

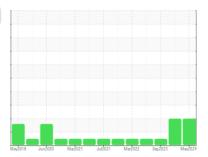
OIL ANALYSIS REPORT



KEMP QUARRIES / HULBERT **OHT097**

Component **Hydraulic System**

MOBIL DELVAC 1300 SUPER15W40 (--- GAL)



Sample Rating Trend



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. Confirm oil type.

Cample Number Client Info PCA0085960 PCA0109182 PCA0086799 Cample Date Client Info 10 May 2024 10 Feb 2024 29 Sep 2023 35032 3	OPEN 15W40 (- GAL)	May2018 .	Jun2020 Mar2021	Jul2021 Mar2022 Sep.2023	May2024		
Client Info	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2	
Cample Date	Sample Number		Client Info		PCA0085960	PCA0109182	PCA0086799	
Machine Age	Sample Date		Client Info		10 May 2024	10 Feb 2024	29 Sep 2023	
Dil Changed		hrs	Client Info		-	35540		
Contained Client Info Not Changed ATTENTION ATTENTION ATTENTION ATTENTION NorMAL	Oil Age	hrs	Client Info		1000	0	34585	
ATTENTION ATTENTION NORMAL	•		Client Info			Not Changd	Changed	
Weder	Sample Status					_		
WEAR METALS method limit/base current history1 history2 ron ppm ASTM D5185m >20 8 6 11 Chromium ppm ASTM D5185m >10 0 <1	CONTAMINAT	ION	method	limit/base	current	history1	history2	
Chromium	Water		WC Method	>0.1	NEG	NEG	NEG	
Description	WEAR METAL	S	method	limit/base	current	history1	history2	
Nickel	Iron	ppm	ASTM D5185m	>20	8	6	11	
Description	Chromium	ppm	ASTM D5185m	>10	0	<1	<1	
Saliver	Nickel	ppm	ASTM D5185m	>10	1	<1	2	
Aluminum	Titanium	ppm	ASTM D5185m		0	0	<1	
Lead	Silver	ppm	ASTM D5185m		0	0	0	
Description	Aluminum	ppm	ASTM D5185m	>10	2	3	3	
Tin	Lead	ppm	ASTM D5185m	>10	<1	0	<1	
Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 <1 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 <1 Barium ppm ASTM D5185m 0 0 0 9 Molybdenum ppm ASTM D5185m 0 1 5 17 Manganese ppm ASTM D5185m 0 1 5 17 Manganesium ppm ASTM D5185m 0 23 68 226 Calcium ppm ASTM D5185m 0 113 195 582 Phosphorus ppm ASTM D5185m 0 113 195 582 Phosphorus ppm ASTM D5185m 0 1149 1162 1851 Cilitur ppm ASTM D5185m 20 3 4 7	Copper	ppm	ASTM D5185m	>75	10	11	6	
ADDITIVES	Tin	ppm	ASTM D5185m	>10	<1	0	<1	
ADDITIVES	Vanadium	ppm	ASTM D5185m		0	0	0	
Soron ppm ASTM D5185m 0 0 0 0 9	Cadmium	ppm	ASTM D5185m		0	0	<1	
Barium	ADDITIVES		method	limit/base	current	history1	history2	
Molybdenum ppm ASTM D5185m 0 1 5 17 Manganese ppm ASTM D5185m <1 0 0 Magnesium ppm ASTM D5185m 0 23 68 226 Calcium ppm ASTM D5185m 0 113 195 582 Phosphorus ppm ASTM D5185m 0 469 544 680 Sulfur ppm ASTM D5185m 0 1149 1162 1851 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 3 4 7 Sodium ppm ASTM D5185m 20 2 <1	Boron	ppm	ASTM D5185m	0	0	0	<1	
Manganese ppm ASTM D5185m <1 0 0 Magnesium ppm ASTM D5185m 0 23 68 226 Calcium ppm ASTM D5185m 0 113 195 582 Phosphorus ppm ASTM D5185m 0 377 430 573 Zinc ppm ASTM D5185m 0 469 544 680 Sulfur ppm ASTM D5185m 0 1149 1162 1851 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 3 4 7 Sodium ppm ASTM D5185m >20 2 <1	Barium	ppm	ASTM D5185m	0	0	0	9	
Magnesium ppm ASTM D5185m 0 23 68 226 Calcium ppm ASTM D5185m 113 195 582 Phosphorus ppm ASTM D5185m 377 430 573 Zinc ppm ASTM D5185m 469 544 680 Sulfur ppm ASTM D5185m 1149 1162 1851 CONTAMINANTS method limit/base current history1 history2 Gilicon ppm ASTM D5185m >20 3 4 7 Godium ppm ASTM D5185m >20 2 <1	Molybdenum	ppm	ASTM D5185m	0	1	5	17	
Calcium ppm ASTM D5185m 113 195 582 Phosphorus ppm ASTM D5185m 377 430 573 Zinc ppm ASTM D5185m 469 544 680 Sulfur ppm ASTM D5185m 1149 1162 1851 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m 2 <1	<td>Manganese</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <td><1</td> <td>0</td> <td>0</td>	Manganese	ppm	ASTM D5185m		<1	0	0
Phosphorus ppm ASTM D5185m 377 430 573 Zinc ppm ASTM D5185m 469 544 680 Sulfur ppm ASTM D5185m 1149 1162 1851 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m 2 <1	Magnesium	ppm	ASTM D5185m	0	23	68	226	
Zinc ppm ASTM D5185m 469 544 680 Sulfur ppm ASTM D5185m 1149 1162 1851 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 3 4 7 Sodium ppm ASTM D5185m 2 <1 0 Potassium ppm ASTM D5185m >20 2 <1 2 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE 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 Dodor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG	Calcium	ppm	ASTM D5185m		113	195	582	
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 3 4 7 Sodium ppm ASTM D5185m >20 3 4 7 Sodium ppm ASTM D5185m >20 2 <1 0 Potassium ppm ASTM D5185m >20 2 <1 2 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE 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 Dodor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG	Phosphorus	ppm	ASTM D5185m		377	430	573	
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 3 4 7 Sodium ppm ASTM D5185m >20 2 <1 0 Potassium ppm ASTM D5185m >20 2 <1 2 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE NONE Yellow Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE 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 Dodor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG	Zinc	ppm	ASTM D5185m		469	544	680	
Silicon	Sulfur	ppm	ASTM D5185m		1149	1162	1851	
Sodium	CONTAMINAN	TS	method	limit/base	current	history1	history2	
Potassium ppm ASTM D5185m >20 2 <1 2 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE NONE Appearance scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Ddor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG	Silicon	ppm	ASTM D5185m	>20	3	4	7	
White Metal scalar *Visual NONE NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE NONE NONE NON	Sodium	ppm	ASTM D5185m		2	<1	0	
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 NONE Debris scalar *Visual NONE 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 >0.1 NEG NEG	Potassium	ppm	ASTM D5185m	>20	2	<1	2	
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLDdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEG	VISUAL		method	limit/base	current	history1	history2	
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 >0.1 NEG NEG	White Metal	scalar	*Visual					
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 >0.1 NEG NEG	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE	
Debris scalar *Visual NONE 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 >0.1 NEG NEG	Precipitate	scalar	*Visual	NONE		NONE	NONE	
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEG	Silt	scalar	*Visual	NONE	NONE	NONE	NONE	
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.1NEGNEGNEG	Debris	scalar	*Visual	NONE	NONE	NONE	NONE	
Odor scalar *Visual NORML NORML NORML NORML NORML Emulsified Water scalar *Visual >0.1 NEG NEG NEG	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE	
Emulsified Water scalar *Visual >0.1 NEG NEG NEG	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	NORML	
Free Water scalar *Visual NEG NEG NEG	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG	
	Free Water	scalar	*Visual		NEG	NEG	NEG	

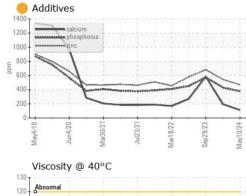


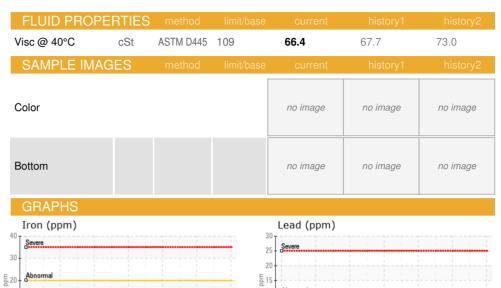
110 cSt (40°C) 06 001

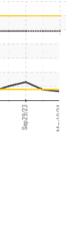
80

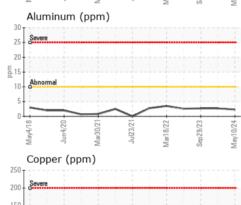
70

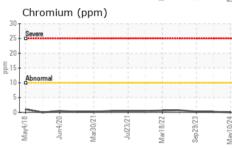
OIL ANALYSIS REPORT

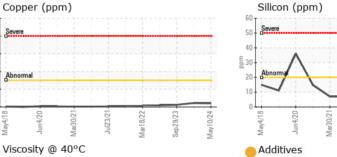


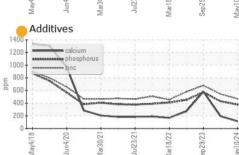














Sample No.

: PCA0085960 Lab Number : 06193171 Unique Number : 11049923

130 T 120

110

St (40°C)

80

70

60

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 28 May 2024 **Tested**

Diagnosed

: 30 May 2024

: 30 May 2024 - Sean Felton

Kemp Quarries - Kemp Stone - Hulbert

17801 Hwy 80 Hulbert, OK

US 74441 Contact: hulbert@kempstone.com

T:

F:

Test Package : MOB 1 Certificate 12367 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)