

OIL ANALYSIS REPORT

Sample Rating Trend





Machine Id 527070 Component

Fluid

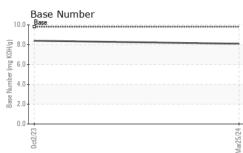
Diesel Engine

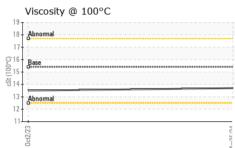
PETRO CANADA DURON SHP 15W40 (--- GAL)

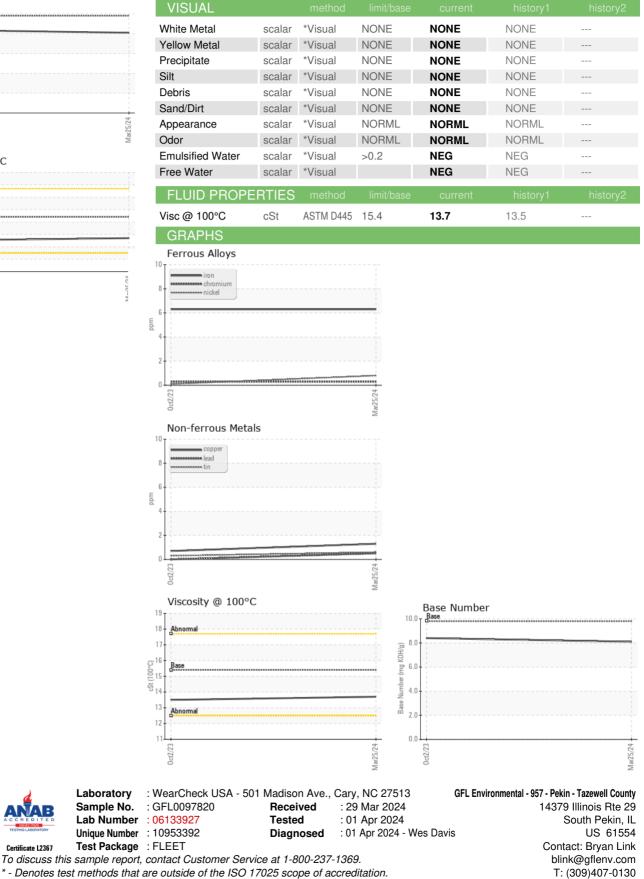
DIAGNOSIS	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Recommendation	Sample Number		Client Info		GFL0097820	GFL0085280	
Resample at the next service interval to monitor.	Sample Date		Client Info		25 Mar 2024	02 Oct 2023	
Wear	Machine Age	hrs	Client Info		0	0	
All component wear rates are normal.	Oil Age	hrs	Client Info		203	600	
Contamination	Oil Changed		Client Info		N/A	N/A	
There is no indication of any contamination in the	Sample Status				NORMAL	NORMAL	
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.	CONTAMINAT	ION	method	limit/base	current	history1	history2
	Fuel		WC Method	>3.0	<1.0	<1.0	
	Water		WC Method	>0.2	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	WEAR METAL	S	method	limit/base	current	history1	history2
	Iron	ppm	ASTM D5185m	>120	6	6	
	Chromium	ppm	ASTM D5185m		<1	<1	
	Nickel	ppm	ASTM D5185m		<1	<1	
	Titanium	ppm	ASTM D5185m		<1	<1	
	Silver	ppm	ASTM D5185m		0	0	
	Aluminum	ppm	ASTM D5185m		3	2	
	Lead	ppm	ASTM D5185m		ء <1	0	
	Copper	ppm	ASTM D5185m		1	<1	
	Tin		ASTM D5185m		، <1	<1	
	Vanadium	ppm ppm	ASTM D5185m	>15	<1	<1	
	Cadmium	ppm	ASTM D5185m		<1	0	
	ADDITIVES		method	limit/base	current	history1	history2
	Boron	ppm	ASTM D5185m	0	10	00	
					10	20	
	Barium				<1	20 12	
		ppm	ASTM D5185m	0	<1	12	
	Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m	0 60	<1 54	12 45	
	Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 60 0	<1 54 <1	12 45 <1	
	Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 60 0 1010	<1 54 <1 838	12 45 <1 743	
	Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 60 0 1010 1070	<1 54 <1 838 1209	12 45 <1 743 1262	
	Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 60 0 1010 1070 1150	<1 54 <1 838 1209 971	12 45 <1 743 1262 855	
	Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 60 0 1010 1070 1150 1270	<1 54 <1 838 1209	12 45 <1 743 1262	
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 60 0 1010 1070 1150 1270	<1 54 <1 838 1209 971 1141 2944	12 45 <1 743 1262 855 1054	
	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	0 60 0 1010 1070 1150 1270 2060 Limit/base	<1 54 <1 838 1209 971 1141 2944	12 45 <1 743 1262 855 1054 2719	
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 60 0 1010 1070 1150 1270 2060 Limit/base	<1 54 <1 838 1209 971 1141 2944 current	12 45 <1 743 1262 855 1054 2719 history1	 history2
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	0 60 0 1010 1070 1150 1270 2060 <i>limit/base</i> >25	<1 54 <1 838 1209 971 1141 2944 current 5	12 45 <1 743 1262 855 1054 2719 history1 5	 history2
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm 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 60 0 1010 1070 1150 1270 2060 <i>limit/base</i> >25	<1 54 <1 838 1209 971 1141 2944 current 5 6 4	12 45 <1 743 1262 855 1054 2719 history1 5 3	 history2
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	0 60 0 1010 1070 1150 1270 2060 limit/base >25	<1 54 <1 838 1209 971 1141 2944 Current 5 6 4 X	12 45 <1 743 1262 855 1054 2719 history1 5 3 5	 history2
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base >4	<1 54 <1 838 1209 971 1141 2944 Current 5 6 4 Current 0.3	12 45 <1 743 1262 855 1054 2719 history1 5 3 5 5	 history2 history2
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base >20	<1 54 <1 838 1209 971 1141 2944 Current 5 6 4 X	12 45 <1 743 1262 855 1054 2719 history1 5 3 5 5 history1 0.3	 history2 history2
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 60 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base >20	<1 54 <1 838 1209 971 1141 2944 Current 5 6 4 Current 0.3 7.2 20.4	12 45 <1 743 1262 855 1054 2719 history1 5 3 5 5 history1 0.3 6.5	 history2 history2
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAM	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 60 0 1010 1070 1150 1270 2060 2060 2060 205 20 20 20 20 20 20 20 20 20 20 20 20 20	<1 54 <1 838 1209 971 1141 2944 Current 5 6 4 Current 0.3 7.2 20.4 Current	12 45 <1 743 1262 855 1054 2719 history1 5 3 5 history1 0.3 6.5 20.0 history1	 history2 history2 history2
	Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 60 0 1010 1070 1150 1270 2060 2060 225 20 225 20 20 20 20 20 20 20 20 20 20 20 20 20	<1 54 <1 838 1209 971 1141 2944 Current 5 6 4 Current 0.3 7.2 20.4	12 45 <1 743 1262 855 1054 2719 history1 5 3 5 5 history1 0.3 6.5 20.0	 history2 history2 history2



OIL ANALYSIS REPORT







^{* -} 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

F: