

OIL ANALYSIS REPORT

Sample Rating Trend







Machine Id **719682**

Component

Diesel Engine

PETRO CANADA DURON SHP 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. 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.

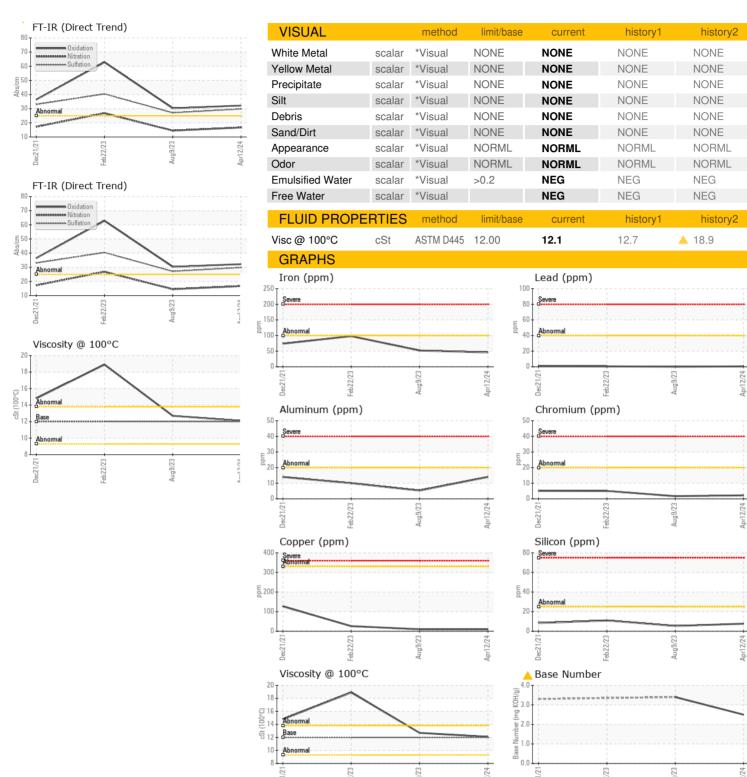
Fluid Condition

The BN level is low. The condition of the oil is acceptable for the time in service.

Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 50 55 67 112 Manganese ppm ASTM D5185m 0 1 1 2 Magnesium ppm ASTM D5185m 950 829 947 808 Calcium ppm ASTM D5185m 1050 1276 1381 1755 Phosphorus ppm ASTM D5185m 995 897 1025 853 Zinc ppm ASTM D5185m 995 897 1025 853 Zinc ppm ASTM D5185m 2600 2568 3174 2388 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 5 11 Bodium ppm ASTM D5185m >20 6 9 INFRA-RED method limit/base current <	AL)		Dec202	1 Feb 2023	Aug2023 A	pr2024	
Sample Number Client Info PCA0121441 PCA0102874 PCA0093281 Sample Date Client Info 12 Apr 2024 09 Aug 2023 22 Feb 2023 347426 293011 3478028 347426 0 347466 0 347466 0 347466 0 34746 0 347466 0 347466 0 347466 0 347466 0 347466	SAMPLE INFOR	ΜΔΤΙΩΝ	method	limit/hase	current	history1	history2
Company Comp		WIA HOIV		IIIIIIIIIIIII			
Machine Age mls							
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Client Info							
ABNORMAL ABNORMAL	-	mis					
CONTAMINATION	-		Client Info		_	Ü	
Vicule		ION	method	limit/base			
Water		1011					
WEAR METALS							
WEAR METALS method limit/base current history1 history2 ron ppm ASTM D5185m >100 46 52 98 chromium ppm ASTM D5185m >20 2 2 5 dickel ppm ASTM D5185m >4 1 -1 -1 dickel ppm ASTM D5185m >3 -1 0 0 dickel ppm ASTM D5185m >3 -1 0 0 dickel ppm ASTM D5185m >3 -1 0 0 diuminum ppm ASTM D5185m >40 -1 0 -1 Lead ppm ASTM D5185m >40 -1 0 -1 Cin ppm ASTM D5185m >15 2 -1 2 Antimony ppm ASTM D5185m -1 -1 0 0 Cadmium ppm ASTM D5185m -1 -1 -1				>0.2			
Con		_					
Chromium	WEAR METAL	S	method	limit/base	current	history1	history2
Sickel							
Silver					_		
Silver	lickel	ppm	ASTM D5185m	>4			<1
ASTM D5185m >20		ppm					
December December	Silver	ppm	ASTM D5185m	>3	<1	0	0
Description	Aluminum	ppm	ASTM D5185m	>20	14	5	10
Tin	ead	ppm	ASTM D5185m	>40	<1	0	<1
Academium	Copper	ppm	ASTM D5185m	>330	10	10	26
ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 3 7 17 Barium ppm ASTM D5185m 2 3 7 17 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 1 1 2 Manganese ppm ASTM D5185m 0 1 1 2 Magnesium ppm ASTM D5185m 950 829 947 808 Calcium ppm ASTM D5185m 995 897 1025 853 Cinc ppm ASTM D5185m 995 897 1025 853 Cinc ppm ASTM D5185m 2600 2568 3174 2388 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6	īn	ppm	ASTM D5185m	>15	2	<1	2
Cadmium ppm ASTM D5185m <1 <1 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 3 7 17 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 50 55 67 112 Magnesium ppm ASTM D5185m 0 1 1 2 Magnesium ppm ASTM D5185m 950 829 947 808 Calcium ppm ASTM D5185m 995 897 1025 853 Phosphorus ppm ASTM D5185m 995 897 1025 853 Pince ppm ASTM D5185m 2600 2568 3174 2388 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 6	Antimony	ppm	ASTM D5185m				
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Soron ppm ASTM D5185m 2 3 7 17	Cadmium	ppm	ASTM D5185m		<1	<1	0
Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 50 55 67 112 Manganese ppm ASTM D5185m 0 1 1 2 Magnesium ppm ASTM D5185m 950 829 947 808 Calcium ppm ASTM D5185m 1050 1276 1381 1755 Phosphorus ppm ASTM D5185m 995 897 1025 853 Zinc ppm ASTM D5185m 995 897 1025 853 Zinc ppm ASTM D5185m 2600 2568 3174 2388 CONTAMINANTS method limit/base current history1 history2 Bilicon ppm ASTM D5185m >25 8 5 11 Bodium ppm ASTM D5185m >20 6 9 INFRA-RED method limit/base current <	ADDITIVES		method	limit/base	current	history1	history2
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Manganese ppm ASTM D5185m 0 1 1 2 Magnesium ppm ASTM D5185m 950 829 947 808 Calcium ppm ASTM D5185m 1050 1276 1381 1755 Phosphorus ppm ASTM D5185m 995 897 1025 853 Zinc ppm ASTM D5185m 995 897 1025 853 Zinc ppm ASTM D5185m 2600 2568 3174 2388 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 5 11 Godium ppm ASTM D5185m >20 6 6 9 INFRA-RED method limit/base current history1 history2 Soot % *ASTM D7844 >3 1 0.8 3.7 Silicon Abs/cmm *ASTM D7624 >20 1	Barium	ppm	ASTM D5185m	0	0	0	0
Magnesium ppm ASTM D5185m 950 829 947 808 Calcium ppm ASTM D5185m 1050 1276 1381 1755 Phosphorus ppm ASTM D5185m 995 897 1025 853 Zinc ppm ASTM D5185m 1180 1250 1249 1108 Sulfur ppm ASTM D5185m 2600 2568 3174 2388 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 5 11 Goldium ppm ASTM D5185m 20 6 6 9 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1 0.8 3.7 Witration Abs/cm *ASTM D7624 >20 16.7 14.5 26.8 Sulfation Abs/cm *ASTM D7415<	Molybdenum	ppm	ASTM D5185m	50	55	67	112
Calcium ppm ASTM D5185m 1050 1276 1381 1755 Phosphorus ppm ASTM D5185m 995 897 1025 853 Zinc ppm ASTM D5185m 1180 1250 1249 1108 Sulfur ppm ASTM D5185m 2600 2568 3174 2388 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 5 11 Sodium ppm ASTM D5185m >20 6 12 Potassium ppm ASTM D5185m >20 6 9 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1 0.8 3.7 Sulfation Abs/.1mm *ASTM D7415 >30 29.8 27.1 40.4 FLUID DEGRADATION method limit/base	Manganese	ppm	ASTM D5185m	0	1	1	2
