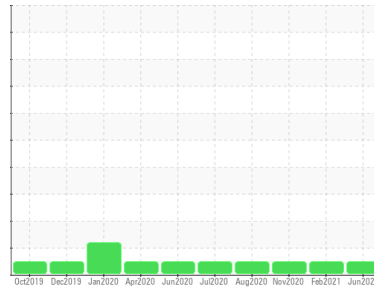




OIL ANALYSIS REPORT

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		KLM2339095	KLM2339026	KLM2339665
Sample Date	Client Info		14 Jun 2021	16 Feb 2021	12 Nov 2020
Machine Age	mls	Client Info	131000	111050	91000
Oil Age	mls	Client Info	9088	10000	31000
Oil Changed	Client Info		Not Chngd	Not Chngd	Not Chngd
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	14	19	14
Chromium	ppm	ASTM D5185m >20	<1	<1	0
Nickel	ppm	ASTM D5185m >4	0	0	0
Titanium	ppm	ASTM D5185m	0	<1	0
Silver	ppm	ASTM D5185m >3	<1	<1	0
Aluminum	ppm	ASTM D5185m >20	7	10	4
Lead	ppm	ASTM D5185m >40	<1	<1	0
Copper	ppm	ASTM D5185m >330	1	1	3
Tin	ppm	ASTM D5185m >15	<1	<1	0
Antimony	ppm	ASTM D5185m	0	0	0
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	306	259	273
Barium	ppm	ASTM D5185m	0	0	0
Molybdenum	ppm	ASTM D5185m	118	117	121
Manganese	ppm	ASTM D5185m	<1	<1	0
Magnesium	ppm	ASTM D5185m	500	578	517
Calcium	ppm	ASTM D5185m	1412	1591	1496
Phosphorus	ppm	ASTM D5185m 1200	630	735	695
Zinc	ppm	ASTM D5185m 1300	761	827	785
Sulfur	ppm	ASTM D5185m	2627	2941	2647

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	6	6	8
Sodium	ppm	ASTM D5185m	1	2	2
Potassium	ppm	ASTM D5185m >20	11	15	17

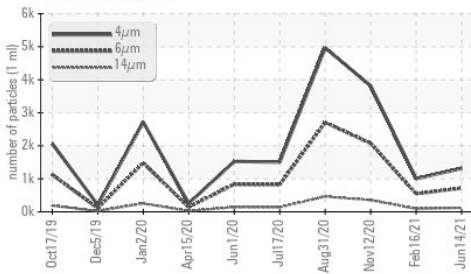
INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >3	0.2	0.3	0.3
Nitration	Abs/cm	*ASTM D7624 >20	7.2	7.4	8
Sulfation	Abs/.1mm	*ASTM D7415 >30	22.2	21.7	22.1

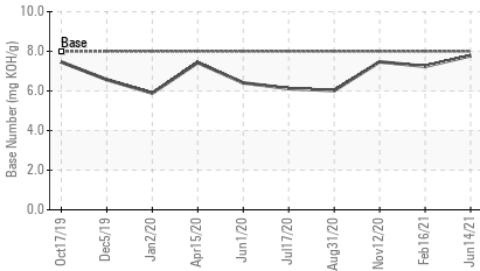


OIL ANALYSIS REPORT

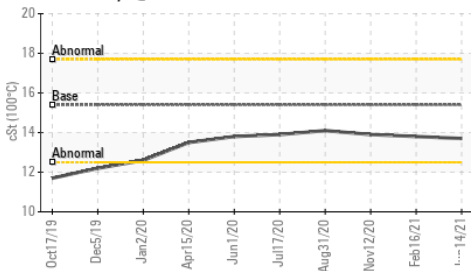
Particle Trend



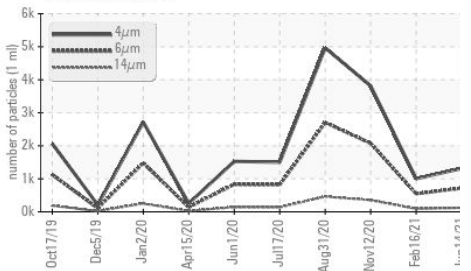
Base Number



Viscosity @ 100°C



Particle Trend



FLUID CLEANLINESS	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647		1316	1002	3812
Particles >6µm	ASTM D7647	>5000	717	547	2077
Particles >14µm	ASTM D7647	>640	122	93	353
Particles >21µm	ASTM D7647	>160	41	31	119
Particles >38µm	ASTM D7647	>40	6	5	18
Particles >71µm	ASTM D7647	>10	1	0	2
Oil Cleanliness	ISO 4406 (c)	>19/16	17/14	16/14	18/16

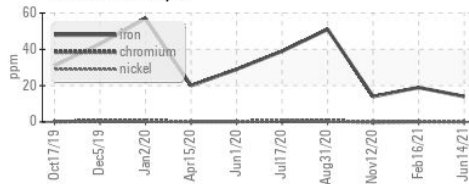
FLUID DEGRADATION	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414	>25	17.7	17.9	18.8
Base Number (BN)	mg KOH/g ASTM D2896	8.0	7.78	7.24	7.47

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

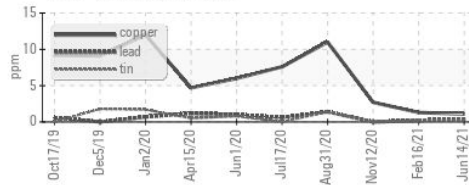
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt ASTM D445	15.4	13.7	13.8	13.9

GRAPHS

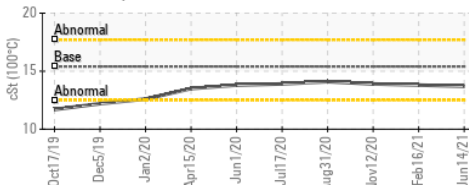
Ferrous Alloys



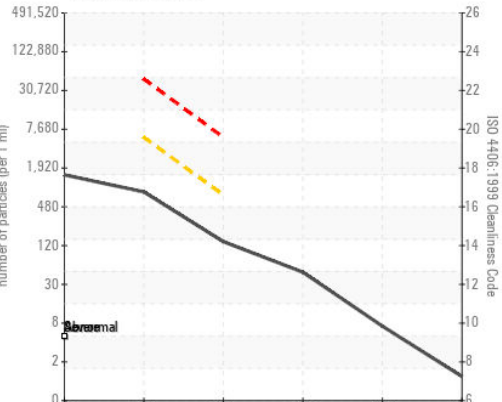
Non-ferrous Metals



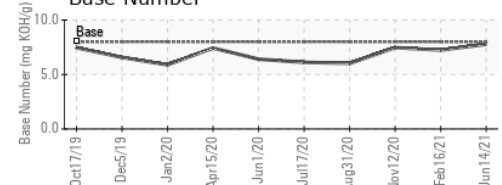
Viscosity @ 100°C



Particle Count



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : KLM2339095 Received : 24 Jun 2021
 Lab Number : 05287680 Tested : 25 Jun 2021
 Unique Number : 9556618 Diagnosed : 25 Jun 2021 - Wes Davis
 Test Package : MOB 2 (Additional Tests: PrtCount)

BERRINGTON CUSTOM HAY

PO BOX 540
 WELLINGTON, NV
 US 89444
 Contact: REBECCA BERRINGTON
 berringtoncustomhay@gmail.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)

T: (775)465-2264

F: