



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
TPR-Houston Port
Machine Id
6354 6354
Component
Diesel Engine
Fluid
CHEVRON 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DJJ0023644	DJJ0023559	DJJ0018997
Sample Date		Client Info		05 Apr 2024	19 Feb 2024	09 Feb 2023
Machine Age	hrs	Client Info		17890	17614	13985
Oil Age	hrs	Client Info		250	250	0
Filter Age	hrs	Client Info		250	250	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

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

CONTAMINATION

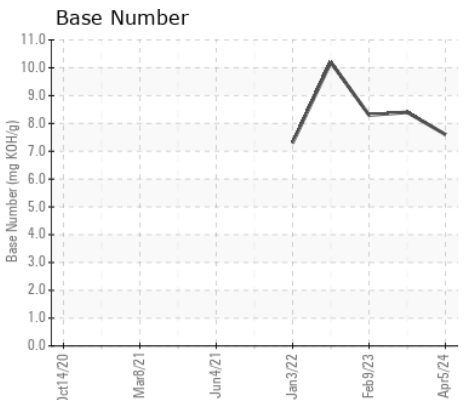
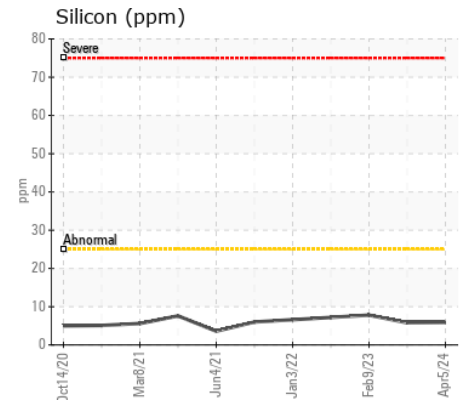
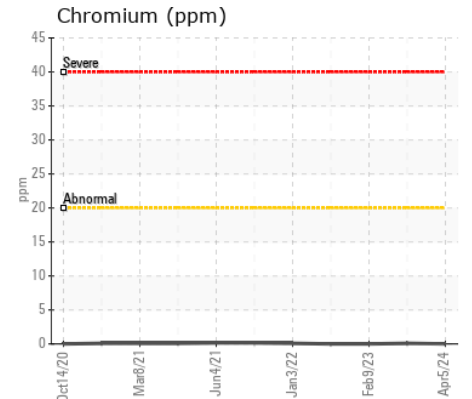
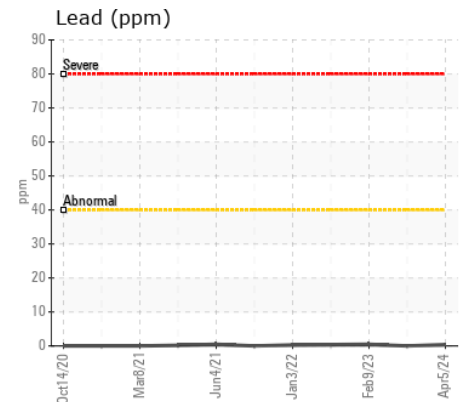
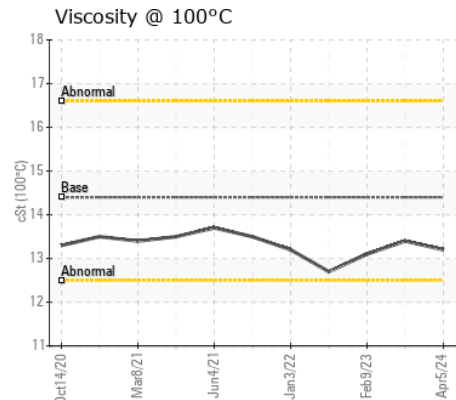
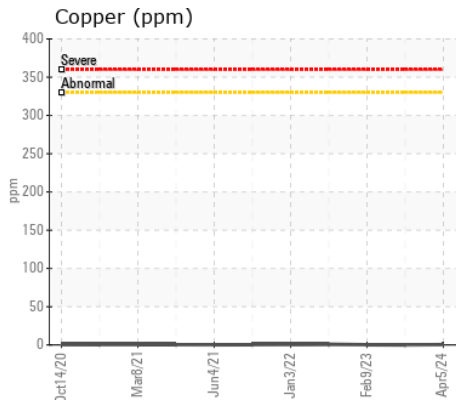
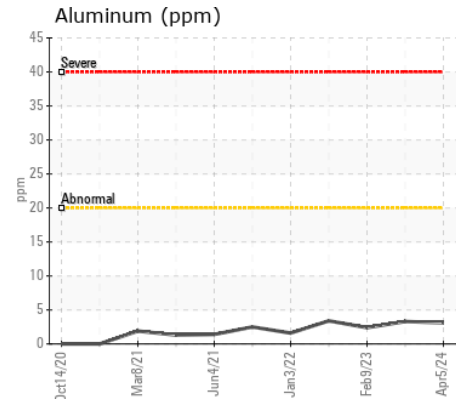
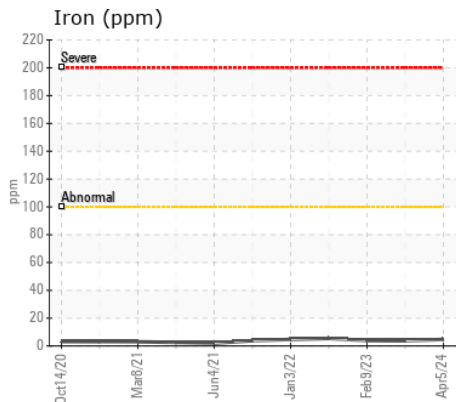
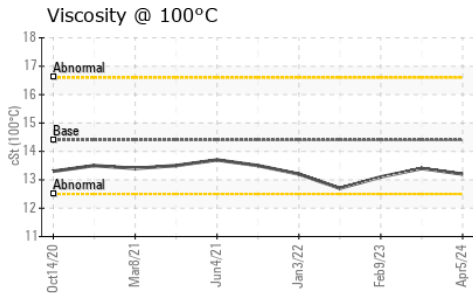
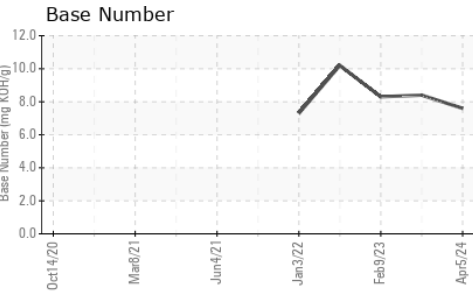
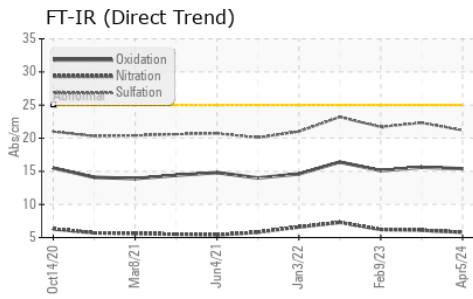
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	6	8
Potassium	ppm	ASTM D5185m	>20	2	3	<1
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	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	5.8	6.1	6.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.2	22.3	21.7
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 suitable for further service.

Sodium	ppm	ASTM D5185m	>50	1	0	<1
Boron	ppm	ASTM D5185m		408	352	337
Barium	ppm	ASTM D5185m		0	8	0
Molybdenum	ppm	ASTM D5185m		102	126	120
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m		451	622	631
Calcium	ppm	ASTM D5185m		1453	1388	1465
Phosphorus	ppm	ASTM D5185m		992	731	674
Zinc	ppm	ASTM D5185m		1197	799	807
Sulfur	ppm	ASTM D5185m		3785	2692	2926
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.4	15.6	15.1
Base Number (BN)	mg KOH/g	ASTM D2896		7.6	8.4	8.3
Visc @ 100°C	cSt	ASTM D445	14.4	13.2	13.4	13.1



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : DJJ0023644

Lab Number : 06145584

Unique Number : 10970392

Test Package : MOBCE (Additional Tests: TBN)

Received : 11 Apr 2024

Tested : 12 Apr 2024

Diagnosed : 12 Apr 2024 - Wes Davis

TEXAS PORT RECYCLING - HOUSTON PORT

8945 MANCHESTER ST

HOUSTON, TX

US 77012

Contact: Dale Shaw

dale.shaw@tmrecycling.com

T:

F: (713)921-5545

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - 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)