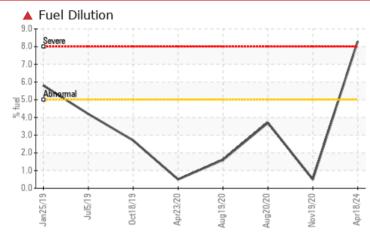
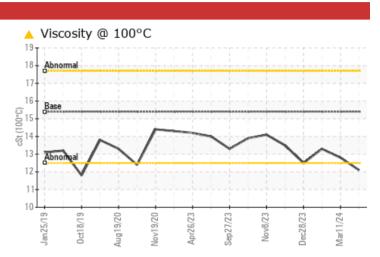


## COMPONENT CONDITION SUMMARY





### RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS								
Sample Status				SEVERE	NORMAL	NORMAL		
Fuel	%	ASTM D3524	>5	<b>8.3</b>	<1.0	<1.0		
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.1</b>	12.8	13.3		

Customer Id: GFL837 Sample No.: GFL0118811 Lab Number: 06156746 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 ACTIONS						
Action	Status	Date	Done By	Description		
Change Fluid			?	We recommend that you drain the oil from the component if this has not already been done.		
Resample			?	We recommend an early resample to monitor this condition.		
Check Fuel/injector System			?	We advise that you check the fuel injection system.		

## HISTORICAL DIAGNOSIS



### 11 Mar 2024 Diag: Wes Davis

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



view report



#### 01 Feb 2024 Diag: Wes Davis

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

# NORMAL



### 28 Dec 2023 Diag: Wes Davis

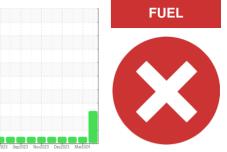
Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.





# **OIL ANALYSIS REPORT**

Sample Rating Trend





721022-361655 Component Diesel Engine

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

# Recommendation

We advise that you check the fuel injection system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

Machine Id

### Wear

All component wear rates are normal.

