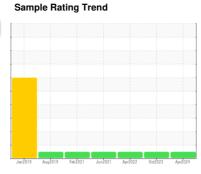


OIL ANALYSIS REPORT







DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: PM-1 sampled fluid)

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

O TO-4 SAE 50 (
SAMPLE INFOR	RMATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0109338	PCA0084719	PCA0062661
Sample Date		Client Info		04 Apr 2024	19 Oct 2023	05 Apr 2022
Machine Age	hrs	Client Info		17749	17273	16935
Oil Age	hrs	Client Info		17749	17273	16717
Oil Changed		Client Info		N/A	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	TION	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
ron	ppm	ASTM D5185m	>800	61	95	122
Chromium	ppm	ASTM D5185m	>10	1	<1	<1
Nickel	ppm	ASTM D5185m		<1	<1	0
Titanium	ppm	ASTM D5185m	>15	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m		4	<1	2
Lead	ppm	ASTM D5185m	>10	<1	0	<1
Copper	ppm	ASTM D5185m	>75	23	36	38
Tin	ppm	ASTM D5185m	>8	2	2	2
Antimony	ppm	ASTM D5185m	>50			
/anadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	2	16	76	103
Barium	ppm	ASTM D5185m	0	1	20	0
Molybdenum	ppm	ASTM D5185m	0	8	25	32
Manganese	ppm	ASTM D5185m	0	1	1	1
Magnesium	ppm	ASTM D5185m	9	17	11	10
Calcium		AO IIVI DO TOOTII				
Jaicium	ppm	ASTM D5185m	3114	3537	1363	250
	ppm			3537 1010		250 990
Phosphorus		ASTM D5185m	3114		1363	
Phosphorus Zinc	ppm	ASTM D5185m ASTM D5185m	3114 1099	1010	1363 1021	990
Phosphorus Zinc	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	3114 1099 1245	1010 1154	1363 1021 513	990 144
Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	3114 1099 1245 7086	1010 1154 5688	1363 1021 513 24196	990 144 19378
Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	3114 1099 1245 7086 limit/base	1010 1154 5688 current	1363 1021 513 24196 history1	990 144 19378 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	3114 1099 1245 7086 limit/base >400	1010 1154 5688 current	1363 1021 513 24196 history1	990 144 19378 history2
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm NTS ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	3114 1099 1245 7086 limit/base >400	1010 1154 5688 current 23 <1	1363 1021 513 24196 history1 12	990 144 19378 history2 5
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm NTS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual	3114 1099 1245 7086 limit/base >400 >20 limit/base	1010 1154 5688 current 23 <1 2 current NONE	1363 1021 513 24196 history1 12 4 0 history1 NONE	990 144 19378 history2 5 0 1 history2 LIGHT
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm NTS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m wethod *Visual	3114 1099 1245 7086 limit/base >400 >20 limit/base NONE	1010 1154 5688 current 23 <1 2 current NONE	1363 1021 513 24196 history1 12 4 0	990 144 19378 history2 5 0 1 history2 LIGHT NONE
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm NTS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual	3114 1099 1245 7086 limit/base >400 >20 limit/base	1010 1154 5688 current 23 <1 2 current NONE	1363 1021 513 24196 history1 12 4 0 history1 NONE	990 144 19378 history2 5 0 1 history2 LIGHT
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm NTS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m wethod *Visual	3114 1099 1245 7086 limit/base >400 >20 limit/base NONE	1010 1154 5688 current 23 <1 2 current NONE	1363 1021 513 24196 history1 12 4 0 history1 NONE	990 144 19378 history2 5 0 1 history2 LIGHT NONE
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm NTS ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual	3114 1099 1245 7086 limit/base >400 >20 limit/base NONE NONE	1010 1154 5688 current 23 <1 2 current NONE NONE	1363 1021 513 24196 history1 12 4 0 history1 NONE NONE	990 144 19378 history2 5 0 1 history2 LIGHT NONE NONE
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm NTS ppm ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual	3114 1099 1245 7086 limit/base >400 >20 limit/base NONE NONE NONE	1010 1154 5688	1363 1021 513 24196 history1 12 4 0 history1 NONE NONE NONE	990 144 19378 history2 5 0 1 history2 LIGHT NONE NONE
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm NTS ppm ppm ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual	3114 1099 1245 7086 limit/base >400 >20 limit/base NONE NONE NONE NONE	1010 1154 5688	1363 1021 513 24196 history1 12 4 0 history1 NONE NONE NONE NONE	990 144 19378 history2 5 0 1 history2 LIGHT NONE NONE NONE LIGHT
Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm NTS ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	3114 1099 1245 7086 limit/base >400 >20 limit/base NONE NONE NONE NONE NONE	1010 1154 5688 current 23 <1 2 current NONE NONE NONE NONE NONE NONE NONE NON	1363 1021 513 24196 history1 12 4 0 history1 NONE NONE NONE NONE LIGHT NONE	990 144 19378 history2 5 0 1 history2 LIGHT NONE NONE NONE LIGHT NONE

Emulsified Water

scalar *Visual

scalar *Visual

>0.2

NEG

NEG

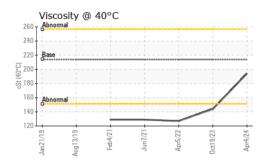
NEG

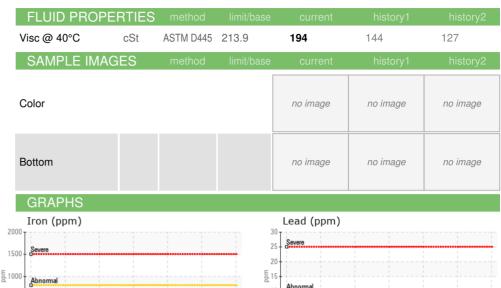
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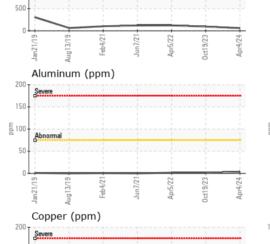
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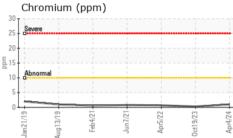


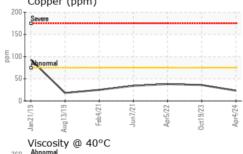
OIL ANALYSIS REPORT

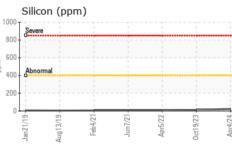


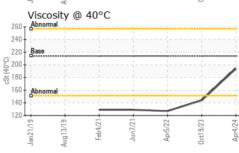


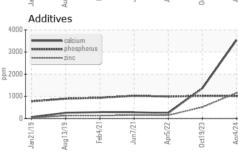














Certificate 12367

Sample No.

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Lab Number : 06149069

Test Package : MOB 1

: PCA0109338

Received **Tested** Unique Number : 10979147 Diagnosed

: 15 Apr 2024 : 16 Apr 2024 : 17 Apr 2024 - Sean Felton Kemp Quarries - Muskogee Sand

3395 W 50th St N Porter, OK US 74454

Contact: muskogee@muskogeesand.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)

Report Id: KEMPOR [WUSCAR] 06149069 (Generated: 04/17/2024 14:11:02) Rev: 1

Submitted By:

T:

F: