

0009



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor  
Kathleen Clarke  
Executive Director  
Lowell P. Braxton  
Division Director

1594 West North Temple, Suite 1210  
PO Box 145801  
Salt Lake City, Utah 84114-5801  
801-538-5340  
801-359-3940 (Fax)  
801-538-7223 (TDD)

November 1, 2000

Chuck Semborski, Environmental Supervisor  
Energy West Mining Company  
P.O. Box 310  
Huntington, Utah 84528

Re: Abandonment of Equipment Underground, PacifiCorp, Trail Mountain Mine, [REDACTED]

Dear Mr. Semborski:

Enclosed is a copy of the technical review for the longwall abandonment notification, received by the Division on September 25, 2000. The review indicates no significant impact to the hydrologic balance will be observed due to the abandonment. Thank you for keeping us informed of your mining activities.

If you have any questions, please call me at (801) 538-5325, or Gregg Galecki at (801) 538-5260.

Sincerely,

A handwritten signature in black ink that reads "Daron R. Haddock".

Daron R. Haddock  
Permit Supervisor

gag/sm

Enclosure:

cc: Carter Reed, USFS  
Elaine Zieroth, USFS  
Price Field Office

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November 1, 2000

TO: Internal File

THRU: Daron R. Haddock, Permit Supervisor *DRH*

FROM: Gregg A. Galecki, Reclamation Hydrologist *GAG*

RE: Abandonment of Equipment Underground, PacifiCorp, Trail Mountain Mine, C015009

**SUMMARY**

On September 25, 2000 PacifiCorp submitted a letter to the Division indicating three longwall shields had been abandoned underground due to safety measures in the Trail Mountain Mine on Lease No UTU-64375. The fluids could not be drained because the shields could not be released in a safe manner. This Technical Memo assesses the impact to the hydrologic balance in the surrounding area due to the equipment abandonment.

**TECHNICAL ANALYSIS:**

**OPERATION PLAN**

**HYDROLOGIC INFORMATION**

Regulatory Reference: R645-301-731.300, 301-731.500, 301-747, 301-751

**Analysis:**

**Groundwater Monitoring**

A total of three longwall shields were abandoned approximately 1200 ft. west of the 5<sup>th</sup> West Main and 400 ft. north of the 4<sup>th</sup> Right bleeder. The drawing accompanying the letter

TECHNICAL MEMO

November 1, 2000

submitted September 25, 2000 incorrectly located the equipment between the 2<sup>nd</sup> and 3<sup>rd</sup> right bleeders. The permittee was contacted and he submitted a revised map on October 6, 2000 reflecting the proper location of the shields. The fluids remaining in the shields include a total of 6 gallons of Neat Oil contained within 120 gallons of emulsion fluid (95% water - 5% emulsion oil mixture).

Mining activities are concentrated in the Hiawatha coal seam which is located at the basal contact of the Blackhawk Formation and the upper Star Point Sandstone which strike N20°W and dip 3-5° west-southwest. Elevation of the equipment is approximately 6850 ft. with approximately 2200 ft of overlying sediments. Overlying sediments include the Castlegate sandstone, Price River Formation, and the North Horn Formation which all have limited groundwater potential and limit meteoric migration of water into the lower Blackhawk Formation. Elevations of springs in the vicinity are concentrated at 8700 ft. and 6900 ft, respectively. Spring 18-3-1 is the only spring located near the elevation of the equipment and it is located approximately 9600 ft. southwest. Plate 7-1 from the Trail Mountain MRP indicates the potentiometric surface of the Blackhawk-Starpoint aquifer is located at an elevation of 7080 ft. at the location of the shields and generally dips southwest. This indicates that eventually the equipment will be under water once the majority of the mine workings are saturated.

A Water Rights query indicates the only water users within 10,000 ft of the equipment are PacifiCorp and W.K.Minerals, Inc. The diversion points for both users are approximately 8,000 ft. northeast of the equipment, respectively. MSDS sheets for the Oil and Emulsion fluids are attached.

The U.S. Forest Service (USFS) is the Surface Management Agency for Mine Lease No. UTU-64375. Carter Reed, Manti-LaSal National Forest representative, was contacted by DOGM personnel on October 31, 2000 informing him of the equipment abandonment. He requested copies of the Divisions' notification of the abandonment and this technical analysis.

The impact of abandoning the steel associated with the three longwalls is insignificant compared to the other steel materials that must be left underground. Ferrous materials include steel roof bolts, steel wire ceiling mesh, and steel cans used in support pillars. These materials are not removed due to safety concerns in all underground coal mines.

Although hazardous materials including Neat oil and Emulsion fluids will eventually enter the hydrologic system, it will have an insignificant impact on the hydrologic balance in the area based on the following criteria:

- It will be a period of many years prior to the sediments being saturated to the 6850 ft. elevation.
- The combination of water chemistry, temperature, and lack of oxygen will impede the rate of oxidation of the metal.

- The combination of Specific gravity and dip of the geology will potentially carry any migration away from the surface waters.
- The total volume of the contaminants is so minute it will be diluted within a short distance.
- No municipal or domestic water uses exist within 8,000 ft. of the site.

**Finding:**

The abandonment of the three longwall shields underground meets minimum regulatory requirements.

**RECOMMENDATION**

The abandonment of the three longwall shields underground can be approved.

sm

Attachment: (MSDS Sheets)  
( Shield Abandonment Map)  
(PacifiCorp correspondence to BLM)  
O:\015009.TMT\FINAL\gagabndequip.wpd

FLUIDS:

- . EMULSION FLUID:  
[ @ 95:5 MIX RATIO; WATER TO OIL ] - CENTURY  
SOLCINIC 3B: ESTIMATED @ 40 GAL/SUPPORT X 151 SUPPORTS  
= 6040 GAL. + 1000 GAL. (HOSE VOLUME) = 7040 GAL. ABANDON  
(SEE ATTACHED MSDS SHEETS)
  
- . GEAR OIL:  
[ TG JAHNAL KPL-25 GEARCASE ] - CENTURY POWERGEAR 320 OIL;  
EST. @ 25 GAL. ABANDON \*  
(SEE ATTACHED MSDS SHEETS)
  
- . ATF FLUID:  
[ TG VOITH 650 FLUID COUPLING ] - STD. HYD. ATF FLUID  
EST. @ 15 GAL. ABANDON  
(SEE ATTACHED MSDS SHEETS)
  
- . GREASE  
[ SPROCKETS, GEARBOX, ETC. ] - STD. LITHIUM BASE LUBRICANT  
(SEE ATTACHED MSDS SHEETS)

PRODUCT: POWERGEAR SERIES  
MANUFACTURER:  
CENTURY LUBRICATING OILS  
MSDS: 12187

GENERAL INFORMATION

PRODUCT: POWERGEAR SERIES  
MANUFACTURER: CENTURY LUBRICANTS CO.  
2140 S. 88TH ST.  
KANSAS CITY, KS 66111-8701  
EMERGENCY - CHEMTREC: 800-424-9300  
BUSINESS: 800-800-6457  
REVISION DATE: December 15, 1988 (AD HPC 9) 3612XX  
A MEMBER OF THE FUCHS GROUP

UNK Means Unknown EST Means Estimated N.A. Means Not Applicable

HAZARDOUS INGREDIENTS

HAZARDOUS INGREDIENTS	TLV, TWA, PEL	IARC, NTP, OSHA
Mineral Oil	TLV 5mg/M (Mist)	Not listed
Extreme pressure additive	No TLV established	Not listed

PHYSICAL DATA

SOLUBILITY IN WATER (@ 20 C) : NEGLIGIBLE  
VAPOR DENSITY (AIR) : >1.0  
STRONG ACID: NO  
STRONG BASE: NO  
SPECIFIC GRAVITY (WATER=1) : <1.0  
VAPOR PRESSURE (MM HG @ 20 C): <0.1  
EVAPORATION RATE (ETHER = 1) : <0.01  
PERCENT VOLATILE (BY WEIGHT) : ZERO  
BOILING POINT (DEG F) : +600 F  
MELTING POINT (DEG F) : N.A.  
APPEARANCE AND ODOR : AMBER LIQUID, MILD PETROLEUM ODOR

FIRE AND EXPLOSION HAZARD DA.

FLASH POINT (METHOD): 450 F COC EST

FLAMMABILITY LIMITS: LEL - UNK UEL - UNK

EXTINGUISHING AGENTS: DRY CHEMICAL CO2 FOAM

SPECIAL FIRE FIGHTING PROCEDURES: AVOID BREATHING VAPORS. USE BREATHING APPARATUS IN CONFINED AREAS. COOL EXPOSED CONTAINERS WITH WATERSPRAY.

HAZARDOUS THERMAL DECOMPOSITION PRODUCT: CARBON MONOXIDE, CARBON DIOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS.

HEALTH HAZARD DATA & FIRST AID

PERMISSIBLE CONCENTRATIONS (AIR): NONE ESTABLISHED

ROUTE	EFFECT OF OVEREXPOSURE	EMERGENCY FIRST AID PROCEDURE
EYES	CAN CAUSE IRRITATION	FLUSH WITH WATER. SEE PHYSICIAN
SKIN	CAN CAUSE IRRITATION	WASH WITH SOAP & WATER. IF HIGH PRESSURE, GET IMMEDIATE MEDICAL ATTENTION.
INHALATION	MIST MAY CAUSE IRRITATION	REMOVE FROM CONTAMINATED AREA
INGESTION	NONE EXPECTED	

REACTIVITY DATA

STABILITY: STABLE

INCOMPATIBILITY: KEEP AWAY FROM STRONG OXIDIZERS

NOTE: HAZARDOUS POLYMERIZATION WILL NOT OCCUR

SPILL OR LEAK PROCEDURES

STEPS TO TAKE IN CASE OF SPILL: Add absorbent to spill area. Keep petroleum products out of sewers and waterways. Advise authorities if they do enter.

WASTE DISPOSAL: Dispose of at appropriate waste facility in accordance with regulations.

PRECAUTIONS IN STORAGE: Keep containers closed when not in use. Do not handle near heat, flames, sparks. Do not weld or heat empty containers.

SPECIAL PROTECTION INFORMATION

PRESPIRATION PROTECTION: None normally needed.

VENTILATION TYPE: General adequate. Use local mechanical to insure TLV;s not surpassed where applicable.

SKIN PROTECTION: Chemically resistant gloves.

EYE PROTECTION: Goggles or faceshield.

OTHER PROTECTIVE MEASURES: None normally needed.

**DISCLAIMER**

The information contained herein is based on data considered accurate. However, no warranty, expressed or implied, is given regarding the accuracy of these data or the results to be obtained from the use thereof.

CENTURY LUBRICANTS CO.



MATERIAL SAFETY DATA SHEET

MATERIAL SAFETY DATA SHEET

PRODUCT: SOLCENIC 3B EMULSION  
MADE WITH DEIONIZED WATER

SECTION I

MANUFACTURER : CENTURY LUBRICATING OILS, INC. TELEPHONE : 800-255-4107  
ADDRESS : 2140 S. 88TH ST. CHEM TREC : 800-424-9300  
KANSAS CITY, KS 66111-8701  
REVISION DATE: 1/25/93 HPC - 11 DOC:114 PREPARED BY : M.D. HART

SECTION II CHEMICAL AND PHYSICAL PROPERTIES

SOLUBILITY IN WATER (@ 20 C): VERY VAPOR DENSITY (AIR): > 1.0  
SPECIFIC GRAVITY (WATER-1): < 1.0 STRONG ACID : NO  
VAPOR PRESSURE (mmHg @ 20 C): > 1.0 STRONG BASE : NO  
EVAPORATION RATE (ether - 1): < 0.01 BOILING POINT (DEG F): 212 F  
PERCENT VOLATILE (by weight): 98 MELTING POINT (DEG F): N.A.

APPEARANCE AND ODOR : CLEAR LIQUID, BLAND ODOR

SECTION III REACTIVITY DATA

STABILITY : STABLE INCOMPATIBILITY : KEEP AWAY FROM STRONG OXIDIZERS

NOTE : HAZARDOUS POLYMERIZATION WILL NOT OCCUR

SECTION IV FIRE AND EXPLOSION DATA

FLASH POINT (METHOD) : N/A FLAMMABLE LIMITS-LEL: UNK UEL: UNK

EXTINGUISHING AGENTS : DRYCHEMICAL(X) CO2 (X) WATERSPRAY (X) FOAM (X)

SPECIAL FIRE FIGHTING: Avoid breathing vapors. Use breathing apparatus in  
PROCEDURES confined areas. Cool exposed containers with waterspray

HAZARDOUS THERMAL : Carbon monoxide, carbon dioxide and unidentified  
DECOMPOSITION PRODUCT organic compounds.

SECTION V PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO TAKE IN : Add absorbent to spill area. Keep petroleum products out of  
CASE OF SPILL sewers and waterways. Advise authorities if they do enter.

WASTE DISPOSAL : Dispose of at appropriate waste facility in accordance with  
METHOD regulations.

PRECAUTIONS IN : Keep containers closed when not in use. Do not handle near  
STORAGE heat, flames, sparks. Do not weld or heat empty containers.

SECTION VI HEALTH HAZARD DATA

PERMISSIBLE CONCENTRATIONS (AIR) : None established

ROUTE	EFFECT OF OVEREXPOSURE	EMERGENCY FIRST AID PROCEDURE
EYES	NONE EXPECTED	FLUSH WITH WATER. SEE PHYSICIAN
SKIN	PROLONGED OR REPEATED CONTACT MAY CAUSE MILD IRRITATION	WASH WITH SOAP AND WATER. IF HIGH PRESSURE, GET IMMEDIATE MEDICAL ATTENTION.
INHALATION	MIST MAY CAUSE IRRITATION	REMOVE FROM CONTAMINATED AREA
INGESTION	NONE EXPECTED	
CHRONIC	NONE EXPECTED WITH NORMAL EXPOSURE	

HAZARDOUS INGREDIENTS	TLV, TWA, PEL	IARC, NTP, OSHA
MINERAL OIL	TLV 5mg/M (MIST)	NOT LISTED
ORGANIC ACID SALT	NONE ESTABLISHED	NTP LISTED

SECTION VII CONTROL MEASURES

RESPIRATION PROTECTION : NONE NORMALLY NEEDED

VENTILATION TYPE : GENERAL ADEQUATE. USE LOCAL MECHANICAL TO INSURE TLV'S NOT SURPASSED WHERE APPLICABLE.

SKIN PROTECTION : CHEMICALLY RESISTANT DESIRABLE EYE PROTECTION : GOGGLES OR FACESHIELD DESIRABLE

OTHER PROTECTIVE MEASURES : NONE NORMALLY NEEDED

SECTION VIII MISCELLANEOUS

UNK MEANS UNKNOWN  
 EST MEANS ESTIMATED  
 N.A. MEANS NOT APPLICABLE

The hazard evaluation of this Century product is based on a formulation using deionized water.

The information contained herein is based on data considered accurate. However, no warranty, expressed or implied, is given regarding the accuracy of these data or the results to be obtained from the use thereof.

CENTURY LUBRICANTS CO.


 MATERIAL  
 SAFETY  
 DATA  
 SHEET

## MATERIAL SAFETY DATA SHEET

PRODUCT: SOLCENIC 3B

## SECTION I

MANUFACTURER : CENTURY LUBRICATING OILS, INC. TELEPHONE : 800-255-4107  
 ADDRESS : 2140 S. 88TH ST. CHEM TREC : 800-424-9300  
 KANSAS CITY, KS 66111-8701  
 REVISION DATE: 6/1/90 (442350-AA) DOC:113 PREPARED BY : M.D. HART

## SECTION II CHEMICAL AND PHYSICAL PROPERTIES

SOLUBILITY IN WATER (@ 20 C):	VERY	VAPOR DENSITY (AIR):	> 1.0
SPECIFIC GRAVITY (WATER=1):	> 1.0	STRONG ACID :	NO
VAPOR PRESSURE (mmHg @ 20 C):	< 0.1	STRONG BASE :	NO
EVAPORATION RATE (ether = 1):	< 0.01	BOILING POINT (DEG F):	IBP 212 F
PERCENT VOLATILE (by weight):	> 61	MELTING POINT (DEG F):	N.A.

APPEARANCE AND ODOR : AMBER LIQUID, MILD PETROLEUM ODOR

## SECTION III REACTIVITY DATA

STABILITY : STABLE INCOMPATIBILITY : KEEP AWAY FROM STRONG OXIDIZERS

NOTE : HAZARDOUS POLYMERIZATION WILL NOT OCCUR

## SECTION IV FIRE AND EXPLOSION DATA

FLASH POINT (METHOD) : N.A. FLAMMABLE LIMITS-LEL: UNK UEL: UNK  
 EXTINGUISHING AGENTS : DRYCHEMICAL(X) CO2 (X) WATERSPRAY ( ) FOAM (X)  
 SPECIAL FIRE FIGHTING: Avoid breathing vapors. Use breathing apparatus in  
 PROCEDURES confined areas. Cool exposed containers with waterspray  
 HAZARDOUS THERMAL : Carbon monoxide, carbon dioxide, nitrogen oxide and  
 DECOMPOSITION PRODUCT unidentified organic compounds.