### Contamination

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

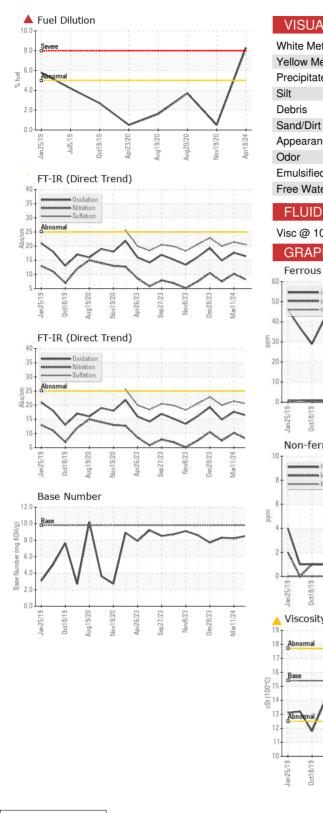
### Fluid Condition

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

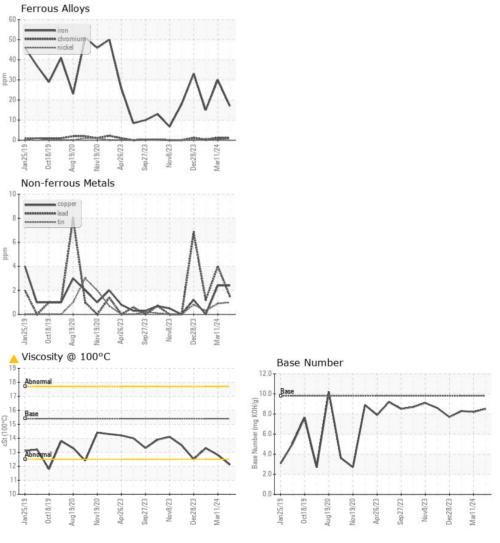
Sample Date     Client Info     18 Apr 2024     11 Mar 2024     01 Feb 2024       Machine Age     hrs     Client Info     27208     27060     26934       Oil Age     hrs     Client Info     148     0     26770       Oil Changed     Client Info     Not Changd     Not Changd     Not Changd     Not Changd       Sample Status     Client Info     Not Changd     Not Changd     Not Changd     Not Changd       Qil Age     WC Method     >0.2     NEG     NEG     NEG       Water     WC Method     >0.2     NEG     NEG     NEG       Chromium     ppm     ASTM 05185m     >5     1     1     <1       Nickel     ppm     ASTM 05185m     >5     1     1     <1     <1       Nickel     ppm     ASTM 05185m     >3     <1     0     0       Aluminum     ppm     ASTM 05185m     >3     <1     <1     <1       Copper     ppm     ASTM 05185m     >5     1     <1     <	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Date     Client Info     18 Apr 2024     11 Mar 2024     01 Feb 2024       Machine Age     hrs     Client Info     27208     27060     26934       Oil Age     hrs     Client Info     148     0     26770       Oil Changed     Client Info     Not Changed     Not Changed     Not Changed       Sample Status     Client Info     Not Changed     Not Changed     Not Changed       QOI Changed     WC Method     >0.2     NEG     NEG     NEG       Water     WC Method     >0.2     NEG     NEG     NEG       Chromium     ppm     ASTM 05185m     >5     1     1     <1	Sample Number		Client Info		GFL0118811	GFL0114144	GFL0108097
Oil Age     hrs     Client Info     148     0     26770       Oil Changed     Client Info     Not Changed     Not Chang	Sample Date		Client Info		18 Apr 2024	11 Mar 2024	01 Feb 2024
Oil Changed Sample Status Client Info Not Changd SEVERE Changed NORMAL Not Changed NORMAL   CONTAMINATION 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 D5185 >80 17 30 15   Chromium ppm ASTM D5185 >5 1 1 <1	Machine Age	hrs	Client Info		27208	27060	26934
Sample Status     Normal     NORMAL     NORMAL       CONTAMINATION     method     Imit/base     current     history1     history2       Water     WC Method     >0.2     NEG     NEG     NEG       Glycol     WC Method     NEG     NEG     NEG     NEG       WEAR METALS     method     Imit/base     current     history1     history2       Iron     ppm     ASTM D5185n     >80     17     30     15       Chromium     ppm     ASTM D5185n     >2     <1	Oil Age	hrs	Client Info		148	0	26770
CONTAMINATION     method     Imit/base     current     history1     history2       Water     WC Method     >0.2     NEG     NEG     NEG       Glycol     WC Method     NEG     NEG     NEG     NEG       WEAR METALS     method     Imit/base     current     history1     history2       Iron     ppm     ASTM D5185n     >80     17     30     15       Chromium     ppm     ASTM D5185n     >55     1     1     <1	Oil Changed		Client Info		Not Changd	Changed	Not Changd
Water     WC Method     >0.2     NEG     NEG     NEG       Glycol     WC Method     Imit/base     current     history1     history2       Iron     ppm     ASTM D5185m     >80     17     30     15       Chromium     ppm     ASTM D5185m     >5     1     1     <1	Sample Status				SEVERE	NORMAL	NORMAL
Glycol     WC Method     NEG     NEG     NEG     NEG       WEAR METALS     method     limil/base     current     history1     history2       Iron     ppm     ASTM D5185m     >5     1     1     <1	CONTAMINAT	ION	method	limit/base	current	history1	history2
