



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
2008 NOVA 150
 Component
Rear Diesel Engine
 Fluid
ESSO XD-3 EXTRA 15W40 (--- GAL)

RECOMMENDATION

The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0889005	WC0889085	WC0889091
Sample Date		Client Info		18 Apr 2024	06 Mar 2024	10 Jan 2024
Machine Age	kms	Client Info		0	0	0
Oil Age	kms	Client Info		8927	9022	8723
Filter Age	kms	Client Info		8927	9022	8723
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>75	17	21	20
Chromium	ppm	ASTM D5185(m)	>5	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	>2	0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>15	4	6	4
Lead	ppm	ASTM D5185(m)	>25	0	1	1
Copper	ppm	ASTM D5185(m)	>100	1	2	2
Tin	ppm	ASTM D5185(m)	>4	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

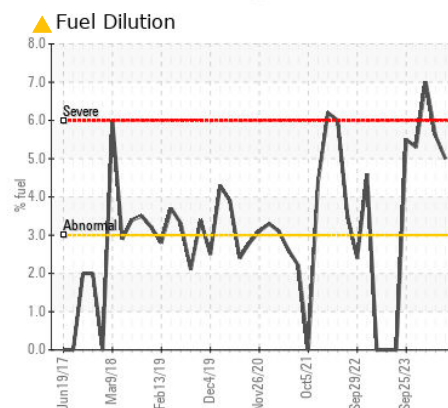
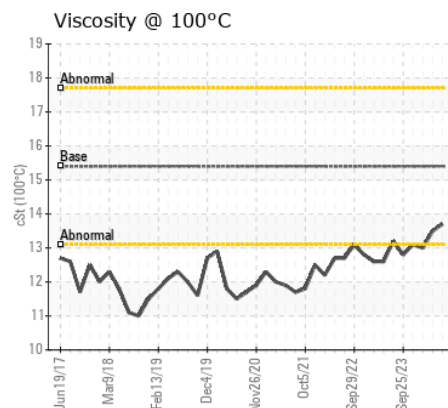
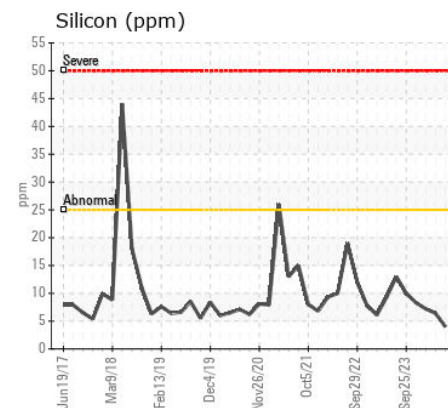
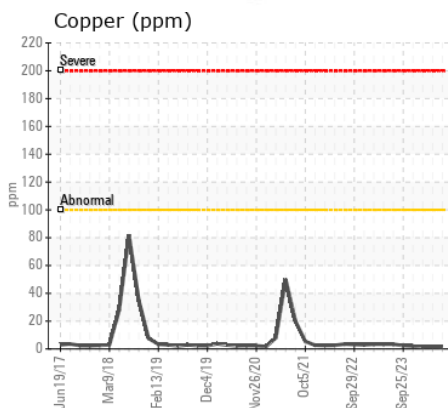
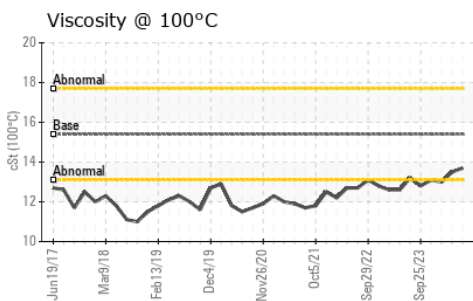
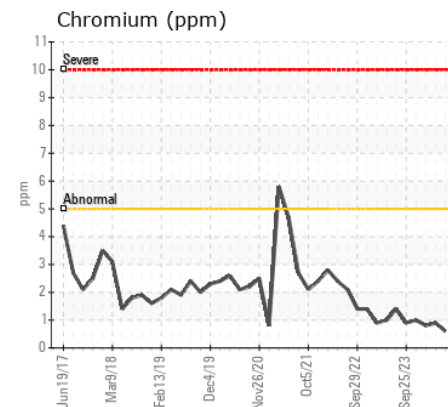
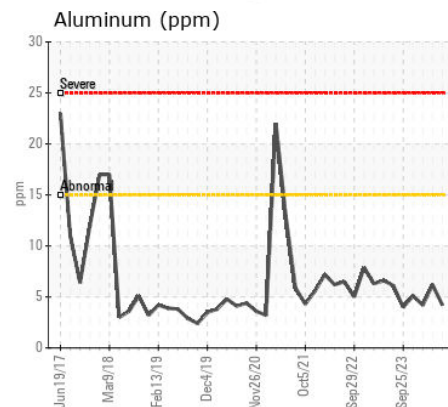
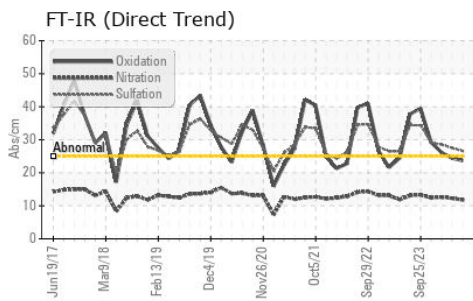
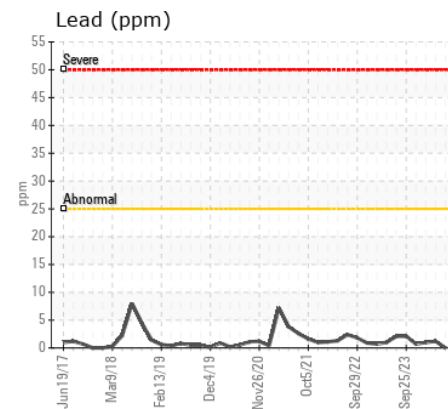
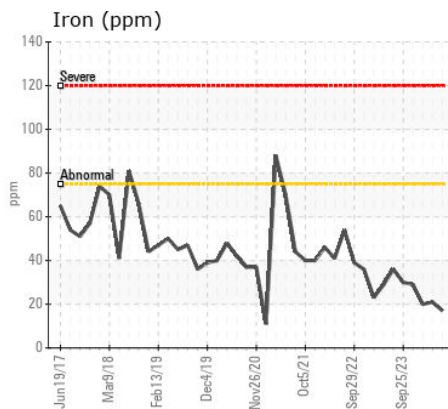
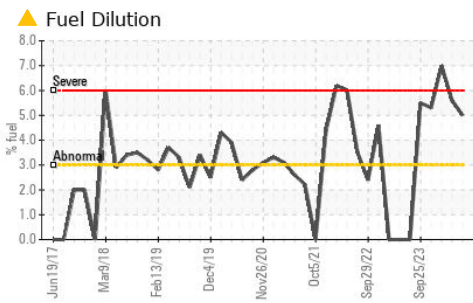
There is a moderate amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

