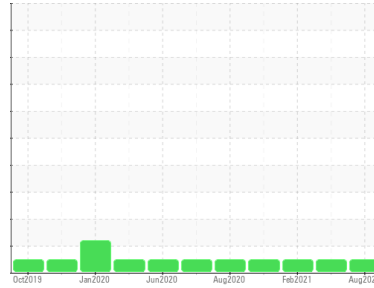




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
PETERBILT 20

Component
Diesel Engine

Fluid
CHEVRON URSA SUPER PLUS EC 15W40 (48 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

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

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.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		KLM2339682	KLM2339095	KLM2339026
Sample Date	Client Info		05 Aug 2021	14 Jun 2021	16 Feb 2021
Machine Age	mls	Client Info	141000	131000	111050
Oil Age	mls	Client Info	20000	9088	10000
Oil Changed	Client Info		Not Changed	Not Changed	Not Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Fuel	WC Method	>5	<1.0	<1.0	<1.0
Water	WC Method	>0.2	NEG	NEG	NEG
Glycol	WC Method		NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >100	20	14	19
Chromium	ppm	ASTM D5185m >20	<1	<1	<1
Nickel	ppm	ASTM D5185m >4	0	0	0
Titanium	ppm	ASTM D5185m	<1	0	<1
Silver	ppm	ASTM D5185m >3	<1	<1	<1
Aluminum	ppm	ASTM D5185m >20	15	7	10
Lead	ppm	ASTM D5185m >40	<1	<1	<1
Copper	ppm	ASTM D5185m >330	2	1	1
Tin	ppm	ASTM D5185m >15	<1	<1	<1
Antimony	ppm	ASTM D5185m	0	0	0
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	197	306	259
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	120	118	117
Manganese	ppm	ASTM D5185m	<1	<1	<1
Magnesium	ppm	ASTM D5185m	536	500	578
Calcium	ppm	ASTM D5185m	1418	1412	1591
Phosphorus	ppm	ASTM D5185m 1200	638	630	735
Zinc	ppm	ASTM D5185m 1300	810	761	827
Sulfur	ppm	ASTM D5185m	2726	2627	2941

CONTAMINANTS

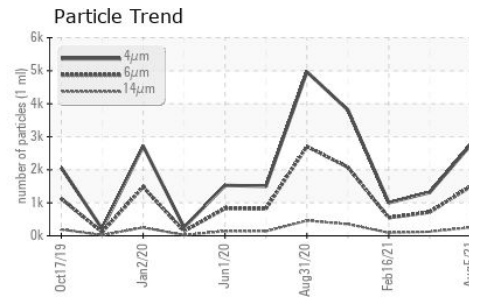
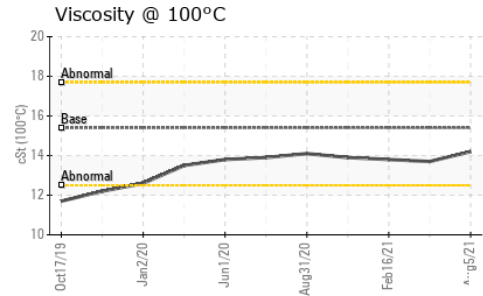
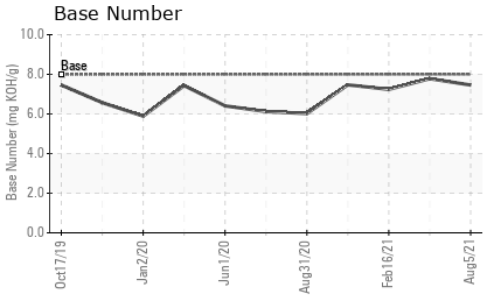
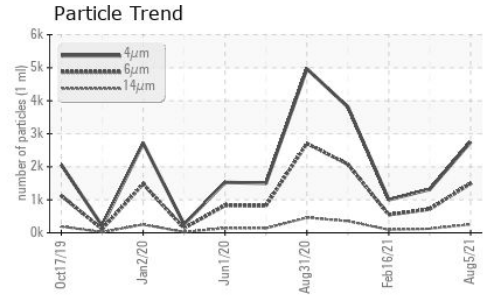
	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	8	6	6
Sodium	ppm	ASTM D5185m	2	1	2
Potassium	ppm	ASTM D5185m >20	26	11	15

