

OIL ANALYSIS REPORT

Area {UNASSIGNED} Machine Id 820050

Diesel Engine

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

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

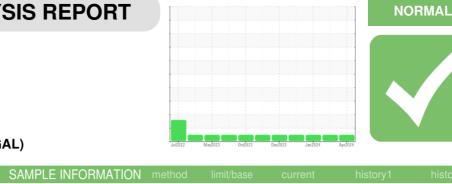
All component wear rates are normal.

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.

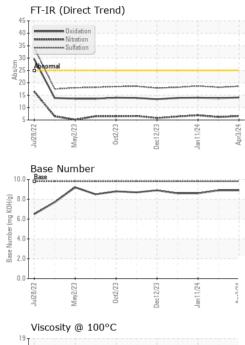


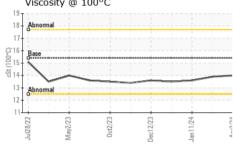
Sample Rating Trend

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0116580	GFL0111888	GFL0108334
Sample Date		Client Info		03 Apr 2024	13 Mar 2024	11 Jan 2024
Machine Age	hrs	Client Info		8306	8174	7997
Oil Age	hrs	Client Info		8306	8174	7997
Oil Changed		Client Info		Not Changd	Not Changd	N/A
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT		method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method		NEG	NEG	NEG
Glycol		WC Method	20.2	NEG	NEG	NEG
-						
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m		10	10	12
Chromium	ppm	ASTM D5185m		0	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	3	2
Lead	ppm	ASTM D5185m	>40	0	<1	0
Copper	ppm	ASTM D5185m	>330	0	<1	2
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	12	13	10
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	62	56	62
Manganese	ppm	ASTM D5185m	0	0	0	<1
Magnesium	ppm	ASTM D5185m	1010	1047	883	967
Calcium	ppm	ASTM D5185m	1070	1281	1086	1127
Phosphorus	ppm	ASTM D5185m	1150	1175	962	1088
Zinc	ppm	ASTM D5185m	1270	1393	1169	1277
Sulfur	ppm	ASTM D5185m	2060	4228	3110	3153
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	5	5	10
Sodium			F = 0	•	0	
Joulum	ppm	ASTM D5185m	0	3	4	4
Potassium						
	ppm	ASTM D5185m		3	4	4
Potassium INFRA-RED	ppm ppm	ASTM D5185m ASTM D5185m method	>20 limit/base	3 10 current	4 6 history1	4 6 history2
Potassium INFRA-RED Soot %	ppm ppm %	ASTM D5185m ASTM D5185m method *ASTM D7844	>20 limit/base >3	3 10 current 0.4	4 6 history1 0.3	4 6 history2 0.4
Potassium INFRA-RED	ppm ppm	ASTM D5185m ASTM D5185m method	>20 limit/base >3	3 10 current	4 6 history1	4 6 history2
Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m method *ASTM D7844 *ASTM D7624 *ASTM D7415	>20 limit/base >3 >20	3 10 current 0.4 6.6 18.6	4 6 history1 0.3 6.2 18.2	4 6 history2 0.4 6.9 18.7
Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE	ppm ppm % Abs/cm Abs/.1mm OATION	ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7415 method	>20 limit/base >3 >20 >30 limit/base	3 10 current 0.4 6.6 18.6 current	4 6 history1 0.3 6.2 18.2 history1	4 6 history2 0.4 6.9 18.7 history2
Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m method *ASTM D7844 *ASTM D7624 *ASTM D7415	>20 limit/base >3 >20 >30 limit/base >25	3 10 current 0.4 6.6 18.6	4 6 history1 0.3 6.2 18.2	4 6 history2 0.4 6.9 18.7



OIL ANALYSIS REPORT





nd)		VISUAL		method	limit/base	current	history1	history2	
		White Metal	scalar	*Visual	NONE	NONE	NONE	NONE	
		Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE	
1 1 1		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	
0ct2/23 Dec12/23	Jan 1 1/24 Apr3/24	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML	
Dec	Jan	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	14.0	13.9	13.6	
		GRAPHS							
		Ferrous Alloys							
	- t-	120 iron							
0ct2/23 Dec12/23	Jan 1 1/24 مال المال الم	100 - chromium							
	7	80							
С		튵 60-							
		40							
		20							
			\sim						
		Jui28/22	2/23	1/24	Apr3/24				
		Jul28 Mayi	Ucit2/23	Jan 11/24	Apri				
		Non-ferrous Meta	ls						
0ct2/23 Dec12/23	han 1 1/24 محلم م	10 copper							
De	Lai	8 - Beautine lead							
		ud l	Λ						
		4-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	/						
		2-	/						
				A					
		3 3 5	53 E2	24	124				
		Jui28/22 May2/23	ucic/23 Dec12/23	Jan11/24	Apr3/24				
		Viscosity @ 100°C				Daas Number			
		¹⁹			10.0	Base Number			
		18 - Abnormal				\sim			
		17-			(B/HO				
		D Base			¥ 6.0				
		Contraction 16 Base			0.0 6.0 8ase Number (mg KOH/g) 4.0				
					ase Nu				
		13 Abnormal			⁶⁰ 2.0				
		11			0.0				
		Jul28/22	Ucit/23	Jan 11/24	Apr3/24	Jul28/22 May2/23	0ct2/23 Dec12/23	Jan 1 1/24 Apr3/24	
		r ž o	Dec	Jai	4	Jr W	Der	A Jai	
1	l	WeerCherk UCA 50	A Mealla -				Environmental - 652 - Fredericksburg Hauling 10954 Houser Drive		
	Laboratory Sample No.	: WearCheck USA - 50 : GFL0116580	1 Madiso Recei						
ACCREDITED	Lab Number		Teste	d : 06	6 Apr 2024			ericksburg, VA	
TESTING LABORATORY	Unique Number		Diagn		Apr 2024 - W	es Davis		US 22408	
Certificate L2367	Test Package		ling at 1 a	00 007 100	2			WILLIAM MILO	
		contact Customer Serv are outside of the ISO 1					wmi	lo@gflenv.com T:	
		pecifications are based of				rule (JCGM 106:	:2012)	F:	
	j =1					, -			

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Submitted By: TECHNICIAN ACCOUNT

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