

OIL ANALYSIS REPORT

Area CONSTRUCTORS, INC Machine Id ISUZU 09-0755 Component

Front Diesel Engine Fluid MOBIL DELVAC 1300 SUPER 10W30 (--- GAL)

DIACNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

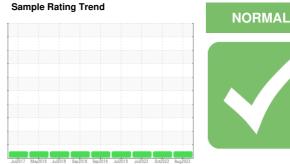
All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

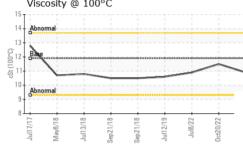


		Jul2017 May	y2018 Jul2018 Sep2018	Sep2018 Jul2019 Jul2022 Oct20:	22 Aug2023	
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		SBP0004669	SBP0002070	SBP0001437
Sample Date		Client Info		16 Aug 2023	20 Oct 2022	08 Jul 2022
Machine Age	hrs	Client Info		25575	22232	21482
Oil Age	hrs	Client Info		2175	356	400
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	1	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	3	3	6
Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	1	<1	1
Lead	ppm	ASTM D5185m	>40	<1	<1	2
Copper	ppm	ASTM D5185m	>330	<1	<1	2
Tin	ppm	ASTM D5185m	>15	<1	<1	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		42	63	53
				0	0	0
Barium	ppm	ASTM D5185m			-	
	ppm ppm	ASTM D5185m ASTM D5185m		42	26	28
Barium				42 <1		28 <1
Barium Molybdenum	ppm	ASTM D5185m			26	
Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m		<1	26 <1	<1
Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		<1 513	26 <1 561	<1 567
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		<1 513 1556	26 <1 561 1445	<1 567 1688
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		<1 513 1556 723	26 <1 561 1445 697	<1 567 1688 714
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	<1 513 1556 723 926	26 <1 561 1445 697 862	<1 567 1688 714 909
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		<1 513 1556 723 926 2563	26 <1 561 1445 697 862 2695	<1 567 1688 714 909 3051
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		<1 513 1556 723 926 2563 current	26 <1 561 1445 697 862 2695 history1	<1 567 1688 714 909 3051 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m		<1 513 1556 723 926 2563 current 3	26 <1 561 1445 697 862 2695 history1 3	<1 567 1688 714 909 3051 history2 4
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	>25	<1 513 1556 723 926 2563 current 3 <1	26 <1 561 1445 697 862 2695 history1 3 0	<1 567 1688 714 909 3051 history2 4 3
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>25	<1 513 1556 723 926 2563 <u>current</u> 3 <1 <1	26 <1 561 1445 697 862 2695 history1 3 0 3	<1 567 1688 714 909 3051 history2 4 3 <1
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Chlorine	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>25 >20	<1 513 1556 723 926 2563 current 3 <1 <1 <1 	26 <1 561 1445 697 862 2695 history1 3 0 3 	<1 567 1688 714 909 3051 history2 4 3 <1
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Chlorine INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>25 >20 limit/base >3	<1 513 1556 723 926 2563 current 3 <1 <1 <1 Current	26 <1 561 1445 697 862 2695 history1 3 0 3 history1	<1 567 1688 714 909 3051 history2 4 3 <1 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Chlorine INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m	>25 >20 limit/base >3 >20	<1 513 1556 723 926 2563 <i>current</i> 3 <1 <1 <1 <i>current</i> 0.1	26 <1 561 1445 697 862 2695 history1 3 0 3 history1 0.1	<1 567 1688 714 909 3051 history2 4 3 <1 history2 0.1
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Chlorine INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>25 >20 limit/base >3 >20	<1 513 1556 723 926 2563 current 3 <1 <1 <1 <1 <1 0.1 7.9	26 <1 561 1445 697 862 2695 history1 3 0 3 history1 0.1 8.8	<1 567 1688 714 909 3051 history2 4 3 <1 history2 0.1 10.0
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Chlorine INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>25 >20 limit/base >3 >20 >30	<1 513 1556 723 926 2563 current 3 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	26 <1 561 1445 697 862 2695 history1 3 0 3 history1 0.1 8.8 22.3	<1 567 1688 714 909 3051 history2 4 3 <1 history2 0.1 10.0 22.2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Chlorine INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	>25 >20 limit/base >3 >20 >30 limit/base	<1 513 1556 723 926 2563 Current 3 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1	26 <1 561 1445 697 862 2695 history1 3 0 3 history1 0.1 8.8 22.3 history1	<1 567 1688 714 909 3051 history2 4 3 <1 history2 0.1 10.0 22.2 history2



OIL ANALYSIS REPORT

Base Number 12.0 10.0



VISUAL		method	limit/base	current	history1	history2
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
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
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	11.9	10.9	11.5	10.9
GRAPHS						

Ferrous Alloys