Phosphorus ppm ASTM D5185m 995 897 1025 853 Linc ppm ASTM D5185m 1180 1250 1249 1108 Sulfur ppm ASTM D5185m 2600 2568 3174 2388 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 5 11 Sodium ppm ASTM D5185m 2 6 12 Potassium ppm ASTM D5185m >20 6 6 9 INFRA-RED method limit/base current history1 history2 Soot % *ASTM D7844 >3 1 0.8 3.7 Ultration Abs/cm *ASTM D7624 >20 16.7 14.5 26.8 Sulfation Abs/.1mm *ASTM D7415 >30 29.8 27.1 40.4 FLUID DEGRADATION method limit/base current	Magnesium	ppm	ASTM D5185m	950	829	947	808
Zinc ppm ASTM D5185m 1180 1250 1249 1108 Sulfur ppm ASTM D5185m 2600 2568 3174 2388 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 5 11 Sodium ppm ASTM D5185m 2 6 12 Potassium ppm ASTM D5185m >20 6 6 9 INFRA-RED method limit/base current history1 history2 Goot % % *ASTM D7844 >3 1 0.8 3.7 Vitration Abs/cm *ASTM D7624 >20 16.7 14.5 26.8 Sulfation Abs/.1mm *ASTM D7415 >30 29.8 27.1 40.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414	Calcium	ppm	ASTM D5185m	1050	1276	1381	1755
Zinc ppm ASTM D5185m 1180 1250 1249 1108 Sulfur ppm ASTM D5185m 2600 2568 3174 2388 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 5 11 Sodium ppm ASTM D5185m 2 6 12 Potassium ppm ASTM D5185m >20 6 6 9 INFRA-RED method limit/base current history1 history2 Goot % % *ASTM D7844 >3 1 0.8 3.7 Nitration Abs/cm *ASTM D7624 >20 16.7 14.5 26.8 Sulfation Abs/.1mm *ASTM D7415 >30 29.8 27.1 40.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414	Phosphorus	ppm	ASTM D5185m	995	897	1025	853
Gulfur ppm ASTM D5185m 2600 2568 3174 2388 CONTAMINANTS method limit/base current history1 history2 Gilicon ppm ASTM D5185m >25 8 5 11 Godium ppm ASTM D5185m 2 6 12 Potassium ppm ASTM D5185m >20 6 6 9 INFRA-RED method limit/base current history1 history2 Goot % % *ASTM D7844 >3 1 0.8 3.7 Nitration Abs/cm *ASTM D7624 >20 16.7 14.5 26.8 Sulfation Abs/.1mm *ASTM D7415 >30 29.8 27.1 40.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 32.2 30.3 62.8	Zinc		ASTM D5185m	1180	1250	1249	1108
Solicon ppm ASTM D5185m >25 8 5 11							
Bodium ppm ASTM D5185m 2 6 12 Potassium ppm ASTM D5185m >20 6 6 9 INFRA-RED method limit/base current history1 history2 Boot % % *ASTM D7844 >3 1 0.8 ▲ 3.7 Vitration Abs/cm *ASTM D7624 >20 16.7 14.5 26.8 Sulfation Abs/.1mm *ASTM D7415 >30 29.8 27.1 40.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 32.2 30.3 62.8	CONTAMINAN	TS	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 6 6 9 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1 0.8 ▲ 3.7 Vitration Abs/cm *ASTM D7624 >20 16.7 14.5 26.8 Sulfation Abs/.1mm *ASTM D7415 >30 29.8 27.1 40.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 32.2 30.3 62.8	Silicon	ppm	ASTM D5185m	>25	8	5	11
INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 1 0.8 ▲ 3.7 Nitration Abs/cm *ASTM D7624 >20 16.7 14.5 26.8 Sulfation Abs/.1mm *ASTM D7415 >30 29.8 27.1 40.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 32.2 30.3 62.8	Sodium	ppm	ASTM D5185m		2	6	12
Goot % % *ASTM D7844 >3 1 0.8 ▲ 3.7 Vitration Abs/cm *ASTM D7624 >20 16.7 14.5 26.8 Sulfation Abs/.1mm *ASTM D7415 >30 29.8 27.1 40.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 32.2 30.3 62.8	Potassium	ppm	ASTM D5185m	>20	6	6	9
Nitration Abs/cm *ASTM D7624 >20 16.7 14.5 26.8 Sulfation Abs/.1mm *ASTM D7415 >30 29.8 27.1 40.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 32.2 30.3 62.8	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 29.8 27.1 40.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 32.2 30.3 62.8	Soot %	%	*ASTM D7844	>3	1	0.8	▲ 3.7
Sulfation Abs/.1mm *ASTM D7415 >30 29.8 27.1 40.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 32.2 30.3 62.8	Nitration	Abs/cm	*ASTM D7624	>20	16.7	14.5	26.8
Dxidation Abs/.1mm *ASTM D7414 >25 32.2 30.3 62.8				>30	29.8	27.1	40.4
	FLUID DEGRAD	DATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	32.2	30.3	62.8
	Base Number (BN)	mg KOH/a	ASTM D2896		2.5	△ 3.4	



OIL ANALYSIS REPORT







Certificate 12367

Laboratory Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0121441 Lab Number : 06157266 Unique Number : 10992689

Received : 23 Apr 2024 **Tested** : 24 Apr 2024 Diagnosed

: 25 Apr 2024 - Jonathan Hester

Test Package : MOB 1 (Additional Tests: TBN) 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)

MILLER TRUCK LEASING #118

2196 BENNETT ROAD PHILADELPHIA, PA US 19116

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