



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
WESTERN STAR 150
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 10W30 (42 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0083427	PC0082123	PC0075182
Sample Date		Client Info		10 Jun 2024	02 Jan 2024	01 Sep 2023
Machine Age	kms	Client Info		238556	213756	178979
Oil Age	kms	Client Info		24800	34777	40155
Filter Age	kms	Client Info		24800	34777	40155
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	10	12	15
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	<1	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	3	4	6
Lead	ppm	ASTM D5185(m)	>40	0	<1	<1
Copper	ppm	ASTM D5185(m)	>330	8	13	22
Tin	ppm	ASTM D5185(m)	>15	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	VLITE	VLITE	---
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	---

CONTAMINATION

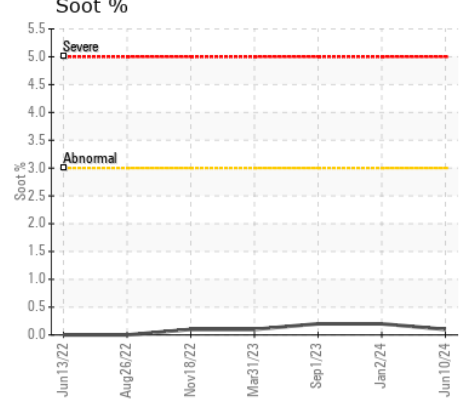
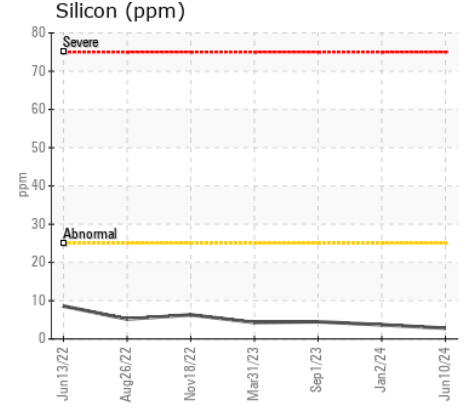
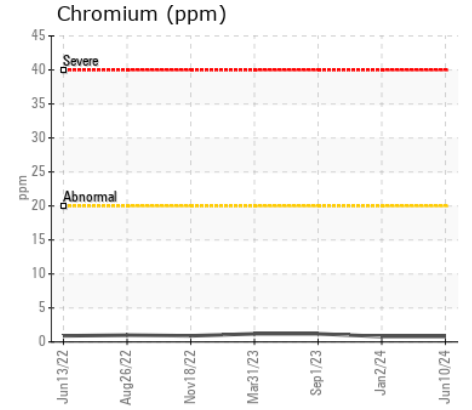
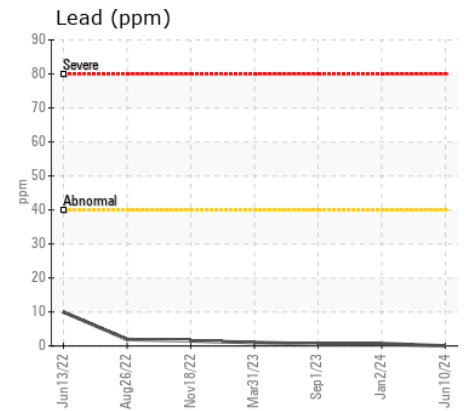
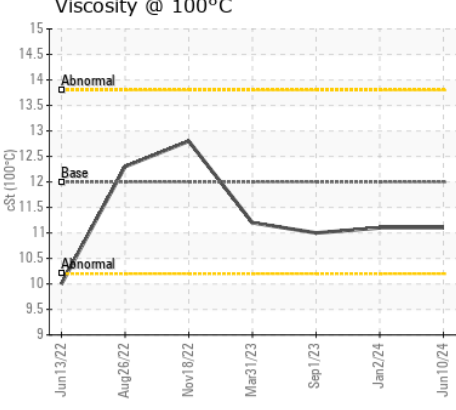
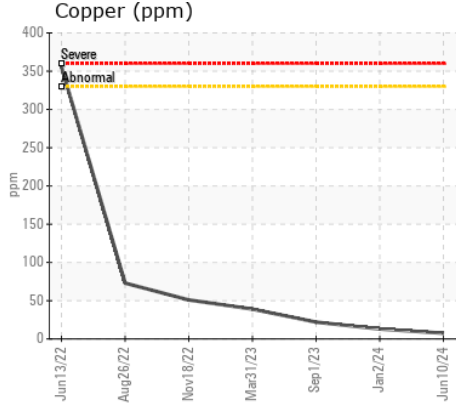
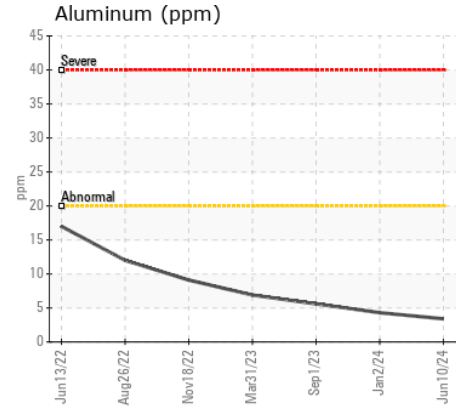
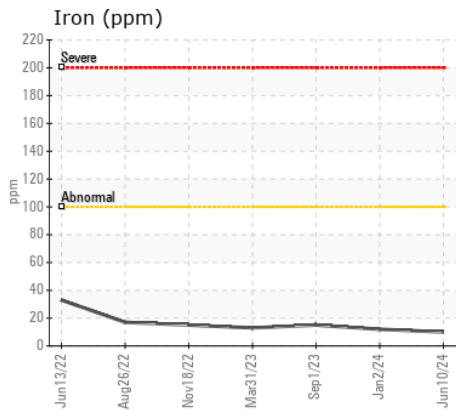
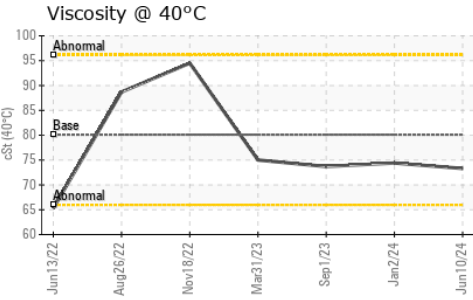
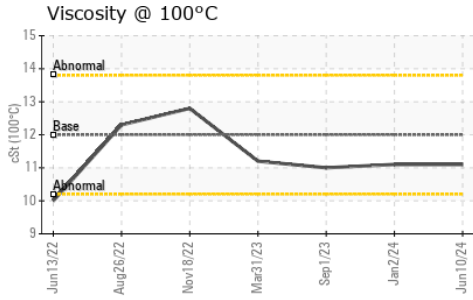
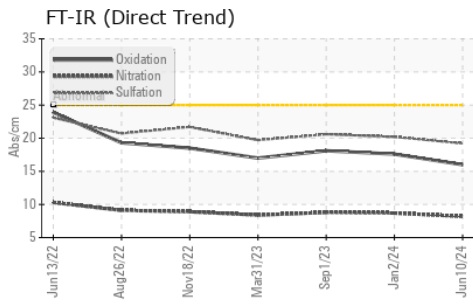
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	3	4	4
