

OIL ANALYSIS REPORT







KEMP QUARRIES / PRYOR STONE [10274136007] **WL049**

Component **Diesel Engine**

MOBIL DELVAC 1300 SUPER15W40 (--- GAL)

DIAGNOSIS

Recommendation

We advise that you check for faulty combustion, plugged air filters, or aftercoolers. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition.

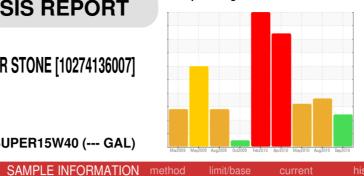
All component wear rates are normal.

Contamination

There is an abnormal amount of solids and carbon present in the oil. The water content is negligible.

Fluid Condition

Viscosity of sample indicates oil is within SAE 50 range, advise investigate. The oil is no longer serviceable due to the presence of contaminants.

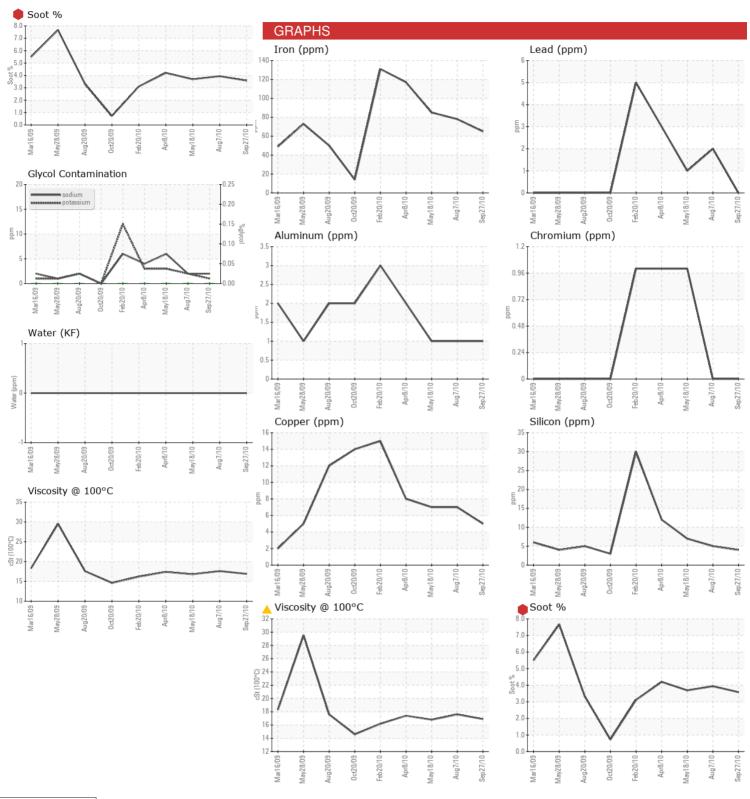


Sample Rating Trend

Sample Number		Client Info		PCA74136007	PCA28571048	PCA44220057
Sample Date		Client Info		27 Sep 2010	07 Aug 2010	18 May 2010
Machine Age	hrs	Client Info		22418	22079	21768
Oil Age	hrs	Client Info		339	311	314
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				SEVERE	SEVERE	SEVERE
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method		<1.0	<1.0	<1.0
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)		65	<u>^</u> 78	<u>\$5</u>
Chromium	ppm	ASTM D5185(m)		0	0	1
Nickel	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)		1	1	1
Lead	ppm	ASTM D5185(m)		0	2	1
Copper	ppm	ASTM D5185(m)		5	7	7
Tin	ppm	ASTM D5185(m)		1	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
5		AOTH DE40E()			4 =	04
Boron	ppm	ASTM D5185(m)		29	15	21
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)		29 0	0	0
Barium	ppm	ASTM D5185(m)		0	0	0
Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m)		0 41	0 35	0 36
Barium Molybdenum Magnesium	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 41 411	0 35 366	0 36 328
Barium Molybdenum Magnesium Calcium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		0 41 411 2040	0 35 366 1907	0 36 328 1771
Barium Molybdenum Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	0 41 411 2040 994	0 35 366 1907 860	0 36 328 1771 827
Barium Molybdenum Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185(m)	limit/base	0 41 411 2040 994 1126	0 35 366 1907 860 1055	0 36 328 1771 827 961
Barium Molybdenum Magnesium Calcium Phosphorus Zinc CONTAMINAN	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) method	limit/base	0 41 411 2040 994 1126 current	0 35 366 1907 860 1055 history1	0 36 328 1771 827 961 history2
Barium Molybdenum Magnesium Calcium Phosphorus Zinc CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) method ASTM D5185(m)	limit/base	0 41 411 2040 994 1126 current	0 35 366 1907 860 1055 history1	0 36 328 1771 827 961 history2
