

Machine Id 247806 Component Diesel Engine

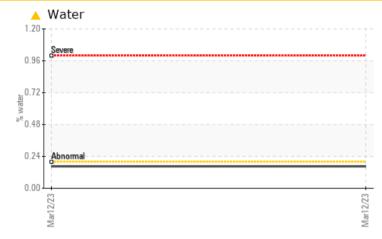
Fluic

# **PROBLEM SUMMARY**



# PETRO CANADA DURON SHP 10W30 (--- GAL)

## COMPONENT CONDITION SUMMARY



## RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS							
Sample Status				ABNORMAL			
Water	%	ASTM D6304	>0.2	<b>A</b> 0.165			
ppm Water	ppm	ASTM D6304	>2000	🔺 1650			
Debris	scalar	*Visual	NONE	A MODER			
Emulsified Water	scalar	*Visual	>0.2	<b>6.2%</b>			

Customer Id: PERSALMD Sample No.: PCA0081612 Lab Number: 05794318 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data: Jonathan Hester +1 919-379-4092 x4092 jhester@wearcheckusa.com

*To change component or sample information:* Customer Service +1 1-800-237-1369 <u>customerservice@wearcheck.com</u> There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS



# **OIL ANALYSIS REPORT**





# Component

Diesel Engine

PETRO CANADA DURON SHP 10W30 (--- GAL)

## DIAGNOSIS

### A Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

## Contamination

There is a light concentration of water present in the oil. Moderate concentration of visible dirt/debris present in the oil.

#### **Fluid Condition**

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

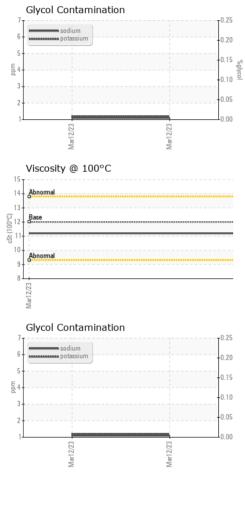
SAMPLE INFORMATION     method     limit/base     current     history1     history2       Sample Number     Client Info     12 Mar 2023         Machine Age     mis     Client Info     83         Oil Age     mis     Client Info     0         Oil Age     mis     Client Info     N/A         Sample Status     Client Info     N/A          CONTAMINATION     method     limit/base     current     history1     history2       Fuel     WC Method     >5     <1.0          WEAR METALS     method     limit/base     current     history1     history2       Fuel     WC Method     >5     <1.0          WEAR METALS     method     limit/base     current     history1     history2       Fuel     WC Method     >5     <1.0         Nickel <t< th=""><th>AL)</th><th></th><th></th><th></th><th>Mar2023</th><th></th><th></th></t<>	AL)				Mar2023		
Sample Date     Client Info     12 Mar 2023         Machine Age     mis     Client Info     63         Oil Age     mis     Client Info     0         Sample Status     Client Info     N/A          CONTAMINATION     method     Imit/base     current     history1     history2       Fuel     WC Method     >5     <1.0         WEAR METALS     method     imit/base     current     history1     history2       Iron     ppm     ASTM 05155m     >100     <1         Nickel     ppm     ASTM 05155m     >20     0         Lead     ppm     ASTM 05155m     >20     <1         Vanadium     ppm     ASTM 05155m     >10          Lead     ppm     ASTM 05155m     >15     0         Vanadium <th>SAMPLE INFORM</th> <th>ATION</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Date     IClient Info     12 Mar 2023         Machine Age     mis     Client Info     83         Oil Age     Client Info     0          Sample Status     Client Info     N/A          Sample Status     Client Info     N/A          CONTAMINATION     method     Imit/base     current     history1     /       WEAR METAL>     method     Imit/base     current     history1     /       VEAR METALS     method     Sample Status     >100     <1	Sample Number		Client Info		PCA0081612		
Machine Age     mis     Client Info     83         Oil Age     Mis     Client Info     N/A         Sample Status     Imatubas     Imatubas          CONTAMINATION     method     Imatubas     current     history1     history2       Fuel     WC Method     >5     <1.0			Client Info		12 Mar 2023		
Oli Changed     Client Info     N/A         Sample Status     Image Status		mls	Client Info		83		
Oil Changed     Client Info     N/A         Sample Status     Image of the status     I	Oil Age r	mls	Client Info		0		
Sample Status     Method     MBNORMAL         CONTAMINATION     method     limit/base     current     history1     history2       Fuel     WC Method     >5     <1.0	-		Client Info		N/A		
Fuel     WC Method     >5     <1.0         WEAR METALS     method     limit/base     current     history1     history2       Iron     ppm     ASTM D5185m     >20     0         Nickel     ppm     ASTM D5185m     >20     0         Nickel     ppm     ASTM D5185m     >3     0         Aluminum     ppm     ASTM D5185m     >30     0         Aluminum     ppm     ASTM D5185m     >40     0         Aduminum     ppm     ASTM D5185m     >40     0         Aduminum     ppm     ASTM D5185m     >15     0         Vanadium     ppm     ASTM D5185m     0     0         Addium     ppm     ASTM D5185m     0     51         Vanadium     ppm     ASTM D5185m     0     51	-				ABNORMAL		
WEAR METALS     method     limit/base     current     history1     history2       Iron     ppm     ASTM D5185m     >100     <1	CONTAMINATIC	N	method	limit/base	current	history1	history2
Iron     ppm     ASTM D5185m     >100     <1        Nickel     ppm     ASTM D5185m     >20     0         Nickel     ppm     ASTM D5185m     >4     0         Nickel     ppm     ASTM D5185m     >3     0         Silver     ppm     ASTM D5185m     >30     1         Lead     ppm     ASTM D5185m     >20     <1	Fuel		WC Method	>5	<1.0		
Chromium     ppm     ASTM D5185m     >20     0         Nickel     ppm     ASTM D5185m     >4     0         Silver     ppm     ASTM D5185m     >3     0         Auminum     ppm     ASTM D5185m     >30     0         Lead     ppm     ASTM D5185m     >30     1         Lead     ppm     ASTM D5185m     >40     0         Copper     ppm     ASTM D5185m     >15     0         Vanadium     ppm     ASTM D5185m     0          ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     0     51         Maganese     ppm     ASTM D5185m     0.50     51         Magnesium     ppm     ASTM D5185m     0.50 <t< td=""><td>WEAR METALS</td><td></td><td>method</td><td>limit/base</td><td>current</td><td>history1</td><td>history2</td></t<>	WEAR METALS		method	limit/base	current	history1	history2
Nickel     ppm     ASTM D5185m     >-4     0         Titanium     ppm     ASTM D5185m     >3     0         Silver     ppm     ASTM D5185m     >20     <1	lron p	ppm	ASTM D5185m	>100	<1		
Titanium     ppm     ASTM D5185m     5         Silver     ppm     ASTM D5185m     >3     0         Aluminum     ppm     ASTM D5185m     >20     <1	Chromium p	ppm	ASTM D5185m	>20	0		
Silver     ppm     ASTM D5185m     >3     0         Aluminum     ppm     ASTM D5185m     >20     <1         Lead     ppm     ASTM D5185m     >40     0         Copper     ppm     ASTM D5185m     >330     1         Vanadium     ppm     ASTM D5185m     >330     1         Vanadium     ppm     ASTM D5185m     >15     0         Cadmium     ppm     ASTM D5185m     0     0	Nickel	ppm	ASTM D5185m	>4	0		
Aluminum     ppm     ASTM D5185m     >20     <1         Lead     ppm     ASTM D5185m     >40     0         Copper     ppm     ASTM D5185m     >330     1         Vanadium     ppm     ASTM D5185m     >15     0         ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     2     14         Molydenum     ppm     ASTM D5185m     0     0         Magnesium     ppm     ASTM D5185m     50     51         Magnesium     ppm     ASTM D5185m     950     853         Magnesium     ppm     ASTM D5185m     950     853         Calcium     ppm     ASTM D5185m     95     959         Sulfur     ppm     ASTM D5185m <t< td=""><td>Titanium p</td><td>ppm</td><td>ASTM D5185m</td><td></td><td>5</td><td></td><td></td></t<>	Titanium p	ppm	ASTM D5185m		5		
Aluminum     ppm     ASTM D5185m     >20     <1         Lead     ppm     ASTM D5185m     >40     0         Copper     ppm     ASTM D5185m     >330     1         Vanadium     ppm     ASTM D5185m     >15     0         Vanadium     ppm     ASTM D5185m     >15     0         ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     0     0         Malganese     ppm     ASTM D5185m     0     0         Magnesium     ppm     ASTM D5185m     050     51         Magnese     ppm     ASTM D5185m     0     <11				>3	0		
Lead     ppm     ASTM D5185m     >40     0         Copper     ppm     ASTM D5185m     >330     1         Tin     ppm     ASTM D5185m     >15     0         Vanadium     ppm     ASTM D5185m     >15     0         ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     2     14         Molydenum     ppm     ASTM D5185m     0     0         Magnesium     ppm     ASTM D5185m     50     51         Calcium     ppm     ASTM D5185m     950     853         Sulfur     ppm     ASTM D5185m     1050     1149         Sulfur     ppm     ASTM D5185m     1050     1149         Sulfur     ppm     ASTM D5185m     2600			ASTM D5185m	>20	<1		
Copper     pm     ASTM D5185m     >330     1         Tin     ppm     ASTM D5185m     >15     0         Vanadium     ppm     ASTM D5185m     0         Cadmium     ppm     ASTM D5185m     0         ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     2     14         Magnese     ppm     ASTM D5185m     0     0         Magnesium     ppm     ASTM D5185m     0     <11							
Tin     ppm     ASTM D5185m     >15     0         Vanadium     ppm     ASTM D5185m     0         Cadmium     ppm     ASTM D5185m     0         ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     2     14         Barium     ppm     ASTM D5185m     0     0         Maganese     ppm     ASTM D5185m     0     <-1				>330			
Vanadium     ppm     ASTM D5185m     0         Cadmium     ppm     ASTM D5185m     0         ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     2     14         Barium     ppm     ASTM D5185m     0     0         Manganese     ppm     ASTM D5185m     0     61         Magnese     ppm     ASTM D5185m     0     <11         Magnese     ppm     ASTM D5185m     950     853         Calcium     ppm     ASTM D5185m     950     959         Sulfur     ppm     ASTM D5185m     2600     3502         Sulfur     ppm     ASTM D5185m     >20     1         Soliton     ppm     ASTM D5185m     >20     1			ASTM D5185m	>15	0		
Cadmium     ppm     ASTM D5185m     0         ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     2     14         Barium     ppm     ASTM D5185m     0     0         Molybdenum     ppm     ASTM D5185m     0     51         Manganese     ppm     ASTM D5185m     0     <14         Magnesium     ppm     ASTM D5185m     050     853         Calcium     ppm     ASTM D5185m     950     959         Sulfur     ppm     ASTM D5185m     1800     1224         Sulfur     ppm     ASTM D5185m     2600     3502         Sulfur     ppm     ASTM D5185m     20     1         Soliton     ppm     ASTM D5185m     20     1			ASTM D5185m		0		
ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     2     14         Barium     ppm     ASTM D5185m     0     0         Molybdenum     ppm     ASTM D5185m     50     51         Manganese     ppm     ASTM D5185m     0     <11	- · ·				-		
Boron     ppm     ASTM D5185m     2     14         Barium     ppm     ASTM D5185m     0     0         Molybdenum     ppm     ASTM D5185m     50     51         Manganese     ppm     ASTM D5185m     9C     853         Magnesium     ppm     ASTM D5185m     9S0     853         Calcium     ppm     ASTM D5185m     9S0     853         Calcium     ppm     ASTM D5185m     9S0     959         Calcium     ppm     ASTM D5185m     9S0     3502         Sulfur     ppm     ASTM D5185m     2600     3502         Sulfur     ppm     ASTM D5185m     >260     1         Sulfur     ppm     ASTM D5185m     >20     1         Sodium     ppm     ASTM D6185m	-		method	limit/base	current	history1	history2
Barium     ppm     ASTM D5185m     0     0         Molybdenum     ppm     ASTM D5185m     50     51         Manganese     ppm     ASTM D5185m     0     <1	_						
Molybdenum     ppm     ASTM D5185m     50     51         Manganese     ppm     ASTM D5185m     0     <1	1						
Manganese   ppm   ASTM D5185m   0   <1       Magnesium   ppm   ASTM D5185m   950   853       Calcium   ppm   ASTM D5185m   1050   1149       Phosphorus   ppm   ASTM D5185m   995   959       Zinc   ppm   ASTM D5185m   1180   1224       Sulfur   ppm   ASTM D5185m   2600   3502       CONTAMINANTS   method   limit/base   current   history1   history2     Silicon   ppm   ASTM D5185m   >25   5       Sodium   ppm   ASTM D5185m   >20   1       Vater   %   ASTM D5185m   >20   1       Water   %   ASTM D5185m   >20   1       INFRA-RED   method   limit/base   current   history1   history2     Soot %   %   <	1				-		
Agnesium     ppm     ASTM D5185m     950     853         Calcium     ppm     ASTM D5185m     1050     1149         Phosphorus     ppm     ASTM D5185m     995     959         Zinc     ppm     ASTM D5185m     1180     1224         Sulfur     ppm     ASTM D5185m     2600     3502         CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185m     >25     5         Sodium     ppm     ASTM D5185m     >20     1         Vater     %     ASTM D5185m     >20     1         Water     %     ASTM D5185m     >20     1650         INFRA-RED     method     limit/base     current     history1     history2       Soot %     %     'ASTM D7844     >3<					-		
Calcium     ppm     ASTM D5185m     1050     1149         Phosphorus     ppm     ASTM D5185m     995     959         Zinc     ppm     ASTM D5185m     1180     1224         Sulfur     ppm     ASTM D5185m     2600     3502         CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185m     >25     5         Sodium     ppm     ASTM D5185m     >20     1         Potassium     ppm     ASTM D5185m     >20     1         Water     %     ASTM D6304     >0.2     0.1655         glycol     %     *ASTM D7844     >3     0.1650         INFRA-RED     method     limit/base     current     history1     history2       Soot %     %     *ASTM D7844     <							
Phosphorus     ppm     ASTM D5185m     995     959         Zinc     ppm     ASTM D5185m     1180     1224         Sulfur     ppm     ASTM D5185m     2600     3502         CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185m     >25     5         Sodium     ppm     ASTM D5185m     >25     5         Sodium     ppm     ASTM D5185m     >20     1         Vater     %     ASTM D6304     >0.2     0.1655         glycol     %     *ASTM D2982     NEG          INFRA-RED     method     limit/base     current     history1     history2       Soot %     %     *ASTM D7844     >3     0.1         Sulfation     Abs/cm     *ASTM D77415							
Zinc     ppm     ASTM D5185m     1180     1224         Sulfur     ppm     ASTM D5185m     2600     3502         CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185m     >25     5         Sodium     ppm     ASTM D5185m     >20     1         Potassium     ppm     ASTM D5185m     >20     1         Water     %     ASTM D50304     >0.2     0.1655         glycol     %     ASTM D6304     >0.2     0.1655         glycol     %     ASTM D2982     NEG          INFRA-RED     method     limit/base     current     history1     history2       Soot %     %     *ASTM D7844     >3     0.1         Sulfation     Abs/.1mm     *ASTM D7624							
SulfurppmASTM D5185m26003502CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>255SodiumppmASTM D5185m>201PotassiumppmASTM D6304>0.2▲ 0.1655Water%ASTM D6304>20.00▲ 1650Glycol%*ASTM D6304>20.00▲ 1650INFRA-REDmethodlimit/basecurrenthistory1history2Soot %%*ASTM D7844>30.1NitrationAbs/m*ASTM D7624>204.6FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2OxidationAbs/.1mm*ASTM D7414>2512.1							
CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>255SodiumppmASTM D5185m>201PotassiumppmASTM D5185m>201Water%ASTM D6304>0.2▲0.165ppm WaterppmASTM D6304>2000▲1650Glycol%*ASTM D2982NEGINFRA-REDmethodlimit/basecurrenthistory1history2Soot %%*ASTM D7844>30.1NitrationAbs/cm*ASTM D7624>204.6FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2OxidationAbs/.1mm*ASTM D7414>2512.1	- ··						
Silicon   ppm   ASTM D5185m   >25   5       Sodium   ppm   ASTM D5185m   >20   1       Potassium   ppm   ASTM D5185m   >20   1       Water   %   ASTM D6304   >0.2   ▲ 0.165       Water   %   ASTM D6304   >2000   ▲ 1650       Glycol   %   *ASTM D2982   ▲ 0.165       INFRA-RED   method   limit/base   current   history1   history2     Soot %   %   *ASTM D7844   >3   0.1       Nitration   Abs/.m   *ASTM D7624   >20   4.6       Sulfation   Abs/.1mm   *ASTM D7415   >30   16.8       Qxidation   Abs/.1mm   *ASTM D7414   >25   12.1	Sulfur p	ppm	ASTM D5185m	2600	3502		
Sodium     ppm     ASTM D5185m     1         Potassium     ppm     ASTM D5185m     >20     1         Water     %     ASTM D6304     >0.2     0.165         oppm     Water     ppm     ASTM D6304     >2000     1650         oppm Water     ppm     ASTM D6304     >2000     1650         Glycol     %     *ASTM D2982     NEG          INFRA-RED     method     limit/base     current     history1     history2       Soot %     %     *ASTM D7624     >3     0.1         Nitration     Abs/cm     *ASTM D7624     >20     4.6         Sulfation     Abs/.1mm     *ASTM D7415     >30     16.8         FLUID DEGRADATION     method     limit/base     current     history1     history2  Oxidation     Abs/.1mm     *ASTM D74	CONTAMINANT	S	method	limit/base	current	history1	history2
Potassium     ppm     ASTM D5185m     >20     1         Water     %     ASTM D6304     >0.2     0.165         ppm Water     ppm     ASTM D6304     >20.0     1650         Glycol     %     *ASTM D6304     >2000     1650         INFRA-RED     method     limit/base     current     history1     history2       Soot %     %     *ASTM D7844     >3     0.1         Nitration     Abs/cm     *ASTM D7624     >20     4.6         FLUID DEGRADATION     method     limit/base     current     history1     history2       Oxidation     Abs/.1mm     *ASTM D7415     >30     16.8	Silicon 🛛	ppm	ASTM D5185m	>25	5		
Water     %     ASTM D6304     >0.2     ▲ 0.165         opm Water     ppm     ASTM D6304     >2000     ▲ 1650         Glycol     %     *ASTM D2982     NEG         INFRA-RED     method     limit/base     current     history1     history2       Soot %     %     *ASTM D7844     >3     0.1         Nitration     Abs/cm     *ASTM D7624     >20     4.6         Sulfation     Abs/.1mm     *ASTM D7415     >30     16.8         FLUID DEGRADATION     method     limit/base     current     history1     history2       Oxidation     Abs/.1mm     *ASTM D7414     >25     12.1	Sodium	ppm	ASTM D5185m		1		
Mater     ppm     ASTM D6304     >2000     1650         Glycol     %     *ASTM D2982     NEG          INFRA-RED     method     limit/base     current     history1     history2       Soot %     %     *ASTM D7844     >3     0.1         Nitration     Abs/cm     *ASTM D7624     >20     4.6         Sulfation     Abs/.1mm     *ASTM D7415     >30     16.8         FLUID DEGRADATION     method     limit/base     current     history1     history2       Oxidation     Abs/.1mm     *ASTM D7414     >25     12.1	Potassium p	ppm	ASTM D5185m	>20	1		
Glycol%*ASTM D2982NEGINFRA-REDmethodlimit/basecurrenthistory1history2Soot %%*ASTM D7844>30.1NitrationAbs/cm*ASTM D7624>204.6SulfationAbs/.1mm*ASTM D7415>3016.8FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2OxidationAbs/.1mm*ASTM D7414>2512.1	Water	%	ASTM D6304	>0.2	<u> </u>		
INFRA-RED   method   limit/base   current   history1   history2     Soot %   %   *ASTM D7844   >3   0.1       Nitration   Abs/cm   *ASTM D7624   >20   4.6       Sulfation   Abs/.1mm   *ASTM D7615   >30   16.8       FLUID DEGRADATION   method   limit/base   current   history1   history2     Oxidation   Abs/.1mm   *ASTM D7414   >25   12.1	opm Water 🛛	ppm	ASTM D6304	>2000	<u> </u>		
Soot %     %     *ASTM D7844     >3     0.1         Nitration     Abs/cm     *ASTM D7624     >20     4.6         Sulfation     Abs/.1mm     *ASTM D7415     >30     16.8         FLUID DEGRADATION     method     limit/base     current     history1     history2       Oxidation     Abs/.1mm     *ASTM D7414     >25     12.1	Glycol	%	*ASTM D2982		NEG		
Nitration     Abs/cm     *ASTM D7624     >20     4.6         Sulfation     Abs/.1mm     *ASTM D7615     >30     16.8         FLUID DEGRADATION     method     limit/base     current     history1     history2       Oxidation     Abs/.1mm     *ASTM D7414     >25     12.1	INFRA-RED		method	limit/base	current	history1	history2
Sulfation   Abs/.1mm   *ASTM D7415   >30   16.8       FLUID DEGRADATION   method   limit/base   current   history1   history2     Oxidation   Abs/.1mm   *ASTM D7414   >25   12.1	Soot %	%	*ASTM D7844	>3	0.1		
Sulfation   Abs/.1mm   *ASTM D7415   >30   16.8       FLUID DEGRADATION   method   limit/base   current   history1   history2     Oxidation   Abs/.1mm   *ASTM D7414   >25   12.1	Nitration /	Abs/cm	*ASTM D7624	>20	4.6		
Oxidation Abs/.1mm *ASTM D7414 >25 12.1				>30	16.8		
	FLUID DEGRADA		method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 9.5	Oxidation A	Abs/.1mm	*ASTM D7414	>25	12.1		
	Base Number (BN)	mg KOH/g	ASTM D2896		9.5		

