

OIL ANALYSIS REPORT

Area KEMP QUARRIES / MUSKOGEE SAND Machine Id OHT086 Component

Rear Transmission (Manual) Fluid MOBIL MOBILTRANS HD 50 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the fluid.

Fluid Condition

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





NORMAL

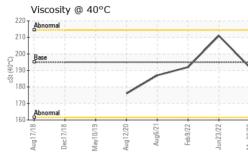
Aug2018 Dec2018 May2019 Aug2020 Aug2021 Feb2022 Jun2022 Mar2

Sample Rating Trend

Sample Number Client Info PCA0087120 PCA0082249 PCA0081797 Sample Date I Client Info 23 Mar 2023 23 Jun 2022 09 Feb 2022 Machine Age hrs Client Info 19795 19380 19025 Oil Age hrs Client Info Changed Changed Changed Oil Changed Client Info Changed Changed Changed NORMAL NORMAL WEAR METALS method imil/base current history1 history2 Iron ppm ASTM D5185m >200 122 219 75 Chromium ppm ASTM D5185m >25 1 3 <1 Nickel ppm ASTM D5185m >25 0 1 <1 Cadmium ppm ASTM D5185m >225 80 59 1 <1 Caded ppm ASTM D5185m >225 80 59 1 <1 Vanadium ppm ASTM D518	SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
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Dromium ppm ASTM D5185m >5 1 3 <1	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >5 1 3 <1	Iron	ppm	ASTM D5185m	>200	122	219	75
Titanium ppm ASTM D5185m <1	Chromium	ppm	ASTM D5185m	>5	1	3	<1
SilverppmASTM D5185m>7020AluminumppmASTM D5185m>2510265LeadppmASTM D5185m>4501<1CopperppmASTM D5185m>22580591TinppmASTM D5185m>10020AntimonyppmASTM D5185m0000CadmiumppmASTM D5185m00<10ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m1114BariumppmASTM D5185m12<1MagnageneeppmASTM D5185m12<1MagnageneeppmASTM D5185m101612CalciumppmASTM D5185m101612CalciumppmASTM D5185m243324663200PhosphorusppmASTM D5185m106310131202SulfurppmASTM D5185m2052VSUALmethodlimit/basecurrenthistory1history2SodiumppmASTM D5185m>20522VISUALmethodlimit/basecurrenthistory1history2VisualppmASTM D5185m>20522VISUALmethodlimit/basecurrenthistory1history2<	Nickel	ppm	ASTM D5185m	>5	1	3	<1
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Lead ppm ASTM D5185m >45 0 1 <1	Silver	ppm	ASTM D5185m	>7	0	2	0
Copper ppm ASTM D5185m >225 80 59 1 Tin ppm ASTM D5185m >10 0 2 0 Antimony ppm ASTM D5185m 0 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 <1 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 1 11 4 0 Manganese ppm ASTM D5185m 10 16 12 Calcium ppm ASTM D5185m 1063 1013 1202 Sulfur ppm ASTM D5185m 6547 5126 4770 CONTAMINANTS method limit/base current history1 history2 Sulfur ppm ASTM D5185m >20 5 2 2	Aluminum	ppm	ASTM D5185m	>25	10	26	5
TinppmASTM D5185m>10020AntimonyppmASTM D5185m0000CadmiumppmASTM D5185m0<10ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m1114BariumppmASTM D5185m1114BariumppmASTM D5185m000MolybdenumppmASTM D5185m<12<1MaganeseppmASTM D5185m101612CalciumppmASTM D5185m106310131202PhosphorusppmASTM D5185m654751264770VilurppmASTM D5185m20522VilorppmASTM D5185m20522VISUALmethodlimit/basecurrenthistory1history2SoliumppmASTM D5185m20522VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONESilitscalar*VisualNONENONENONENONENONESilitscalar*VisualNONENONENONENONENONESilitscalar*Vis	Lead	ppm	ASTM D5185m	>45	0	1	<1
AntimonyppmASTM D5185m<1	Copper	ppm	ASTM D5185m	>225	80	59	1
VanadiumppmASTM D5185m000CadmiumppmASTM D5185m0<10ADDITIVESmethodlimit/basecurrenthistory1history2BoronppmASTM D5185m1114BariumppmASTM D5185m000MolybdenumppmASTM D5185m<1<10ManganeseppmASTM D5185m<12<1MagnesiumppmASTM D5185m101612CalciumppmASTM D5185m243324663200PhosphorusppmASTM D5185m8958071104ZincppmASTM D5185m654751264770CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>2052VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONESand/Dir	Tin	ppm	ASTM D5185m	>10	0	2	0
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MolybdenumppmASTM D5185m<1	Boron	ppm	ASTM D5185m		1	11	4
MarganeseppmASTM D5185m12<1	Barium	ppm	ASTM D5185m		0	0	0
MagnesiumppmASTM D5185m101612CalciumppmASTM D5185m243324663200PhosphorusppmASTM D5185m8958071104ZincppmASTM D5185m106310131202SulfurppmASTM D5185m654751264770CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>1254411925SodiumppmASTM D5185m>20552VISUALmethodlimit/basecurrenthistory1history2White Metalscalar*VisualNONENONENONENONEYellow Metalscalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONESiltscalar*VisualNONENONENONENONENONESand/Dirtscalar*VisualNONENONENONENONENONEAscalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLQuodorscalar*VisualNORMLNORMLNORMLNORMLNORMLColorscalar*VisualNORMLNORMLNORMLNORMLNORML	Molybdenum	ppm	ASTM D5185m		<1		
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Precipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEG	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
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Appearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEG	Debris						
Odor scalar *Visual NORML NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG	Sand/Dirt						
Emulsified Water scalar *Visual >0.1 NEG NEG NEG	Appearance						
-							
Free water scalar Visual NEG NEG NEG				>0.1			
	Free Water	scalar	Visual		NEG	NEG	NEG



OIL ANALYSIS REPORT





Certificate L2367