PROBLEM SUMMARY

Sample Rating Trend FUEL FUEL

COMPONENT CONDITION SUMMARY

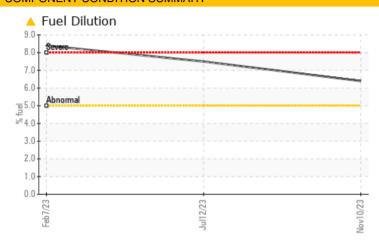
PETRO CANADA DURON SHP 15W40 (--- GAL)

Area BARTO

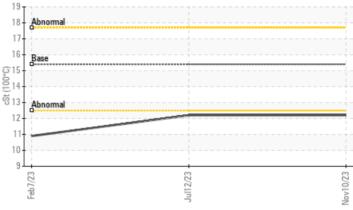
Diesel Engine

Fluid

7032 [BARTO]



Viscosity @ 100°C



RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS								
Sample Status				ABNORMAL	ABNORMAL	SEVERE		
Fuel	%	ASTM D3524	>5	6.4	1 7.5	8.4		
Visc @ 100°C	cSt	ASTM D445	154	A 12.2	A 12.2	A 10.9		

Customer Id: SCHBARTO Sample No.: SBP0005881 Lab Number: 06017208 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data: Wes Davis +1 905-569-8600 x223 wesd@wearcheck.ca

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED AC	COMMENDED ACTIONS					
Action	Status	Date	Done By	Description		
Resample			?	We recommend an early resample to monitor this condition.		

HISTORICAL DIAGNOSIS

12 Jul 2023 Diag: Wes Davis



The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.All component wear rates are normal. There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

07 Feb 2023 Diag: Jonathan Hester



We advise that you check the fuel injection system. We recommend an early resample to monitor this condition.All component wear rates are normal. There is a high amount of fuel present in the oil. Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.



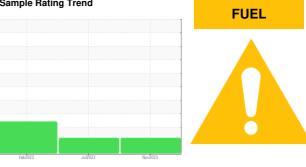
view report



OIL ANALYSIS REPORT

Sample Rating Trend

SAMPLE INFORMATION method limit/base



current

history1

historv2

Area BARTO 7032 [BARTO] Component

Diesel Engine Fluid

PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The oil is no longer serviceable due to the presence of contaminants.

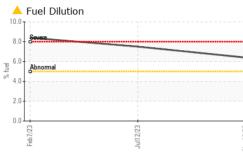
Sample Date Client Info 10 Nov 2023 12 Jul 2023 07 Feb 2023 Machine Age mls Client Info 582897 559198 533095 Oil Age mls Client Info 582897 559198 533095 Oil Changed Client Info Changed Changed Not Changed Sample Status Client Info Changed Changed Not Changed Glycol WC Method >0.2 NEG NEG NEG Water WC Method >0.2 NEG NEG NEG WeAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 77 64 79 Chromium ppm ASTM D5185m >50 2 2 1 1 Iron ppm ASTM D5185m >30 2 2 2 1 Iron ppm ASTM D5185m >150 2 2 2 2	SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Machine Age mis Client Info 582897 559198 533095 Oil Age mis Client Info 2669 25000 25000 Oil Age Client Info ABNORMAL SEVERE Not Changed Not Changed Sample Status Client Info ABNORMAL SEVERE NetG NetG NetG Quart WC Method >0.2 NEG NEG NEG Water WC Method >0.2 NEG NEG NEG WEAR METALS method Imit/base current history1 history2 Iron ppm ASTM05185m >60 77 64 79 Chromium ppm ASTM05185m >2 <1 1 0 Nickel ppm ASTM05185m >30 2 2 1 1 Lead ppm ASTM05185m >30 3 3 9 Copper ppm ASTM05185m >5 2 2	Sample Number		Client Info		SBP0005881	SBP0004379	SBP0002232
Oil Age mis Client Info 23699 25000 25000 Oil Changed Client Info ABNORMAL ABNORMAL SEVERE CONTAMINATION method limi/base current history1 history2 Water WC Method >0.2 NEG NEG NEG Glycol WC Method >800 77 64 79 Chromium ppm ASTM D5185m >5 2 2 3 Nickel ppm ASTM D5185m >3 0 0 0 Silver ppm ASTM D5185m >30 3 3 9 0 Copper ppm ASTM D5185m >30 3 3 9 0 Copper ppm ASTM D5185m >30 3 3 9 0 Copper ppm ASTM D5185m >15 2 2 4 4 Vanadium ppm ASTM D5185m 0 0 0	Sample Date		Client Info		10 Nov 2023	12 Jul 2023	07 Feb 2023
Oil Changed Sample Status Client Info Changed ABNORMAL Changed ABNORMAL Not Changed SEVERE CONTAMINATION method imit/base current history1 history2 Water WC Method >0.2 NEG NEG NEG Glycol Imit/base current history1 history2 WEAR METALS method imit/base current history1 history2 Iron ppm ASTM D5185m >80 77 64 79 Chromium ppm ASTM D5185m >2 2 3 3 Nickel ppm ASTM D5185m >3 0 0 0 Aluminum ppm ASTM D5185m >30 2 2 1 Lead ppm ASTM D5185m >30 3 3 9 Copper ppm ASTM D5185m >150 2 2 1 Lead ppm ASTM D5185m >150 2 2 1 Vanadium ppm ASTM D5185m 0 0 0 0 Addition ppm ASTM D5185m 0 15 2 2 1 Mandanese ppm AS	Machine Age	mls	Client Info		582897	559198	533095
Sample Status method Imit/base current history1 history2 Water WC Method >0.2 NEG NEG NEG Glycol WC Method >0.2 NEG NEG NEG WEAR METALS method Imit/base current history1 history2 Iron ppm ASTM D5185m >80 77 64 79 Chromium ppm ASTM D5185m >2 1 1 0 Nickel ppm ASTM D5185m >3 0 0 0 Silver ppm ASTM D5185m >3 0 0 0 Cadmium ppm ASTM D5185m >3 3 9 0 Cadmium ppm ASTM D5185m >5 2 2 4 Vanadium ppm ASTM D5185m >5 2 2 4 Vanadium ppm ASTM D5185m 150 0 0 0 C	Oil Age	mls	Client Info		23699	25000	25000
CONTAMINATION method limit/base current history1 history2 Water WC Method >0.2 NEG NEG NEG NEG Glycol W WC Method >0.2 NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >80 77 64 79 Chromium ppm ASTM D5185m >5 2 2 3 Nickel ppm ASTM D5185m >3 0 0 0 Silver ppm ASTM D5185m >30 3 3 9 Copper ppm ASTM D5185m >50 2 2 4 Vanadium ppm ASTM D5185m >5 2 2 4 Vanadium ppm ASTM D5185m 0 15 2 2 4 Manganese ppm ASTM D5185m 0 <td< td=""><th>Oil Changed</th><td></td><td>Client Info</td><td></td><th>Changed</th><td>Changed</td><td>Not Changd</td></td<>	Oil Changed		Client Info		Changed	Changed	Not Changd
Water WC Method >0.2 NEG NEG NEG Glycol WC Method Imil/base current historyl historyl WEAR METALS method Imil/base current historyl historyl Iron ppm ASTM D5165m >5 2 2 3 Nickel ppm ASTM D5165m >2 <1	Sample Status				ABNORMAL	ABNORMAL	SEVERE
Glycol WC Method NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >50 77 64 79 Chromium ppm ASTM D5185m >5 2 2 3 Nickel ppm ASTM D5185m >2 <1 0 0 Silver ppm ASTM D5185m >30 0 0 0 Aduminum ppm ASTM D5185m >50 2 2 1 Lead ppm ASTM D5185m >50 2 2 4 Vanadium ppm ASTM D5185m >55 2 2 4 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 110 110 110 Vanadium ppm ASTM D5185m 0 60 48 54 40	CONTAMINATION	V	method	limit/base	current	history1	history2
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >80 77 64 79 Chromium ppm ASTM D5185m >55 2 2 3 Nickel ppm ASTM D5185m >2 <1	Water		WC Method	>0.2	NEG	NEG	NEG
Iron ppm ASTM D5185m >800 77 64 79 Chromium ppm ASTM D5185m >5 2 2 3 Nickel ppm ASTM D5185m >2 <1	Glycol		WC Method		NEG	NEG	NEG
Chromium ppm ASTM D5185m >55 2 2 3 Nickel ppm ASTM D5185m >2 <1 0 0 Titanium ppm ASTM D5185m >3 0 0 0 Silver ppm ASTM D5185m >30 2 2 1 Lead ppm ASTM D5185m >30 3 3 9 Copper ppm ASTM D5185m >150 2 2 4 Vanadium ppm ASTM D5185m >55 2 2 4 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 15 2 21 Boron ppm ASTM D5185m 0 15 2 21 Barium ppm ASTM D5185m 0 1 0 0 Molybdenum ppm ASTM D5185m 1010 775 833 <	WEAR METALS		method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >2 <1 <1 0 Titanium ppm ASTM D5185m 30 21 0 0 Silver ppm ASTM D5185m >30 2 2 1 Lead ppm ASTM D5185m >30 3 3 9 Copper ppm ASTM D5185m >30 2 2 1 Copper ppm ASTM D5185m >30 2 2 4 Vanadium ppm ASTM D5185m >55 2 2 4 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 15 2 21 Barium ppm ASTM D5185m 0 15 2 21 Barium ppm ASTM D5185m 0 110 1 1 Magnese ppm ASTM D5185m 1010 775 833 <t< td=""><th>Iron</th><td>ppm</td><td>ASTM D5185m</td><td>>80</td><th>77</th><td>64</td><td>79</td></t<>	Iron	ppm	ASTM D5185m	>80	77	64	79
Titanium ppm ASTM D5185m <1 0 0 Silver ppm ASTM D5185m >3 0 0 0 Aluminum ppm ASTM D5185m >30 2 2 1 Lead ppm ASTM D5185m >30 3 3 9 Copper ppm ASTM D5185m >150 2 2 4 Vanadium ppm ASTM D5185m >5 2 2 4 Vanadium ppm ASTM D5185m >5 2 2 4 Vanadium ppm ASTM D5185m 0 10 0 0 Cadmium ppm ASTM D5185m 0 15 2 2 1 Boron ppm ASTM D5185m 0 15 2 2 1 Molybdenum ppm ASTM D5185m 0 <1	Chromium	ppm	ASTM D5185m	>5	2	2	3
Silver ppm ASTM D5185m >3 0 0 0 Aluminum ppm ASTM D5185m >30 2 2 1 Lead ppm ASTM D5185m >30 3 3 9 Copper ppm ASTM D5185m >150 2 2 2 4 Vanadium ppm ASTM D5185m >55 2 2 2 4 Vanadium ppm ASTM D5185m >55 2 2 2 4 Vanadium ppm ASTM D5185m 0	Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Aluminum ppm ASTM D5185m >30 2 2 1 Lead ppm ASTM D5185m >30 3 3 9 Copper ppm ASTM D5185m >50 2 2 2 Tin ppm ASTM D5185m >5 2 2 4 Vanadium ppm ASTM D5185m >5 2 2 4 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 15 2 21 0 ADDITIVES method limit/base current history1 history2 Barium ppm ASTM D5185m 0 48 54 40 Magnanese ppm ASTM D5185m 0 41 1 152 Phosphorus ppm ASTM D5185m 1070 1107 1214 1512 Phosphorus ppm ASTM D5185m 1200 3	Titanium	ppm	ASTM D5185m		<1	0	0
Aluminum ppm ASTM D5185m >30 2 2 1 Lead ppm ASTM D5185m >30 3 3 9 Copper ppm ASTM D5185m >55 2 2 4 Vanadium ppm ASTM D5185m >5 2 2 4 Vanadium ppm ASTM D5185m >5 2 2 4 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 15 2 21 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 15 2 21 Marganese ppm ASTM D5185m 0 48 54 40 Marganese ppm ASTM D5185m 1070 1107 1214 1512 Phosphorus ppm ASTM D5185m 150	Silver			>3			0
Lead ppm ASTM D5185m >30 3 3 9 Copper ppm ASTM D5185m >150 2 2 2 2 Tin ppm ASTM D5185m >5 2 2 4 Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m current history1 bistory2 Boron ppm ASTM D5185m 0 15 2 21 Barium ppm ASTM D5185m 0 115 2 21 Manganese ppm ASTM D5185m 0 48 54 40 Manganese ppm ASTM D5185m 1010 775 833 730 Calcium ppm ASTM D5185m 1150 809 955 780 Sulfur ppm ASTM D5185m 1270 1090 1172 1018 Sulfur ppm ASTM D5185m 220<	Aluminum		ASTM D5185m	>30		2	1
Copper ppm ASTM D5185m >150 2 2 2 Tin ppm ASTM D5185m >5 2 2 4 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m <1	Lead		ASTM D5185m	>30	3		9
Tin ppm ASTM D5185m >5 2 2 4 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m <1	Copper		ASTM D5185m	>150	2		
Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m <1					2		4
Cadmium ppm ASTM D5185m <1 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 15 2 21 0 Barium ppm ASTM D5185m 0 0 1 0 0 Molybdenum ppm ASTM D5185m 0 48 54 40 Magnesium ppm ASTM D5185m 0 <11 <1 <1 Magnesium ppm ASTM D5185m 1010 775 833 730 Calcium ppm ASTM D5185m 1070 1107 1214 1512 Phosphorus ppm ASTM D5185m 1270 1090 1172 1018 Sulfur ppm ASTM D5185m 2060 3062 3071 3249 CONTAMINANTS method limit/base current history1 history2 Sodium ppm ASTM D5185m <th>Vanadium</th> <td></td> <td>ASTM D5185m</td> <td></td> <th>0</th> <td>0</td> <td>0</td>	Vanadium		ASTM D5185m		0	0	0
Boron ppm ASTM D5185m 0 15 2 21 Barium ppm ASTM D5185m 0 0 1 0 Molybdenum ppm ASTM D5185m 60 48 54 40 Manganese ppm ASTM D5185m 0 <1	Cadmium	ppm	ASTM D5185m		<1	0	0
Barium ppm ASTM D5185m 0 0 1 0 Molybdenum ppm ASTM D5185m 60 48 54 40 Manganese ppm ASTM D5185m 0 <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 60 48 54 40 Manganese ppm ASTM D5185m 0 <1	Boron	ppm	ASTM D5185m	0	15	2	21
Manganese ppm ASTM D5185m 0 <1	Barium	ppm	ASTM D5185m	0	0	1	0
Magnesium ppm ASTM D5185m 1010 775 833 730 Calcium ppm ASTM D5185m 1070 1107 1214 1512 Phosphorus ppm ASTM D5185m 1150 809 955 780 Zinc ppm ASTM D5185m 1270 1090 1172 1018 Sulfur ppm ASTM D5185m 2060 3062 3071 3249 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 5 5 6 Sodium ppm ASTM D5185m >20 2 1 0 Fuel % ASTM D5185m >20 2 1 0 Fuel % ASTM D5185m >20 2 1 0 Fuel % ASTM D5185m >20 2 1 0 Sodium ppm ASTM D5185m >20	Molybdenum	ppm	ASTM D5185m	60	48	54	40
Calcium ppm ASTM D5185m 1070 1107 1214 1512 Phosphorus ppm ASTM D5185m 1150 809 955 780 Zinc ppm ASTM D5185m 1270 1090 1172 1018 Sulfur ppm ASTM D5185m 2060 3062 3071 3249 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 5 5 6 Sodium ppm ASTM D5185m >20 2 1 0 Fuel % ASTM D5185m >20 2 1 0 Fuel % ASTM D5185m >20 2 1 0 Sodium ppm ASTM D5185m >20 2 1 0 Fuel % ASTM D5185m >20 2 1 0 Soot % % ASTM D7844 >3 2.8	Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Phosphorus ppm ASTM D5185m 1150 809 955 780 Zinc ppm ASTM D5185m 1270 1090 1172 1018 Sulfur ppm ASTM D5185m 2060 3062 3071 3249 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 5 5 6 Sodium ppm ASTM D5185m >20 2 1 0 Fuel % ASTM D5185m >20 2 1 0 Fuel % ASTM D5185m >20 2 1 0 Fuel % ASTM D5185m >20 2 1 0 Soot % ASTM D7844 >3 2.8 2.6 2.2 1 Nitration Abs/.mm *ASTM D7624 >20 10.1 10.7 11.4 Sulfation Abs/.imm *ASTM D7415 >30	Magnesium	ppm	ASTM D5185m	1010	775	833	730
Zinc ppm ASTM D5185m 1270 1090 1172 1018 Sulfur ppm ASTM D5185m 2060 3062 3071 3249 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 5 5 6 Sodium ppm ASTM D5185m >20 2 1 0 Fuel % ASTM D5185m >20 2 1 0 Fuel % ASTM D5185m >20 2 1 0 Soto ASTM D5185m >20 2 1 0 1 Fuel % ASTM D5185m >20 2 1 0 Soto % ASTM D7844 >3 2.8 2.6 2.2 1 Nitration Abs/cm *ASTM D7624 >20 10.1 10.7 11.4 Sulfation Abs/.1mm *ASTM D7415 >30 23.9	Calcium	ppm	ASTM D5185m	1070	1107	1214	1512
