



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
INTERNATIONAL 3417-02
 Component
Front Diesel Engine
 Fluid
TRC PRO-SPEC III SAE 10W30 (28 LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR02644731	TR02441877	TR02408062
Sample Date		Client Info		18 Jun 2024	16 Aug 2021	12 Feb 2021
Machine Age	kms	Client Info		603739	584737	578120
Oil Age	kms	Client Info		25619	54401	47784
Filter Age	kms	Client Info		25619	6617	20839
Oil Changed		Client Info		Not Changed	Not Changed	Not Changed
Filter Changed		Client Info		Changed	Not Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>150	117	34	83
Chromium	ppm	ASTM D5185(m)	>15	1	<1	1
Nickel	ppm	ASTM D5185(m)	>4	3	1	2
Titanium	ppm	ASTM D5185(m)		0	0	<1
Silver	ppm	ASTM D5185(m)	>3	0	0	0
Aluminum	ppm	ASTM D5185(m)	>15	5	3	4
Lead	ppm	ASTM D5185(m)	>70	5	2	5
Copper	ppm	ASTM D5185(m)	>175	11	3	12
Tin	ppm	ASTM D5185(m)	>5	2	<1	2
Vanadium	ppm	ASTM D5185(m)		0	0	0

CONTAMINATION

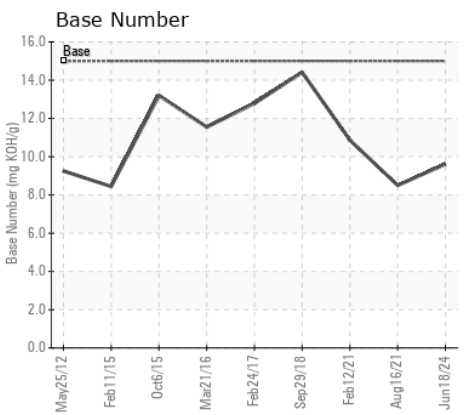
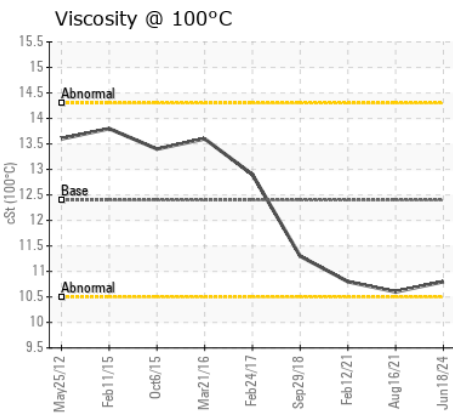
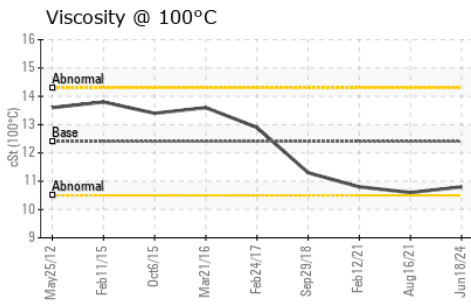
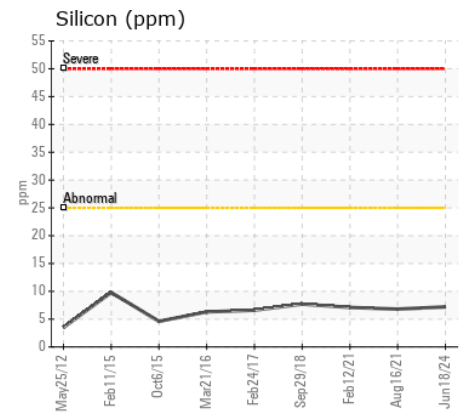
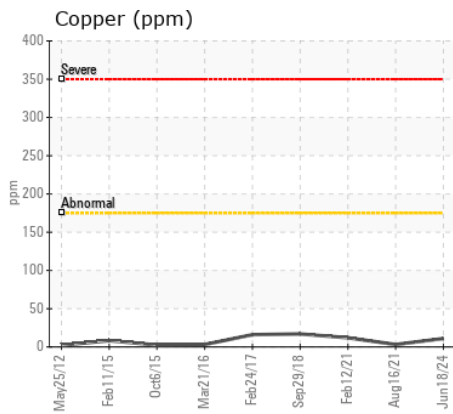
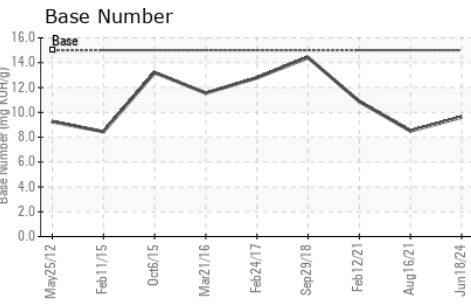
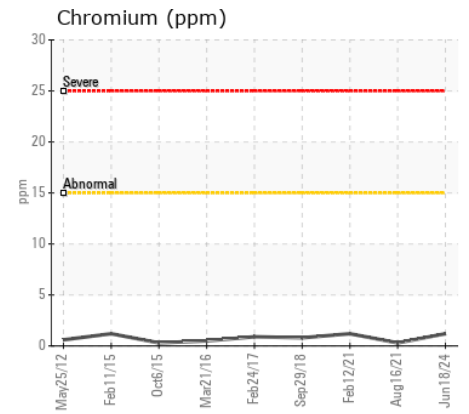
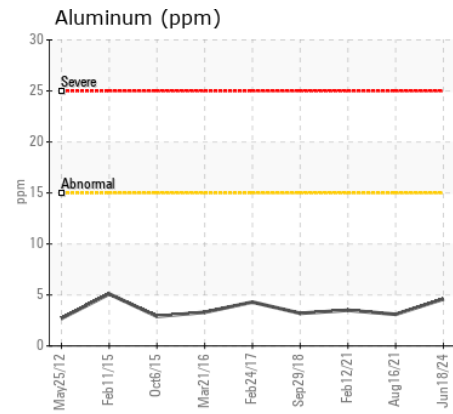
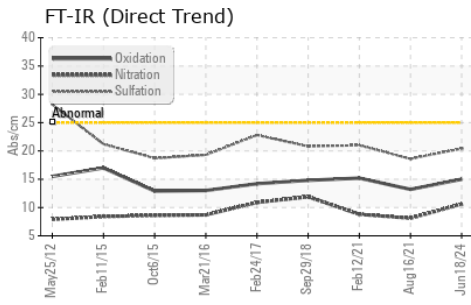
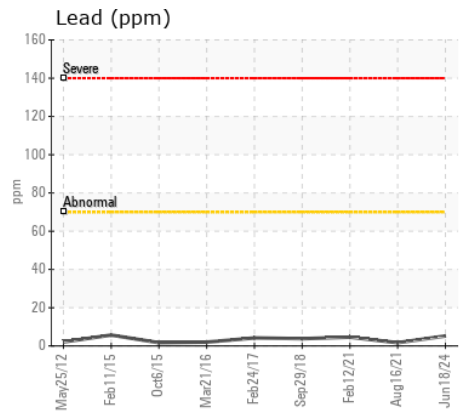
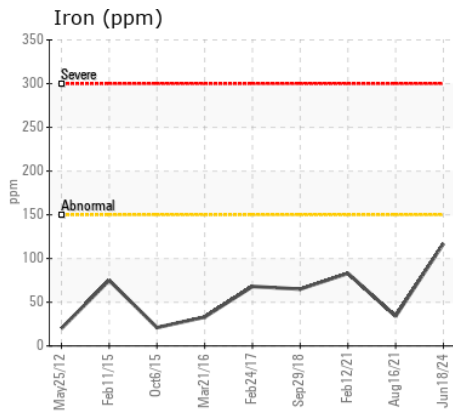
