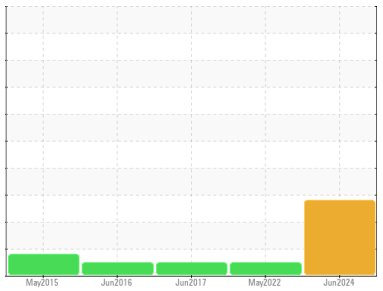
OIL ANALYSIS REPORT

Sample Rating Trend



FUEL

Machine Id
555 UNIVERSITY AVE TORONTO ANNEX UNIT 1 CAT 66B341
Component
Front Diesel Engine
Fluid
ESSO XD-3 EXTRA 15W40 (250 LTR)

DIAGNOSIS

▲ Recommendation
We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using MOB 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid. this testkit includes BN to determine the suitability of the oil for continued use.

Wear
Component wear rates appear to be normal (unconfirmed).

▲ Contamination
There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil.

▲ Fluid Condition
Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PN0006207**	PN0003516	PN990785
Sample Date		Client Info		**19 Jun 2024**	30 May 2022	12 Jun 2017
Machine Age	hrs	Client Info		**0**	683	566
Oil Age	hrs	Client Info		**0**	33	0
Oil Changed		Client Info		**Changed**	Changed	Changed
Sample Status				**SEVERE**	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>100	**1**	1	1
Chromium	ppm	ASTM D5185(m)	>20	**0**	0	0
Nickel	ppm	ASTM D5185(m)	>2	**0**	0	0
Titanium	ppm	ASTM D5185(m)	>2	**0**	0	0
Silver	ppm	ASTM D5185(m)	>2	**0**	<1	0
Aluminum	ppm	ASTM D5185(m)	>25	**<1**	3	1
Lead	ppm	ASTM D5185(m)	>40	**<1**	<1	<1
Copper	ppm	ASTM D5185(m)	>330	**<1**	<1	<1
Tin	ppm	ASTM D5185(m)	>15	**0**	<1	0
Antimony	ppm	ASTM D5185(m)		**0**	<1	1
Vanadium	ppm	ASTM D5185(m)		**0**	0	0
Beryllium	ppm	ASTM D5185(m)		**0**	0	0
Cadmium	ppm	ASTM D5185(m)		**0**	0	<1

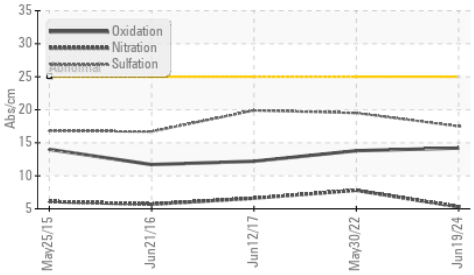
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)		**11**	76	6
Barium	ppm	ASTM D5185(m)		**0**	0	<1
Molybdenum	ppm	ASTM D5185(m)		**42**	83	10
Manganese	ppm	ASTM D5185(m)		**0**	0	<1
Magnesium	ppm	ASTM D5185(m)		**562**	59	181
Calcium	ppm	ASTM D5185(m)	3780	**845**	2088	2058
Phosphorus	ppm	ASTM D5185(m)	1370	**705**	1067	946
Zinc	ppm	ASTM D5185(m)	1500	**815**	1155	1110
Sulfur	ppm	ASTM D5185(m)	3800	**1919**	3239	2979
Lithium	ppm	ASTM D5185(m)		**<1**	0	<1

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>25	**3**	7	12
Sodium	ppm	ASTM D5185(m)	>192	**1**	2	2
Potassium	ppm	ASTM D5185(m)	>20	**<1**	1	1
Fuel	%	ASTM D7593*	>5	**▲ 31.7**	<1.0	<1.0

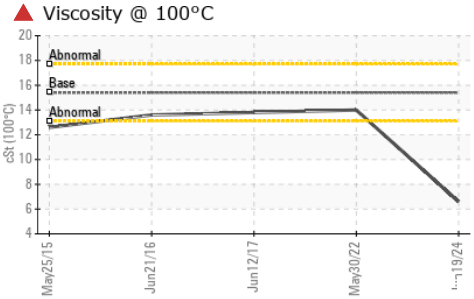
INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	ASTM D7844*	>3	**0**	0	0
Nitration	Abs/cm	ASTM D7624*	>20	**5.3**	7.8	6.6
Sulfation	Abs/.1mm	ASTM D7415*	>30	**17.5**	19.5	19.9

OIL ANALYSIS REPORT

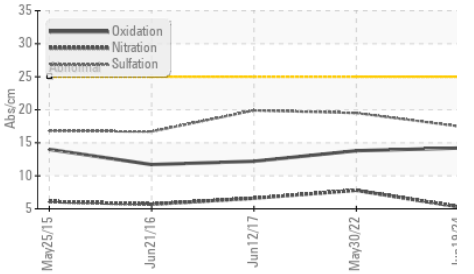
FT-IR (Direct Trend)



Viscosity @ 100°C



FT-IR (Direct Trend)



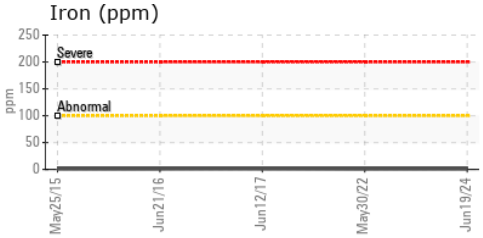
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	ASTM D7414*	>25	**14.2**	13.8	12.2

VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	**NONE**	---	VLITE
Yellow Metal	scalar	Visual*	NONE	**NONE**	---	NONE
Precipitate	scalar	Visual*	NONE	**NONE**	---	NONE
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
Free Water	scalar	Visual*		**NEG**	NEG	NEG

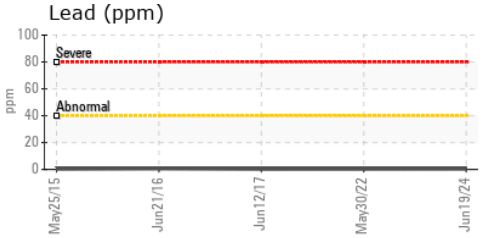
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D7279(m)	15.4	▲ **6.6**	14.0	13.8

GRAPHS

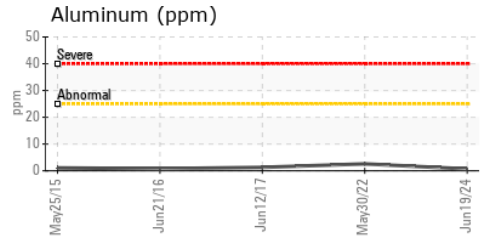
Iron (ppm)



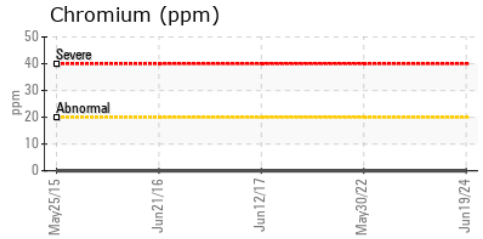
Lead (ppm)



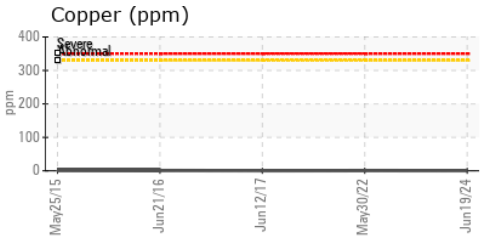
Aluminum (ppm)



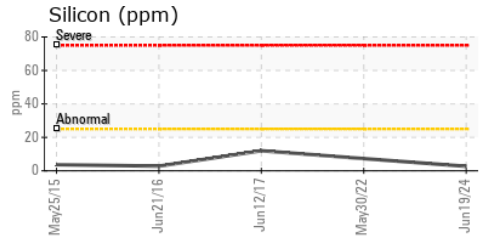
Chromium (ppm)



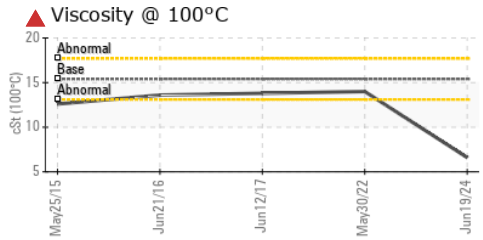
Copper (ppm)



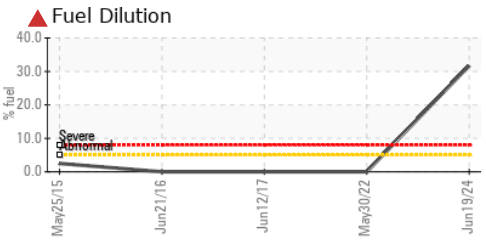
Silicon (ppm)



▲ Viscosity @ 100°C



▲ Fuel Dilution



ISO 17025:2017 Accredited Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PN0006207 **Received** : 25 Jun 2024
Lab Number : 02643936 **Tested** : 26 Jun 2024
Unique Number : 5801475 **Diagnosed** : 26 Jun 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, Visual)

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.

POWER STATION INC.
1050 JAYSON COURT
MISSISSAUGA, ON
CA L4W 2V5
Contact: Ryan Udall
rudall@pwrstn.com
T: (905)565-1621
F: (905)629-1499