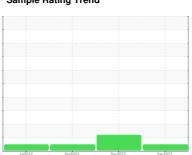


OIL ANALYSIS REPORT

Sample Rating Trend









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

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil

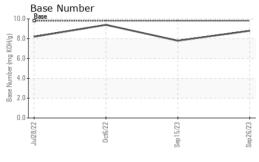
Fluid Condition

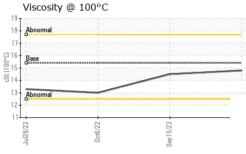
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Cample Date	14 3111 13 14 40 (GAL)	Jul202	2 Oct2022	Sep2023 Se	p2023	
Client Info 26 Sep 2023 15 Sep 2023 06 Oct 2022	SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 13872 13796 11452 Dil Age hrs Client Info 13872 2344 11452 Dil Changed Client Info N/A Changed Changed Sample Status NORMAL ATTENTION NORMAL CONTAMINATION method limit/base current history1 history2 Fuel WC Method >3.0 <1.0	Sample Number		Client Info		GFL0084986	GFL0084868	GFL0052065
Dil Age	Sample Date		Client Info		26 Sep 2023	15 Sep 2023	06 Oct 2022
Contact Con	Machine Age	hrs	Client Info		-		11452
Dil Changed Client Info N/A Changed Changed NORMAL ATTENTION NORMAL ATTENTION NORMAL ATTENTION NORMAL	Oil Age	hrs	Client Info		13872	2344	11452
CONTAMINATION method militibase current history1 history2	-		Client Info		N/A	Changed	Changed
Fuel	-				NORMAL		
WEAR METALS	CONTAMINAT	ION	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
WEAR METALS				7 0.0			
Potential Common Potential	•	S		limit/hase			
Chromium							
Strickel	_						
Silver							
Saliver							
Aluminum		ppm					
Lead ppm ASTM D5185m >30 0 <1 <1 Copper ppm ASTM D5185m >30 26 9 5 Fin ppm ASTM D5185m >15 2 2 <1 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 2 4 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 2 4 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 1 Boron ppm ASTM D5185m 1070		ppm					
Copper	Aluminum	ppm	ASTM D5185m	>30	4		
Fin	_ead	ppm	ASTM D5185m	>30	0		
Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 2 4 Barium ppm ASTM D5185m 0 0 0 0 <1 Molybdenum ppm ASTM D5185m 60 67 70 57 Manganese ppm ASTM D5185m 0 2 <1 <1 Magnesium ppm ASTM D5185m 1010 1090 974 848 Calcium ppm ASTM D5185m 1070 1189 1151 1037 Phosphorus ppm ASTM D5185m 1270 1404 1332 1179 Sulfur ppm ASTM D5185m 2060 2390 3298 3259 CONTAMINANTS method limit/base current <th< td=""><td>Copper</td><td>ppm</td><td>ASTM D5185m</td><td>>30</td><th>26</th><td>9</td><td>5</td></th<>	Copper	ppm	ASTM D5185m	>30	26	9	5
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 2 4 Barium ppm ASTM D5185m 0 0 0 <1	Γin	ppm	ASTM D5185m	>15	2	2	<1
ADDITIVES	√anadium	ppm	ASTM D5185m		0	0	0
Boron ppm ASTM D5185m 0 0 0 0 0 0 0 0 0	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 0 0 0 <1 Molybdenum ppm ASTM D5185m 60 67 70 57 Manganese ppm ASTM D5185m 0 2 <1 <1 Magnesium ppm ASTM D5185m 1010 1090 974 848 Calcium ppm ASTM D5185m 1070 1189 1151 1037 Phosphorus ppm ASTM D5185m 1150 1068 1035 999 Zinc ppm ASTM D5185m 1270 1404 1332 1179 Sulfur ppm ASTM D5185m 2060 2390 3298 3259 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m 5	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 60 67 70 57 Manganese ppm ASTM D5185m 0 2 <1 <1 Magnesium ppm ASTM D5185m 1010 1090 974 848 Calcium ppm ASTM D5185m 1070 1189 1151 1037 Phosphorus ppm ASTM D5185m 1150 1068 1035 999 Zinc ppm ASTM D5185m 1270 1404 1332 1179 Sulfur ppm ASTM D5185m 2060 2390 3298 3259 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 7 13 4 Sodium ppm ASTM D5185m 5 A 82 2 2 Potassium ppm ASTM D5185m >20 6 7 2 INFRA-RED method limit/base	Boron	ppm	ASTM D5185m	0	0	2	4
Manganese ppm ASTM D5185m 0 2 <1 <1 Magnesium ppm ASTM D5185m 1010 1090 974 848 Calcium ppm ASTM D5185m 1070 1189 1151 1037 Phosphorus ppm ASTM D5185m 1150 1068 1035 999 Zinc ppm ASTM D5185m 1270 1404 1332 1179 Sulfur ppm ASTM D5185m 2060 2390 3298 3259 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 7 13 4 Godium ppm ASTM D5185m 5 82 2 2 Potassium ppm ASTM D5185m >20 6 7 2 INFRA-RED method limit/base current history1 history2 Soot % *ASTM D7844 >3 <td>Barium</td> <td>ppm</td> <td>ASTM D5185m</td> <td>0</td> <th>0</th> <td>0</td> <td><1</td>	Barium	ppm	ASTM D5185m	0	0	0	<1
Magnesium ppm ASTM D5185m 1010 1090 974 848 Calcium ppm ASTM D5185m 1070 1189 1151 1037 Phosphorus ppm ASTM D5185m 1150 1068 1035 999 Zinc ppm ASTM D5185m 1270 1404 1332 1179 Sulfur ppm ASTM D5185m 2060 2390 3298 3259 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 7 13 4 Sodium ppm ASTM D5185m 5 ▲ 82 2 Potassium ppm ASTM D5185m >20 6 7 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 6.7 8.3 8.1 Sulfation Abs/.1mm *ASTM D7414	Molybdenum	ppm	ASTM D5185m	60	67	70	57
Magnesium ppm ASTM D5185m 1010 1090 974 848 Calcium ppm ASTM D5185m 1070 1189 1151 1037 Phosphorus ppm ASTM D5185m 1150 1068 1035 999 Zinc ppm ASTM D5185m 1270 1404 1332 1179 Sulfur ppm ASTM D5185m 2060 2390 3298 3259 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 7 13 4 Sodium ppm ASTM D5185m >20 6 7 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.9 0.3 Nitration Abs/.1mm *ASTM D7415 >30 19.3 19.8 19.8 FLUID DEGRADATION method	Manganese	ppm	ASTM D5185m	0	2	<1	<1
Calcium ppm ASTM D5185m 1 070 1189 1151 1037 Phosphorus ppm ASTM D5185m 1 150 1068 1 035 999 Zinc ppm ASTM D5185m 1270 1404 1 332 1179 Sulfur ppm ASTM D5185m 2060 2390 3298 3259 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 7 13 4 Godium ppm ASTM D5185m 5 A82 2 2 Potassium ppm ASTM D5185m >20 6 7 2 INFRA-RED method limit/base current history1 history2 Goot % % *ASTM D7844 >3 0.5 0.9 0.3 Nitration Abs/.1mm *ASTM D7415 >30 19.3 19.8 19.8 FLUID DEGRADATION	-	ppm	ASTM D5185m	1010	1090	974	848
Phosphorus ppm ASTM D5185m 1150 1068 1035 999 Zinc ppm ASTM D5185m 1270 1404 1332 1179 Sulfur ppm ASTM D5185m 2060 2390 3298 3259 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 7 13 4 Sodium ppm ASTM D5185m 5 A82 2 Potassium ppm ASTM D5185m >20 6 7 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.9 0.3 Nitration Abs/cm *ASTM D7624 >20 6.7 8.3 8.1 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 19.8 19.8 FLUID DEGRADATION *ASTM D7414 >25 </td <td>-</td> <td></td> <td>ASTM D5185m</td> <td>1070</td> <th>1189</th> <td>1151</td> <td>1037</td>	-		ASTM D5185m	1070	1189	1151	1037
Zinc ppm ASTM D5185m 1270 1404 1332 1179 Sulfur ppm ASTM D5185m 2060 2390 3298 3259 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 7 13 4 Sodium ppm ASTM D5185m 5 ▲ 82 2 Potassium ppm ASTM D5185m >20 6 7 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.9 0.3 Nitration Abs/cm *ASTM D7624 >20 6.7 8.3 8.1 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 19.8 19.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414	Phosphorus					1035	999
Sulfur ppm ASTM D5185m 2060 2390 3298 3259 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 7 13 4 Sodium ppm ASTM D5185m 5 ▲ 82 2 Potassium ppm ASTM D5185m >20 6 7 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.9 0.3 Nitration Abs/.mm *ASTM D7624 >20 6.7 8.3 8.1 Sulfation Abs/.lmm *ASTM D7415 >30 19.3 19.8 19.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.9 15.3 15.9							
Silicon ppm ASTM D5185m >30 7 13 4 Sodium ppm ASTM D5185m 5 ▲ 82 2 Potassium ppm ASTM D5185m >20 6 7 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.9 0.3 Nitration Abs/cm *ASTM D7624 >20 6.7 8.3 8.1 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 19.8 19.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.9 15.3 15.9	-						
Sodium ppm ASTM D5185m 5 ▲ 82 2 Potassium ppm ASTM D5185m >20 6 7 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.9 0.3 Nitration Abs/cm *ASTM D7624 >20 6.7 8.3 8.1 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 19.8 19.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.9 15.3 15.9	CONTAMINAN	TS	method	limit/base	current	history1	history2
Sodium ppm ASTM D5185m 5 ▲ 82 2 Potassium ppm ASTM D5185m >20 6 7 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.9 0.3 Nitration Abs/cm *ASTM D7624 >20 6.7 8.3 8.1 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 19.8 19.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.9 15.3 15.9			ASTM D5185m	>30	7		
Potassium ppm ASTM D5185m >20 6 7 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.5 0.9 0.3 Nitration Abs/cm *ASTM D7624 >20 6.7 8.3 8.1 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 19.8 19.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.9 15.3 15.9							
Soot % % *ASTM D7844 >3 0.5 0.9 0.3 Nitration Abs/cm *ASTM D7624 >20 6.7 8.3 8.1 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 19.8 19.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.9 15.3 15.9				>20			
Nitration Abs/cm *ASTM D7624 >20 6.7 8.3 8.1 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 19.8 19.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.9 15.3 15.9	INFRA-RED		method_	limit/base	current	history1	history2
Nitration Abs/cm *ASTM D7624 >20 6.7 8.3 8.1 Sulfation Abs/.1mm *ASTM D7415 >30 19.3 19.8 19.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.9 15.3 15.9	Soot %	%	*ASTM D7844	>3	0.5	0.9	0.3
Sulfation Abs/.1mm *ASTM D7415 >30 19.3 19.8 19.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.9 15.3 15.9	Vitration	Abs/cm	*ASTM D7624	>20	6.7	8.3	8.1
Oxidation							
	FLUID DEGRA	OATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	14.9	15.3	15.9
	Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.8	7.8	9.4



OIL ANALYSIS REPORT

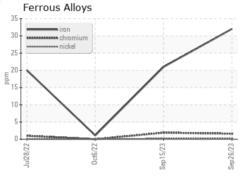


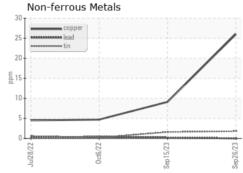


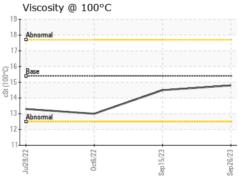
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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

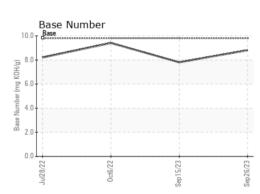
FLUID PROPE	=RIIES	method				history2
Visc @ 100°C	cSt	ASTM D445	15.4	14.8	14.5	13.0

GRAPHS













Certificate L2367

Laboratory Sample No. Lab Number **Unique Number** Test Package : FLEET

: GFL0084986 : 05964024 : 10670575

To discuss this sample report, contact Customer Service at 1-800-237-1369.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 28 Sep 2023 Diagnosed

: 01 Oct 2023 Diagnostician : Don Baldridge GFL Environmental - 410 - Michigan West

39000 Van Born Rd Wayne, MI US 48184

Contact: Belal Dgheish bdgheish@gflenv.com T: (734)714-2340

* - 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)