

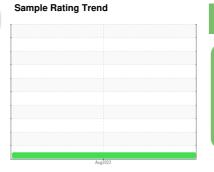
OIL ANALYSIS REPORT

Old Bridge Machine Id PETERBILT 2669

Component

Diesel Engine

Fluid



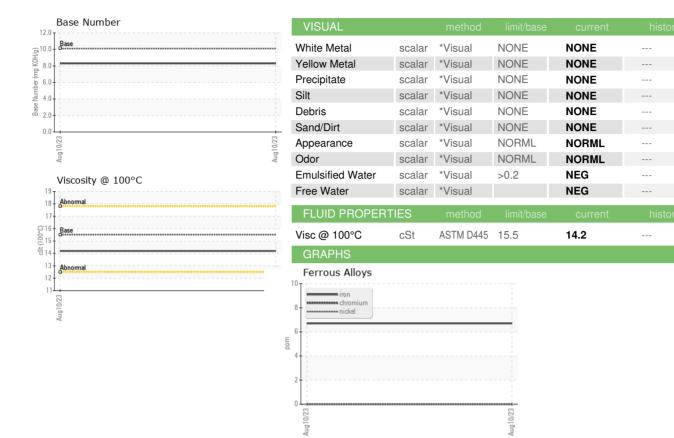


CIDDAL TAD 45W/40 CUDED C C L V (44)						
GIBRALTAR 15W/40 SUPER S-3 LX (11)	Aug(023					
DIAGNOSIS	SAMPLE INFORM	MATION	method	limit/base	current	histor
Recommendation	Sample Number		Client Info		WC0830856	
Resample at the next service interval to monitor.	Sample Date		Client Info		10 Aug 2023	
Wear	Machine Age	hrs	Client Info		13939	
All component wear rates are normal.	Oil Age	hrs	Client Info		150	
Contamination	Oil Changed		Client Info		Filtered	
There is no indication of any contamination in the oil.	Sample Status				NORMAL	
	CONTAMINATIO	N	method	limit/base	current	histor
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.	Fuel		WC Method	>5	<1.0	
	Glycol		WC Method		NEG	
	WEAR METALS		method	limit/base	current	histor
	Iron	ppm	ASTM D5185m	>110	7	
	Chromium	ppm	ASTM D5185m	>4	0	
	Nickel	ppm	ASTM D5185m	>2	0	
	Titonium	nnm	ACTM DE10Em		Λ.	

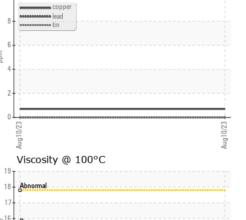
Oil Age hrs Client Info 150	Sample Number		Olletti IIIIO		***************************************		
Oil Age hrs Client Info 150	Sample Date		Client Info		10 Aug 2023		
Contamped Client Info Normal Contamped Client Info Normal Contamped Client Info Normal Contamped Client Info Normal Contamped Client Info Client Info	Machine Age	hrs	Client Info		13939		
CONTAMINATION	Oil Age	hrs	Client Info		150		
CONTAMINATION	Oil Changed		Client Info		Filtered		
CONTAMINATION					NORMAL		
Fuel	·	V	method	limit/base	current	history1	history2
WEAR METALS			WC Method				
Chromium	Glycol		WC Method				
Chromium	WEAR METALS		method	limit/base	current	history1	history2
Chromium	Iron	ppm	ASTM D5185m	>110	7		
Nickel	Chromium		ASTM D5185m	>4	0		
Description	Nickel			>2			
Silver							
Aluminum				>2			
Lead							
Copper ppm ASTM D5185m >85 <1 Tin ppm ASTM D5185m >4 0 Vanadium ppm ASTM D5185m <1							
Tin							
Vanadium ppm ASTM D5185m <1 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 9 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Manganese ppm ASTM D5185m 00 847 Magnesium ppm ASTM D5185m 1000 847 Calcium ppm ASTM D5185m 1050 1303 Phosphorus ppm ASTM D5185m 1270 1256 Zinc ppm ASTM D5185m 1270 1256 Sulfur ppm ASTM D5185m 30 4 <	• •						
ADDITIVES				>4			
ADDITIVES							
Boron ppm ASTM D5185m 9		ppm	ASTM D5185m		0		
Barium			method	limit/base		history1	history2
Molybdenum ppm ASTM D5185m 660 65 Manganese ppm ASTM D5185m 1000 847 Calcium ppm ASTM D5185m 1050 1303 Phosphorus ppm ASTM D5185m 1150 1053 Zinc ppm ASTM D5185m 1270 1256 Sulfur ppm ASTM D5185m 3881 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m 2 Sodium ppm ASTM D5185m 2 Potassium ppm ASTM D5185m 2 INFRA-RED method limit/base current history1 history2 Soot % * *ASTM D7844 >3 0.3	Boron	ppm					
Manganese ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m 1000 847 Calcium ppm ASTM D5185m 1050 1303 Phosphorus ppm ASTM D5185m 1150 1053 Zinc ppm ASTM D5185m 1270 1256 Sulfur ppm ASTM D5185m 3881 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 4 Sodium ppm ASTM D5185m 2 Potassium ppm ASTM D5185m 20 13 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.3		ppm	ASTM D5185m		0		
Magnesium ppm ASTM D5185m 1000 847 Calcium ppm ASTM D5185m 1050 1303 Phosphorus ppm ASTM D5185m 1150 1053 Zinc ppm ASTM D5185m 1270 1256 Sulfur ppm ASTM D5185m 3881 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 4 Sodium ppm ASTM D5185m 2 Potassium ppm ASTM D5185m 20 13 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 6.5 Sulfation Abs/.1mm *ASTM D7415 >30 17.9 </td <td>Molybdenum</td> <td>ppm</td> <td>ASTM D5185m</td> <td>660</td> <th>65</th> <td></td> <td></td>	Molybdenum	ppm	ASTM D5185m	660	65		
Calcium ppm ASTM D5185m 1050 1303 Phosphorus ppm ASTM D5185m 1150 1053 Zinc ppm ASTM D5185m 1270 1256 Sulfur ppm ASTM D5185m 3881 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 4 Sodium ppm ASTM D5185m 2 Potassium ppm ASTM D5185m >20 13 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.3 Nitration Abs/cm *ASTM D7624 >20 6.5 Sulfation Abs/.1mm *ASTM D7414 >25 13.0	Manganese	ppm	ASTM D5185m		<1		
Phosphorus ppm ASTM D5185m 1150 1053 Zinc ppm ASTM D5185m 1270 1256 Sulfur ppm ASTM D5185m 3881 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 4 Sodium ppm ASTM D5185m 2 Potassium ppm ASTM D5185m >20 13 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.3 Nitration Abs/.mm *ASTM D7415 >30 17.9 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.mm *ASTM D7414 >25	Magnesium	ppm	ASTM D5185m	1000	847		
Zinc ppm ASTM D5185m 1270 1256 Sulfur ppm ASTM D5185m 3881 Sulfur ppm ASTM D5185m 3881 Sulfur Silicon ppm ASTM D5185m >30 4 Sodium ppm ASTM D5185m 2 Sulfation Abs/cm *ASTM D5185m >20 13 Sulfation Abs/cm *ASTM D7844 >3 0.3 Sulfation Abs/cm *ASTM D7624 >20 6.5 Sulfation Abs/cm *ASTM D7415 >30 17.9 Sulfation Abs/cm *ASTM D7414 >25 13.0 Sulfation Abs/.1mm *ASTM D7414 >25 13.0 Sulfation Abs/.1mm *ASTM D7414 >25 13.0 Sulfation Abs/.1mm *ASTM D7414 >25 13.0	Calcium	ppm	ASTM D5185m	1050	1303		
Zinc ppm ASTM D5185m 1270 1256 Sulfur ppm ASTM D5185m 3881 Sulfur ppm ASTM D5185m 3881 Sulfur Silicon ppm ASTM D5185m >30 4 Sodium ppm ASTM D5185m 2 Sulfation Abs/cm *ASTM D5185m >20 13 Sulfation Abs/cm *ASTM D7844 >3 0.3 Sulfation Abs/cm *ASTM D7624 >20 6.5 Sulfation Abs/cm *ASTM D7415 >30 17.9 Sulfation Abs/cm *ASTM D7414 >25 13.0 Sulfation Abs/.1mm *ASTM D7414 >25 13.0 Sulfation Abs/.1mm *ASTM D7414 >25 13.0 Sulfation Abs/.1mm *ASTM D7414 >25 13.0	Phosphorus	ppm	ASTM D5185m	1150	1053		
Sulfur ppm ASTM D5185m 3881 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >30 4 Sodium ppm ASTM D5185m 2 Potassium ppm ASTM D5185m >20 13 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.3 Nitration Abs/cm *ASTM D7624 >20 6.5 Sulfation Abs/.1mm *ASTM D7415 >30 17.9 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.0			ASTM D5185m	1270	1256		
Silicon ppm ASTM D5185m >30 4 Sodium ppm ASTM D5185m 2 Potassium ppm ASTM D5185m >20 13 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.3 Nitration Abs/cm *ASTM D7624 >20 6.5 Sulfation Abs/.1mm *ASTM D7415 >30 17.9 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.0	Sulfur				3881		
Sodium ppm ASTM D5185m 2 Potassium ppm ASTM D5185m >20 13 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.3 Nitration Abs/cm *ASTM D7624 >20 6.5 Sulfation Abs/.1mm *ASTM D7415 >30 17.9 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.0	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 13 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.3 Nitration Abs/cm *ASTM D7624 >20 6.5 Sulfation Abs/.1mm *ASTM D7415 >30 17.9 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.0	Silicon	ppm	ASTM D5185m	>30	4		
INFRA-RED	Sodium	ppm	ASTM D5185m		2		
Soot % *ASTM D7844 >3 0.3 Nitration Abs/cm *ASTM D7624 >20 6.5 Sulfation Abs/.1mm *ASTM D7415 >30 17.9 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.0	Potassium	ppm	ASTM D5185m	>20	13		
Nitration Abs/cm *ASTM D7624 >20 6.5 Sulfation Abs/.1mm *ASTM D7415 >30 17.9 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.0	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 17.9 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.0	Soot %	%	*ASTM D7844	>3	0.3		
Sulfation Abs/.1mm *ASTM D7415 >30 17.9 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 13.0	Nitration	Abs/cm	*ASTM D7624	>20	6.5		
Oxidation							
	FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 10.1 8.3	Oxidation	Abs/.1mm	*ASTM D7414	>25	13.0		
	Base Number (BN)	mg KOH/g	ASTM D2896	10.1	8.3		

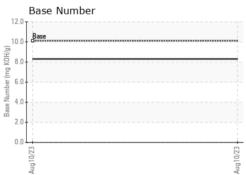


OIL ANALYSIS REPORT



Non-ferrous Metals









Certificate L2367

Laboratory Sample No. Lab Number Unique Number Test Package : FLEET

: WC0830856 : 05931455 : 10616726

(100 ₹ 14 13

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

Received : 22 Aug 2023 : 23 Aug 2023 Diagnosed : Wes Davis Diagnostician

INTERSTATE WASTE-OLD BRIDGE 586 OLD WATERWORKS ROAD OLD BRIDGE, NJ

US 08857

Contact: Timothy Ammon TAmmon@interstatewaste.com

T:

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)

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