



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
NEW HOLLAND 8970 8970

Component
Diesel Engine

Fluid
TRC MOLY XL PRO-SPEC IV XP 15W40 (5 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR05957151	TR05887540	TR05824521
Sample Date		Client Info		28 Jun 2023	23 Jun 2023	08 Apr 2023
Machine Age	hrs	Client Info		11200	11650	10700
Oil Age	hrs	Client Info		1150	600	700
Filter Age	hrs	Client Info		1150	600	700
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

The lead level is abnormal. Bearing and/or bushing wear is indicated.

Iron	ppm	ASTM D5185m	>100	45	37	34
Chromium	ppm	ASTM D5185m	>20	5	5	4
Nickel	ppm	ASTM D5185m	>4	<1	1	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	3	<1
Lead	ppm	ASTM D5185m	>40	▲ 53	34	18
Copper	ppm	ASTM D5185m	>330	4	4	2
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

There is no indication of any contamination in the oil.

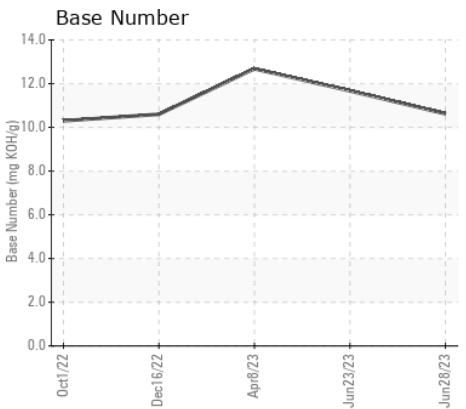
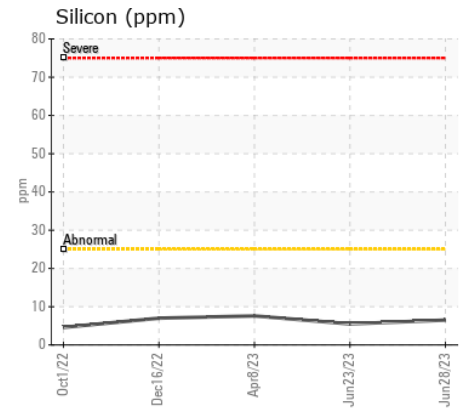
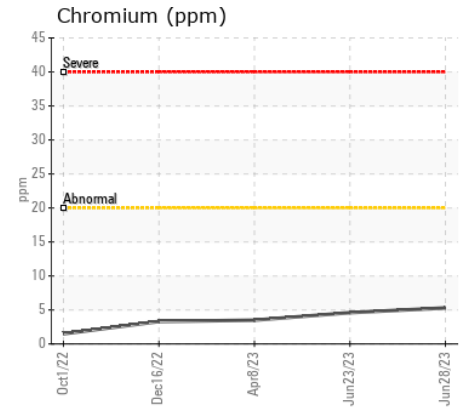
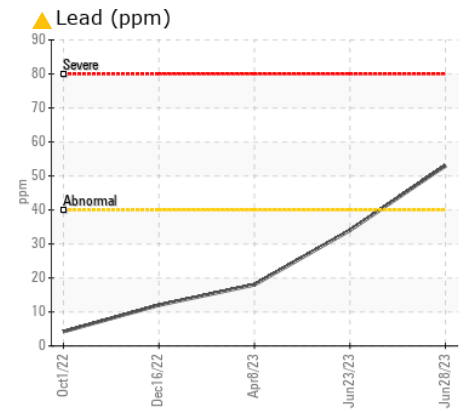
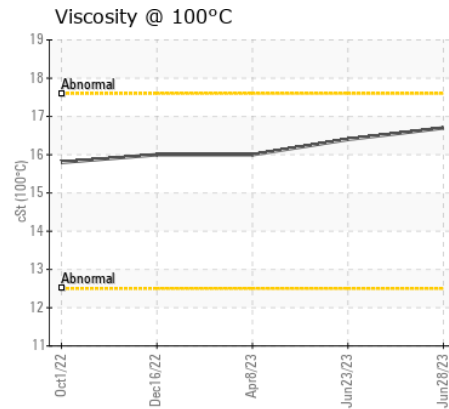
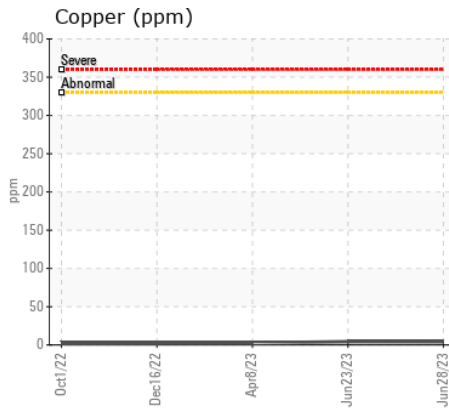
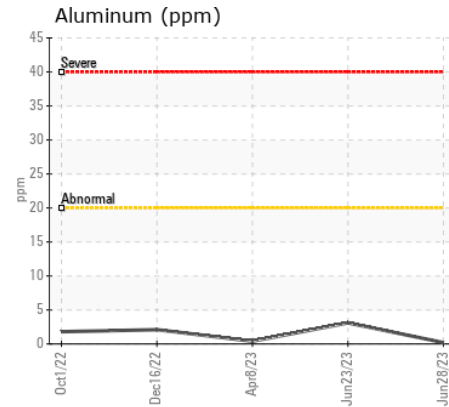
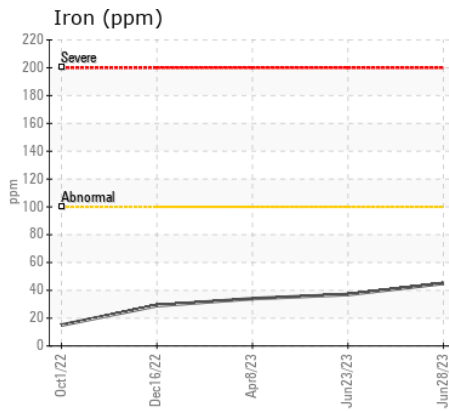
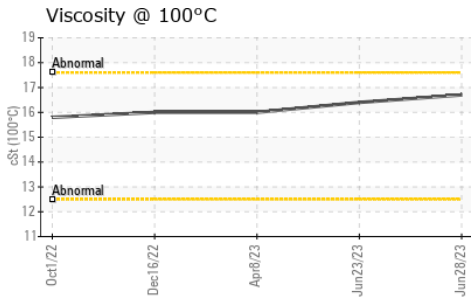
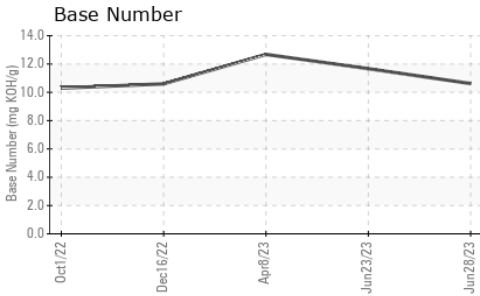
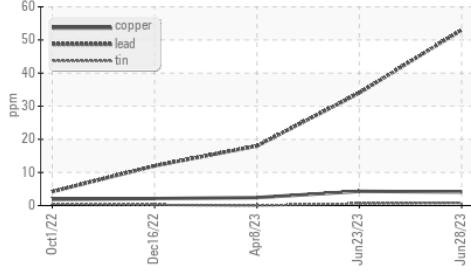
Silicon	ppm	ASTM D5185m	>25	6	6	8
Potassium	ppm	ASTM D5185m	>20	4	4	0
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1	1.3	1.2
Nitration	Abs/cm	*ASTM D7624	>20	14.8	13.1	11.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	31.6	27.4	23.5
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		4	3	3
Boron	ppm	ASTM D5185m		11	11	10
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		128	121	119
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		28	22	21
Calcium	ppm	ASTM D5185m		4804	4715	4063
Phosphorus	ppm	ASTM D5185m		1009	979	912
Zinc	ppm	ASTM D5185m		1215	1193	1090
Sulfur	ppm	ASTM D5185m		5183	5460	4571
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.8	19.8	16.2
Base Number (BN)	mg KOH/g	ASTM D2896		10.62	11.67	12.68
Visc @ 100°C	cSt	ASTM D445		16.7	16.4	16.0

▲ Non-ferrous Metals



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR05957151
Lab Number : 05957151
Unique Number : 10658364
Test Package : MOB 2
Received : 20 Sep 2023
Tested : 25 Sep 2023
Diagnosed : 25 Sep 2023 - Jonathan Hester

SPRAGUE RANCH
 6907 ROUTE 14
 BROOKFIELD, VT
 US 05036
 Contact: SCOTT BURRELL

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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