Steve Meagher

From: Bert Bloom **Sent:** Mon 8/11/2008 11:35 AM
To: Steve Knutson; Steve Meagher
Cc:
Subject: Gas pipeline hydrostatic test
Attachments:

Assuming the pipeline is either class 1 or 2 division 1 or 2, the required test pressure is 125% of maop. During the test, the lowest pressure achieved determines the maop. In other words, if you wanted to hold 2700 psi but it drops to 2600 during the test, the 2600 psi determines the maop. The weak link on the system will be the 900# flanges. Per Ansi, the 900# flanges can be rated at 2220 psi. Using the 1.25 factor would give a pressure of 2775 psi. Due to concerns about minimum pressure during the test, lets set the test pressure at 1.3 times maop which is:

Test pressure: 2900 psi

Maximum pressure during test is: 3000 psi
Minimum pressure during test is: 2800 psi

Test duration is 8 hours with recording documentation.

Tks,

Bert Bloom
Whiting Petroleum
303-357-1446

CLIENT: JW MEASUREMENT
JOB NO: 262WI
DATE CALIBRATION
PREFORMED: 07/07/08
DATE DUE: 07/07/09

CALIBRATION DATA

DEADWEIGHT TESTER

CALIBRATION TECHNICIANS & SUPPLY, INC.

MANUFACTURER: REFINERY SUPPLY
MANUFACTURERS TOLERANCE: .1 %
MODEL: 35255- 1
SERIAL NO: 322

CALIBRATION DATA:

METHOD: AS PER MANUFACTURERS SPECIFICATION.

The following calibration standards provide NIST traceability.

TEST EQUIPMENT: DHI RPM4 A20Ms-L/A7Ms-L S/N: 700 CAL DATE: 09/21/07
TEST EQUIPMENT: S/N: CAL DATE:
TEST EQUIPMENT: S/N: CAL DATE:

CALIBRATION:

WEIGHT NUMBER	WEIGHT	ACTUAL AS FOUND	ACTUAL AS LEFT
PISTON	50 PSI	N/A	50.000 PSI
A	500 PSI	N/A	499.984 PSI
B	500 PSI	N/A	499.998 PSI
C	500 PSI	N/A	500.002 PSI
D	500 PSI	N/A	499.994 PSI
E	500 PSI	N/A	500.025 PSI
A	100 PSI	N/A	100.020 PSI
B	100 PSI	N/A	99.986 PSI
C	100 PSI	N/A	100.002 PSI
D	100 PSI	N/A	100.006 PSI
50	50 PSI	N/A	49.999 PSI
A	10 PSI	N/A	9.997 PSI
B	10 PSI	N/A	9.999 PSI
C	10 PSI	N/A	9.998 PSI
D	10 PSI	N/A	9.996 PSI
5	5 PSI	N/A	4.999 PSI
A	2 PSI	N/A	1.999 PSI
B	2 PSI	N/A	2.000 PSI
1	1 PSI	N/A	1.000 PSI

AS FOUND READINGS N/A DUE TO A WORN/ BENT PISTON ASSEMBLY.

COMMENTS: STATED GRAVITY: 980.665 CM/SEC. SQ. @ 25 · DEGREES CELSIUS

ALL "AS FOUND/AS LEFT PRESSURE INDICATIONS ARE REFERENCED TO THIS UNIT'S STATED GRAVITY AND TEMP.

TEMP: 72 °F RH: 50 % CTSI CAL BY:

DATE: 07/07/08

STEVE CICCO

P.O. Box 138 • 94 Allegiance Cr. Suite D • Evanston, WY 82931-0138 • (307) 789-0596 • Fax (307) 789-0598

NATCO TECHNICAL SERVICES
Quality Control Manual
Williston, ND

Revision No. 3

NATCO TECHNICAL SERVICES
P.O. BOX 580
WILLISTON, ND 58801
701-774-0341

CERTIFICATE OF CALIBRATION

DATE OF TEST: 7-11-2008 CUSTOMER: JW Measurement

TEST INSTRUMENT: AMETEK R-100

S/N 16970 CUSTOMER PO#:_____

TEST INSTRUMENT CAL DATE: JANUARY 23, 2006

SUBJECT INSTRUMENT TESTED: PSI-TRONIX

RANGE OF SERVICE: 0 TO 5000 PSI

SUBJECT INSTRUMENT S/N: PG-5000

TEST DATA

PSIG

Test Instrument Reading	Test Subject Reading	Error
0	0	0
1000	1000	0
2000	2000	0
3000	3000	0
4000	4000	0
3000	3000	0
2000	2000	0
1000	1000	0
0	0	0

SUBMITTED BY: Steve Marquette

CALIBRATION TECHNICIANS & SUPPLY, INC.
Instrument Repair & Calibration Laboratory
Providing NIST Traceability
&
Instrumentation Supplies

CALIBRATION CERTIFICATION

SUBMITTED BY: JW MEASUREMENT CERTIFICATE#: 39659.3488

INSTRUMENT: COOPER DIGITAL THERMOMETER

SERIAL NO: C393051 MODEL NO: TM99A-UL

The above instrument has been cleaned, tested and calibrated by Calibration Technicians & Supply, INC. as per manufacturers specifications and is warranted at time of delivery only, to be at a level of accuracy traceable to NIST, with exceptions noted.
Due to the inherent characteristics of this instrument it is highly recommended that it is recalibrated within (365) days to assure the accuracy and reliability of this instrument.

The unit was received in the following condition:
IN TOLERANCE ( ) OUT OF TOLERANCE ( ) PHYSICALLY DAMAGED (X)

The unit was returned in the following condition:
IN TOLERANCE (X) OUT OF TOLERANCE ( ) PHYSICALLY DAMAGED ( )

NOTES:
"AS FOUND" N/A DUE TO A DAMAGED PROBE.

The following applicable calibration standards, used by Calibration Technicians & Supply, INC. provide NIST traceability. Calibration procedures used meet or exceed the requirements of MIL-STD 45662.

LAB EQUIPMENT	SERIAL #	CALIBRATED	DUE DATE	NIST TRACE #
ALTEK 311	243127	07/26/07	07/26/09	AR1374-1
ALTEK 322	10472603	07/26/07	07/26/09	AR1374-2
ALTEK 941	247436	10/11/06	10/11/08	AR1314
AMETEK AMC900115BG	8254003	06/04/08	06/04/09	1235268
AMETEK C-140	011916-00022	01/08/08	01/08/09	39455.6550
ASHCROFT DEADWEIGHT	2JH-41689	10/23/06	10/23/08	39013.4973
DHI RPM4 A20Ms-L/A7Ms-L	700	09/21/07	09/21/08	56082
DHI RPM4 A2Ms/A700Ks	701	09/19/07	09/19/08	55960
DHI RPM4 G100Ks/BG15Ks	702	09/21/07	09/21/08	56103
MARTEL M2001	9485026	08/20/07	08/20/08	093259
PICOTEST M3500A	TW00003016	07/31/07	07/31/08	M3500ATW
RESISTANCE SUBSTITUTE	CT-RS-1	05/07/08	05/07/10	39576.3739

TEMP: 72 °F
RH: 46 %
6750 Feet Mean Sea Level Height

BY: _____
STEVE CICCO
LAB NO: 26 WI

CAL DATE: 07/29/08
DUE DATE: 07/29/09

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CLIENT: JW MEASUREMENT
JOB NO: 262WI
DATE CALIBRATION
PREFORMED: 07/29/08
DATE DUE: 07/29/09

CALIBRATION DATA

METER / SIMULATOR

CALIBRATION TECHNICIANS & SUPPLY, INC.

MANUFACTURER: COOPER SERIAL NO: C393051 MODEL: TM99A-UL

CALIBRATION DATA:

METHOD: AS PER MANUFACTURERS SPECIFICATIONS

The following calibration standards provide NIST traceability

TEST EQUIPMENT:	RESISTANCE SUB	S/N: CT-RS-1	CAL DATE: 05/07/08
TEST EQUIPMENT:	PICOTEST M3500A	S/N: TW00003016	CAL DATE: 07/31/07
TEST EQUIPMENT:		S/N:	CAL DATE:
TEST EQUIPMENT:		S/N:	CAL DATE:
TEST EQUIPMENT:		S/N:	CAL DATE:
TEST EQUIPMENT:		S/N:	CAL DATE:

CALIBRATION:

RANGE SELECTED	MANUFACTURER'S TOLERANCE	INPUT VALUE	INDICATED VALUE AS FOUND	INDICATED VALUE AS LEFT
DEGREES F.	+/- .3 DEG. F.	-22 DEG. F.	N/A	-22.0 DEG. F.
DEGREES F.	+/- .3 DEG. F.	32 DEG. F.	N/A	32.0 DEG. F.
DEGREES F.	+/- .5 DEG. F.	104 DEG. F.	N/A	104.1 DEG. F.
DEGREES F.	+/- .8 DEG. F.	176 DEG. F.	N/A	176.1 DEG. F.
DEGREES F.	+/- 1.1 DEG. F.	230 DEG. F.	N/A	230.1 DEG. F.
DEGREES F.	+/- 1.4 DEG. F.	284 DEG. F.	N/A	283.3 DEG. F.

COMMENTS: THERMISTOR PROBE # 100071 TESTED AND PASSED @ 32 DEG. F.
"AS FOUND" N/A DUE TO A DAMAGED PROBE.

TEMP: 72 °F RH: 46 % DATE: 07/29/08

CTSI CAL BY: STEVE CICCO

P.O. Box 138 • 94 Allegiance Cr. Suite D • Evanston, WY 82931-0138 • (307) 789-0596 • Fax (307) 789-0598

Steve Meagher

From: Bert Bloom **Sent:** Mon 8/11/2008 11:35 AM
To: Steve Knutson; Steve Meagher
Cc:
Subject: Gas pipeline hydrostatic test
Attachments:

Assuming the pipeline is either class 1 or 2 division 1 or 2, the required test pressure is 125% of maop. During the test, the lowest pressure achieved determines the maop. In other words, if you wanted to hold 2700 psi but it drops to 2600 during the test, the 2600 psi determines the maop. The weak link on the system will be the 900# flanges. Per Ansi, the 900# flanges can be rated at 2220 psi. Using the 1.25 factor would give a pressure of 2775 psi. Due to concerns about minimum pressure during the test, lets set the test pressure at 1.3 times maop which is:

Test pressure: 2900 psi

Maximum pressure during test is: 3000 psi
Minimum pressure during test is: 2800 psi

Test duration is 8 hours with recording documentation.

Tks,

Bert Bloom
Whiting Petroleum
303-357-1446

You replied on 8/11/2008 3:20 PM.

Steve Meagher

From: Bert Bloom **Sent:** Mon 8/11/2008 11:35 AM
To: Steve Knutson; Steve Meagher
Cc:
Subject: Gas pipeline hydrostatic test
Attachments:

Assuming the pipeline is either class 1 or 2 division 1 or 2, the required test pressure is 125% of maop. During the test, the lowest pressure achieved determines the maop. In other words, if you wanted to hold 2700 psi but it drops to 2600 during the test, the 2600 psi determines the maop. The weak link on the system will be the 900# flanges. Per Ansi, the 900# flanges can be rated at 2220 psi. Using the 1.25 factor would give a pressure of 2775 psi. Due to concerns about minimum pressure during the test, lets set the test pressure at 1.3 times maop which is:

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Maximum pressure during test is: 3000 psi
Minimum pressure during test is: 2800 psi

Test duration is 8 hours with recording documentation.

Tks,

Bert Bloom
Whiting Petroleum
303-357-1446

Steve Meagher

From: Steve Meagher **Sent:** Tue 8/12/2008 5:27 AM
To: Nicole Tebow; Bert Bloom; Steve Knutson
Cc:
Subject: forms for hydro test,
Attachments:

Hi Nicole, I had a list from you on all the criteria you would want on this hydorstest of the 6 inch steel to WBI, i was wondering if you had the officcial Whiting forms for us to fill out and document with, as Mr. Miller stated we do not want to have to redo this,

Bert has sent the criteria as far as pressures, so we have that but I would like any other form Whiting has to be filled out,

We are ready with a calibrated dead weight tester, will get a calibrated gauge, and have a chart recorder on hand to compare with the dead weights,

