

Area KEMP QUARRIES / RIVER VALLEY BACKBONE WL100

Component Transmission (Manual) Fluid TDTO FLUID SAE 30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

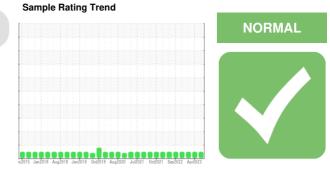
All component wear rates are normal.

Contamination

There is no indication of any contamination in the fluid.

Fluid Condition

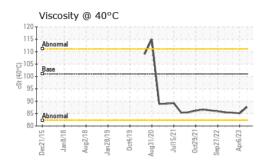
The condition of the fluid is acceptable for the time in service.



	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0108607	PCA0037178	PCA0037125
Sample Date		Client Info		28 Jun 2024	06 Apr 2023	13 Jan 2023
Machine Age	hrs	Client Info		37291	36257	35941
Oil Age	hrs	Client Info		900	945	600
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	5	8	7
Chromium	ppm	ASTM D5185m	>5	0	0	<1
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>7	0	0	0
Aluminum	ppm	ASTM D5185m	>25	<1	<1	<1
Lead	ppm	ASTM D5185m	>45	<1	0	0
Copper	ppm	ASTM D5185m	>225	2	3	3
Tin	ppm	ASTM D5185m	>10	0	0	<1
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	37	2	0	2
Barium	ppm	ASTM D5185m	7	0	0	0
Molybdenum	ppm	ASTM D5185m	5	<1	1	1
Managana	nnm	ASTM D5185m		<1	<1	<1
Manganese	ppm					
Magnesium	ppm	ASTM D5185m	40	13	24	20
•		ASTM D5185m ASTM D5185m	40 2650	13 3221	24 3278	20 2766
Magnesium	ppm					
Magnesium Calcium	ppm ppm	ASTM D5185m ASTM D5185m	2650	3221	3278	2766
Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m	2650 1050	3221 913	3278 902	2766 794
Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2650 1050 1075	3221 913 1047	3278 902 1137	2766 794 963
Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	2650 1050 1075 5750	3221 913 1047 3817	3278 902 1137 4161	2766 794 963 3463
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	2650 1050 1075 5750 limit/base	3221 913 1047 3817 current	3278 902 1137 4161 history1	2766 794 963 3463 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	2650 1050 1075 5750 limit/base >125	3221 913 1047 3817 current 4	3278 902 1137 4161 history1 6	2766 794 963 3463 history2 5
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	2650 1050 1075 5750 limit/base >125	3221 913 1047 3817 current 4 2 0	3278 902 1137 4161 history1 6 0	2766 794 963 3463 history2 5 <1
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	2650 1050 1075 5750 limit/base >125 >20	3221 913 1047 3817 current 4 2 0	3278 902 1137 4161 history1 6 0 0	2766 794 963 3463 history2 5 <1 0
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL	ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2650 1050 1075 5750 limit/base >125 >20 limit/base	3221 913 1047 3817 current 4 2 0 current	3278 902 1137 4161 6 6 0 0 0 0 history1	2766 794 963 3463 history2 5 <1 0 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm TS ppm ppm ppm scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m XFM D5185m	2650 1050 1075 5750 limit/base >125 >20 limit/base NONE	3221 913 1047 3817 current 4 2 0 current NONE	3278 902 1137 4161 6 6 0 0 0 0 history1 NONE	2766 794 963 3463 history2 5 <1 0 history2 NONE
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm TS ppm ppm ppm scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method *Visual	2650 1050 1075 5750 imit/base >125 >20 imit/base NONE NONE	3221 913 1047 3817 current 4 2 0 current NONE NONE	3278 902 1137 4161 6 6 0 0 0 history1 NONE NONE	2766 794 963 3463 history2 5 <1 0 history2 NONE NONE NONE
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm TS ppm ppm ppm scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual	2650 1050 1075 5750 imit/base >125 >20 imit/base NONE NONE NONE NONE	3221 913 1047 3817 current 4 2 0 current NONE NONE NONE NONE	3278 902 1137 4161 6 0 0 0 history1 NONE NONE NONE NONE	2766 794 963 3463 history2 5 <1 0 history2 NONE NONE NONE NONE
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm TS ppm ppm ppm ppm scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Visual *Visual *Visual *Visual	2650 1050 1075 5750 Imit/base >125 20 Imit/base NONE NONE NONE NONE	3221 913 1047 3817 current 4 2 0 current NONE NONE NONE NONE NONE	3278 902 1137 4161 6 0 0 0 history1 NONE NONE NONE NONE NONE	2766 794 963 3463 <u>history2</u> 5 <1 0 <u>history2</u> NONE NONE NONE NONE NONE
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual	2650 1050 1075 5750 Imit/base >125 >20 Imit/base NONE NONE NONE NONE NONE NONE	3221 913 1047 3817 current 4 2 2 0 current NONE NONE NONE NONE NONE NONE	3278 902 1137 4161 6 0 0 0 <u>history1</u> NONE NONE NONE NONE NONE NONE	2766 794 963 3463 history2 5 <1 0 history2 NONE NONE NONE NONE NONE NONE
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm ppm ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual	2650 1050 1075 5750 Imit/base >125 >20 Imit/base NONE NONE NONE NONE NONE NONE NONE NON	3221 913 1047 3817 current 4 2 0 current NONE NONE NONE NONE NONE NONE	3278 902 1137 4161 6 0 0 0 history1 NONE NONE NONE NONE NONE NONE NONE	2766 794 963 3463 history2 5 <1 0 history2 NONE NONE NONE NONE NONE NONE NONE
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Sodium Sodium Potassium VISUAL White Metal Yellow Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm ppm TS ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	2650 1050 1075 5750 Imit/base >125 >20 Imit/base NONE NONE NONE NONE NONE NONE NONE NON	3221 913 1047 3817 current 4 2 0 current NONE NONE NONE NONE NONE NONE NONE NON	3278 902 1137 4161 6 0 0 0 history1 NONE NONE NONE NONE NONE NONE NONE NON	2766 794 963 3463 history2 5 <1 0 history2 NONE NONE NONE NONE NONE NONE NONE NON