Barium Molybdenum Magnesium Calcium Phosphorus Zinc CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m)	limit/base	0 41 411 2040 994 1126 current 4	0 35 366 1907 860 1055 history1 5	0 36 328 1771 827 961 history2 7 6
Barium Molybdenum Magnesium Calcium Phosphorus Zinc CONTAMINAN Silicon Sodium Potassium	ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) METHOD ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	0 41 411 2040 994 1126 current 4 2	0 35 366 1907 860 1055 history1 5 2	0 36 328 1771 827 961 history2 7 6
Barium Molybdenum Magnesium Calcium Phosphorus Zinc CONTAMINAN Silicon Sodium Potassium Water	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) METHOD ASTM D5185(m)	limit/base	0 41 411 2040 994 1126 current 4 2 1	0 35 366 1907 860 1055 history1 5 2 2	0 36 328 1771 827 961 history2 7 6 3 0.19
Barium Molybdenum Magnesium Calcium Phosphorus Zinc CONTAMINAN Silicon Sodium Potassium Water Glycol	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) METHOD ASTM D5185(m)		0 41 411 2040 994 1126 current 4 2 1 0	0 35 366 1907 860 1055 history1 5 2 2 0 0.0	0 36 328 1771 827 961 history2 7 6 3 0.19 0.0
Barium Molybdenum Magnesium Calcium Phosphorus Zinc CONTAMINAN Silicon Sodium Potassium Water Glycol INFRA-RED	ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) METHOD ASTM D5185(m) ASTM D7922* METHOD ASTM D7922*		0 41 411 2040 994 1126 current 4 2 1 0 0.0 current	0 35 366 1907 860 1055 history1 5 2 2 0 0.0	0 36 328 1771 827 961 history2 7 6 3 0.19 0.0 history2
Barium Molybdenum Magnesium Calcium Phosphorus Zinc CONTAMINAN Silicon Sodium Potassium Water Glycol INFRA-RED Soot %	ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) METHOD ASTM D5185(m) ASTM D7922* METHOD ASTM D7922*	limit/base	0 41 411 2040 994 1126 current 4 2 1 0 0.0 current 3.58	0 35 366 1907 860 1055 history1 5 2 2 0 0.0 history1	0 36 328 1771 827 961 history2 7 6 3 0.19 0.0 history2
Barium Molybdenum Magnesium Calcium Phosphorus Zinc CONTAMINAN Silicon Sodium Potassium Water Glycol INFRA-RED Soot % FLUID DEGRAI	ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) METHOD ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D7844* METHOD ASTM D7844* METHOD ASTM D7414*	limit/base	0 41 411 2040 994 1126 current 4 2 1 0 0.0 current 3.58 current	0 35 366 1907 860 1055 history1 5 2 0 0.0 history1 3.94 history1	0 36 328 1771 827 961 history2 7 6 3 0.19 0.0 history2 3.69 history2



OIL ANALYSIS REPORT





Laboratory : WearCheck - PCA74136007

Lab Number : 74136007

Unique Number : 12895391 Diagnostician : Wes Davis

Test Package : MOB1+ (Additional Tests: FT-IR, Glycol, ICP, KF, KV100)

To discuss this sample report, contact Customer Service at 1-800-268-2131.

Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

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