After that we should be ok if we have the forms, I have some but they are old Bear Paw ,

CALIBRATION TECHNICIANS & SUPPLY, INC.
Instrument Repair & Calibration Laboratory
Providing NIST Traceability
&
Instrumentation Supplies

CALIBRATION CERTIFICATION

SUBMITTED BY: JW MEASUREMENT CERTIFICATE#: 39636.6103

INSTRUMENT: REFINERY SUPPLY DEADWEIGHT GAUGE 50 - 3050 PSIG

SERIAL NO: 322 MODEL NO: 35255-1

The above instrument has been cleaned, tested and calibrated by Calibration Technicians & Supply, INC. as per manufacturers specifications and is warranted at time of delivery only, to be at a level of accuracy traceable to NIST, with exceptions noted.
Due to the inherent characteristics of this instrument it is highly recommended that it is recalibrated within (365) days to assure the accuracy and reliability of this instrument.

The unit was received in the following condition:
IN TOLERANCE ( ) OUT OF TOLERANCE ( ) PHYSICALLY DAMAGED (X)

The unit was returned in the following condition:
IN TOLERANCE (X) OUT OF TOLERANCE ( ) PHYSICALLY DAMAGED ( )

NOTES:

PISTON ASSEMBLY WORN / BENT, UNABLE TO DOCUMENT AS FOUND READINGS.

The following applicable calibration standards, used by Calibration Technicians & Supply, INC. provide NIST traceability. Calibration procedures used meet or exceed the requirements of MIL-STD 45662.

LAB EQUIPMENT	SERIAL #	CALIBRATED	DUE DATE	NIST TRACE #
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ALTEK 322	10472603	07/26/07	07/26/09	AR1374-2
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MARTEL M2001	9485026	08/20/07	08/20/08	093259
PICOTEST M3500A	TW00003016	07/31/07	07/31/08	M3500ATW
RESISTANCE SUBSTITUTE	CT-RS-1	05/07/08	05/07/10	39576.3739

TEMP: 72 °F BY: STEVE CICCO CAL DATE: 07/07/08
RH: 50 % DUE DATE: 07/07/09
6750 Feet Mean Sea Level Height LAB NO: 262WI

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Material Safety Data Sheet

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Chevron Rykon® Oil AW

Product Use: Hydraulic Oil
Product Number(s): CPS229001, CPS229002, CPS229003
Synonyms: Chevron Rykon® Oil AW ISO 32; Chevron Rykon® Oil AW ISO 46, Chevron Rykon® Oil AW ISO 68
Company Identification
Chevron Products Company
Global Lubricants
6001 Bollinger Canyon Rd.
San Ramon, CA 94583
United States of America
www.chevron-lubricants.com

Transportation Emergency Response
CHEMTREC: (800) 424-9300 or (703) 527-3887.
Health Emergency
Chevron Emergency Information Center: located in the USA. International collect calls accepted. (800) 231-0623 or (510) 231-0623
Product Information
email : lubemsds@chevrontexaco.com
Product Information: (800) LUBE TEK
MSDS Requests: (800) 414-6737

SECTION 2 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Highly refined mineral oil (C15 - C50)	Mixture	90 - 100 %weight

SECTION 3 HAZARDS IDENTIFICATION

IMMEDIATE HEALTH EFFECTS
Eye: Not expected to cause prolonged or significant eye irritation.
Skin: Contact with the skin is not expected to cause prolonged or significant irritation. Not expected to be harmful to internal organs if absorbed through the skin. High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part.

Ingestion: Not expected to be harmful if swallowed.
Inhalation: Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

SECTION 4 FIRST AID MEASURES

Eye: No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes

with water.
Skin: No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.
Ingestion: No specific first aid measures are required. Do not induce vomiting. As a precaution, get medical advice.
Inhalation: No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention if coughing or respiratory discomfort occurs.
Note to Physicians: In an accident involving high-pressure equipment, this product may be injected under the skin. Such an accident may result in a small, sometimes bloodless, puncture wound. However, because of its driving force, material injected into a fingertip can be deposited into the palm of the hand. Within 24 hours, there is usually a great deal of swelling, discoloration, and intense throbbing pain. Immediate treatment at a surgical emergency center is recommended.

