

## **OIL ANALYSIS REPORT**

#### Sample Rating Trend



### Area SCHTRUCK Machine Id 6370 [SCHTRUCK]

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.

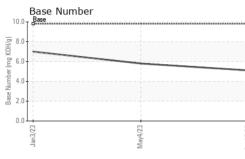
#### Fluid Condition

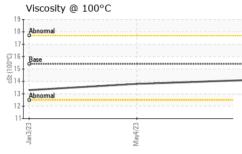
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	ΛΑΤΙΟΝ	method	limit/base	current	history1	history2
Sample Number		Client Info		SBP0005617	SBP0004353	SBP0002479
Sample Date		Client Info		15 Sep 2023	04 May 2023	03 Jan 2023
Machine Age	mls	Client Info		284208	246265	202040
Oil Age	mls	Client Info		37943	44225	36987
Oil Changed		Client Info		Changed	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	19	22	20
Chromium	ppm	ASTM D5185m	>5	1	<1	1
Nickel	ppm	ASTM D5185m	>2	<1	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>30	0	5	4
Lead	ppm	ASTM D5185m	>30	0	0	<1
Copper	ppm	ASTM D5185m	>150	16	23	29
Tin	ppm	ASTM D5185m	>5	<1	<1	2
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
			11 1. 11			la la tana 20
ADDITIVES		method				history2
Boron	ppm	method ASTM D5185m	limit/base	current	history1 2	12
	ppm ppm	ASTM D5185m	0			
Boron Barium	ppm		0	<1	2	12
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	<1 0	2 0	12 0
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 60	<1 0 65 <1	2 0 61	12 0 51
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	<1 0 65 <1 1087	2 0 61 0 972	12 0 51 <1
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	<1 0 65 <1 1087 1205	2 0 61 0 972 1404	12 0 51 <1 539 2324
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070	<1 0 65 <1 1087 1205 1051	2 0 61 0 972 1404 1038	12 0 51 <1 539 2324 1062
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150	<1 0 65 <1 1087 1205	2 0 61 0 972 1404	12 0 51 <1 539 2324
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	0 0 60 0 1010 1070 1150 1270	<1 0 65 <1 1087 1205 1051 1393 3085	2 0 61 0 972 1404 1038 1355	12 0 51 <1 539 2324 1062 1298
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	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 0 60 0 1010 1070 1150 1270 2060	<1 0 65 <1 1087 1205 1051 1393 3085 current	2 0 61 0 972 1404 1038 1355 2803 history1	12 0 51 <1 539 2324 1062 1298 3615 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS 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 <b>method</b> ASTM D5185m	0 0 60 0 1010 1070 1150 1270 2060	<1 0 65 <1 1087 1205 1051 1393 3085 <u>current</u> 6	2 0 61 0 972 1404 1038 1355 2803	12 0 51 <1 539 2324 1062 1298 3615 history2 9
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	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 0 60 1010 1070 1150 1270 2060 kimit/base	<1 0 65 <1 1087 1205 1051 1393 3085 current	2 0 61 0 972 1404 1038 1355 2803 history1 4	12 0 51 <1 539 2324 1062 1298 3615 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 60 1010 1070 1150 1270 2060 kimit/base	<1 0 65 <1 1087 1205 1051 1393 3085 <u>current</u> 6 2 3	2 0 61 0 972 1404 1038 1355 2803 history1 4 4 4	12 0 51 <1 539 2324 1062 1298 3615 history2 9 6 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 <b>limit/base</b> >20 <b>limit/base</b>	<1 0 65 <1 1087 1205 1051 1393 3085 <u>current</u> 6 2 3 3	2 0 61 0 972 1404 1038 1355 2803 history1 4 4 4 4 4 4	12 0 51 <1 539 2324 1062 1298 3615 history2 9 6 3 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 2060 220 220 220 220 220	<1 0 65 <1 1087 1205 1051 1393 3085 <u>current</u> 6 2 3 3 <u>current</u> 0.6	2 0 61 0 972 1404 1038 1355 2803 history1 4 4 4 4 4 4 4 0.6	12 0 51 <1 539 2324 1062 1298 3615 history2 9 6 3 3 3 5 <i>history2</i> 0.5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 limit/base >20 limit/base >3 >20	<1 0 65 <1 1087 1205 1051 1393 3085 <u>current</u> 6 2 3 <u>current</u> 0.6 10.0	2 0 61 0 972 1404 1038 1355 2803 history1 4 4 4 4 4 4 0.6 9.8	12 0 51 <1 539 2324 1062 1298 3615 history2 9 6 3 3 5 <i>history2</i> 0.5 8.7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 <b>imit/base</b> >20 <b>imit/base</b> >3 >20 >3	<1 0 65 <1 1087 1205 1051 1393 3085 <u>current</u> 6 2 3 3 <u>current</u> 0.6 10.0 22.4	2 0 61 0 972 1404 1038 1355 2803 history1 4 4 4 4 4 4 5 0.6 9.8 23.1	12 0 51 <1 539 2324 1062 1298 3615 history2 9 6 3 3 bistory2 0.5 8.7 22.6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 limit/base >20 limit/base >3 >20	<1 0 65 <1 1087 1205 1051 1393 3085 <u>current</u> 6 2 3 3 <u>current</u> 0.6 10.0 22.4	2 0 61 0 972 1404 1038 1355 2803 history1 4 4 4 4 4 4 0.6 9.8	12 0 51 <1 539 2324 1062 1298 3615 history2 9 6 3 3 5 <i>history2</i> 0.5 8.7
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 2060 2060 200 200 200 200 200 200	<1 0 65 <1 1087 1205 1051 1393 3085 <u>current</u> 6 2 3 3 <u>current</u> 0.6 10.0 22.4	2 0 61 0 972 1404 1038 1355 2803 history1 4 4 4 4 4 4 5 0.6 9.8 23.1	12 0 51 <1 539 2324 1062 1298 3615 history2 9 6 3 3 bistory2 0.5 8.7 22.6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 imit/base >20 imit/base >3 >20 imit/base >3 >20	<1 0 65 <1 1087 1205 1051 1393 3085 Current 6 2 3 Current 0.6 10.0 22.4 Current	2 0 61 0 972 1404 1038 1355 2803 history1 4 4 4 4 4 4 5 0.6 9.8 23.1 history1	12 0 51 <1 539 2324 1062 1298 3615 history2 9 6 3 3 history2 0.5 8.7 22.6 history2



# **OIL ANALYSIS REPORT**





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 PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	14.1	13.8	13.3
GRAPHS						
Ferrous Alloys						
iron						
20 - nickel			_			
15-						
الم 10						
5 -						
5-						
0	4/23	**********************	5/23			
5 0 57 6 7 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7 8 7	May4/23		Sep 15/23			
0	_		Sep 15/23			
Non-ferrous Metal	_		Sep 15/23			
Non-ferrous Metal	_		Sep 15/23			
Non-ferrous Metal	_	************	Sep 15/23			
Non-ferrous Metal	_		Sep15/23			
Non-ferrous Metal	_		Sep15/23			
Non-ferrous Metal	_		Sep 15/23			
Non-ferrous Metal	_		Sep15/23			
Non-ferrous Metal	S					
Non-ferrous Metal	S					
Non-ferrous Metal	S		Sep 15/23 Sep 15/23			
Non-ferrous Metal	S		Sep15/23	Base Number		
Non-ferrous Metal	S		Sep15/23	Base Number	-	
Non-ferrous Metal	S		Sap12/23	Base		
Non-ferrous Metal	S		Sap12/23	Base	-	
Non-ferrous Metal	S		Sap12/23	Base		
Non-ferrous Metal	S		Sap12/23	D + Base		
Non-ferrous Metal	S		10.0 30.0 Mumber (und KOH(d) 4.0 4.0	D - Base		
Non-ferrous Metal	S		Sap12/23	D - Base		
Non-ferrous Metal	S		0.0 30 Juniper (Juniper (Juni)	D + Base	- EZI/vleW	

: 25 Sep 2023



 Certificate L2367
 Test Package
 : FLEET

 To discuss this sample report, contact Customer Service at 1-800-237-1369.
 \*

 \* - 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)

Diagnosed

Diagnostician : Wes Davis

: 05958991

Lab Number

Unique Number : 10660204

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