

## **OIL ANALYSIS REPORT**

## KEMP QUARRIES / MUSKOGEE SAND [64005] Machine Id WL001

Component Front Right Final Drive Fluid MOBIL MOBILTRANS HD 50 (--- GAL)

### DIAGNOSIS

#### Recommendation

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

#### Wear

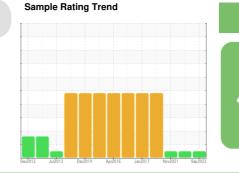
All component wear rates are normal.

#### 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.



 $\checkmark$ 

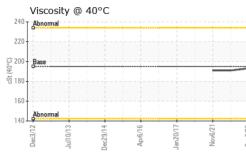
NORMAL

		Dec2012	Jul2013 Dec2014	Apr2016 Jan2017 Nov2021	Sep2023	
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0048603	PCA0070491	PCA0034548
Sample Date		Client Info		06 Sep 2023	08 Jul 2022	06 Nov 2021
Machine Age	hrs	Client Info		3441	2975	2835
Oil Age	hrs	Client Info		3441	613	473
Oil Changed		Client Info		N/A	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>800	29	267	248
Chromium	ppm	ASTM D5185m	>10	<1	1	1
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m	>15	<1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>75	3	12	10
Lead	ppm	ASTM D5185m	>10	0	<1	0
Copper	ppm	ASTM D5185m	>75	0	1	<1
Tin	ppm	ASTM D5185m	>8	<1	0	<1
Antimony	ppm	ASTM D5185m	>50			0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	<1	0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	1	3
Barium	ppm	ASTM D5185m		<1	25	0
Molybdenum	ppm	ASTM D5185m		0	<1	<1
Manganese	ppm	ASTM D5185m		<1	7	6
Magnesium	ppm	ASTM D5185m		23	11	0
Calcium	ppm	ASTM D5185m		3643	3037	3277
Phosphorus	ppm	ASTM D5185m		927	1012	986
Zinc	ppm	ASTM D5185m		1130	1211	1266
Sulfur	ppm	ASTM D5185m		10261	10174	9927
CONTAMINAN	TS	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>400	21	42	40
Sodium	ppm	ASTM D5185m		2	4	3
Potassium	ppm	ASTM D5185m	>20	0	5	0
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	LIGHT
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



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FLUID PROPERTIES method limit/base



										tory I	nisto	- 22
		Visc @		cSt	ASTM D44			193	191		191	-
		SAM	PLE IMA	GES	method	limit/b	base	current	his	tory1	histo	ry2
		Color						no imogo	no ir	nage	no ima	~~
		-						no image	110 11	laye	no ima	уe
Apr6/16	Nov6/21	c7/odac										
		Bottom						no image	no in	nage	no ima	ge
		GRA Iron (I						ad (ppm)				
		2000	ррпту				30	were				
		1500 - Severe					25 - 🏜 20 -					
		Abnormal					Had 15 -	onormal				
		500				-	10 - <b>6</b>		1			1
			/13		V17	13	12 0	/13	4	/16	5/21	0
		Dec3/12	Jul10/13 Dec29/14	Apr6/16	Jan20/17 Nov6/21	Sep6/23	Dec3/12	Jul10/13		Apr6/16 Jan20/17	Nov6/21	
		200 T	num (ppm)				Cl <sup>30</sup> 1	nromium	(ppm)			
		Severe					23	vere				
		톱 100 - Abnormal					20 - 					
		50-					10 - A	onormal				1
		0 2	4	9	21		ول	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	4		21-	-
		Dec3/12	Jul10/13 Dec29/14	Apr6/16	Jan 20/17 Nov6/21	Sep 6/23	Dec3/12	Jul10/13	Dec29/14	Apr6/16 Jan20/17	Nov6/21	0
		Coppe	er (ppm)				Si	licon (ppn	ו)			
		Severe						evere				
		E 100					600- Ed 400 Al					
		Abnormal 50 -					400 - 0	onormal				
		0					200		_			
		Dec3/12	Jul10/13 Dec29/14	Apr6/16	Jan 20/17 Nov6/21	Sep6/23	Dec3/12	Jul10/13	Dec29/14	Apr6/16 Jan20/17	Nov6/21	
		Viscos	ity @ 40°C	:	7		A	dditives		-		
		240 Abnormal					4000	calcium phosph				/
		() 200 - <b>Base</b> 장 180 -					3000	zinc		1	$\square$	-
							2500 - 2000 - 15000 - 15000 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 - 1500 -				V	
		160 Abnormal					1000	No. of Concession, Name	Weiner and Statements	A REPORT OF		a Martin alar
		Dec3/12	Jul10/13 -	Apr6/16 -	Jan 20/17 -	Sep 6/23 -	Dec3/12 -	Jul10/13 -	Dec29/14 -	Apr6/16 -	Nov6/21	-
										3		
	Laboratory Sample No.	: WearCl : PCA004	neck USA - 48603	501 Madi Receive	son Ave., C d : 14	Cary, NC 2 1 Sep 202		Ke	emp Quar		uskogee \$ 95 W 50th	
	Lab Number	: 059523	09	Diagnos	ed :18	3 Sep 202	3			20	Porte	r, O
ficate L2367	Unique Numbe Test Packag	e : MOB 1		Diagnos		oug Boga	11			_	US 7 Con	itact
	is sample report	t contact Cu	ctomor Sor	vice at 1	200 227 12	60			muskaga	muck	ogeesand	l cor