SECTION 5 FIRE FIGHTING MEASURES

Leaks/ruptures in high pressure system using materials of this type can create a fire hazard when in the vicinity of ignition sources (eg. open flame, pilot lights, sparks, or electric arcs).

FIRE CLASSIFICATION:
OSHA Classification (29 CFR 1910.1200): Not classified by OSHA as flammable or combustible.

NFPA RATINGS: Health: 0 Flammability: 1 Reactivity: 0

FLAMMABLE PROPERTIES:
Flashpoint: (Cleveland Open Cup) 170 °C (338 °F) (Min)
Autoignition: No Data Available
Flammability (Explosive) Limits (% by volume in air): Lower: Not Applicable Upper: Not Applicable

EXTINGUISHING MEDIA: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.
PROTECTION OF FIRE FIGHTERS:
Fire Fighting Instructions: This material will burn although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.
Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Protective Measures: Eliminate all sources of ignition in vicinity of spilled material.
Spill Management: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.
Reporting: Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

SECTION 7 HANDLING AND STORAGE

Precautionary Measures: DO NOT USE IN HIGH PRESSURE SYSTEMS in the vicinity of flames, sparks and hot surfaces. Use only in well ventilated areas. Keep container closed.

General Handling Information: Avoid contaminating soil or releasing this material into sewage and drainage systems and bodies of water.
Static Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating

procedures. For more information, refer to OSHA Standard 29 CFR 1910.106, 'Flammable and Combustible Liquids', National Fire Protection Association (NFPA 77, 'Recommended Practice on Static Electricity', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents'.
Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS:
Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS:
Use in a well-ventilated area.

PERSONAL PROTECTIVE EQUIPMENT
Eye/Face Protection: No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.
Skin Protection: No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: 4H (PE/EVAL), Nitrile Rubber, Silver Shield; Viton.
Respiratory Protection: No respiratory protection is normally required.
If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge.
Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.
Occupational Exposure Limits:

Component	Agency	TWA	STEL	Ceiling	Notation
Highly refined mineral oil (C15 - C50)	ACGIH	5 mg/m3	10 mg/m3	-	-
Highly refined mineral oil (C15 - C50)	OSHA Z-1	5 mg/m3	-	-	-

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Attention: the data below are typical values and do not constitute a specification.

Color: Yellow
Physical State: Liquid
Odor: Petroleum odor
pH: Not Applicable
Vapor Pressure: <0.01 mmHg @ 37.8 °C (100 °F)
Vapor Density (Air = 1): >1
Boiling Point: >315°C (599°F)
Solubility: Soluble in hydrocarbon solvents; insoluble in water.
Freezing Point: Not Applicable
Specific Gravity: 0.86 - 0.9 @ 15.6°C (60.1°F) / 15.6°C (60.1°F)
Density: 0.86 kg/l - 0.9 kg/l @ 15°C (59°F)
Volatile Organic Compounds (VOC) : <2.1 %weight
Viscosity: 28.8 cSt @ 40°C (104°F) (Min)

SECTION 10 STABILITY AND REACTIVITY

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Incompatibility With Other Materials: May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.
Hazardous Decomposition Products: None known (None expected)
Hazardous Polymerization: Hazardous polymerization will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

IMMEDIATE HEALTH EFFECTS
Eye Irritation: The eye irritation hazard is based on evaluation of data for similar materials or product components.
Skin Irritation: The skin irritation hazard is based on evaluation of data for similar materials or product components.
Skin Sensitization: No product toxicology data available.
Acute Dermal Toxicity: The acute dermal toxicity hazard is based on evaluation of data for similar materials or product components.
Acute Oral Toxicity: The acute oral toxicity hazard is based on evaluation of data for similar materials or product components.
Acute Inhalation Toxicity: The acute inhalation toxicity hazard is based on evaluation of data for similar materials or product components.

ADDITIONAL TOXICOLOGY INFORMATION:
This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as: carcinogenic to humans (Group 1), probably carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B). These oils have not been classified by the American Conference of Governmental Industrial Hygienists (ACGIH) as: confirmed human carcinogen (A1), suspected human carcinogen (A2), or confirmed animal carcinogen with unknown relevance to humans (A3).

