



TRAAP

Texas Refinery Advanced Analysis Program

# OIL ANALYSIS REPORT

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

Machine Id  
**PETERBILT 112**  
 Component  
**Diesel Engine**  
 Fluid  
**TRC PRO-SPEC V SYN BLEND 15W40 (10 GAL)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>TR04781634</b>	TR04781639	TR04729190
Sample Date		Client Info		<b>19 Aug 2019</b>	10 Jun 2019	11 Apr 2019
Machine Age	hrs	Client Info		<b>1021</b>	0	1082075
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>1021</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	<b>19</b>	12	32
Chromium	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>2	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>25	<b>2</b>	1	2
Lead	ppm	ASTM D5185m	>45	<b>4</b>	3	5
Copper	ppm	ASTM D5185m	>85	<b>12</b>	7	24
Tin	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>1</b>	2	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

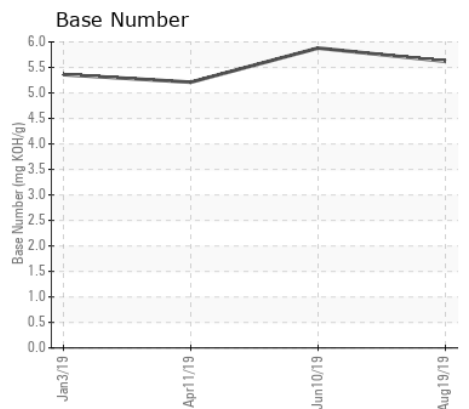
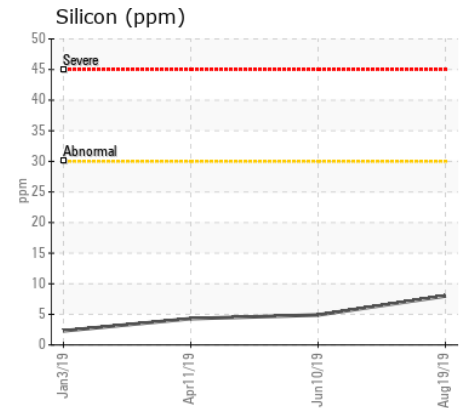
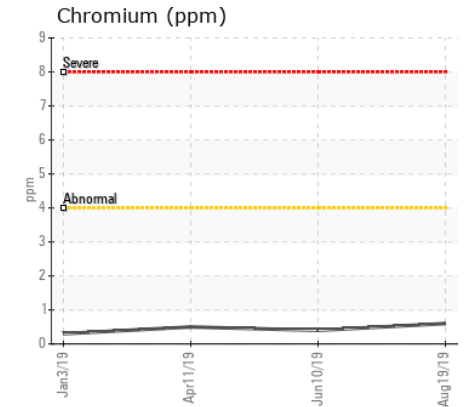
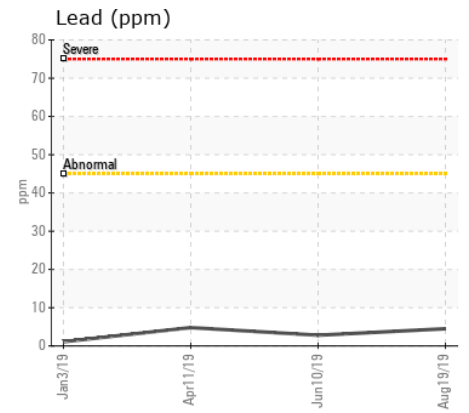
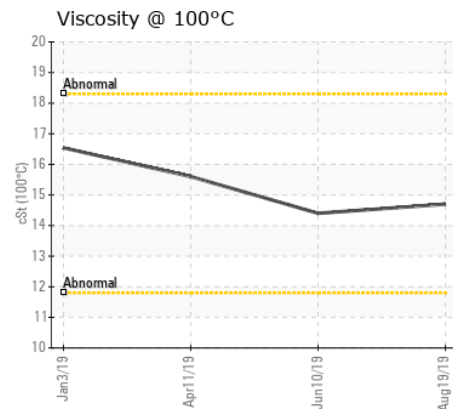
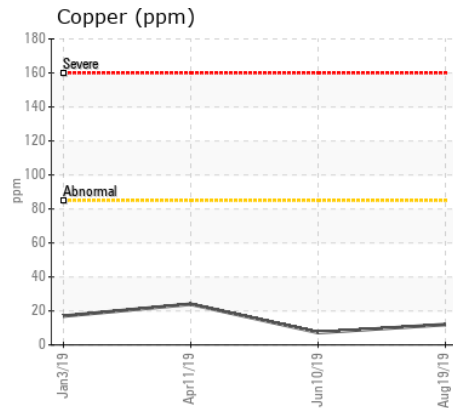
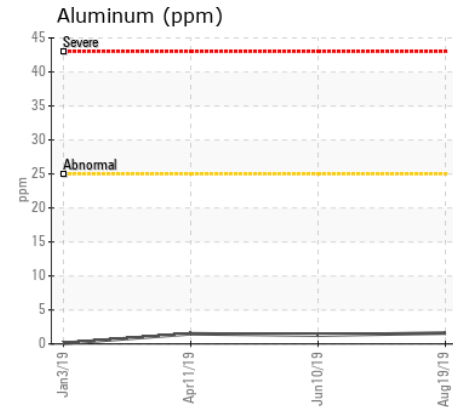
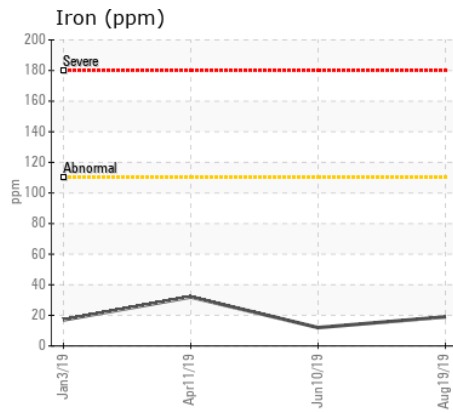
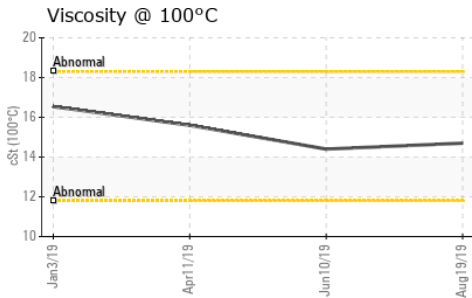
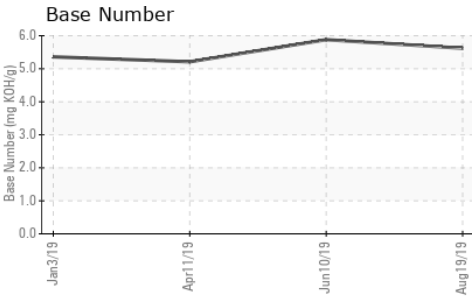
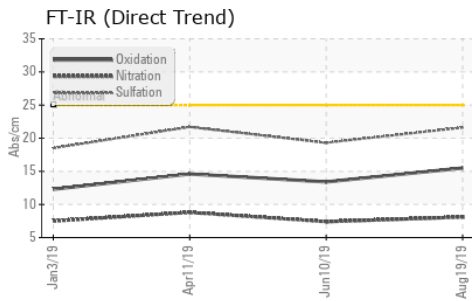
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	<b>8</b>	5	4
Potassium	ppm	ASTM D5185m	>20	<b>17</b>	5	1
Fuel		WC Method	>5	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.4</b>	0.3	0.5
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.1</b>	7.4	8.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.6</b>	19.3	21.7
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>3</b>	3	2
Boron	ppm	ASTM D5185m		<b>2</b>	2	12
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	4
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>24</b>	22	49
Calcium	ppm	ASTM D5185m		<b>2211</b>	2138	2102
Phosphorus	ppm	ASTM D5185m		<b>846</b>	839	796
Zinc	ppm	ASTM D5185m		<b>974</b>	946	901
Sulfur	ppm	ASTM D5185m		<b>2837</b>	2904	2938
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.5</b>	13.4	14.6
Base Number (BN)	mg KOH/g	ASTM D2896		<b>5.62</b>	5.88	5.21
Visc @ 100°C	cSt	ASTM D445		<b>14.7</b>	14.4	15.6



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : TR04781634  
**Lab Number** : 04781634  
**Unique Number** : 8709443  
**Test Package** : MOB 2

**Received** : 20 Aug 2019  
**Tested** : 21 Aug 2019  
**Diagnosed** : 21 Aug 2019 - Wes Davis

**CHACHOS VACUUM SERVICE**  
 PO BOX 786  
 ALICE, TX  
 US 78332  
 Contact: ROY SAGREDO

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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F: