

## **OIL ANALYSIS REPORT**

### Area (16067Z) Walgreens - Tractor [Walgreens - Tractor] 136A61358

**Diesel Engine** 

Fluic PETRO CANADA DURON SHP 10W30 (11 GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

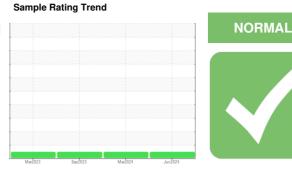
All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

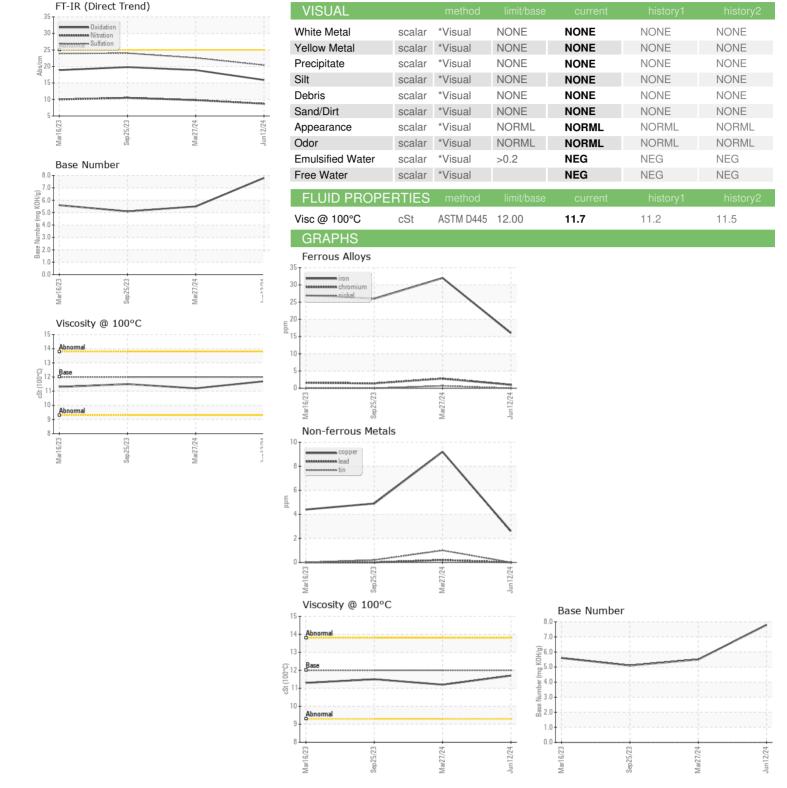
#### Fluid Condition

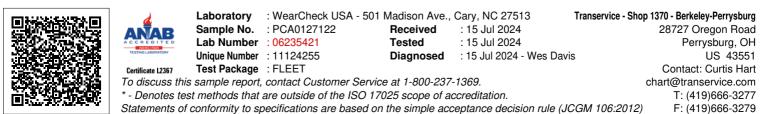
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.





SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0127122	PCA0119364	PCA0107365
Sample Date		Client Info		12 Jun 2024	27 Mar 2024	25 Sep 2023
Machine Age	mls	Client Info		412987	385690	333357
Oil Age	mls	Client Info		30000	51000	50000
Oil Changed		Client Info		Not Changd	Changed	Changed
Sample Status				NORMAL	NORMAL	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	16	32	26
Chromium	ppm	ASTM D5185m		1	3	1
Nickel	ppm	ASTM D5185m	>2	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m		7	17	11
Lead	ppm	ASTM D5185m	>30	0	<1	0
Copper	ppm	ASTM D5185m	>150	3	9	5
Tin	ppm	ASTM D5185m	>5	0	1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	<1	0
	1. 1			U		0
ADDITIVES	le le con	method	limit/base	current	history1	history2
ADDITIVES Boron	ppm		limit/base	-		-
		method		current	history1	history2
Boron	ppm	method ASTM D5185m	2	current	history1 3	history2 4
Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	2 0	current 1 0	history1 3 0	history2 4 0
Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	current 1 0 60	history1 3 0 65	history2 4 0 61 <1 920
Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	current 1 0 60 <1	history1 3 0 65 2	history2 4 0 61 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	current 1 0 60 <1 959	history1 3 0 65 2 962	history2 4 0 61 <1 920
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	current           1           0           60           <1           959           1140	history1 3 0 65 2 962 1185	history2           4           0           61           <1           920           1101           1045           1283
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 9 950 1050 995	current           1           0           60           <1           959           1140           1037	history1 3 0 65 2 962 1185 1126	history2 4 0 61 <1 920 1101 1045
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180	current           1           0           60           <1           959           1140           1037           1262	history1 3 0 65 2 962 1185 1126 1299	history2           4           0           61           <1           920           1101           1045           1283
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method 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	Current	history1 3 0 65 2 962 1185 1126 1299 2818	history2           4           0           61           <1           920           1101           1045           1283           2583
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method 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           1           0           60           <1           959           1140           1037           1262           3371           current	history1 3 0 65 2 962 1185 1126 1299 2818 history1	history2 4 0 61 <1 920 1101 1045 1283 2583 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m	2 0 50 950 1050 995 1180 2600	current           1           0           60           <1           959           1140           1037           1262           3371           current           5	history1         3         0         65         2         962         1185         1299         2818         history1         8	history2           4           0           61           <1           920           1101           1045           1283           2583           history2           4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>limit/base</b> >20	current           1           0           60           <1           959           1140           1037           1262           3371           current           5           2	history1         3         0         65         2         962         1185         1126         1299         2818         history1         8         2	history2         4         0         61         <1         920         1101         1045         1283         2583         history2         4         2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>imit/base</b> >20	current           1           0           60           <1           959           1140           1037           1262           3371           current           5           2           3	history1         3         0         65         2         962         1185         1299         2818         history1         8         2         13	history2         4         0         61         <1         920         1101         1045         1283         2583         history2         4         2         7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>Imit/base</b> >20 20	current         1         0         60         <1         959         1140         1037         1262         3371         current         5         2         3         current	history1         3         0         65         2         962         1185         1126         1299         2818         history1         8         2         13	history2         4         0         61         <1         920         1101         1045         1283         2583         history2         4         2         7         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	method         ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>limit/base</b> >20 >20 <b>limit/base</b>	current           1           0           60           <1           959           1140           1037           1262           3371           current           5           2           3           current           0           0.8	history1         3         0         65         2         962         1185         1126         1299         2818         history1         8         2         13         history1         1.2	history2         4         0         61         <1         920         1101         1045         1283         2583         history2         4         2         7         history2         1.2
Boron Barium 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	method           ASTM D5185m           ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >20 20 imit/base >3 >20	current         1         0         60         <1         959         1140         1037         1262         3371         current         5         2         3         current         0.8         8.7	history1         3         0         65         2         962         1185         1299         2818         history1         8         2         13         history1         1.2         9.8	history2         4         0         61         <1         920         1101         1045         1283         2583         history2         4         2         7         history2         1.2         10.5
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 ppm ppm ppm	method           ASTM D5185m           ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <b>imit/base</b> >20 <b>imit/base</b> >3 >20 >3	current         1         0         60         <1         959         1140         1037         1262         3371         current         5         2         3         current         0.8         8.7         20.4	history1         3         0         65         2         962         1185         1126         1299         2818         history1         8         2         13         history1         1.2         9.8         22.6	history2         4         0         61         <1         920         1101         1045         1283         2583         history2         4         2         7         history2         1.2         10.5         24.0
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 ppm ppm TS ppm ppm ppm	method           ASTM D5185m           ASTM D7185m           ASTM D7624           *ASTM D7624           *ASTM D7415	2 0 50 0 950 1050 995 1180 2600 2600 20 20 220 220 20 33 220 330	current         1         0         60         <1         959         1140         1037         1262         3371         current         5         2         3         current         0.8         8.7         20.4	history1         3         0         65         2         962         1185         1299         2818         history1         8         2         13         history1         1.2         9.8         22.6         history1	history2         4         0         61         <1         920         1101         1045         1283         2583         history2         4         2         7         history2         1.2         10.5         24.0         history2





OIL

DIAGNOSTICS

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