Silicon	ppm	ASTM D5185(m)	>25	4	6	7
Potassium	ppm	ASTM D5185(m)	>20	8	8	8
Fuel	%	ASTM D7593*	>3.0	▲ 5	▲ 5.6	▲ 7
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>6	1.1	1.3	1.3
Nitration	Abs/cm	ASTM D7624*	>20	11.8	12.3	12.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	26.6	27.5	28.5
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185(m)	>192	3	4	4
Boron	ppm	ASTM D5185(m)		87	83	72
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		0	<1	<1
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)		16	17	16
Calcium	ppm	ASTM D5185(m)	3780	2338	2328	2262
Phosphorus	ppm	ASTM D5185(m)	1370	998	984	948
Zinc	ppm	ASTM D5185(m)	1500	1194	1155	1113
Sulfur	ppm	ASTM D5185(m)	3800	2857	2986	3001
Oxidation	Abs/.1mm	ASTM D7414*	>25	23.7	24.4	26.1
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	13.7	13.5	13.0



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0889005 **Received** : 29 Apr 2024
Lab Number : 02631918 **Tested** : 30 Apr 2024
Unique Number : 5773071 **Diagnosed** : 30 Apr 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: PercentFuel)

CITY OF THUNDER BAY
 AUTO MAINTENANCE STORES, 570 FORT WILLIAM ROAD
 THUNDER BAY, ON
 CA P7B 2Z8
 Contact: Sean Malcolm
 sean.malcolm@thunderbay.ca
 T: (807)684-2716
 F: (807)344-0237

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.