OIL ANALYSIS REPORT



FLUID PROPE	RTIES	method	limit/bas	e current	history1	history2
/isc @ 40°C	cSt	ASTM D44	5 101	87.7	85.1	85.4
SAMPLE IMAG	θES	method	limit/bas	e current	history1	history2
Color				no image	no image	no image
Bottom				no image	no image	no image
GRAPHS						
Iron (ppm)				Lead (ppm)		
Severe				80 - Severe		
Abnormal				60 Abnormal		
				40 - 20 -		
5 8 6	6 02	21	1	0	21	21
Jan 8/18 Jan 8/18 Aug 2/18 Jan 28/19	0ct4/19 Aug31/20	Jul15/21 Oct29/21 Sep27/22	Apr6/23	Dec21/15	Jan 28/19 Oct4/19 Aug 31/20 Jul15/21	0ct29/21 Sep27/22 Apr6/23
Aluminum (ppm)				Chromium (p		
Severe				12 10 Severe		
Abnormal				8		
				6 - Abnormal		
				2		
Dec21/15	0ct4/19	Jul15/21 0ct29/21	Apr6/23	Dec21/15	Jan28/19 - Oct4/19 - Aug31/20 - Jul15/21 -	Oct29/21 Sep27/22
ے ج	Aui	Se o J	4	ౖిె ె Silicon (ppm)		Sec 0
Severe	1000	mm		300 250 Severe		
				200		
Abnormal				150 - Abnormal 100 -		
				50-		
lec21/15 Jan8/18 Jan8/18 Aug2/18	0ct4/19	Jul15/21 Oct29/21	Apr6/23	Jan8/18	an 28/19	0ct29/21 ep27/22
	0ct4/19 Aug31/20	Jul15/21 0ct29/21 Sep27/22	Apr		Jan 28/19 Oct4/19 Aug 31/20 Jul 15/21	Oct29/21 Sep27/22 Apr6/23
Viscosity @ 40°C	1-1-1-1-1-1			Additives		Terteret
Abnormal	1		and the state of the state of the	calcium phosphor		\sim
Base				500 - 200 -		
	L	~	1	500-		
Abnormal	+ +			500		
Jan8/11 Jan8/11 Aug2/11 an28/11	0ct4/1 ug31/2(Jul15/2 0ct29/2 ep27/22	Apr6/2:	Jan 8/18 Aug 2/14	Jan 28/1 0ct4/1 ug 31/2(Jul 15/2	0ct29/2 Sep27/22 Apr6/23
	Recei Teste	ived : (d : *	Apr6/23	Stud 25 Kemp (Kemp (Wes Davis		alley - Backb 600 S Hwy 2 Huntington, US 729

To discuss this sample report, * - 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: KEMHUN [WUSCAR] 06230969 (Generated: 07/10/2024 01:04:49) Rev: 1

Certificate L2367

Laboratory Sample No. Lab Number **Unique Number** Test Package

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