WEAR METALS     method     limit/base     current     history1     history2       Iron     ppm     ASTM D5185m     >80     17     30     15       Chromium     ppm     ASTM D5185m     >2     <1	Water		WC Method	>0.2	NEG	NEG	NEG
Iron     ppm     ASTM D5185m     >80     17     30     15       Chromium     ppm     ASTM D5185m     >5     1     1     <1	Glycol		WC Method		NEG	NEG	NEG
Chromium     ppm     ASTM D5185m     >5     1     1     <1	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel     ppm     ASTM D5185m     >2     <1     <1     <1       Titanium     ppm     ASTM D5185m     >3     <1	Iron	ppm	ASTM D5185m	>80	17	30	15
Titanium     ppm     ASTM D5185m     <1     <1     <1     0       Silver     ppm     ASTM D5185m     >3     <1	Chromium	ppm	ASTM D5185m	>5	1	1	<1
Titanium     ppm     ASTM D5185m     <1     <1     <1     0       Silver     ppm     ASTM D5185m     >3     <1	Nickel		ASTM D5185m	>2	<1	<1	<1
Silver     ppm     ASTM D5185m     >3     <1     0     0       Aluminum     ppm     ASTM D5185m     >30     3     4     3       Lead     ppm     ASTM D5185m     >30     2     4     1       Copper     ppm     ASTM D5185m     >150     2     2     0       Tin     ppm     ASTM D5185m     >5     1     <1     <1     <1       Vanadium     ppm     ASTM D5185m     >5     1     <1     <1     0       Cadmium     ppm     ASTM D5185m     0     0     0     0     2       Boron     ppm     ASTM D5185m     0     0     0     <1     <1       Molybdenum     ppm     ASTM D5185m     0     <1     <1<     <1       Maganese     ppm     ASTM D5185m     0     <10     790     853     883       Calcium     ppm     ASTM D5185m     1010     790     853     883     833       Ca	Titanium		ASTM D5185m		<1	<1	0
Aluminum     ppm     ASTM D5185m     >30     3     4     3       Lead     ppm     ASTM D5185m     >30     2     4     1       Copper     ppm     ASTM D5185m     >150     2     2     0       Tin     ppm     ASTM D5185m     >5     1     <1	Silver		ASTM D5185m	>3	<1	0	0
Lead     ppm     ASTM D5185m     >30     2     4     1       Copper     ppm     ASTM D5185m     >150     2     2     0       Tin     ppm     ASTM D5185m     >5     1     <1     <1     <1       Vanadium     ppm     ASTM D5185m     >5     1     <1     <1     0       Cadmium     ppm     ASTM D5185m      <1     <1     0     0       ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     0     0     0     <1     0       Molybdenum     ppm     ASTM D5185m     0     <1     <1     <1     <1       Magnesium     ppm     ASTM D5185m     0     <10     790     853     883       Calum     ppm     ASTM D5185m     1100     790     853     883       Calum     ppm     ASTM D5185m     1270     1087     1128     1224	Aluminum		ASTM D5185m	>30	3	4	3
Copper     ppm     ASTM D5185m     >150     2     2     0       Tin     ppm     ASTM D5185m     >5     1     <1	Lead			>30	2	4	1
Tin     ppm     ASTM D5185m     >5     1     <1     <1       Vanadium     ppm     ASTM D5185m     <1	Copper		ASTM D5185m	>150	2	2	0
Vanadium     ppm     ASTM D5185m     <1     <1     <1     0       Cadmium     ppm     ASTM D5185m     <1     <1     <1     0       ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     0     0     0     <1     0       Barium     ppm     ASTM D5185m     0     0     <1     <1     <1     0       Magnesium     ppm     ASTM D5185m     0     <1     <1     <1     <1       Magnesium     ppm     ASTM D5185m     0     <1     <1     <1     <1       Magnesium     ppm     ASTM D5185m     1010     790     853     883       Calcium     ppm     ASTM D5185m     1070     934     1029     962       Phosphorus     ppm     ASTM D5185m     1270     1087     1128     1224       Sulfur     ppm     ASTM D5185m     2060     2920     2569     2973 <tr< td=""><td>Tin</td><td></td><td>ASTM D5185m</td><td>&gt;5</td><th>1</th><td>&lt;1</td><td>&lt;1</td></tr<>	Tin		ASTM D5185m	>5	1	<1	<1
ADDITIVES     method     limit/base     current     history1     history2       Boron     ppm     ASTM D5185m     0     0     0     2       Barium     ppm     ASTM D5185m     0     0     0     -1     0       Molybdenum     ppm     ASTM D5185m     60     52     59     54       Manganese     ppm     ASTM D5185m     0     <1	Vanadium	ppm	ASTM D5185m		<1	<1	0
Boron     ppm     ASTM D5185m     0     0     0     2       Barium     ppm     ASTM D5185m     0     0     <1	Cadmium	ppm	ASTM D5185m		<1	<1	0
Barium     ppm     ASTM D5185m     0     0     <1	ADDIT <u>IVES</u>		method	limit/base	current	historv1	history2
Molybdenum     ppm     ASTM D5185m     60     52     59     54       Manganese     ppm     ASTM D5185m     0     <1			motriou		ourront	inotory i	
Manganese   ppm   ASTM D5185m   0   <1	Boron	ppm					
Magnesium     ppm     ASTM D5185m     1010     790     853     883       Calcium     ppm     ASTM D5185m     1070     934     1029     962       Phosphorus     ppm     ASTM D5185m     1150     971     929     1017       Zinc     ppm     ASTM D5185m     1270     1087     1128     1224       Sulfur     ppm     ASTM D5185m     2060     2920     2569     2973       CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185m     >20     5     8     6       Sodium     ppm     ASTM D5185m     >20     2     <1			ASTM D5185m	0	0	0	2
Calcium     ppm     ASTM D5185m     1070     934     1029     962       Phosphorus     ppm     ASTM D5185m     1150     971     929     1017       Zinc     ppm     ASTM D5185m     1270     1087     1128     1224       Sulfur     ppm     ASTM D5185m     2060     2920     2569     2973       CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185m     20     5     8     6       Sodium     ppm     ASTM D5185m     >20     5     8     6       Sodium     ppm     ASTM D5185m     >20     2     <1	Boron	ppm	ASTM D5185m ASTM D5185m	0	0 0	0 <1	2 0
Phosphorus     ppm     ASTM D5185m     1150     971     929     1017       Zinc     ppm     ASTM D5185m     1270     1087     1128     1224       Sulfur     ppm     ASTM D5185m     2060     2920     2569     2973       CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185m     >20     5     8     6       Sodium     ppm     ASTM D5185m     >20     5     8     6       Sodium     ppm     ASTM D5185m     >20     2     2     <1	Boron Barium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	0 0 52	0 <1 59	2 0 54
Zinc     ppm     ASTM D5185m     1270     1087     1128     1224       Sulfur     ppm     ASTM D5185m     2060     2920     2569     2973       CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185m     >20     5     8     6       Sodium     ppm     ASTM D5185m     >20     2     2     <1	Boron Barium Molybdenum	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	0 0 52 <1	0 <1 59 <1	2 0 54 <1
SulfurppmASTM D5185m2060292025692973CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>20586SodiumppmASTM D5185m>2022<1	Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	0 0 52 <1 790	0 <1 59 <1 853	2 0 54 <1 883
CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185m     >20     5     8     6       Sodium     ppm     ASTM D5185m     >20     2     8     6       Potassium     ppm     ASTM D5185m     >20     2     2     <1	Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070	0 0 52 <1 790 934	0 <1 59 <1 853 1029	2 0 54 <1 883 962
Silicon     ppm     ASTM D5185m     >20     5     8     6       Sodium     ppm     ASTM D5185m     3     6     4       Potassium     ppm     ASTM D5185m     >20     2     2     <1	Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150	0 0 52 <1 790 934 971	0 <1 59 <1 853 1029 929	2 0 54 <1 883 962 1017
Sodium     ppm     ASTM D5185m     3     6     4       Potassium     ppm     ASTM D5185m<>20     2     2     <1	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150 1270	0 0 52 <1 790 934 971 1087	0 <1 59 <1 853 1029 929 1128	2 0 54 <1 883 962 1017 1224
Potassium     ppm     ASTM D5185m     >20     2     2     <1       Fuel     %     ASTM D3524     >5     A 8.3     <1.0     <1.0       INFRA-RED     method     limit/base     current     history1     history2       Soot %     %     *ASTM D7844     >3     1     1.5     0.9       Nitration     Abs/cm     *ASTM D7624     >20     8.2     10.2     7.5       Sulfation     Abs/.1mm     *ASTM D7415     >30     20.5     21.4     20.0       FLUID DEGRADATION     method     limit/base     current     history1     history2       Oxidation     Abs/.1mm     *ASTM D7414     >25     16.4     17.6     14.9	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	0 0 52 <1 790 934 971 1087 2920	0 <1 59 <1 853 1029 929 1128 2569	2 0 54 <1 883 962 1017 1224 2973
Fuel     %     ASTM D3524     >5     ▲ 8.3     <1.0     <1.0       INFRA-RED     method     limit/base     current     history1     history2       Soot %     %     *ASTM D7844     >3     1     1.5     0.9       Nitration     Abs/cm     *ASTM D7624     >20     8.2     10.2     7.5       Sulfation     Abs/.1mm     *ASTM D7415     >30     20.5     21.4     20.0       FLUID DEGRADATION     method     limit/base     current     history1     history2       Oxidation     Abs/.1mm     *ASTM D7414     >25     16.4     17.6     14.9	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 1010 1070 1150 1270 2060	0 0 52 <1 790 934 971 1087 2920 current	0 <1 59 <1 853 1029 929 1128 2569 history1	2 0 54 <1 883 962 1017 1224 2973 history2
INFRA-RED     method     limit/base     current     history1     history2       Soot %     %     *ASTM D7844     >3     1     1.5     0.9       Nitration     Abs/cm     *ASTM D7624     >20     8.2     10.2     7.5       Sulfation     Abs/.tm     *ASTM D7415     >30     20.5     21.4     20.0       FLUID DEGRADATION     method     limit/base     current     history1     history2       Oxidation     Abs/.tmm     *ASTM D7414     >25     16.4     17.6     14.9	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b>	0 0 60 1010 1070 1150 1270 2060	0 0 52 <1 790 934 971 1087 2920 current 5	0 <1 59 <1 853 1029 929 1128 2569 history1 8	2 0 54 <1 883 962 1017 1224 2973 history2 6
Soot %     %     *ASTM D7844     >3     1     1.5     0.9       Nitration     Abs/cm     *ASTM D7624     >20     8.2     10.2     7.5       Sulfation     Abs/.1mm     *ASTM D7415     >30     20.5     21.4     20.0       FLUID DEGRADATION     method     limit/base     current     history1     history2       Oxidation     Abs/.1mm     *ASTM D7414     >25     16.4     17.6     14.9	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 1010 1070 1150 1270 2060 kimit/base >20	0 0 52 <1 790 934 971 1087 2920 <u>current</u> 5 3	0 <1 59 <1 853 1029 929 1128 2569 history1 8 6	2 0 54 <1 883 962 1017 1224 2973 history2 6 4
