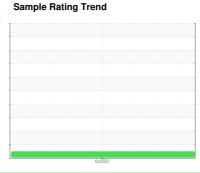


OIL ANALYSIS REPORT





Machine Id **441461** Component **Diesel Engine** NOT GIVEN (--- QTS)

Recommendation Resample at the next service interval to monitor.

Please specify the brand, type, and viscosity of the oil on your next sample.

All component wear rates are normal.

Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

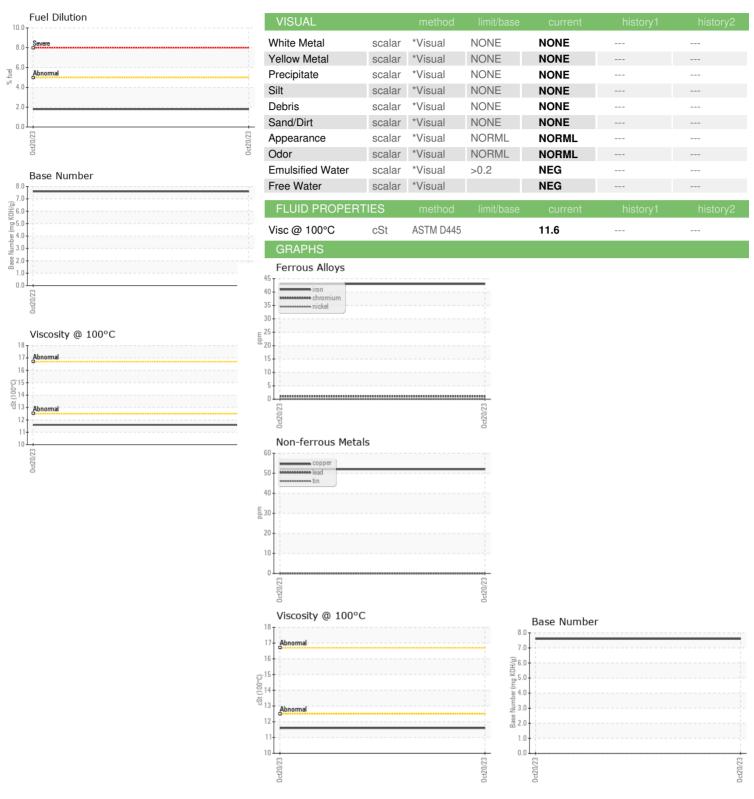
Fluid Condition

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

SAMPLE INFORMATION method limit/base current history1 history2							
Sample Number Client Info IL0030495					Oct2023		
Sample Date Client Info 20 Oct 2023	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Date Client Info 20 Oct 2023	Sample Number		Client Info		IL0030495		
Machine Age hrs Client Info 0 0 0 0 0 0 0 0 0			Client Info		20 Oct 2023		
Oil Changed Oil Changed Sample Status Client Info N/A	•	hrs					
Oil Changed Client Info N/A NORMAL Sample Status Norman Norma	•						
CONTAMINATION					-		
CONTAMINATION	-				NORMAL		
WEAR METALS		N	method	limit/base	current	history1	historv2
WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 43		•					
Chromium	·		method	limit/base	current	history1	history2
Description		nnm		>100	43		
Nickel	_						
Titanium							
Silver				- 1			
Aluminum				>3			
Lead					_		
Copper ppm ASTM D5185m >3330 52 Tin ppm ASTM D5185m 0 Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 36 Barium ppm ASTM D5185m 10 Molybdenum ppm ASTM D5185m 46 Manganese ppm ASTM D5185m 4 Magnesium ppm ASTM D5185m 744 Calcium ppm ASTM D5185m 705 Phosphorus ppm ASTM D5185m 843 Sulfur <td< td=""><td></td><td></td><td></td><td></td><th>_</th><td></td><td></td></td<>					_		
Trin							
Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 36 Barium ppm ASTM D5185m 10 Molybdenum ppm ASTM D5185m 46 Manganese ppm ASTM D5185m 4 Manganesium ppm ASTM D5185m 744 Calcium ppm ASTM D5185m 705 Phosphorus ppm ASTM D5185m 843 Zinc ppm ASTM D5185m 2146 Sulfur ppm ASTM D5185m >25 22 Solicon ppm ASTM D5185m 5					-		
Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 36 Barium ppm ASTM D5185m 10 Molybdenum ppm ASTM D5185m 46 Manganese ppm ASTM D5185m 4 Magnesium ppm ASTM D5185m 744 Calcium ppm ASTM D5185m 705 Phosphorus ppm ASTM D5185m 705 Zinc ppm ASTM D5185m 843 Sulfur ppm ASTM D5185m 2146 CONTAMINANTS method limit/base current history1 history2 Solicon ppm ASTM D5185m >25 22				1.0	_		
Boron					_		
Barium ppm ASTM D5185m 10 Molybdenum ppm ASTM D5185m 46 Manganese ppm ASTM D5185m 744 Calcium ppm ASTM D5185m 1137 Calcium ppm ASTM D5185m 705 Phosphorus ppm ASTM D5185m 843 Zinc ppm ASTM D5185m 2146 Sulfur ppm ASTM D5185m 2146 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 22 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 9 Fuel % ASTM D7844 >3	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 46 Manganese ppm ASTM D5185m 744 Calcium ppm ASTM D5185m 744 Calcium ppm ASTM D5185m 1137 Phosphorus ppm ASTM D5185m 705 Zinc ppm ASTM D5185m 843 Sulfur ppm ASTM D5185m 2146 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 22 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 9 Fuel % ASTM D3524 >5 1.8 INFRA-RED method limit/base	Boron	ppm	ASTM D5185m		36		
Manganese ppm ASTM D5185m 4 Magnesium ppm ASTM D5185m 744 Calcium ppm ASTM D5185m 1137 Phosphorus ppm ASTM D5185m 705 Zinc ppm ASTM D5185m 843 Sulfur ppm ASTM D5185m 2146 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 22 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 9 Fuel % ASTM D3524 >5 1.8 INFRA-RED method limit/base current history1 history2 Soot %	Barium	ppm	ASTM D5185m		10		
Magnesium ppm ASTM D5185m 744 Calcium ppm ASTM D5185m 1137 Phosphorus ppm ASTM D5185m 705 Zinc ppm ASTM D5185m 843 Sulfur ppm ASTM D5185m 2146 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 22 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 9 Fuel % ASTM D3524 >5 1.8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.4 Nitration A	Molybdenum	ppm	ASTM D5185m		46		