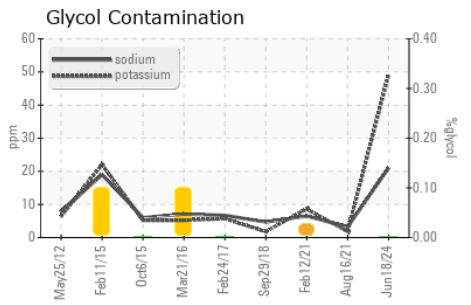
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185(m)	>25	7	7	7
Potassium	ppm	ASTM D5185(m)	>20	49	2	▲ 9
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	ASTM D7922*		0.0	NEG	▲ 0.026
Soot %	%	ASTM D7844*	>3	0.9	0.3	0.8
Nitration	Abs/cm	ASTM D7624*	>20	10.6	8.1	8.8
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.4	18.6	21.0
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 suitable for further service.

Sodium	ppm	ASTM D5185(m)		21	3	6
Boron	ppm	ASTM D5185(m)		18	55	6
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		89	89	63
Manganese	ppm	ASTM D5185(m)		1	<1	<1
Magnesium	ppm	ASTM D5185(m)		143	132	947
Calcium	ppm	ASTM D5185(m)	4500	2133	2109	1379
Phosphorus	ppm	ASTM D5185(m)		1015	1103	1081
Zinc	ppm	ASTM D5185(m)	1400	1201	1219	1328
Sulfur	ppm	ASTM D5185(m)		2988	3372	2873
Oxidation	Abs/.1mm	ASTM D7414*	>25	15.0	13.2	15.2
Base Number (BN)	mg KOH/g	ASTM D2896*	15	9.61	8.50	10.87
Visc @ 100°C	cSt	ASTM D7279(m)	12.4	10.8	10.6	10.8



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : TR02644731
Lab Number : 02644731
Unique Number : 5802270
Test Package : MOB 2 (Additional Tests: Glycol)

WILCO CONTRACTORS
 3031 ARTHUR ST
 ROSSLYN, ON
 CA P7K 0P2
 Contact: David Cramer

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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