Contact/Location: RICHARD O`NEAL - PERSALMD



# **OIL ANALYSIS REPORT**





			White Metal Yellow Metal	scalar	*Visual	NONE		NONE		
			Yellow Metal							
			· · · · · · · · · · · · · · · · · · ·	scalar	*Visual	NONE		NONE		
			Precipitate	scalar	*Visual	NONE		NONE		
			Silt	scalar	*Visual	NONE		NONE		
			Debris	scalar	*Visual	NONE		MODER		
			Sand/Dirt	scalar	*Visual	NONE		NONE		
		Mar12/23	Appearance	scalar	*Visual	NORML		NORML		
		M	Odor	scalar	*Visual	NORML		NORML		
on			Emulsified Water	scalar	*Visual	>0.2	<b></b>	0.2%		
	0.25		Free Water	scalar	*Visual			NEG		
	-0.20		FLUID PROPE	RTIES	method	limit/base		current	history1	history2
	-0.15	%glyc	Visc @ 100°C	cSt	ASTM D445	12.00		11.2		
	-0.10	<u>8</u>	GRAPHS							
	-0.05		Ferrous Alloys							
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	0.00		10 iron							
Mar12/23			8 hickel							
M										
		Ę	Edd							
			4-							
			2							
				*****						
			Mar12/23			Mar12/23				
						Ma				
			Non-ferrous Metal	S						
			copper							
			8 - management lead							
n	0.05		6-							
	0.25	800	E d							
	-0.20		4							
	-0.15		2							
	-0.10					_				
	-0.05		04	*******	********	23				
			Mar12/23			Mar12/23				
/23	0.00		≥ Viscosity @ 100°C			2				
Mar12/23			<sup>15</sup> T					Base Number		
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Report Id: PERSALMD [WUSCAR] 05794318 (Generated: 08/28/2023 01:49:22) Rev: 1

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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