SulfurppmASTM D5185m2060306230713249CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>20556SodiumppmASTM D5185m>20210PotassiumppmASTM D5185m>20210Fuel%ASTM D5185m>20210Fuel%ASTM D5185m>20210Soot %%*ASTM D7824>5▲6.4▲7.5●Soot %%*ASTM D7844>32.82.62.21NitrationAbs/cm*ASTM D7624>2010.110.711.4SulfationAbs/.1mm*ASTM D7415>3023.923.524.8FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2OxidationAbs/.1mm*ASTM D7414>2515.515.319.3	Phosphorus	ppm	ASTM D5185m	1150	809	955	780
CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>20556SodiumppmASTM D5185m>20210PotassiumppmASTM D5185m>20210Fuel%ASTM D5185m>20210Fuel%ASTM D3524>5▲6.4▲7.5●8.4INFRA-REDmethodlimit/basecurrenthistory1history2Soot %%*ASTM D7844>32.82.62.2NitrationAbs/cm*ASTM D7624>2010.110.711.4SulfationAbs/.imm*ASTM D7415>3023.923.524.8FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2OxidationAbs/.imm*ASTM D7414>2515.515.319.3	Zinc	ppm	ASTM D5185m	1270	1090	1172	1018
Silicon ppm ASTM D5185m >20 5 5 6 Sodium ppm ASTM D5185m <20 2 1 2 Potassium ppm ASTM D5185m >20 2 1 0 Fuel % ASTM D3524 >5 ▲ 6.4 ▲ 7.5 ▲ 8.4 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 2.8 2.6 2.2 Nitration Abs/cm *ASTM D7624 >20 10.1 10.7 11.4 Sulfation Abs/.1mm *ASTM D7415 >30 23.9 23.5 24.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.5 15.3 19.3	Sulfur	ppm	ASTM D5185m	2060	3062	3071	3249
Sodium ppm ASTM D5185m <1	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 2 1 0 Fuel % ASTM D3524 >5 ▲ 6.4 ▲ 7.5 ▲ 8.4 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 2.8 2.6 2.2 Nitration Abs/cm *ASTM D7624 >20 10.1 10.7 11.4 Sulfation Abs/.1mm *ASTM D7415 >30 23.9 23.5 24.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.5 15.3 19.3	Silicon	ppm	ASTM D5185m	>20	5	5	6
Fuel % ASTM D3524 >5 ▲ 6.4 ▲ 7.5 ● 8.4 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 2.8 2.6 2.2 Nitration Abs/cm *ASTM D7624 >20 10.1 10.7 11.4 Sulfation Abs/.1mm *ASTM D7415 >30 23.9 23.5 24.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.5 15.3 19.3	Sodium	ppm	ASTM D5185m		<1	<1	2
INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 2.8 2.6 2.2 Nitration Abs/cm *ASTM D7624 >20 10.1 10.7 11.4 Sulfation Abs/.tmm *ASTM D7415 >30 23.9 23.5 24.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.tmm *ASTM D7414 >25 15.5 15.3 19.3	Potassium		ASTM D5185m	>20	2		
Soot % % *ASTM D7844 >3 2.8 2.6 2.2 Nitration Abs/cm *ASTM D7624 >20 10.1 10.7 11.4 Sulfation Abs/.1mm *ASTM D7415 >30 23.9 23.5 24.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.5 15.3 19.3	Fuel	%	ASTM D3524	>5	<u> </u>	▲ 7.5	8.4
Nitration Abs/cm *ASTM D7624 >20 10.1 10.7 11.4 Sulfation Abs/.1mm *ASTM D7615 >30 23.9 23.5 24.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.5 15.3 19.3	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 23.9 23.5 24.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.5 15.3 19.3	Soot %	%			2.8	2.6	2.2
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.5 15.3 19.3	Nitration	Abs/cm	*ASTM D7624	>20	10.1	10.7	11.4
Oxidation Abs/.1mm *ASTM D7414 >25 15.5 15.3 19.3	Sulfation	Abs/.1mm	*ASTM D7415	>30	23.9	23.5	24.8
	FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 9.8 6.9 6.7 6.6	Oxidation	Abs/.1mm	*ASTM D7414	>25	15.5	15.3	19.3
	Base Number (BN)	mg KOH/g	ASTM D2896	9.8	6.9	6.7	6.6