Calcium ppm ASTM D5185m 1137 Phosphorus ppm ASTM D5185m 705 Zinc ppm ASTM D5185m 843 Sulfur ppm ASTM D5185m 2146 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 22 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 9 Fuel % ASTM D3524 >5 1.8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 10.6 Sulfation Abs/.1mm *ASTM D7415 >30 21.4 FLUID DEGRADATION <td>Manganese</td> <td>ppm</td> <td>ASTM D5185m</td> <td></td> <th>4</th> <td></td> <td></td>	Manganese	ppm	ASTM D5185m		4		
Phosphorus ppm ASTM D5185m 705 Zinc ppm ASTM D5185m 843 Sulfur ppm ASTM D5185m 2146 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 22 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 9 Fuel % ASTM D3524 >5 1.8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.4 Nitration Abs/.1mm *ASTM D7624 >20 10.6 Sulfation Abs/.1mm *ASTM D7415 >30 21.4	Magnesium	ppm	ASTM D5185m		744		
Sulfur ppm ASTM D5185m 2146 Sulfur ppm ASTM D5185m 2146 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 22 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 9 Fuel % ASTM D3524 >5 1.8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.4 Nitration Abs/cm *ASTM D7624 >20 10.6 Sulfation Abs/.1mm *ASTM D7415 >30 21.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 20.3	Calcium	ppm	ASTM D5185m		1137		
Sulfur ppm ASTM D5185m 2146 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 22 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 9 Fuel % ASTM D3524 >5 1.8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.4 Nitration Abs/cm *ASTM D7624 >20 10.6 Sulfation Abs/.1mm *ASTM D7415 >30 21.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 20.	Phosphorus	ppm	ASTM D5185m		705		
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 22 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 9 Fuel % ASTM D3524 >5 1.8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.4 Nitration Abs/cm *ASTM D7624 >20 10.6 Sulfation Abs/.1mm *ASTM D7415 >30 21.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 20.3	Zinc	ppm	ASTM D5185m		843		
Silicon ppm ASTM D5185m >25 22 Sodium ppm ASTM D5185m 5 Potassium ppm ASTM D5185m >20 9 Fuel % ASTM D3524 >5 1.8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.4 Nitration Abs/cm *ASTM D7624 >20 10.6 Sulfation Abs/.1mm *ASTM D7415 >30 21.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 20.3	Sulfur	ppm	ASTM D5185m		2146		
Sodium	CONTAMINANTS	5	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 9 Fuel % ASTM D3524 >5 1.8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.4 Nitration Abs/cm *ASTM D7624 >20 10.6 Sulfation Abs/.1mm *ASTM D7415 >30 21.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 20.3	Silicon	ppm	ASTM D5185m	>25	22		
Fuel % ASTM D3524 >5 1.8 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.4 Nitration Abs/cm *ASTM D7624 >20 10.6 Sulfation Abs/.1mm *ASTM D7415 >30 21.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 20.3	Sodium	ppm	ASTM D5185m		5		
INFRA-RED	Potassium	ppm	ASTM D5185m	>20	9		
Soot % % *ASTM D7844 >3 0.4 Nitration Abs/cm *ASTM D7624 >20 10.6 Sulfation Abs/.1mm *ASTM D7415 >30 21.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 20.3	Fuel	%	ASTM D3524	>5	1.8		
Nitration Abs/cm *ASTM D7624 >20 10.6 Sulfation Abs/.1mm *ASTM D7415 >30 21.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 20.3	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 21.4 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 20.3	Soot %	%	*ASTM D7844	>3	0.4		
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 20.3	Nitration	Abs/cm	*ASTM D7624	>20	10.6		
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30	21.4		
	FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	20.3		



OIL ANALYSIS REPORT







Certificate L2367

Laboratory Sample No. Lab Number

: IL0030495 : 06000917

Unique Number

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 07 Nov 2023 Diagnosed : 09 Nov 2023

Diagnostician : Don Baldridge : 10729277 **Test Package**: FLEET (Additional Tests: FuelDilution, PercentFuel)

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. **RUSH TRUCK LEASING - CHARLOTTE IDEALEASE**

1333 AMERON DR CHARLOTTE, NC US 28206

Contact: JERRY DIXON dixonj@rushenterprises.com

T: (704)333-4507 F: (704)333-4508

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact/Location: JERRY DIXON - RUSCHA