



TRAAP

Texas Refinery Advanced Analysis Program

# OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Machine Id  
**MITSUBISHI MITSUBISHI 6D22**  
 Component  
**Diesel Engine**  
 Fluid  
**TRC MOLY PRO-SPEC III 10W40 (10 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>TR05020166</b>	TR04864978	TR04825626
Sample Date		Client Info		<b>22 Jun 2020</b>	28 Nov 2019	01 Oct 2019
Machine Age	hrs	Client Info		<b>17411</b>	16766	16488
Oil Age	hrs	Client Info		<b>923</b>	758	480
Filter Age	hrs	Client Info		<b>923</b>	758	480
Oil Changed		Client Info		<b>Changed</b>	Changed	Not Changd
Filter Changed		Client Info		<b>Changed</b>	N/A	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>18</b>	31	22
Chromium	ppm	ASTM D5185m	>20	<b>4</b>	9	7
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	>3	<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>20	<b>5</b>	11	10
Lead	ppm	ASTM D5185m	>40	<b>4</b>	4	4
Copper	ppm	ASTM D5185m	>330	<b>27</b>	124	79
Tin	ppm	ASTM D5185m	>15	<b>5</b>	4	1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

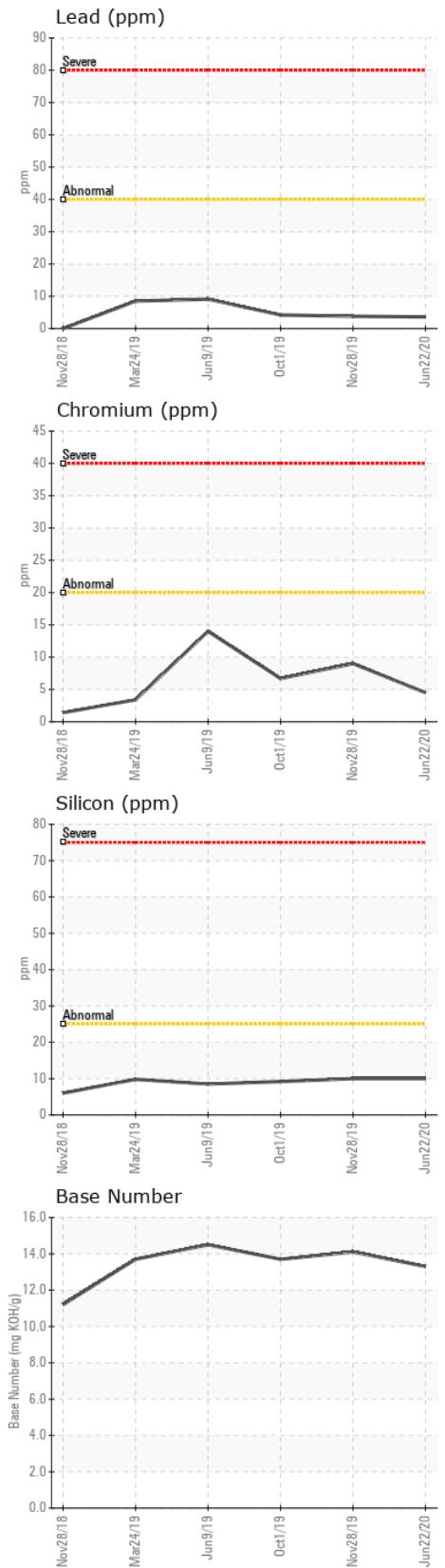
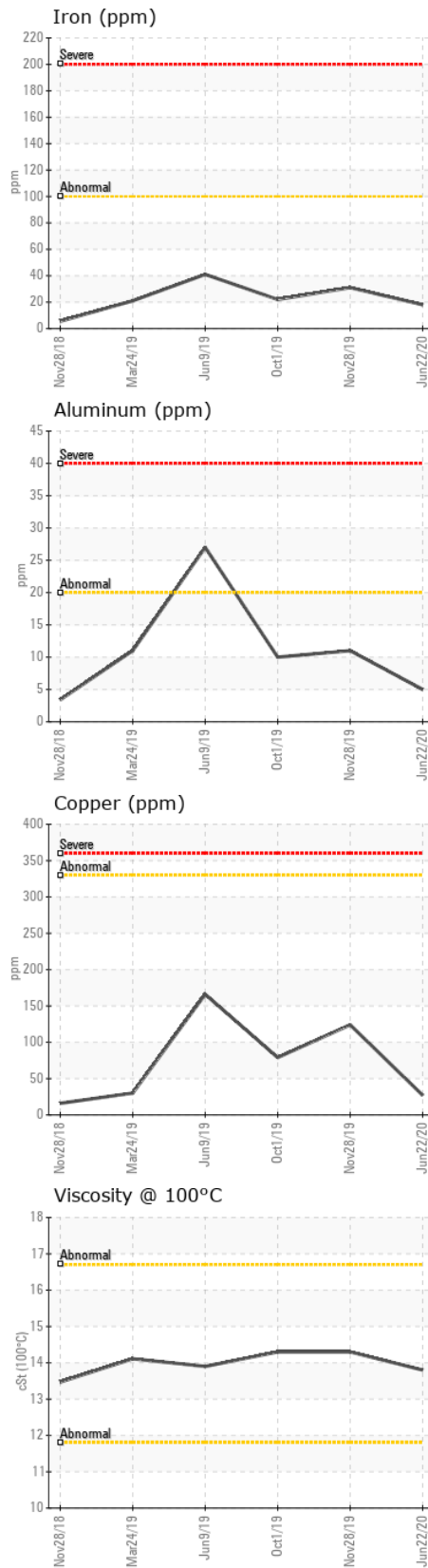
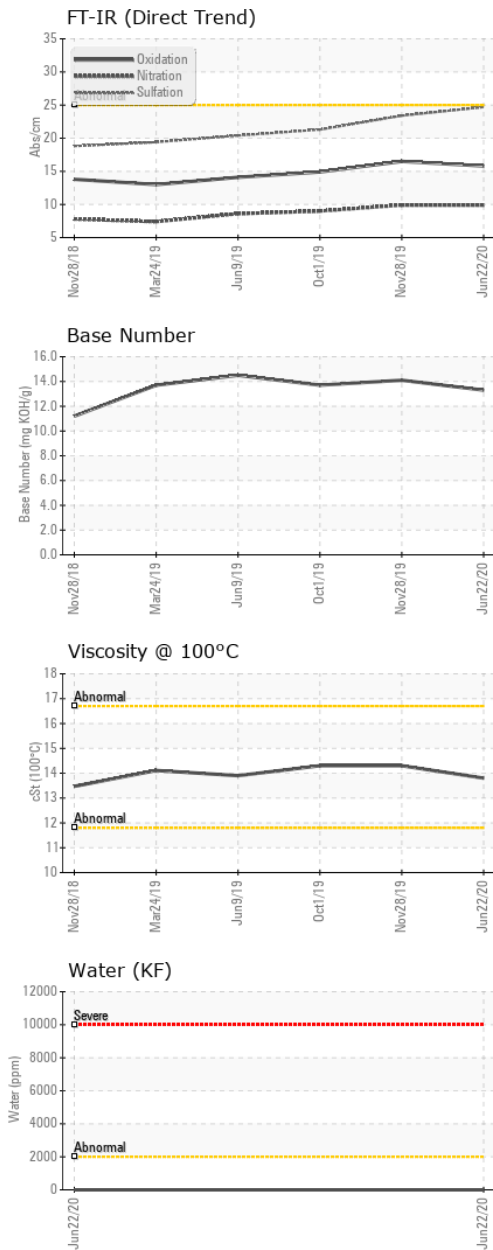
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	<b>10</b>	10	9
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	3