Nitration     Abs/cm     *ASTM D7624     >20     8.2     10.2     7.5       Sulfation     Abs/.1mm     *ASTM D7415     >30     20.5     21.4     20.0       FLUID DEGRADATION     method     limit/base     current     history1     history2       Oxidation     Abs/.1mm     *ASTM D7414     >25     16.4     17.6     14.9	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 <b>imit/base</b> >20	0 0 52 <1 790 934 971 1087 2920 <u>current</u> 5 3 2	0 <1 59 <1 853 1029 929 1128 2569 history1 8 6 2	2 0 54 <1 883 962 1017 1224 2973 history2 6 4 <1
Sulfation     Abs/.1mm     *ASTM D7415     >30     20.5     21.4     20.0       FLUID DEGRADATION     method     limit/base     current     history1     history2       Oxidation     Abs/.1mm     *ASTM D7414     >25     16.4     17.6     14.9	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 60 1010 1070 1150 1270 2060 <b>Imit/base</b> >20 >20 >20	0 0 52 <1 790 934 971 1087 2920 current 5 3 2 2 8.3	0 <1 59 <1 853 1029 929 1128 2569 history1 8 6 2 2 <1.0	2 0 54 <1 883 962 1017 1224 2973 history2 6 4 <1 <1.0
FLUID DEGRADATION method limit/base current history1 history2   Oxidation Abs/.1mm *ASTM D7414 >25 16.4 17.6 14.9	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 <b>Imit/base</b> >20 >20 >20	0 0 52 <1 790 934 971 1087 2920 Current 5 3 2 2 8.3 € 8.3	0 <1 59 <1 853 1029 929 1128 2569 history1 8 6 2 <1.0 kistory1	2 0 54 <1 883 962 1017 1224 2973 <b>history2</b> 6 4 <1 <1.0 <b>history2</b>
Oxidation Abs/.1mm *ASTM D7414 >25 16.4 17.6 14.9	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 2060 2060 20 20 20 20 20 20 20 20 20 20 20 20 20	0 0 52 <1 790 934 971 1087 2920 current 5 3 2 2 8.3 current 1	0 <1 59 <1 853 1029 929 1128 2569 history1 8 6 2 <1.0 history1 1.5	2 0 54 <1 883 962 1017 1224 2973 history2 6 4 <1 <1.0 history2 0.9
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D3524 ASTM D3524	0 0 0 1010 1070 1150 1270 2060 2060 2060 220 220 220 25 20 1imit/base 23 23 20	0 0 52 <1 790 934 971 1087 2920 Current 5 3 2 8.3 2 8.3 Current 1 8.2	0 <1 59 <1 853 1029 929 1128 2569 history1 8 6 2 <1.0 history1 1.5 10.2	2 0 54 <1 883 962 1017 1224 2973 history2 6 4 <1 <1.0 history2 0.9 7.5
Base Number (BN)     mg KOH/g     ASTM D2896     9.8     8.5     8.2     8.3	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 <b>imit/base</b> >20 >20 >5 <b>imit/base</b> >3 >20 >3	0 0 52 <1 790 934 971 1087 2920 Current 5 3 2 & 8.3 Current 1 8.2 20.5	0 <1 59 <1 853 1029 929 1128 2569 history1 8 6 2 <1.0 history1 1.5 10.2 21.4	2 0 54 <1 883 962 1017 1224 2973 <b>history2</b> 6 4 <1 <10 <b>history2</b> 0.9 7.5 20.0
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 <b>imit/base</b> >20 >20 >5 <b>imit/base</b> >3 >20 >30 30	0 0 52 <1 790 934 971 1087 2920 Current 5 3 2 2 8.3 2 8.3 Current 1 8.2 20.5 Current	0 <1 59 <1 853 1029 929 1128 2569 history1 8 6 2 <1.0 history1 1.5 10.2 21.4 history1	2 0 54 <1 883 962 1017 1224 2973 history2 6 4 <1 <1.0 history2 0.9 7.5 20.0 history2



# **OIL ANALYSIS REPORT**



VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.1</b>	12.8	13.3
GRAPHS						



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 GFL Environmental - 837 - Harrison TS Sample No. : GFL0118811 Received : 22 Apr 2024 22820 S State Route 291 Lab Number : 06156746 Tested : 25 Apr 2024 Harrisonville, MO Unique Number : 10992169 Diagnosed : 25 Apr 2024 - Wes Davis US 64701 Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel) Contact: SARA PATRICK Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369. spatrick@gflenv.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F:

Report Id: GFL837 [WUSCAR] 06156746 (Generated: 04/25/2024 10:09:03) Rev: 1

Submitted By: JEREMY BROWN

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