any solid wastes. Please include these items in your renewal application.

If you no longer have such discharges and discharge plan renewal is not needed, please notify this office.

Please note that all gas plants, refineries and compressor stations in excess of 25 years of age will be required to submit plans for, or the results of, an underground drainline testing program as a requirement for discharge plan renewal.

If you have any questions, please do not hesitate to contact Roger Anderson at (505) 827-5884.

Sincerely,

David G. Boyer, Hydrogeologist
Environmental Bureau Chief

DGB/sl

Enclosure

cc: OCD Aztec Office