

## **OIL ANALYSIS REPORT**

Sample Rating Trend

### Area (89681X) Walgreens - Tractor [Walgreens - Tractor] 136A69102

**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

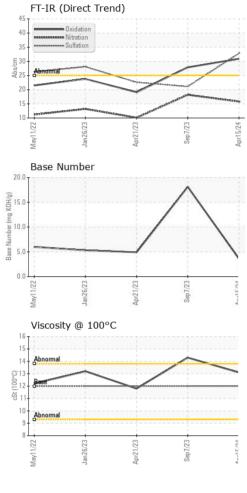
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0123374	PCA0106146	PCA0095127
Sample Date		Client Info		15 Apr 2024	07 Sep 2023	21 Apr 2023
Machine Age	mls	Client Info		697837	654427	534847
Oil Age	mls	Client Info		43410	59386	63896
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	ATTENTION	NORMAL
CONTAMINAT	ION	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	>80	71	38	35
Chromium	ppm	ASTM D5185m	>5	3	2	3
Nickel	ppm	ASTM D5185m	>2	۲ ۲	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>30	22	13	18
Lead	ppm	ASTM D5185m	>30	<1	0	0
Copper	ppm		>150	8	9	5
Tin	ppm	ASTM D5185m	>5	2	2	<1
Vanadium	ppm	ASTM D5185m		- <1	<1	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	maa	method ASTM D5185m	limit/base	current		history2
	ppm				history1	
Boron Barium	ppm	ASTM D5185m	2	current 11	history1 11	history2 9
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m	2 0	current 11 0	history1 11 0	history2 9 0
Boron Barium Molybdenum Manganese	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	current 11 0 72	history1 11 0 55	history2 9 0 64
Boron Barium Molybdenum	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	current 11 0 72 <1	history1 11 0 55 <1	history2 9 0 64 1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	current 11 0 72 <1 951	history1 11 0 55 <1 836	history2 9 0 64 1 959
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	Current 11 0 72 <1 951 1354	history1 11 0 55 <1 836 1135	history2 9 0 64 1 959 1224
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	Current 11 0 72 <1 951 1354 1177	history1 11 0 55 <1 836 1135 948	history2 9 0 64 1 959 1224 1009
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 50 950 1050 995 1180	Current 11 0 72 <1 951 1354 1177 1365	history1 11 0 55 <1 836 1135 948 1212	history2           9           0           64           1           959           1224           1009           1230
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 50 950 1050 995 1180 2600	Current 11 0 72 <1 951 1354 1177 1365 2954	history1 11 0 55 <1 836 1135 948 1212 3057	history2 9 0 64 1 959 1224 1009 1230 3140
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 ASTM D5185m	2 0 50 950 1050 995 1180 2600	Current 11 0 72 <1 951 1354 1177 1365 2954 Current	history1 11 0 55 <1 836 1135 948 1212 3057 history1	history2         9         0         64         1         959         1224         1009         1230         3140         history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b>	2 0 50 950 1050 995 1180 2600	Current 11 0 72 <1 951 1354 1177 1365 2954 Current 10	history1         11         0         55         <1         836         1135         948         1212         3057         history1	history2         9         0         64         1         959         1224         1009         1230         3140         history2         7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m 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 <b>limit/base</b>	current         11         0         72         <1         951         1354         1177         1365         2954         current         10         12	history1         11         0         55         <1         836         1135         948         1212         3057         history1         10         7	history2         9         0         64         1         959         1224         1009         1230         3140         history2         7         2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 <b>limit/base</b> >20	Current 11 0 72 <1 951 1354 1177 1365 2954 Current 10 12 13	history1         11         0         55         <1         836         1135         948         1212         3057         history1         10         7         18	history2         9         0         64         1         959         1224         1009         1230         3140         history2         7         2         2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>limit/base</b> >20 <b>limit/base</b>	current         11         0         72         <1         951         1354         1177         1365         2954         current         10         12         13         current	history1         11         0         55         <1         836         1135         948         1212         3057         history1         10         7         18         history1	history2         9         0         64         1         959         1224         1009         1230         3140         history2         7         2         2         history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>limit/base</b> >20 >20 <b>limit/base</b> >3	current         11         0         72         <1         951         1354         1177         1365         2954         current         10         12         13         current         2.3	history1         11         0         55         <1         836         1135         948         1212         3057         history1         10         7         18         history1         1.1	history2         9         0         64         1         959         1224         1009         1230         3140         history2         7         2         history2         1.3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>i</b> mit/base >20 <b>i</b> mit/base >20	current         11         0         72         <1         951         1354         1177         1365         2954         current         10         12         13         current         2.3         15.8	history1         11         0         55         <1         836         1135         948         1212         3057         history1         10         7         18         history1         1.1         18.2	history2         9         0         64         1         959         1224         1009         1230         3140         history2         7         2         history2         1.3         10.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 <b>imit/base</b> >20 <b>imit/base</b> >3 >20 >30	Current         11         0         72         <1         951         1354         1177         1365         2954         current         10         12         13         current         2.3         15.8         32.8	history1         11         0         55         <1         836         1135         948         1212         3057         history1         10         7         18         history1         1.1         18.2         21.1	history2         9         0         64         1         959         1224         1009         1230         3140         history2         7         2         history2         1.3         10.1         22.6





# **OIL ANALYSIS REPORT**



end)		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
	and the second se	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	and and a diversity of the local diversity of	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Cales Berning to the state of t		Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Apr21/23 Sep7/23	Apr15/24	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Api	Api	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
		Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
		Free Water	scalar	*Visual		NEG	NEG	NEG
$\wedge$		FLUID PROPE	RTIES	method	limit/base	current	history1	history2
/	$\backslash$	Visc @ 100°C	cSt	ASTM D445	12.00	13.1	14.3	11.8
		GRAPHS						
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		: WearCheck USA - 501 : PCA0123374	Madiso Rece		, NC 27513 Apr 2024	Transerv	ce - Shop 1373 - Berkeley	Anderson/Pendergrass
		: 06153998	Teste		2 Apr 2024			Willamston, SC
TESTING LABORATORY Uni	que Number	: 10989421			Apr 2024 - Don	Baldridge		US 29697
	st Package							Sonny Boucher
		contact Customer Servi are outside of the ISO 1						ranservice.com (864)226-2304
		pecifications are based o				rule (JCGM 1		(864)226-2304 (864)226-2329

Submitted By: Sonny Boucher

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