SECTION 12 ECOLOGICAL INFORMATION

ECOTOXICITY
48 hour(s) EC50: >1000 mg/l (Daphnia magna)
96 hour(s) LC50: >1000 mg/l (Oncorhynchus mykiss)
This material is not expected to be harmful to aquatic organisms.

ENVIRONMENTAL FATE
This material is not expected to be readily biodegradable.

SECTION 13 DISPOSAL CONSIDERATIONS

Use material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

SECTION 14 TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

You replied on 8/12/2008 8:37 AM.

Steve Meagher

From: Bert Bloom **Sent:** Tue 8/12/2008 8:35 AM
To: Steve Meagher
Cc:
Subject: RE: hydro test recording sheet
Attachments:

Steve, this will work. It looks to be consistent with Nicole's comments.

Tks,

Bert Bloom
Whiting Petroleum
303-357-1446

From: Steve Meagher
Sent: Tuesday, August 12, 2008 8:33 AM
To: Bert Bloom
Subject: hydro test recording sheet

Please look this over and comment, thanks sm

Steve Meagher

From: Bert Bloom **Sent:** Tue 8/12/2008 8:18 AM
To: Steve Meagher; Steve Knutson
Cc:
Subject: FW: Robinson Lake Residue Line
Attachments:

Here's one. Were higher than 125%.

Bert Bloom

Whiting Petroleum

303-357-1446

From: Nicole Tebow
Sent: Monday, July 21, 2008 10:56 AM
To: Brent Miller; Bert Bloom; Rick Ross
Cc: Jim Brown; Jack Braun; Jagadeesan Sethuraman
Subject: Robinson Lake Residue Line

I understand you are meeting with the ND PSC and DOT this afternoon to discuss the jurisdictional status of the Robinson Lake Residue Line. If you would like, I am available to sit in on that meeting. If you do not feel this is necessary that is fine too.

Also, Kelly mentioned that you are discussing hydrotesting the Robinson Lake Residue Line soon. Of course, testing requirements are based on jurisdictional status. If this is determined to be a transmission line, Part 192.619 requires metallic pipe to be tested at 1.25% the intended Maximum Allowable Operating Pressure (MAOP). Depending on what specified minimum yield strength (SMYS) we plan on operating the line at the requirements vary slightly as well. Per 192.505, pipelines operating equal to or greater than 30% SMYS: The line must be tested at 125% MAOP for 8 continuous hours without dropping below specified pressure.

If we plan on operating the line at a lower SMYS percentage or if we plan on testing with air or gas instead of water, please let me know. The testing requirements are different for those scenarios.

Please let me know if you have questions, concerns or if there is anything else I can do to help.

