

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

Area (60901Z) Walgreens - Tractor [Walgreens - Tractor] 136A63294

Diesel Engine

Fluid PETRO CANADA DURON SHP 10W30 (11 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

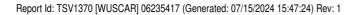
Contamination

There is no indication of any contamination in the oil.

Fluid Condition

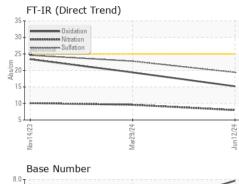
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

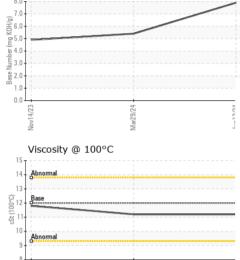
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0127121	PCA0119366	PCA0111112
Sample Date		Client Info		12 Jun 2024	29 Mar 2024	14 Nov 2023
Machine Age	mls	Client Info		134376	110992	51461
Oil Age	mls	Client Info		23384	59531	50000
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>2.0	<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	19	39	56
Chromium	ppm	ASTM D5185m	>20	1	3	2
Nickel	ppm	ASTM D5185m	>4	0	2	1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	<1	<1
Aluminum	ppm	ASTM D5185m	>20	7	13	31
Lead	ppm	ASTM D5185m	>40	0	5	6
Copper	ppm	ASTM D5185m	>330	12	8	23
Tin	ppm	ASTM D5185m	>15	0	3	5
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	<1	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base 2	current 4	history1 5	history2 27
	ppm ppm					
Boron		ASTM D5185m	2	4	5	27
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2 0	4 0	5 0	27 4
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	4 0 59	5 0 61	27 4 57
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	4 0 59 0	5 0 61 2	27 4 57 4
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	4 0 59 0 887	5 0 61 2 888	27 4 57 4 427
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	4 0 59 0 887 1112	5 0 61 2 888 1206	27 4 57 4 427 1643
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	2 0 50 0 950 1050 995	4 0 59 0 887 1112 1036	5 0 61 2 888 1206 1094	27 4 57 4 427 1643 987
Boron Barium 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 ASTM D5185m	2 0 50 0 950 1050 995 1180	4 0 59 0 887 1112 1036 1249	5 0 61 2 888 1206 1094 1283	27 4 57 4 427 1643 987 1178
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	2 0 50 0 950 1050 995 1180 2600	4 0 59 0 887 1112 1036 1249 3203	5 0 61 2 888 1206 1094 1283 2842	27 4 57 4 427 1643 987 1178 2633
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	4 0 59 0 887 1112 1036 1249 3203 current	5 0 61 2 888 1206 1094 1283 2842 history1	27 4 57 4 427 1643 987 1178 2633 history2
Boron Barium Molybdenum Manganese Magnesium Calcium 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 ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	4 0 59 0 887 1112 1036 1249 3203 current 4	5 0 61 2 888 1206 1094 1283 2842 history1 12	27 4 57 4 427 1643 987 1178 2633 history2 39
Boron Barium 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	2 0 50 0 950 1050 995 1180 2600 limit/base >25	4 0 59 0 887 1112 1036 1249 3203 current 4 1	5 0 61 2 888 1206 1094 1283 2842 history1 12 2	27 4 57 4 427 1643 987 1178 2633 history2 39 6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 imit/base >25	4 0 59 0 887 1112 1036 1249 3203 current 4 1 22	5 0 61 2 888 1206 1094 1283 2842 history1 12 2 2 27	27 4 57 4 427 1643 987 1178 2633 history2 39 6 82
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 Imit/base >25 >20	4 0 59 0 887 1112 1036 1249 3203 current 4 1 22 current	5 0 61 2 888 1206 1094 1283 2842 history1 12 2 27 27 history1	27 4 57 4 427 1643 987 1178 2633 history2 39 6 82 82 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3	4 0 59 0 887 1112 1036 1249 3203 <i>current</i> 4 1 22 <i>current</i> 0.4	5 0 61 2 888 1206 1094 1283 2842 history1 12 2 27 27 history1 0.7	27 4 57 4 427 1643 987 1178 2633 history2 39 6 82 history2 0.6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	<pre>ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm</pre>	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 <i>imit/base</i> >25 >20 <i>imit/base</i> >3 >20	4 0 59 0 887 1112 1036 1249 3203 current 4 1 22 current 0.4 8.0	5 0 61 2 888 1206 1094 1283 2842 history1 12 2 27 27 history1 0.7 9.6	27 4 57 4 427 1643 987 1178 2633 history2 39 6 82 history2 0.6 10.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	<pre>ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm</pre>	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >25 20 imit/base >3 >20 >30	4 0 59 0 887 1112 1036 1249 3203 current 4 1 22 current 0.4 8.0 19.4	5 0 61 2 888 1206 1094 1283 2842 history1 12 2 27 history1 0.7 9.6 22.8	27 4 57 4 427 1643 987 1178 2633 history2 39 6 82 history2 0.6 10.1 24.6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRA	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844	2 0 0 50 0 950 1050 995 1180 2600 imit/base >25 >20 imit/base >3 >20 >30	4 0 59 0 887 1112 1036 1249 3203 current 4 1 22 current 0.4 8.0 19.4 current	5 0 61 2 888 1206 1094 1283 2842 history1 12 2 27 history1 0.7 9.6 22.8 history1	27 4 57 4 427 1643 987 1178 2633 history2 39 6 82 history2 0.6 10.1 24.6 history2





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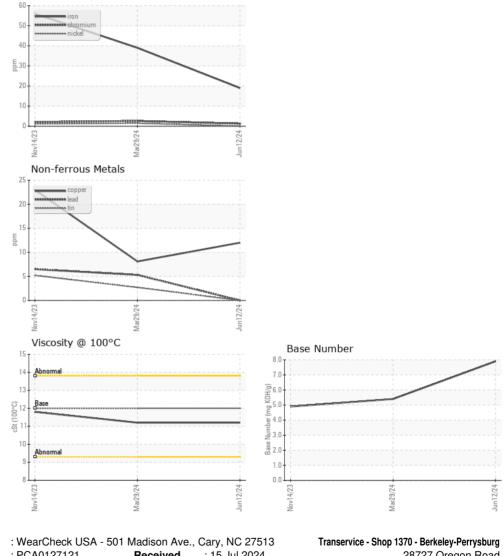


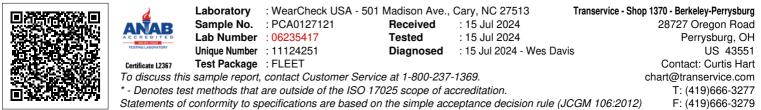
Mar29/24

Nov14/23

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	DTIEC	method	limit/base	current	history1	history2
		methou	iiiiii/base	current	TIISTOLA	TIIStOLYZ
Visc @ 100°C	cSt	ASTM D445	12.00	11.2	11.2	11.8
GRAPHS						







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