



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
CATERPILLAR 930H CAT0930HKDHC0103

Component
Rear Diesel Engine

Fluid
TRC PRO-SPEC IV XP SYN BLEND 15W40 (16 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR02626549	TR02495855	TR02465668
Sample Date		Client Info		26 Feb 2024	13 Jun 2022	28 Dec 2021
Machine Age	hrs	Client Info		9270	8316	8110
Oil Age	hrs	Client Info		540	787	550
Filter Age	hrs	Client Info		540	787	550
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	55	94	66
Chromium	ppm	ASTM D5185(m)	>20	<1	2	<1
Nickel	ppm	ASTM D5185(m)	>2	<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)	>25	3	4	3
Lead	ppm	ASTM D5185(m)	>40	<1	0	<1
Copper	ppm	ASTM D5185(m)	>330	3	3	2
Tin	ppm	ASTM D5185(m)	>15	0	<1	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

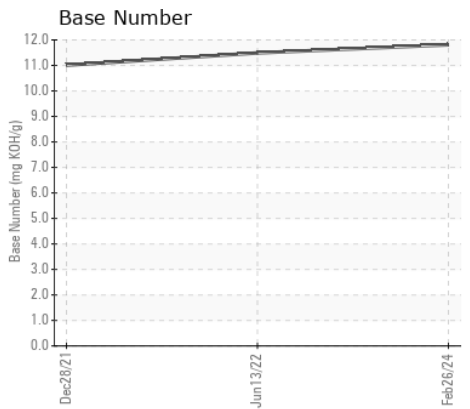
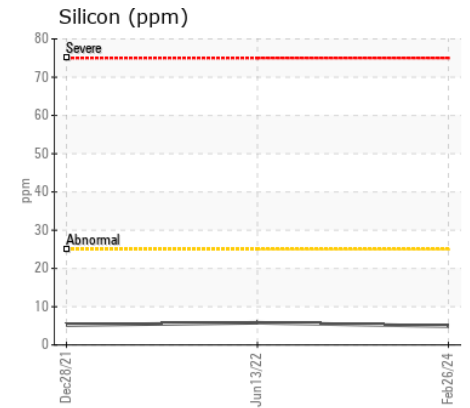
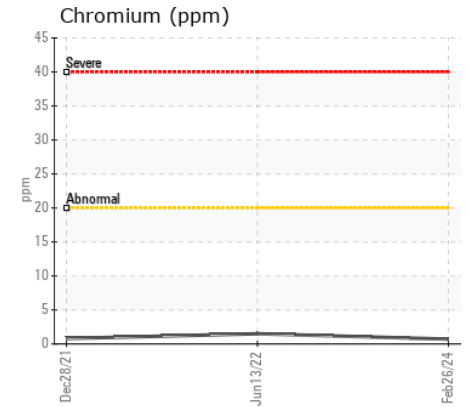
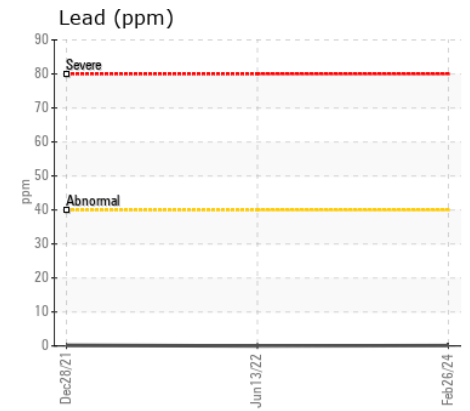
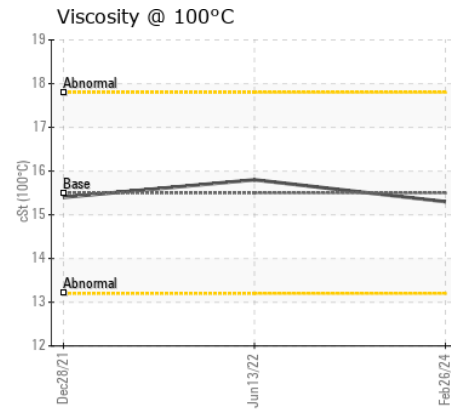
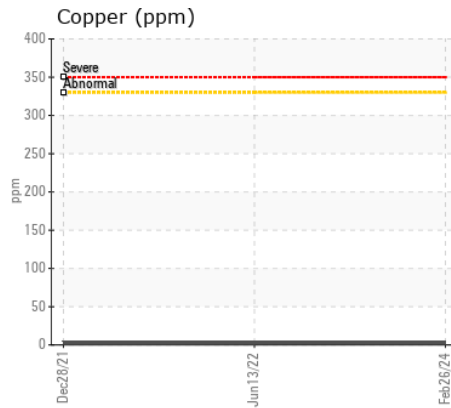
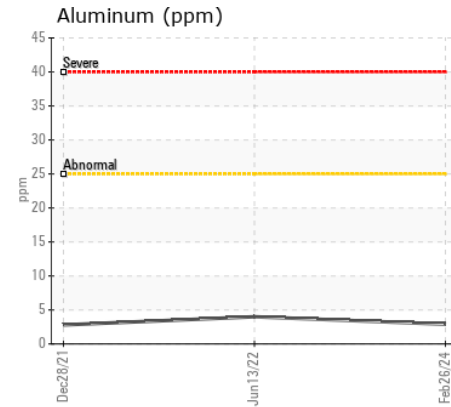
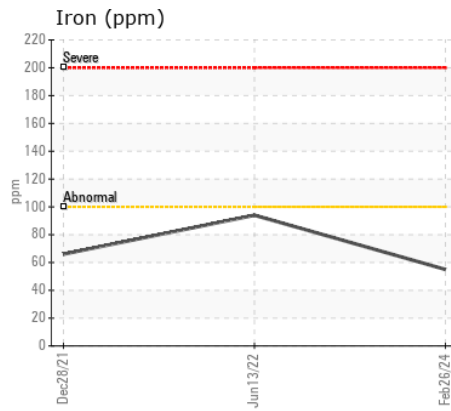
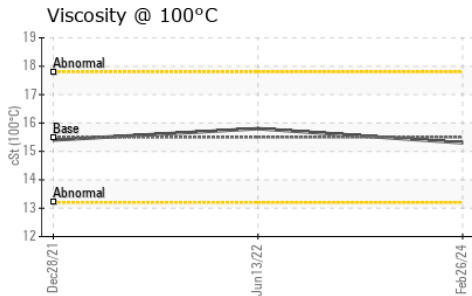
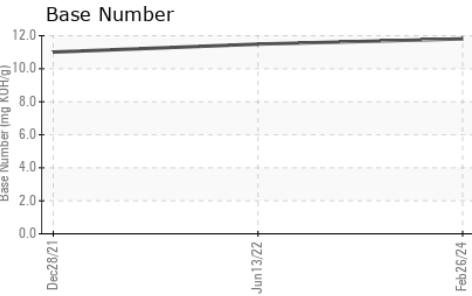
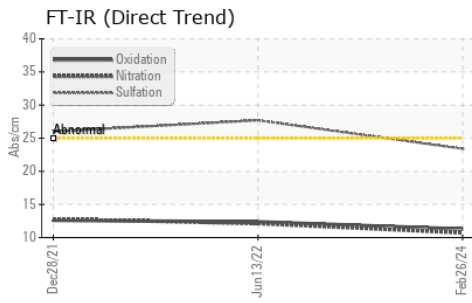
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	5	6	5