Potassium	ppm	ASTM D5185(m)	>20	4	6	9
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.1	0.2	0.2
Nitration	Abs/cm	ASTM D7624*	>20	8.2	8.7	8.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	19.2	20.2	20.6
Silt	scalar	Visual*	NONE	NONE	NONE	---
Debris	scalar	Visual*	NONE	NONE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		2	2	2
Boron	ppm	ASTM D5185(m)	2	3	3	1
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	50	59	61	62
Manganese	ppm	ASTM D5185(m)	0	<1	0	<1
Magnesium	ppm	ASTM D5185(m)	950	949	979	1023
Calcium	ppm	ASTM D5185(m)	1050	1083	1100	1067
Phosphorus	ppm	ASTM D5185(m)	995	965	986	1039
Zinc	ppm	ASTM D5185(m)	1180	1195	1212	1216
Sulfur	ppm	ASTM D5185(m)	2600	2348	2317	2026
Oxidation	Abs/.1mm	ASTM D7414*	>25	16.0	17.6	18.1
Visc @ 40°C	cSt	ASTM D7279(m)	80.1	73.3	74.4	73.7
Visc @ 100°C	cSt	ASTM D7279(m)	12.00	11.1	11.1	11.0
Viscosity Index (VI)	Scale	ASTM D2270*	144	141	139	138



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0083427
Lab Number : 02643693
Unique Number : 5801232
Test Package : MOB 1 (Additional Tests: KV40, VI, Visual)

ROSS TOWING & TRANSPORTATION SERVICES INC
 995 POND MILLS RD
 LONDON, ON
 CA N6N 1C3
 Contact: Dave Ross
 chris@rosstowing.ca
 T: (519)685-1212
 F: (519)668-5790

*To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.*