Thank you,

Nicole Tebow

Pipeline Compliance Specialist

Whiting Petroleum Corporation

1700 Broadway, Suite 2300

Denver, Colorado 80290-2300

Office: 303-390-4957

Cell: 303-815-6446

Fax: 303-390-5581

E-mail: Nicole.Tebow@whiting.com

Hydro Test Number: WBT 6" 280 Wall **AFE:** **Date:** 8-12-08

Testing Contractor: F&D Oilfield **Page** 1 **of** 1

Name: Fred Varner

Inspector: Kenny Leisith

Water - 3182 Barrels

Pipe Above Grade 80' feet

Pipe Below Grade 87440 feet

Pipe Size: 6" 280 Wall

DATE	TIME	DIGITAL OR DEADWEIGHT PRESSURE	AMBIENT TEMP	BELOW GROUND PIPE TEMP	ABOVE GROUND PIPE TEMP	GROUND TEMP	REMARKS
8-12-08	9-00AM	2980	64	[illegible]	64	71.6	Brought up to pressure
8-12-08	9-15AM	2980	66		66	71.6	
"	9-30AM	2980	66		66	71.6	Ground Probe 18" in
"	9-45AM	2980	68		68	71.6	ground
"	10-00AM	2980	68		70	71.6	
"	10-15AM	2980	68		72	71.5	
"	10-30AM	2980	68		73	71.5	
"	10-45AM	2980	73		76	71.4	
"	11-00AM	2980	78		76	71.3	
"	11-15AM	2980	78		78	71.2	
"	11-30AM	2980	80		80	71.2	
"	11-45AM	2980	81		80	71.2	
"	12-00PM	2980	84		83	71.1	
"	12-15PM	2980	84		83	71.1	
"	12-30PM	2980	84		86	71.1	
"	12-45PM	2980	84		88	71.0	
"	1-00PM	2980	84		93	71.0	
"	1-15PM	2980	84		93	71.0	
"	1-30PM	2980	84		92	70.9	Wind Came up
"	1-45PM	2980	84		93	70.9	Wind laid down
"	2-00PM	2980	85		93	70.9	
"	2-15PM	2980	85		95	70.9	
"	2-30PM	2980	85		96	70.9	
"	2-45PM	2980	85		100	70.8	
"	3-00PM	2980	85		101	70.8	
"	3-15PM	2980	84		100	70.8	
"	3-30PM	2980	84		96	70.8	Sun Behind Clouds
"	3-45PM	2980	84		102	70.8	Sun Back out
"	4-00PM	2980	84		100	70.8	
"	4-15PM	2980	84		102	70.8	
"	4-30PM	2980	84		98	70.7	
"	4-45PM	2980	84		98	70.7	
"	5-00PM	2980	84		97	70.7	
"	5-15PM	2980	84		96	70.7	

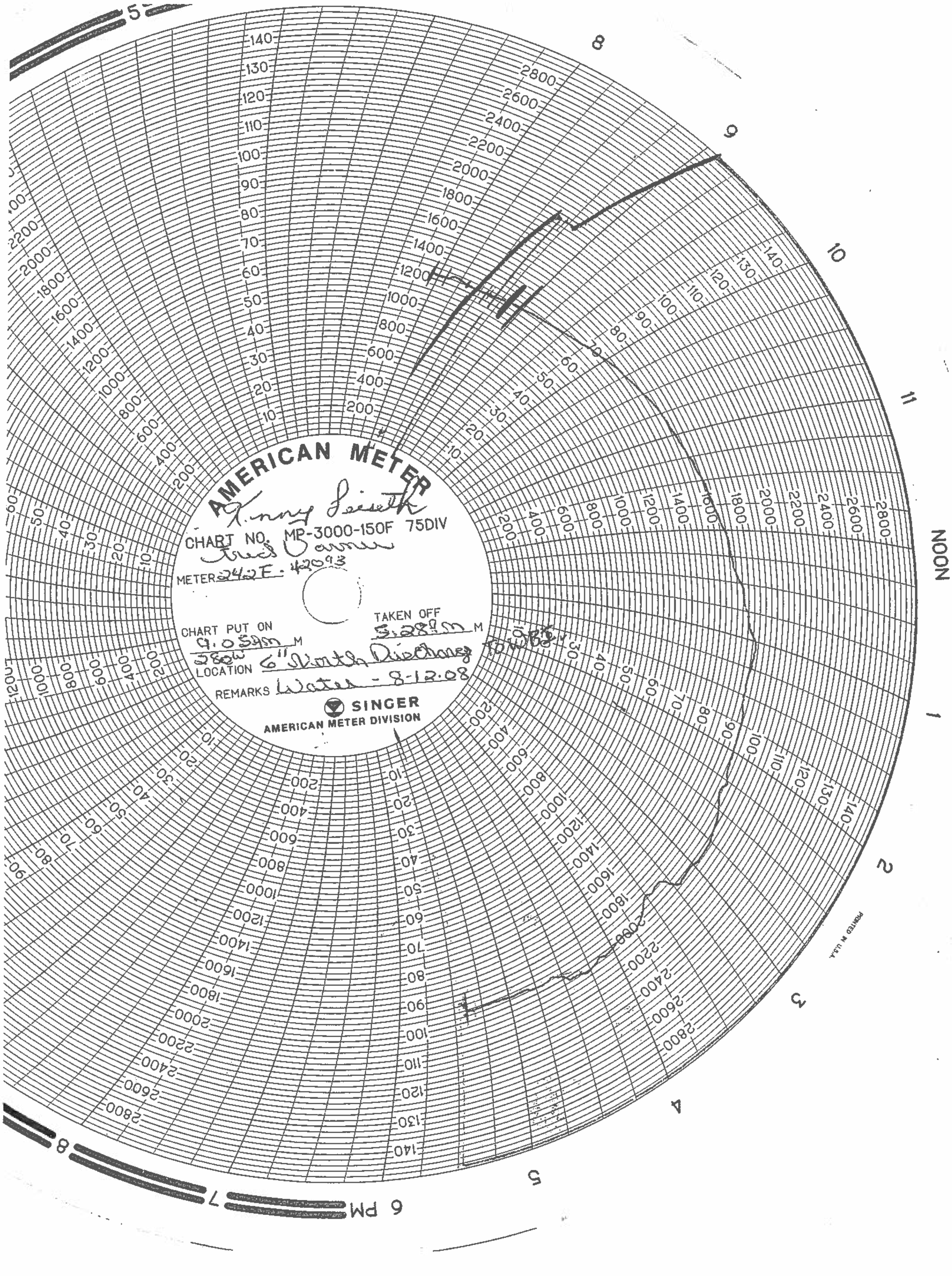
Hydro Test Number: WBI 6" 280 Well **AFE:** ______ **Date:** 8-12-08

Testing Contractor: F&D Oilfield **Page** 1 **of** 1

Name: Fred Warren

Inspector: Kenny Leisth — Water - 3182 Barrels

DATE	TIME	DIGITAL OR DEADWEIGHT PRESSURE	AMBIENT TEMP	BELOW GROUND PIPE TEMP	ABOVE GROUND PIPE TEMP	GROUND TEMP	Pipe Above Grade 80' feet Pipe Below Grade 87440 feet Pipe Size: 6" 280 Well REMARKS
8-12-08	9-05 AM	2980	64	[illegible]	64	71.6	Brought up to pressure
8-12-08	9-15 AM	2980	66		66	71.6	
"	9-30 AM	2980	66		66	71.6	Ground Probe 18" in ground
"	9:45 AM	2980	68		68	71.6	
"	10-00 AM	2980	68		70	71.6	
"	10-15 AM	2980	68		72	71.5	
"	10-30 AM	2980	68		73	71.5	
"	10-45 AM	2980	73		76	71.4	
"	11-00 AM	2980	78		76	71.3	
"	11-15 AM	2980	78		78	71.2	
"	11-30 AM	2980	80		80	71.2	
"	11.45 AM	2980	81		80	71.2	
"	12-00 PM	2980	84		83	71.1	
"	12.15 PM	2980	84		83	71.1	
"	12.30 PM	2980	84		86	71.1	
"	12-45 PM	2980	84		88	71.0	
"	1.00 PM	2980	84		93	71.0	
"	1.15 PM	2980	84		93	71.0	
"	1 30 PM	2980	84		92	70.9	Wind Come up
"	1 45 PM	2980	84		93	70.9	Wind laid down
"	2-00 PM	2980	85		93	70.9	
"	2.15 PM	2980	85		95	70.9	
"	2-30 PM	2980	85		96	70.9	
"	2 45 PM	2980	85		100	70.8	
"	3 00 PM	2980	85		101	70.8	
3 "	3:15 PM	2980	94		100	70.8	
"	3-30 PM	2980	84		96	70.8	Sun Behind Clouds
"	3-45 PM	2980	84		102	70.8	Sun Back out
"	4.00 PM	2980	84		100	70.8	
"	4-15 PM	2980	84		102	70.8	
"	4-30 PM	2980	84		98	70.7	
"	4-45 PM	2980	84		98	70.7	
"	5-00 PM	2980	84		97	70.7	
"	5-15 PM	2980	84		96	70.7	



AMERICAN METER
CHART NO. MP-3000-150F 75DIV
METER 242E-42093
CHART PUT ON 9:05am M
TAKEN OFF 5:28pm M
LOCATION 6" North Discharge
REMARKS Water - 8-12-08
SINGER
AMERICAN METER DIVISION
NOON
6 PM
PRINTED IN U.S.A.