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water	%	ASTM D6304	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.8</b>	0.7	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>9.9</b>	9.9	9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>24.7</b>	23.4	21.3
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	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		<b>4</b>	10	13
Boron	ppm	ASTM D5185m		<b>168</b>	168	152
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>210</b>	235	211
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	2	<1
Magnesium	ppm	ASTM D5185m		<b>442</b>	396	444
Calcium	ppm	ASTM D5185m		<b>4035</b>	3976	3932
Phosphorus	ppm	ASTM D5185m		<b>996</b>	831	852
Zinc	ppm	ASTM D5185m		<b>1081</b>	995	945
Sulfur	ppm	ASTM D5185m		<b>3590</b>	835	1814
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.8</b>	16.5	14.9
Base Number (BN)	mg KOH/g	ASTM D2896		<b>13.3</b>	14.1	13.7
Visc @ 100°C	cSt	ASTM D445		<b>13.8</b>	14.3	14.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR05020166  
**Lab Number** : 05020166  
**Unique Number** : 9100326  
**Test Package** : MOB 2 ( Additional Tests: KF )

**Received** : 15 Jul 2020  
**Tested** : 16 Jul 2020  
**Diagnosed** : 16 Jul 2020 - Don Baldrige

**DENNIS ROBILLARD**  
 278 RIVER RD  
 ELIOT, ME  
 US 03903  
 Contact: DON PERCY

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)

T:  
F: