



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**PETERBILT 20**  
Component  
**Diesel Engine**  
Fluid  
**MOBIL DELVAC 1300 SUPER15W40 (48 QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>KL0006549</b>	KL0006544	KL0006550
Sample Date		Client Info		<b>18 Apr 2023</b>	21 Nov 2022	22 Sep 2022
Machine Age	mls	Client Info		<b>253000</b>	232332	520208
Oil Age	mls	Client Info		<b>10000</b>	30000	20000
Filter Age	mls	Client Info		<b>10000</b>	30000	20000
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	<b>13</b>	31	18
Chromium	ppm	ASTM D5185m	>20	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>11</b>	22	19
Lead	ppm	ASTM D5185m	>40	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>330	<b>&lt;1</b>	3	2
Tin	ppm	ASTM D5185m	>15	<b>0</b>	<1	<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

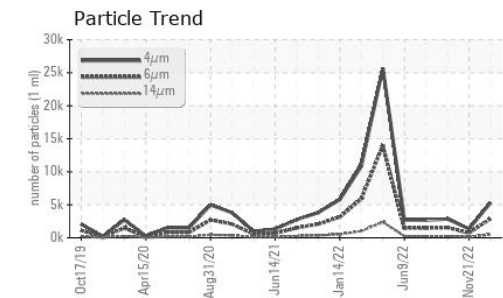
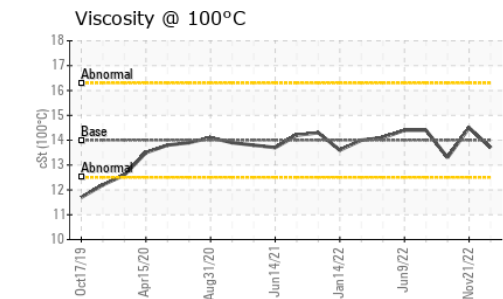
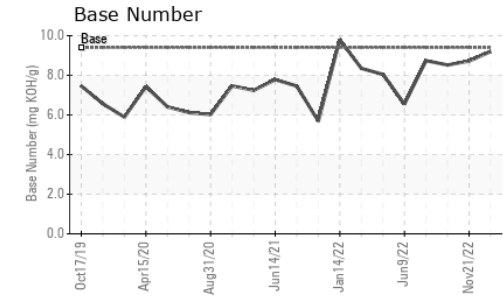
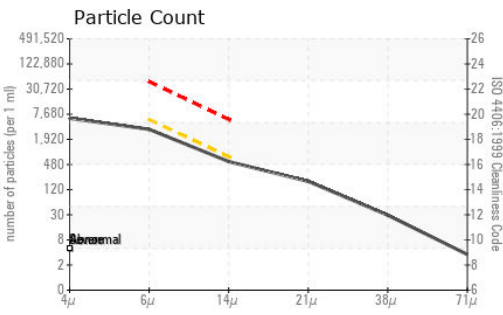
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>25	<b>8</b>	6	5
Potassium	ppm	ASTM D5185m	>20	<b>17</b>	50	37
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>0.3</b>	0.6	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.2</b>	10.3	9.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.5</b>	23.4	21.9
Particles >4µm		ASTM D7647		<b>5342</b>	1338	2845
Particles >6µm		ASTM D7647	>5000	<b>2910</b>	729	1550
Particles >14µm		ASTM D7647	>640	<b>495</b>	124	264
Particles >21µm		ASTM D7647	>160	<b>167</b>	42	89
Particles >38µm		ASTM D7647	>40	<b>26</b>	6	14
Particles >71µm		ASTM D7647	>10	<b>3</b>	1	1
Oil Cleanliness		ISO 4406 (c)	>19/16	<b>19/16</b>	17/14	18/15
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>1</b>	2	0
Boron	ppm	ASTM D5185m	0	<b>30</b>	2	2
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m	0	<b>43</b>	61	61
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	0	<b>555</b>	955	949
Calcium	ppm	ASTM D5185m		<b>1624</b>	1201	1209
Phosphorus	ppm	ASTM D5185m		<b>744</b>	988	990
Zinc	ppm	ASTM D5185m		<b>948</b>	1240	1199
Sulfur	ppm	ASTM D5185m		<b>3481</b>	4376	4483
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.7</b>	20.7	18.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.4	<b>9.20</b>	8.72	8.52
Visc @ 100°C	cSt	ASTM D445	14	<b>13.7</b>	14.5	13.3



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : KL0006549  
**Lab Number** : 05829110  
**Unique Number** : 10442603  
**Test Package** : MOB 2 ( Additional Tests: PrtCount )  
**Received** : 25 Apr 2023  
**Tested** : 26 Apr 2023  
**Diagnosed** : 26 Apr 2023 - Wes Davis

**BERRINGTON CUSTOM HAY**  
 PO BOX 540  
 WELLINGTON, NV  
 US 89444  
 Contact: GARY BERRINGTON

Certificate L2367  
 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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