

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id **PU263**

Component **Diesel Engine**

PETRO CANADA DURON SHP 15W40 (--- G

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

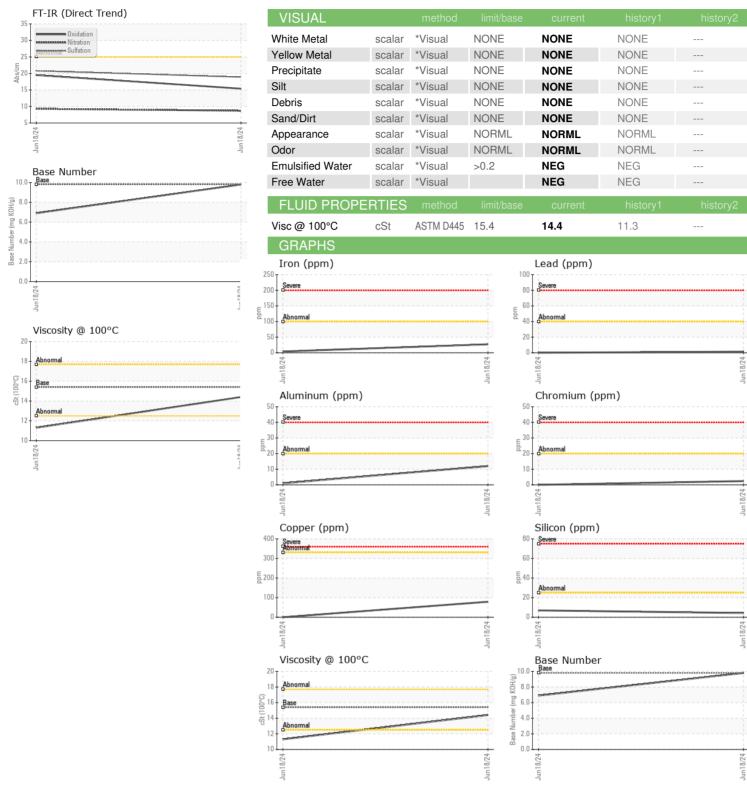
Fluid Condition

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

Cample Number Client Info PCA0122458	AL)			Jun2024	Jun 2 024		
Client Info 18 Jun 2024 18 Jun 2024	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age mls	Sample Number		Client Info		PCA0122458	PCA0122458	
Dil Age	Sample Date		Client Info		18 Jun 2024	18 Jun 2024	
Dil Changed Client Info N/A	Machine Age	mls	Client Info		233500	233500	
CONTAMINATION method limit/base current history1 history2	Oil Age	mls	Client Info		233500	233500	
CONTAMINATION	Oil Changed		Client Info		N/A	N/A	
Fuel	Sample Status				NORMAL		
Water WC Method So.2 NEG N	CONTAMINAT	ION	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<1.0	<1.0	
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 4 27 Chromium ppm ASTM D5185m >20 0 2 Nickel ppm ASTM D5185m >20 0 <1	Water		WC Method	>0.2	NEG	NEG	
Chromium	Glycol		WC Method		NEG	NEG	
Chromium	WEAR METAL	.S	method	limit/base	current	history1	history2
Silver	ron	ppm	ASTM D5185m	>100	4	27	
Description	Chromium	ppm	ASTM D5185m	>20	0	2	
Silver	Nickel	ppm	ASTM D5185m	>4	0	<1	
Aluminum	Titanium	ppm	ASTM D5185m		0	<1	
December December	Silver	ppm	ASTM D5185m	>3	0	0	
Copper	Aluminum	ppm	ASTM D5185m	>20	1	12	
Acade Acad	_ead	ppm	ASTM D5185m	>40	0	1	
Acade Acad	Copper	ppm	ASTM D5185m	>330	0	79	
ADDITIVES		ppm	ASTM D5185m	>15	0	2	
ADDITIVES	/anadium	ppm	ASTM D5185m		0	<1	
Soron ppm ASTM D5185m 0 4 3	Cadmium	ppm	ASTM D5185m		0	0	
Sarium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 60 58 57 Manganese ppm ASTM D5185m 0 <1	Boron	ppm	ASTM D5185m	0	4	3	
Manganese ppm ASTM D5185m 0 <1 1 Magnesium ppm ASTM D5185m 1010 992 902 Calcium ppm ASTM D5185m 1070 1221 1359 Phosphorus ppm ASTM D5185m 1150 1123 982 Zinc ppm ASTM D5185m 1270 1368 1225 Sulfur ppm ASTM D5185m 2060 3932 2543 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 7 4 Godium ppm ASTM D5185m 2 4 Potassium ppm ASTM D5185m >20 0 31 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20	Barium	ppm	ASTM D5185m	0	0	<1	
Manganese ppm ASTM D5185m 0 <1 1 Magnesium ppm ASTM D5185m 1010 992 902 Calcium ppm ASTM D5185m 1070 1221 1359 Phosphorus ppm ASTM D5185m 1150 1123 982 Zinc ppm ASTM D5185m 1270 1368 1225 Sulfur ppm ASTM D5185m 2060 3932 2543 CONTAMINANTS method limit/base current history1 history2 Solicon ppm ASTM D5185m >25 7 4 Solicon ppm ASTM D5185m 2 4 Potassium ppm ASTM D5185m >20 0 31 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20	Molybdenum	ppm	ASTM D5185m	60	58	57	
Description	-		ASTM D5185m	0	<1	1	
Calcium ppm ASTM D5185m 1 070 1221 1359 Phosphorus ppm ASTM D5185m 1 150 1 123 982 Zinc ppm ASTM D5185m 1 270 1 368 1 225 Sulfur ppm ASTM D5185m 2060 3932 2543 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m 25 7 4 Godium ppm ASTM D5185m 2 4 Potassium ppm ASTM D5185m >20 0 31 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.4 Silicon Abs/.1mm *ASTM D7415 >30 18.9 20.8	Magnesium	ppm	ASTM D5185m	1010	992	902	