Potassium	ppm	ASTM D5185(m)	>20	2	2	2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	0.0
Soot %	%	ASTM D7844*	>3	1.7	2.2	2.2
Nitration	Abs/cm	ASTM D7624*	>20	10.7	12.1	12.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	23.4	27.7	26.0
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	▲ 1%

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.

Sodium	ppm	ASTM D5185(m)		3	3	5
Boron	ppm	ASTM D5185(m)		<1	1	1
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		0	1	1
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)		15	30	38
Calcium	ppm	ASTM D5185(m)		4032	4360	4364
Phosphorus	ppm	ASTM D5185(m)		861	952	979
Zinc	ppm	ASTM D5185(m)		1001	1083	1080
Sulfur	ppm	ASTM D5185(m)		3049	3410	3410
Oxidation	Abs/.1mm	ASTM D7414*	>25	11.3	12.4	12.6
Base Number (BN)	mg KOH/g	ASTM D2896*		11.81	11.49	11.01
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	15.3	15.8	15.4



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : TR02626549 **Received** : 04 Apr 2024
Lab Number : 02626549 **Tested** : 05 Apr 2024
Unique Number : 5759681 **Diagnosed** : 05 Apr 2024 - Wes Davis
Test Package : MOB 2

ROSETOWN FARMING CO
 BOX 1509
 ROSETOWN, SK
 CA S0L 2V0
 Contact: Aaron Wipf

To discuss this sample report, contact Customer Service at 1-800-827-0711.

* - 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)

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