

# **OIL ANALYSIS REPORT**

#### Area CONSTRUCTORS, INC Machine Id 13-1319 Component

Diesel Engine

MOBIL DELVAC 1300 SUPER 10W30 (--- GAL)

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

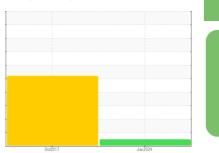
All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the 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.



Sample Rating Trend

 $\checkmark$ 

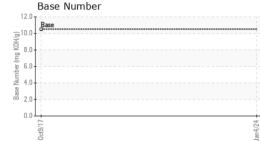
NORMAL

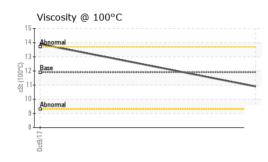
SAMPLE INFORM	<b>IATION</b>	method	limit/base	current	history1	history2
Sample Number		Client Info		SBP0005706	SBP86498027	
Sample Date		Client Info		04 Jan 2024	09 Oct 2017	
Machine Age	hrs	Client Info		7205	6541	
Oil Age	hrs	Client Info		664	313	
Oil Changed		Client Info		Not Changd	Changed	
Sample Status				NORMAL	SEVERE	
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>3.0	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>90	63	57	
Chromium	ppm	ASTM D5185m	>20	3	2	
Nickel	ppm	ASTM D5185m	>2	<1	0	
Titanium	ppm	ASTM D5185m	>2	<1	0	
Silver	ppm	ASTM D5185m	>2	0	0	
Aluminum	ppm	ASTM D5185m	>20	9	7	
Lead	ppm	ASTM D5185m	>40	2	12	
Copper	ppm	ASTM D5185m	>330	1	3	
Tin	ppm	ASTM D5185m	>15	<1	0	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 47	history1 27	history2
	ppm ppm		limit/base			
Boron		ASTM D5185m	limit/base	47	27	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	47 0	27 0	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	47 0 34	27 0 49	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	47 0 34 1	27 0 49 0	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	47 0 34 1 691	27 0 49 0 835	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	47 0 34 1 691 1481 895 1062	27 0 49 0 835 1398	  
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	47 0 34 1 691 1481 895	27 0 49 0 835 1398 1011	   
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	47 0 34 1 691 1481 895 1062	27 0 49 0 835 1398 1011 1100	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	47 0 34 1 691 1481 895 1062 3010	27 0 49 0 835 1398 1011 1100	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	47 0 34 1 691 1481 895 1062 3010 current	27 0 49 0 835 1398 1011 1100  history1	    history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b>	limit/base	47 0 34 1 691 1481 895 1062 3010 current 22	27 0 49 0 835 1398 1011 1100  history1	    history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	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	limit/base	47 0 34 1 691 1481 895 1062 3010 current 22 4	27 0 49 0 835 1398 1011 1100  history1 44 15	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base	47 0 34 1 691 1481 895 1062 3010 current 22 4 3	27 0 49 0 835 1398 1011 1100  history1 ♦ 44 15 7	     history2
Boron 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	limit/base >25 >20	47 0 34 1 691 1481 895 1062 3010 current 22 4 3 3	27 0 49 0 835 1398 1011 1100  <b>history1</b> ● 44 15 7 0	    history2  
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Chlorine INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20	47 0 34 1 691 1481 895 1062 3010 current 22 4 3 3  current	27 0 49 0 835 1398 1011 1100  history1 ● 44 15 7 0 0 history1	     history2    history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Chlorine INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >6	47 0 34 1 691 1481 895 1062 3010 current 22 4 3 3  current 0.3	27 0 49 0 835 1398 1011 1100  history1 ♦ 44 15 7 0 0 history1 2.32	     history2    history2
Boron 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	limit/base >25 >20 limit/base >6 >20	47 0 34 1 691 1481 895 1062 3010 <u>current</u> 22 4 3  22 4 3 	27 0 49 0 835 1398 1011 1100  history1 ▲ 44 15 7 0 0 history1 2.32 	     history2    history2  
Boron 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	limit/base >25 >20 limit/base >6 >20 >30	47 0 34 1 691 1481 895 1062 3010 current 22 4 3  current 0.3 8.3 19.9	27 0 49 0 835 1398 1011 1100  history1 ● 44 15 7 0 0 history1 2.32 	      history2    history2  history2

Submitted By: Loren Michael



# **OIL ANALYSIS REPORT**





VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water	scalar	*Visual	>0.2	NEG		
Free Water	scalar	*Visual		NEG		
FLUID PROPERT	TIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	11.9	10.9	<b>1</b> 3.9	
GRAPHS						
Ferrous Alloys						
70 iron						
60 - chromium						
50-						
40 30						
<sup>2</sup> 30						
20						
10-						
0						
0ct9/17			Jan4/24			
° Non-ferrous Meta	s		Jē			
12						
10 - copper						
8-						
	Non-South States					
. 6	- Alaskaka	-				
4		No. of Concession, Name				
2			No. of Concession, Name			
0						
			4/24 -			
0ct9/1			Jan 4/24			

Base Number

12.0

10 (mg KOH/g)

8 (

6. ber Base Nun 4.0 2 ( 0.0

0ct9/17

Jan4/24 .

: 08 Jan 2024

: 09 Jan 2024



Unique Number : 10820670 Diagnostician : Wes Davis Test Package : FLEET Contact: Loren Michael Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. LorenM@constructorslincoln.com \* - 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)

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

Recieved

Diagnosed

Viscosity @ 100°C

15

14

13

8

Laboratory

Sample No.

Lab Number

Dct9/17

: SBP0005706

: 06054721

cSt (100°C)

Constructors Inc. - 603659

Jan4/24

F:

1815 Y Street

T: (402)434-2157

Lincoln, NE

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