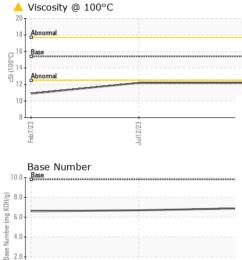


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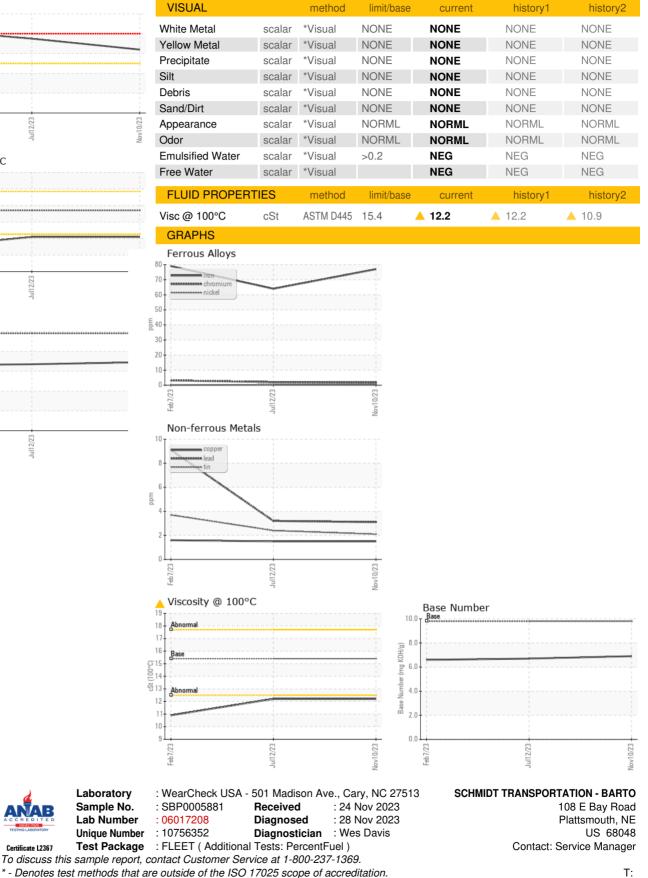
Feb7/23

OIL ANALYSIS REPORT





Jul12/23



* - 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)

Certificate L2367