



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL

Area
TPR-Houston Port
Machine Id
452191 SENNOBOGEN 840ME 452191
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (7 GAL)

RECOMMENDATION

The oil 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		DJJ0023459	DJJ0010307	DJJ0010205
Sample Date		Client Info		28 May 2024	05 Dec 2023	12 Sep 2023
Machine Age	hrs	Client Info		11110	10520	10259
Oil Age	hrs	Client Info		11110	10520	10259
Filter Age	hrs	Client Info		11110	10520	10259
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	8	5	4
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
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	2	3	4
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	6	3	2
Tin	ppm	ASTM D5185m	>15	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

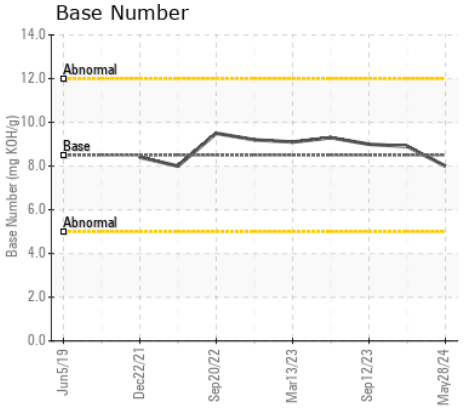
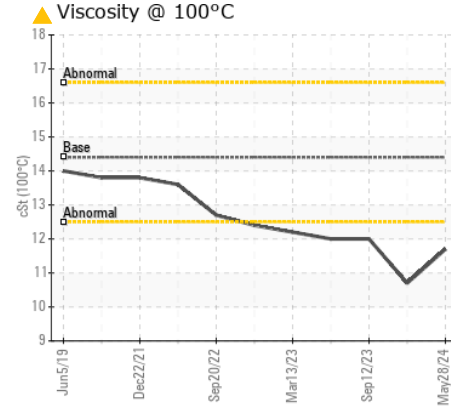
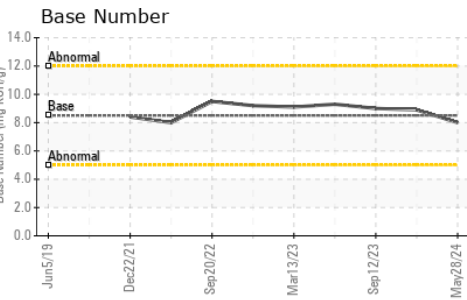
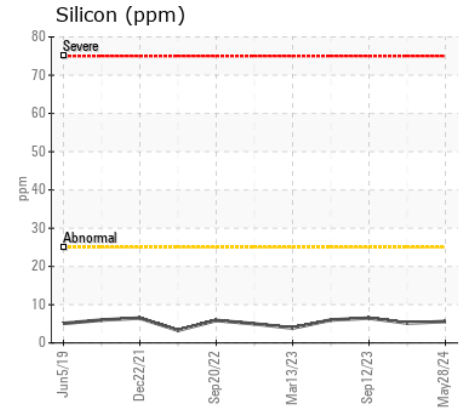
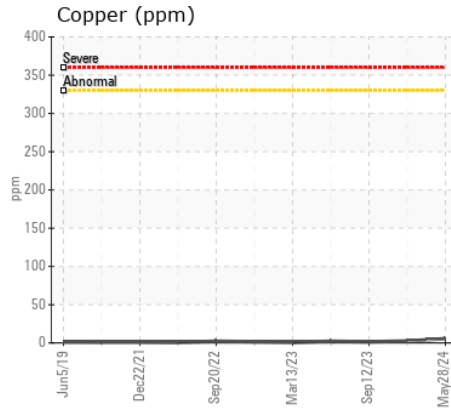
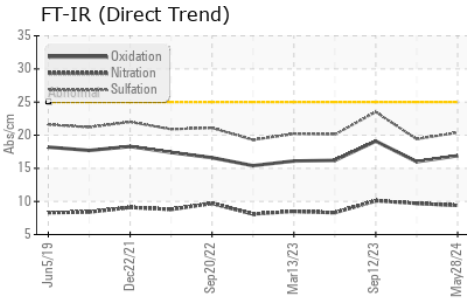
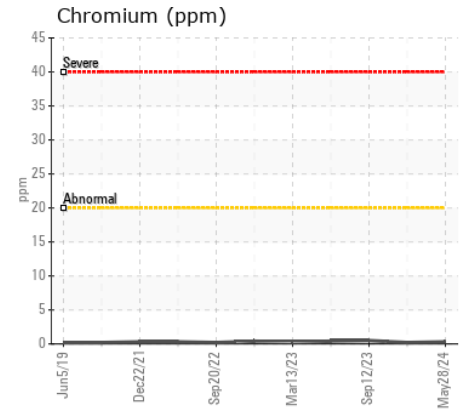
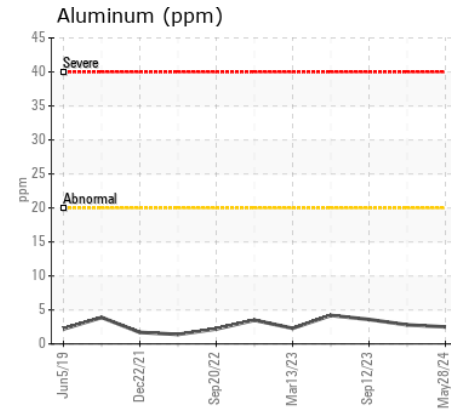
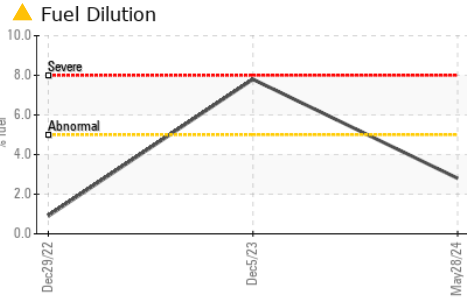
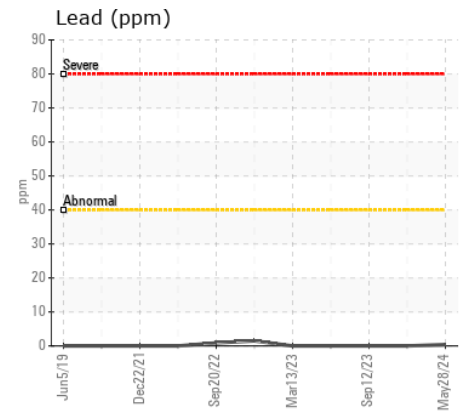
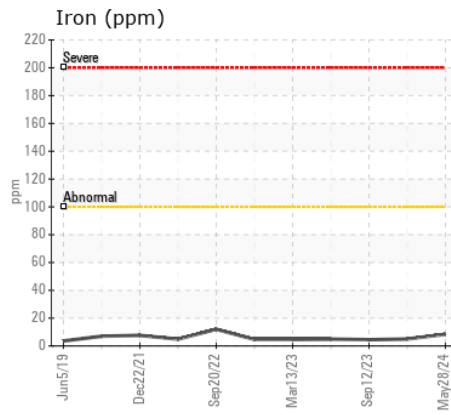
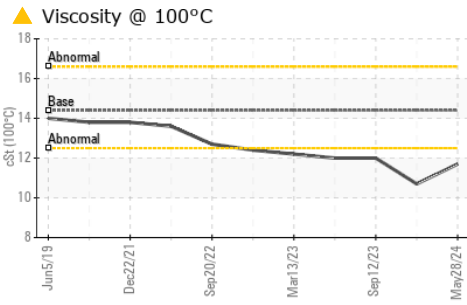
Light fuel dilution occurring.

Silicon	ppm	ASTM D5185m	>25	6	5	6
Potassium	ppm	ASTM D5185m	>20	2	<1	3
Fuel	%	ASTM D3524	>5	▲ 2.8	▲ 7.8	<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
Nitration	Abs/cm	*ASTM D7624	>20	9.4	9.7	10.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.4	19.4	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. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>216	0	2	<1
Boron	ppm	ASTM D5185m	250	7	7	5
Barium	ppm	ASTM D5185m	10	<1	0	0
Molybdenum	ppm	ASTM D5185m	100	79	58	65
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	941	878	951
Calcium	ppm	ASTM D5185m	3000	1253	1253	1178
Phosphorus	ppm	ASTM D5185m	1150	1213	1066	1053
Zinc	ppm	ASTM D5185m	1350	1349	1310	1293
Sulfur	ppm	ASTM D5185m	4250	3714	3333	3557
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.9	16.0	19.1
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.0	8.9	9.0
Visc @ 100°C	cSt	ASTM D445	14.4	▲ 11.7	▲ 10.7	● 12.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DJJ0023459
Lab Number : 06196337
Unique Number : 11058460
Test Package : MOBCE (Additional Tests: PercentFuel, TBN)

Received : 31 May 2024
Tested : 04 Jun 2024
Diagnosed : 04 Jun 2024 - Wes Davis

TEXAS PORT RECYCLING - HOUSTON PORT
 8945 MANCHESTER ST
 HOUSTON, TX
 US 77012
 Contact: Dale Shaw
 dale.shaw@tmrecycling.com

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)

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