Phosphorus ppm ASTM D5185m 1150 1123 982			ASTM D5185m	1070	1221	1359	
Contamination State Stat	Phosphorus		ASTM D5185m	1150	1123	982	
Gulfur ppm ASTM D5185m 2060 3932 2543 CONTAMINANTS method limit/base current history1 history2 Gilicon ppm ASTM D5185m >25 7 4 Godium ppm ASTM D5185m 2 4 Potassium ppm ASTM D5185m >20 0 31 INFRA-RED method limit/base current history1 history2 Goot % % *ASTM D7844 >3 0.1 0.4 Sulfration Abs/.mm *ASTM D7624 >20 8.7 9.3 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.4 19.5			ASTM D5185m	1270	1368	1225	
Solicon ppm ASTM D5185m >25 7 4 Sodium ppm ASTM D5185m 2 4	Sulfur		ASTM D5185m	2060	3932	2543	
Sodium ppm ASTM D5185m 2 4 Potassium ppm ASTM D5185m >20 0 31 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.4 Vitration Abs/cm *ASTM D7624 >20 8.7 9.3 Sulfation Abs/.1mm *ASTM D7415 >30 18.9 20.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.4 19.5	CONTAMINAN	ITS	method	limit/base	current	history1	history2
Sodium ppm ASTM D5185m 2 4 Potassium ppm ASTM D5185m >20 0 31 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.4 Vitration Abs/cm *ASTM D7624 >20 8.7 9.3 Sulfation Abs/.1mm *ASTM D7415 >30 18.9 20.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.4 19.5	Silicon	ppm	ASTM D5185m	>25	7	4	
Potassium ppm ASTM D5185m >20 0 31 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.1 0.4 Nitration Abs/cm *ASTM D7624 >20 8.7 9.3 Sulfation Abs/.1mm *ASTM D7415 >30 18.9 20.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.4 19.5	Sodium		ASTM D5185m		2	4	
Soot % % *ASTM D7844 >3 0.1 0.4 Nitration Abs/cm *ASTM D7624 >20 8.7 9.3 Sulfation Abs/.1mm *ASTM D7415 >30 18.9 20.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.4 19.5	Potassium	ppm	ASTM D5185m	>20	0	31	
Nitration Abs/cm *ASTM D7624 >20 8.7 9.3 Sulfation Abs/.1mm *ASTM D7415 >30 18.9 20.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.4 19.5	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 18.9 20.8 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.4 19.5	Soot %	%	*ASTM D7844	>3	0.1	0.4	
Sulfation Abs/.1mm *ASTM D7415 >30 18.9 20.8 FLUID DEGRADATION method limit/base current history1 history2 Dxidation Abs/.1mm *ASTM D7414 >25 15.4 19.5	Nitration	Abs/cm	*ASTM D7624	>20	8.7	9.3	
Oxidation							
	FLUID DEGRAI	OITAC	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	15.4	19.5	
	Base Number (BN)	mg KOH/g			9.79	6.9	



OIL ANALYSIS REPORT







Certificate 12367

Laboratory Sample No.

Lab Number : 06215923 Unique Number : 11088787 Test Package : MOB 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0122458 Received : 20 Jun 2024 **Tested** : 22 Jun 2024 Diagnosed

: 22 Jun 2024 - Wes Davis

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

 st - 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)

G LOPES CONSTRUCTION

565 WINTHROP ST TAUNTON, MA US 02780

Contact: BUTCH MCGRATH

bmcgrath@glopes.com T:

F: Submitted By: MATT MANOLI