## SECTION V PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO TAKE IN : Add absorbent to spill area. Keep petroleum products out of  
 CASE OF SPILL sewers and waterways. Advise authorities if they do enter.  
 WASTE DISPOSAL : Dispose of at appropriate waste facility in accordance with  
 METHOD regulations.  
 PRECAUTIONS IN : Keep containers closed when not in use. Do not handle near  
 STORAGE heat, flames, sparks. Do not weld or heat empty containers.

SECTION VI HEALTH HAZARD DATA

PERMISSIBLE CONCENTRATIONS (AIR) : None established for product

ROUTE	EFFECT OF OVEREXPOSURE	EMERGENCY FIRST AID PROCEDURE
EYES	MAY BE CORROSIVE	FLUSH WITH WATER. SEE PHYSICIAN
SKIN	MAY CAUSE IRRITATION AND ALLERGIC SENSITIZATION IN SOME INDIVIDUALS.	WASH WITH SOAP AND WATER. IF HIGH PRESSURE HAS CAUSED PENETRATION BENEATH SKIN SEEK IMMEDIATE MEDICAL ATTENTION.
INHALATION	MISTS CAN CAUSE IRRITATION	
INGESTION	MAYBE HARNFUL OR FATAL IF SWALLOWED CAUSING TREMORS, DIZZINESS, VOMITING AND NAUSEA.	IF CONSCIOUS, GIVE 2 GLASSES OF MILK. DO NOT INDUCE VOMITING. GET IMMEDIATE MEDICAL ATTENTION.
CHRONIC	NONE EXPECTED WITH NORMAL EXPOSURE	

HAZARDOUS INGREDIENTS	TLV, TWA, PEL	IARC, NTP, OSHA
TRIAZINE COMPOUND	NONE ESTABLISHED	NOT LISTED
MINERAL OIL	TLV 5mg/M (MIST)	NOT LISTED
ORGANIC ACID SALT	NONE ESTABLISHED	NTP LISTED
ORGANIC AMIDE	NONE ESTABLISHED	NOT LISTED
ALKYL AMINES	TWA 3 ppm 8-Hr	NOT LISTED
FATTY ACID	NONE ESTABLISHED	NOT LISTED

SECTION VII CONTROL MEASURES

RESPIRATION PROTECTION : NONE NORMALLY NEEDED

VENTILATION TYPE : GENERAL ADEQUATE. USE LOCAL MECHANICAL TO INSURE TLV'S NOT SURPASSED WHERE APPLICABLE.

SKIN PROTECTION : CHEMICALLY RESISTANT GLOVES

OTHER PROTECTIVE MEASURES : WASH HANDS BEFORE EATING OR SMOKING

EYE PROTECTION : GLASSES WITH SHIELD, GOGGLES OR FACESHIELD

SECTION VIII MISCELLANEOUS

UNK MEANS UNKNOWN  
 EST MEANS ESTIMATED  
 N.A. MEANS NOT APPLICABLE

The information contained herein is based on data considered accurate. However, no warranty, expressed or implied, is given regarding the accuracy of these data or the results to be obtained from the use thereof.



GREP0298

Revised 25-JUN-1997

Printed 21-APR-1998

# TACNA Rx RED MULTIPURPOSE GREASE, NO. 2

## CHEMICAL PRODUCT/COMPANY IDENTIFICATION

**Material Identification**

"TACNA" is a registered trademark of Conoco.

**Tradenames and Synonyms**

9440 - Conoco Base Code

**Company Identification**

MANUFACTURER/DISTRIBUTOR

Conoco, Inc.  
P.O. Box 2197  
Houston, TX 77252

**PHONE NUMBERS**

Product Information	1-281-293-5550
Transport Emergency	CHEMTREC 1-800-424-9300
Medical Emergency	1-800-441-3637

## COMPOSITION/INFORMATION ON INGREDIENTS

# Components

Material	CAS Number	%
Highly-Refined Base Oils		80-100
Lithium soaps		5-20
*Zinc compound	68649-42-3	0-1
Proprietary additives		1-5

\* Disclosure as a toxic chemical is required under Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.

(Continued)

## HAZARDS IDENTIFICATION

### # Potential Health Effects

#

Primary Route of Entry: Skin

The product, as with many petroleum products, may cause minor skin, eye, and lung irritation, but good hygienic practices can minimize these effects.

### Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

## FIRST AID MEASURES

### First Aid INHALATION

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

### SKIN CONTACT

Wipe off excess with towel. Wash skin thoroughly with soap and water. If irritation develops and persists, consult a physician.

If injected under the skin, necrosis could occur. See physician.

### EYE CONTACT

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

### INGESTION

If swallowed, do not induce vomiting. Immediately give 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician.

### Notes to Physicians

Activated charcoal mixture may be administered. To prepare activated charcoal mixture, suspend 50 grams activated charcoal in 400 mL water and mix thoroughly. Administer 5 mL/kg, or 350 mL for an average adult.

High velocity injection under the skin can cause a bloodless puncture wound and result in necrosis. Immediate attention by a surgical specialist is recommended.

(Continued)

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## FIRE FIGHTING MEASURES

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### Flammable Properties

Flash Point  
Method

450 F (232 C) (Base Oil)  
Cleveland Open Cup - COC.

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### Extinguishing Media

Water Spray, Foam, Dry Chemical, CO2.

Water spray may spread fire.

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### Fire Fighting Instructions

Cool tank/container with water spray.

Products of combustion may contain carbon monoxide, carbon dioxide, and other toxic materials. Do not enter enclosed or confined space without proper protective equipment including respiratory protection.

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## ACCIDENTAL RELEASE MEASURES

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### Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

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### Spill Clean Up

Recover undamaged and minimally contaminated material for reuse and reclamation. Soak up with sawdust, sand, oil dry or other absorbent material. Shovel or sweep up.

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## HANDLING AND STORAGE

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### Handling (Personnel)

Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling. Wash contaminated clothing prior to reuse.

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### Handling (Physical Aspects)

Close container after each use. Do not pressurize, cut, weld, braze, solder, grind, or drill on or near full or empty container. Empty container retains residue (liquid and/or vapor) and may explode in heat of a fire.

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### Storage

Store below 120 F (49 C). Store in accordance with National Fire Protection Association recommendations. Store away from oxidizers. Store in a clean, dry place.

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(Continued)

## EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls**  
Keep container tightly closed.

Normal ventilation.

### Personal Protective Equipment

Respiratory Protection: None required except under unusual circumstances such as described under Fire Fighting Measures.

Protective Gloves: Should be worn when the potential exists for prolonged or repeated skin contact. NBR or neoprene recommended.

Eye/Face Protection: Safety glasses with side shields if splashing is probable.

Other Precautions: Avoid prolonged skin contact by practicing good personal hygiene and laundering contaminated clothing.

### Exposure Guidelines

#### Exposure Limits

TACNA Rx RED MULTIPURPOSE GREASE, NO. 2	
PEL (OSHA)	None Established
TLV (ACGIH)	None Established

## PHYSICAL AND CHEMICAL PROPERTIES

### Physical Data

Boiling Point	Not Applicable
Vapor Pressure	<0.01 mm Hg
Vapor Density	>1 (Air = 1)
Evaporation Rate	<1 (Butyl Acetate = 1)
Odor	Petroleum (mild).
Form	Semi-solid (Grease)
Color	Red
Specific Gravity	0.93 (Water=1.0)
Density	7.5 lb/gal

## STABILITY AND REACTIVITY

**Chemical Stability**  
Stable.

**Conditions to Avoid**  
Heat, sparks, and flames.

**Incompatibility with Other Materials**  
Incompatible with strong oxidizing materials, acids.

**Decomposition**  
Normal combustion forms carbon dioxide; incomplete combustion may produce carbon monoxide.

**Polymerization**  
Polymerization will not occur.

(Continued)

JUL 10 98 5:27 PM L 3 P 713 233 347 014000012033 7.06/00

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## TOXICOLOGICAL INFORMATION

### Animal Data

Mouse skin painting studies have shown that highly solvent-refined petroleum distillates similar to ingredients in this product have not caused skin tumors.

Animal skin exposure studies show high concentrations of zinc organic phosphates cause testicular atrophy, but this effect appears related to stress from the chemical causing severe skin irritation. Low concentrations of the zinc component, as occurs in lubricant products, would not have caused testicular damage.

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## ECOLOGICAL INFORMATION

### Ecotoxicological Information

No specific aquatic data available for this product.

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## DISPOSAL CONSIDERATIONS

### Waste Disposal

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial, and Local regulations. Do not flush to surface water or sanitary sewer system.

### Container Disposal

Empty drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All other containers should be disposed of in an environmentally safe manner.

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## TRANSPORTATION INFORMATION

### Shipping Information

DOT

Not regulated.

ICAO/IMO

Not restricted.

### Shipping Information -- Canada

This material is Not Regulated.

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## REGULATORY INFORMATION

### # U.S. Federal Regulations

#### OSHA HAZARD DETERMINATION

This material is not known to be hazardous as defined by OSHA's Hazard Communication Standard, 29 CFR 1910.1200.

CERCLA/SUPERFUND

(Continued)

REGULATORY INFORMATION(Continued)

Not applicable; this material is covered by the CERCLA petroleum exclusion.

SARA, TITLE III, 302/304

This material is not known to contain extremely hazardous substances.

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute : No  
Chronic : No  
Fire : No  
Reactivity : No  
Pressure : No

SARA, TITLE III, 313

This material contains the following chemical(s) at a level of 1.0% or greater (0.1% for carcinogens) on the list of Toxic Chemicals and is subject to toxic chemical release reporting requirements:

Toxic Chemical(s)                      Zinc Compound

TSCA

Material and/or components are listed in the TSCA Inventory of Chemical Substances (40 CFR 710).

RCRA

This material has been evaluated for RCRA characteristics and does not meet hazardous waste criteria if discarded in its purchased form. Because of product use, transformation, mixing, processing, etc., which may render the resulting material hazardous, it is the product user's responsibility to determine at the time of disposal whether the material meets RCRA hazardous waste criteria.

CLEAN WATER ACT

The material contains the following ingredient(s) which is considered hazardous if spilled into navigable waters and therefore reportable to the National Response Center (1-800-424-8802).

Ingredient(s)                      Petroleum Hydrocarbons  
Reportable Quantity                Film or sheen upon or discoloration of  
any water surface

# State Regulations (U.S.)

CALIFORNIA "PROP 65"

The material contains ingredient(s) known to the State of California to cause cancer, birth defects, or other reproductive harm. Read and follow all label directions.

Ingredient                      Arsenic                      @ <0.01%  
Ingredient                      Cadmium                     @ <0.01%  
Ingredient                      Ethyl acrylate @ <0.01%

(Continued)

**REGULATORY INFORMATION**(Continued)

Ingredient                      Lead                      e <0.01%

PENNSYLVANIA WORKER & COMMUNITY RIGHT TO KNOW ACT  
This material may contain the following ingredient(s) subject to  
the Pennsylvania Worker and Community Right to Know Hazardous  
Substances List.

Ingredient                      Zinc Compound  
Category                      Environmental Hazard

**# Canadian Regulations**

This is not a WHMIS Controlled Product.

Transport/Medical Emergency Phone Number: 1-613-348-3616

**OTHER INFORMATION**

**NFPA, NPCA-HMIS**

NFPA Rating  
Health                              0  
Flammability                      1  
Reactivity                         0

**NPCA-HMIS Rating**

Health                              1  
Flammability                      1  
Reactivity                         0

Personal Protection rating to be supplied by user depending on use  
conditions.

The data in this Material Safety Data Sheet relates only to the  
specific material designated herein and does not relate to use in  
combination with any other material or in any process.

Responsibility for MSDS : MSDS Coordinator  
Address                      : Conoco Inc.  
>                                : PO Box 2197  
>                                : Houston, TX 77252  
Telephone                    : 1-281-293-5550

# Indicates updated section.

End of MSDS

CONOCO -- DEXRON II AND MERCON - HYDRAULIC FLUID, AUTOMATIC TRANSMISSION  
MATERIAL SAFETY DATA SHEET  
NSN: 9150006574959  
Manufacturer's CAGE: 5R396  
Part No. Indicator: A  
Part Number/Trade Name: DEXRON II AND MERCON

=====  
General Information  
=====

Item Name: HYDRAULIC FLUID, AUTOMATIC TRANSMISSION  
Company's Name: CONOCO INC  
Company's P. O. Box: 2197  
Company's City: HOUSTON  
Company's State: TX  
Company's Country: US  
Company's Zip Code: 77252  
Company's Emerg Ph #: 800-424-9300/441-3637  
Company's Info Ph #: 713-293-5550  
Distributor/Vendor # 1: AIM CHEMICALS INC (713-529-4251)  
Distributor/Vendor # 1 Cage: 0AR58  
Record No. For Safety Entry: 024  
Tot Safety Entries This Stk#: 039  
Status: SE  
Date MSDS Prepared: 01APR89  
Safety Data Review Date: 17JAN95  
Supply Item Manager: CX  
MSDS Preparer's Name: ENVIRO & OCCUP HEALTH SRV  
Preparer's Company: CONOCO INC. (713-293-5550)  
Preparer's St Or P. O. Box: (MSDS CODE:ATFC0039)  
MSDS Serial Number: BWDXC  
Specification Number: DEXRON II  
Hazard Characteristic Code: N1  
Unit Of Issue: CN  
Unit Of Issue Container Qty: 5 GALLONS  
Type Of Container: CAN  
Net Unit Weight: 36.3 LBS

=====  
Ingredients/Identity Information  
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Proprietary: NO  
Ingredient: PER MSDS:MATL NOT HAZ AS DEFINED BY OSHA HAZ COMMUN STD,  
20CFR1910.1200.  
Ingredient Sequence Number: 01  
Percent: 100  
NIOSH (RTECS) Number: 9999999ZZ  
OSHA PEL: NOT ESTABLISHED  
ACGIH TLV: NOT ESTABLISHED  
Other Recommended Limit: NONE RECOMMENDED

=====  
Physical/Chemical Characteristics  
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Appearance And Odor: CLEAR RED LIQUID, MILD PETROLEUM HYDROCARBON ODOR.  
Boiling Point: 650F, 343C  
Vapor Density (Air=1): >1  
Specific Gravity: 0.87  
Evaporation Rate And Ref: NIL, REF=UNK  
Solubility In Water: INSOLUBLE  
Percent Volatiles By Volume: NIL  
Autoignition Temperature: 650F

=====  
Fire and Explosion Hazard Data  
=====

Flash Point: 325F, 163C  
Flash Point Method: PMCC  
Extinguishing Media: USE WATER SPRAY, DRY CHEMICAL, CO2, FOAM.  
Special Fire Fighting Proc: WATER/FOAM MAY CAUSE FROTHING. USE WATER TO  
KEEP FIRE-EXPO CNTNRS COOL. WATERSPRAY MAY BE USED TO FLUSH SPILLS AWAY FROM  
EXPOSURES.  
Unusual Fire And Expl Hazrds: PROD OF COMBUST MAY CONTAIN CARBON MONOXIDE,

CARBON DIOXIDE & OTHER TOXIC MATLS.DO NOT ENTER ENCLOSED/CONFINED SPACE W/O PROPER PORT EQPMT INCLUDING RESP PROT.

Reactivity Data

Stability: YES
Cond To Avoid (Stability): HEAT AND FLAME.
Materials To Avoid: STRONG OXIDIZING MATERIALS.
Hazardous Decomp Products: HAZ GASES/VAPORS PRODUCED ARE CARBON DIOXIDE. INCOMPLETE COMBUSTION MAY PRODUCE CARBON MONOXIDE.
Hazardous Poly Occur: NO
Conditions To Avoid (Poly): NOT APPLICABLE

Health Hazard Data

LD50-LC50 Mixture: NONE ESTABLISHED
Route Of Entry - Inhalation: NO
Route Of Entry - Skin: YES
Route Of Entry - Ingestion: NO
Health Haz Acute And Chronic: PRODUCT DOES NOT POSE SIGNIFICANT HEALTH HAZ BUT AS WITH MANY PETROLEUM PRODUCTS POOR HYGIENIC PRACTICES OR INADEQUATE ENGINEERING DESIGN THAT ALLOW PROLONGED/REPEATED EXPOSURE MAY CAUSE MINOR SKIN IRRIT.
Carcinogenicity - NTP: NO
Carcinogenicity - IARC: NO
Carcinogenicity - OSHA: NO
Explanation Carcinogenicity: PER MSDS:LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN BY:NTP/IARC/OSHA:NO.
Signs/Symptoms Of Overexp: MOUSE SKIN PAINTING SUTDIES HAVE SHOWN THAT HIGHLY SOLVENT-REFINED PETROLEUM DISTILLATES SIMILAR TO INGRED IN THIS PRODUCT HAVE NOT CAUSED SKIN TUMORS.
Med Cond Aggravated By Exp: NONE SPECIFIED BY MFG.
Emergency/First Aid Proc: EYE:IMMED FLUSH W/PLENTY OF WATER FOR @LEAST 15MINS.CALL DR.SKIN:COMPOUND NOT LIKELY TO BE HAZ BY SKIN CONTACT BUT CLEANSING SKIN AFT USE IS ADVISABLE.INHAL:NO SPECIFIC INTERVENTION IS INDICATED AS COMPOUND NOT LIKELY TO BE HAZ BY INHAL.HOWEVER CONSULT DR IF NECESSARY.INGEST:DO NOT INDUCE VOMIT.GIVE LG QUANT OF WATER.CALL DR.NOTE TO DR:GASTRIC LAVAGE BY QUALIFIED PERSON DEPENDING ON AMT INGESTED.

Precautions for Safe Handling and Use

Steps If Matl Released/Spill: CONTAIN IMMED.RECOVER BY VACUUMING FOLLOWED BY RECOVERING RESIDUAL FLUIDS W/ABSORBENT MATL.NON-RECOVERABLE PROD, CONTAMIN SOIL/DEBRIS,OTHER MATL SHOULD BE PLACED IN PROPER CNTNR FOR ULTIMATE DISPOSAL.AVOID WASHING,DRAINING,DIRECTING MATL TO STORM/SEW
Neutralizing Agent: NONE SPECIFIED BY MFG
Waste Disposal Method: RECYCLE AS MUCH OF RECOVERABLE PROD AS POSSIBLE. TREAT/STORAGE/TRANSP/DISPOSAL MUST BE IAW APPLIABLE FED/STATE/PROVINCIAL/ LOC REGS.MATL CONTAINS PETROLEUM HYDROCARBON-CONSIDERED HAZ IF SPILLED IN NAVIGABLE WATERS.RQ=FILM/SHEEN UPON/DISCOLOR OF H2O SUR
Precautions-Handling/Storing: HANDLE & STORE IN ACCORDANCE WITH NFPA PROCEDURE FOR CLASS IIIB COMBUSTIBLE LIQUID.
Other Precautions: NORMAL PRECAUTIONS FOR HANDLING HOT, MOLTEN LIQUID OR SOLUTIONS.

Control Measures

Respiratory Protection: NONE NORMALLY REQUIRED EXCEPT UNDER UNUSUAL CIRCUMSTANCES SUCH AS DESCRIBED IN FIRE/EXPLOSION HAZARD DATA SECTION.
Ventilation: NORMAL SHOP VENTILATION.
Protective Gloves: RUBBER OR PVC GLOVES.
Eye Protection: SAFETY GLASSES W/SIDESHIELDS,CHEM GOGG
Other Protective Equipment: NONE SPECIFIED BY MFG.
Work Hygienic Practices: AVOID CONTACT W/EYES,SKIN,CLOTHING. WASH HANDS AFTER HANDLING.

Transportation Data

Trans Data Review Date: 95017

DOT PSN Code: ZZZ  
DOT Proper Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION  
IMO PSN Code: ZZZ  
IMO Proper Shipping Name: NOT REGULATED FOR THIS MODE OF TRANSPORTATION  
IATA PSN Code: ZZZ  
IATA Proper Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION  
AFI PSN Code: ZZZ  
AFI Prop. Shipping Name: NOT REGULATED BY THIS MODE OF TRANSPORTATION

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Disposal Data

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Label Data

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Label Required: YES  
Technical Review Date: 17JAN95  
Label Status: F  
Common Name: DEXRON II AND MERCON  
Chronic Hazard: NO  
Signal Word: CAUTION!  
Acute Health Hazard-Slight: X  
Contact Hazard-Slight: X  
Fire Hazard-None: X  
Reactivity Hazard-None: X  
Special Hazard Precautions: PROD DOES NOT POSE SIG HEALTH HAZ BUT AS W/  
MANY PETROLEUM PROD POOR HYGIENIC PRACT/INADEQUATE ENGINEERING DESING THAT  
ALLOW PROLONGED/REPEATED EXPOSURE MAY CAUSE MINOR SKIN IRRIT. HANDLE &  
STORE IAW NFPA PROCEDURE FOR CLASS III B COMBUST LIQ. TARGET ORGANS:SKIN.  
1ST AID: EYE: IMMEDIATELY FLUSH W/ LOTS OF WATER FOR @LEAST 15MINS. CALL DR. SKIN: COMPD  
NOT LIKELY TO BE HAZ BY SKIN CONTACT BUT CLEANSING SKIN AFT USE IS  
ADVISABLE. INHAL: NO SPECIFIC INTERVENTION IS INDICATED AS COMPD NOT LIKELY TO  
BE HAZ BY INHAL. HOWEVER CONSULT DR IF NECESSARY. INGEST: DO NOT INDUCE VOMIT.  
GIVE LG AMTS OF WATER. CALL DR. NOTE TO DR: GASTRIC LAVAGE BY QUAL PERSON  
DEPENDING ON AMT INGESTED  
Protect Eye: Y  
Protect Skin: Y  
Protect Respiratory: Y  
Label Name: CONOCO INC  
Label P.O. Box: 2197  
Label City: HOUSTON  
Label State: TX  
Label Zip Code: 77252  
Label Country: US  
Label Emergency Number: 800-424-9300/441-3637

UTU-64375

3rd Right

13 12 11 10 9 8 7 6 5 4 3 18

Abandoned Equipment  
(2) 1986 Hemscheidt Shields  
(1) 1998 Joy Shield  
~40 Gallons each (Emulsion fluids)  
95% Water  
5% Emulsion  
6 Gallons Neat Oil

5th LEFT

Shields  
Abandonment  
Area

4th Right

13 12 11 10 9 8 7 6 5 4 3 24

UTU-64375

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CAD FILE NAME/DISK#: USERS\KJL\TRAIL\3R-ABANDONMENT.DWG

ENERGY WEST  
MINING COMPANY  
HUNTINGTON, UTAH 84528

TRAIL MOUNTAIN MINE  
3RD RIGHT LONGWALL  
SHIELD ABANDONMENT

DRAWN BY: K. LARSEN

SCALE: 1" = 200'

DATE: OCTOBER 6, 2000

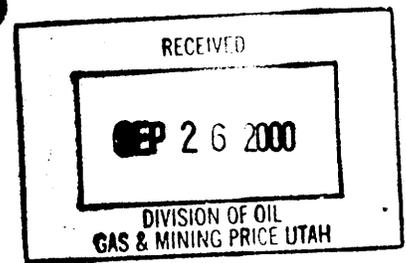
DRAWING #:

SHEET 1 OF 1

REV.

RECEIVED  
NOV 1 2000  
DIV. OF OIL, GAS & MINING





September 25, 2000

Mr. Richard Manus  
District Area Manager  
Bureau of Land Management  
Moab District, Price River Resource Area  
125 South 600 West  
Price, Utah 84501

Subject: **Abandonment of three longwall shields on the 3<sup>rd</sup> Right longwall extraction face, Trail Mountain Mine.**

Mr. Manus:

Pacificorp, by and through its wholly-owned subsidiaries, Interwest Mining Company as managing agent and Energy West Mining Company as mine operator hereby submits the following as notification of equipment that has been abandoned due to safety measures in the Trail Mountain Mine on Lease No. UTU-64375.

The longwall at Trail Mountain completed extraction of the 3<sup>rd</sup> Right panel to its approved extraction face at x-cut 8 on September 3, 2000. The extraction face was meshed and bolted with two noticeable high areas where the upper split and of carbonaceous siltstone had fallen above the normal roof horizon an additional 4-5'. These two areas were located from shield 55-63 and 106 to the tailgate. The new immediate top in these areas was a sandstone member. As the extraction of the shields began, the first 15 shields were extracted with little or no material caving behind the shields. This created additional, arching weight on the face and trailing shields and by the time the 112 was pulled, the trailing shields were very difficult to pull in. While working to pull the trailing shields up to prepare for extraction of shield 111, the area behind the trailing shields began "working" very hard and a shear tear in the sandstone member along the face opened up. Shortly after, a massive fall of the sandstone member, approximately 8-10' high from the tips of the shields to the face (10') and from shield 111-106 (27') occurred without warning. One injury was sustained with the falling rock breaking a leg of one of the supervisors who was stationed in the trailing shield area. This took place on September 6, 2000 at 11:00 am. MSHA was notified due to a roof fall that occurred above the anchorage horizon and they informed Energy West to begin

Huntington Office:  
(435) 687-9821  
Fax (435) 687-2695  
Purchasing Fax (435) 687-9092

Deer Creek Mine:  
(435) 687-2317  
Fax (435) 687-2285

Trail Mountain Mine:  
(435) 748-2140  
Fax (435) 748-5125

cleanup of the area and that a representative would be on the property in the afternoon. No citations or orders were cited in connection with this incident.

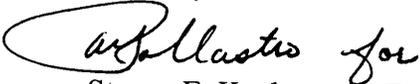
After the cleanup and some resecuring of the brow areas, the resultant height from 111-106 shield was ~25' high. The trailing shields were set at ~9' high with all the broken material up to the 25' level resting on them. After inspection of the area and in preparation to resume extraction of the shields, it was decided on September 7, for safety reasons to leave the two trailing shields and the first line shield (111) to act as a "breaker row" or bridge between the gob and face area behind the trailing shields and the current extraction face.

The extraction of the remaining shields were successful and completed on September 10, 2000.

In regards to the shields that were abandoned, all three shields were left in support of the roof extended to 8-10' and filled with emulsion fluid (95% water - 5% emulsion oil mixture) with a capacity of ~40 gallons each. The two trailing shields were a 1986 Hemshiedt model and the line shield was a 1998 Joy shield.

If there are any questions in regard to this matter, please call Carl Pollastro at 435-687-4701.

Sincerely,



Steven E. Kochevar, P.E.  
Sr. Planning and Development Engineer  
Interwest Mining Company

Cc: William Malencik, UDOGM

UTU-64375

3rd Right

13 12 11 10 9 8 7 6 5 4 3 18

2150

Abandoned Equipment

- (2) 1986 Hemscheidt Shields
- (1) 1998 Joy Shield
- ~40 Gallons each (Emulsion fluids)
- 95% Water
- 5% Emulsion
- 6 Gallons Neat Oil

5th LEFT

Shields Abandonment Area

~ 9020 Elev.

4th Right  
2nd Right

13 12 11 10 9 8 7 6 5 4 3 24

UTU-64375

13 12 11 10 9 8 7 6 5 4 3 25

26

27

CAD FILE NAME/DISK#: USERS\KJL\TRAIL\3R-ABANDONMENT.DWG

ENERGY WEST  
MINING COMPANY  
HUNTINGTON, UTAH 84528

TRAIL MOUNTAIN MINE  
3RD RIGHT LONGWALL  
SHIELD ABANDONMENT

DRAWN BY: K. LARSEN

SCALE: 1" = 200'

DATE: OCTOBER 6, 2000

DRAWING #:

SHEET 1 OF 1

REV.

Strike N30°W  
Dip 5-6 WSW

