

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

6 Component

Diesel Engine

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

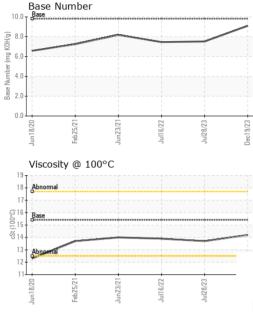
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

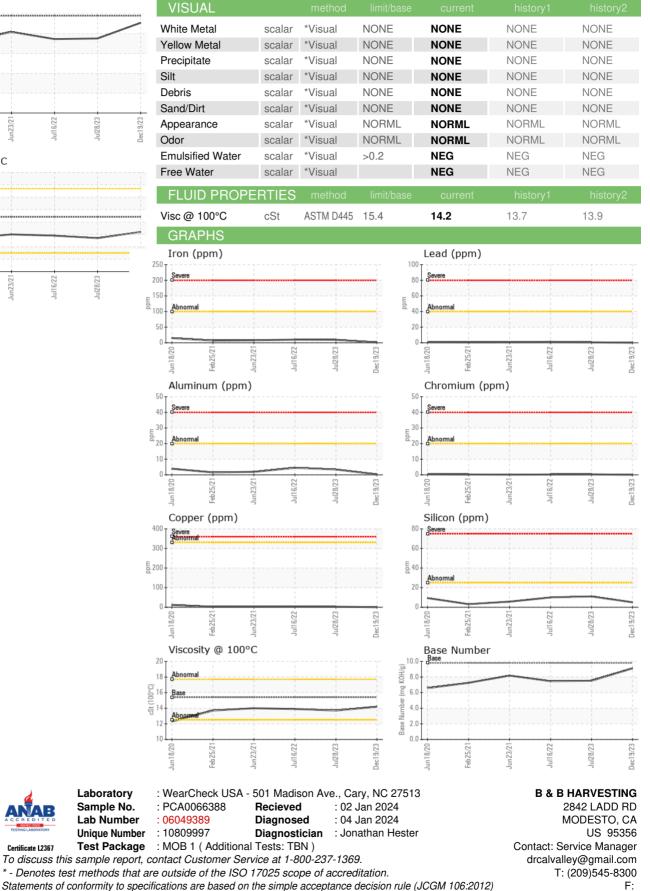
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0066388	PCA0053915	PCA0054219
Sample Date		Client Info		19 Dec 2023	28 Jul 2023	16 Jul 2022
Machine Age	mls	Client Info		177181	156456	106897
Oil Age	mls	Client Info		20000	20000	20000
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ON	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	1	10	10
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	<1	3	4
Lead	ppm	ASTM D5185m	>40	0	<1	1
Copper	ppm	ASTM D5185m	>330	<1	3	4
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Antimony	ppm	ASTM D5185m				
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	<1	0	5
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	60	62	59
Manganese	ppm	ASTM D5185m	0	0	<1	<1
Magnesium	ppm	ASTM D5185m	1010	1043	961	923
Calcium	ppm					
Distance in a survey	pp	ASTM D5185m	1070	1121	1180	1059
Phosphorus	ppm	ASTM D5185m ASTM D5185m	1070 1150	1121 1103	1180 1039	1059 940
Zinc						1059
Zinc Sulfur	ppm ppm ppm	ASTM D5185m	1150	1103	1039	1059 940
Zinc	ppm ppm ppm	ASTM D5185m ASTM D5185m	1150 1270	1103 1327	1039 1307	1059 940 1174
Zinc Sulfur	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	1150 1270 2060	1103 1327 3397	1039 1307 3247	1059 940 1174 2588
Zinc Sulfur CONTAMINAN	ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m method	1150 1270 2060 limit/base	1103 1327 3397 current	1039 1307 3247 history1	1059 940 1174 2588 history2
Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm TS ppm	ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	1150 1270 2060 limit/base	1103 1327 3397 current 5	1039 1307 3247 history1 11	1059 940 1174 2588 history2 10
Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1150 1270 2060 limit/base >25	1103 1327 3397 current 5 <1	1039 1307 3247 history1 11 2	1059 940 1174 2588 history2 10 2
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	1150 1270 2060 <i>limit/base</i> >25 >20	1103 1327 3397 current 5 <1 0	1039 1307 3247 history1 11 2 2 2	1059 940 1174 2588 history2 10 2 3
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1150 1270 2060 imit/base >25 >20 imit/base	1103 1327 3397 current 5 <1 0 current	1039 1307 3247 history1 11 2 2 2 history1	1059 940 1174 2588 history2 10 2 3 3 history2
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844	1150 1270 2060 imit/base >25 >20 imit/base >3	1103 1327 3397 current 5 <1 0 current 0.1	1039 1307 3247 history1 11 2 2 2 history1 0.2	1059 940 1174 2588 history2 10 2 3 3 history2 0.3
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm pm TS ppm ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7844 *ASTM D7624	1150 1270 2060 limit/base >25 >20 limit/base >3 >20	1103 1327 3397 current 5 <1 0 current 0.1 5.0	1039 1307 3247 history1 11 2 2 history1 0.2 9.4	1059 940 1174 2588 history2 10 2 3 history2 0.3 9.9
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm pm TS ppm ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7844 *ASTM D7624	1150 1270 2060 imit/base >25 >20 imit/base >3 >20 >30	1103 1327 3397 current 5 <1 0 current 0.1 5.0 17.7	1039 1307 3247 history1 11 2 2 history1 0.2 9.4 20.8	1059 940 1174 2588 history2 10 2 3 history2 0.3 9.9 23.3
Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE	ppm ppm ppm TS ppm ppm ppm ppm % Abs/cm Abs/cm Abs/LION	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7415	1150 1270 2060 imit/base >25 >20 imit/base >3 >20 >30 imit/base	1103 1327 3397 current 5 <1 0 current 0.1 5.0 17.7 current	1039 1307 3247 history1 11 2 2 history1 0.2 9.4 20.8 history1	1059 940 1174 2588 history2 10 2 3 history2 0.3 9.9 23.3 history2

Contact/Location: Service Manager - BBHMOD



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Laboratory

Sample No.

Lab Number

Contact/Location: Service Manager - BBHMOD