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.3	0.2	0.3
Nitration	Abs/cm	*ASTM D7624 >20	8.5	7.2	7.4
Sulfation	Abs/.1mm	*ASTM D7415 >30	22.4	22.2	21.7



OIL ANALYSIS REPORT



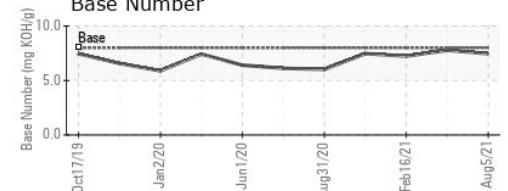
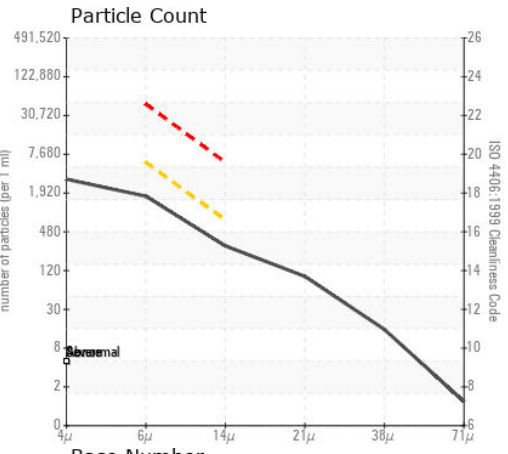
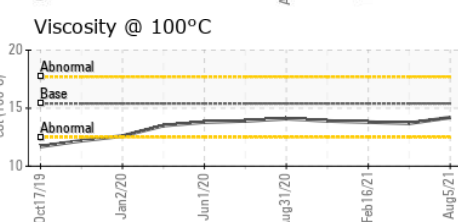
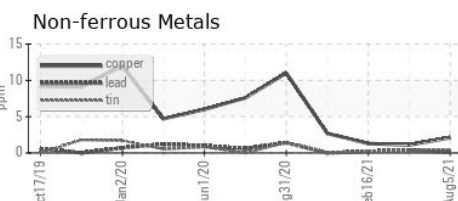
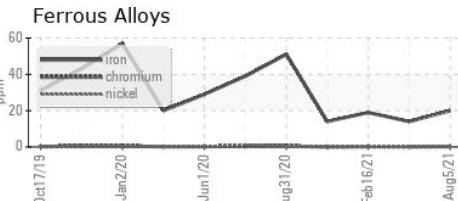
FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		2747	1316	1002
Particles >6µm	ASTM D7647	>5000	1496	717	547
Particles >14µm	ASTM D7647	>640	255	122	93
Particles >21µm	ASTM D7647	>160	86	41	31
Particles >38µm	ASTM D7647	>40	13	6	5
Particles >71µm	ASTM D7647	>10	1	1	0
Oil Cleanliness	ISO 4406 (c)	>19/16	18/15	17/14	16/14

FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs./1mm *ASTM D7414	>25	19.8	17.7	17.9
Base Number (BN)	mg KOH/g ASTM D2896	8.0	7.46	7.78	7.24

VISUAL	method	limit/base	current	history1	history2
White Metal	scalar *Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar *Visual	NONE	NONE	NONE	NONE
Precipitate	scalar *Visual	NONE	NONE	NONE	NONE
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
Free Water	scalar *Visual		NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt ASTM D445	15.4	14.2	13.7	13.8

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : KLM2339682 **Received** : 14 Oct 2021
Lab Number : **05374458** **Tested** : 15 Oct 2021
Unique Number : 9698569 **Diagnosed** : 15 Oct 2021 - Jonathan Hester
Test Package : MOB 2 (Additional Tests: PrtCount)

BERRINGTON CUSTOM HAY
 PO BOX 540
 WELLINGTON, NV
 US 89444
 Contact: REBECCA BERRINGTON
 berringtoncustomhay@gmail.com
 T: (775)465-2264
 F:

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)