

# **OIL ANALYSIS REPORT**

## Sample Rating Trend



NORMAL



Machine Id FSP141554

Diesel Engine

**DIESEL ENGINE OIL SAE 40 (--- QTS)** 

#### DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm. Please specify the component make and model with your next sample.

## Wear

Metal levels are typical for a new component breaking in.

### Contamination

There is no indication of any contamination in the oil.

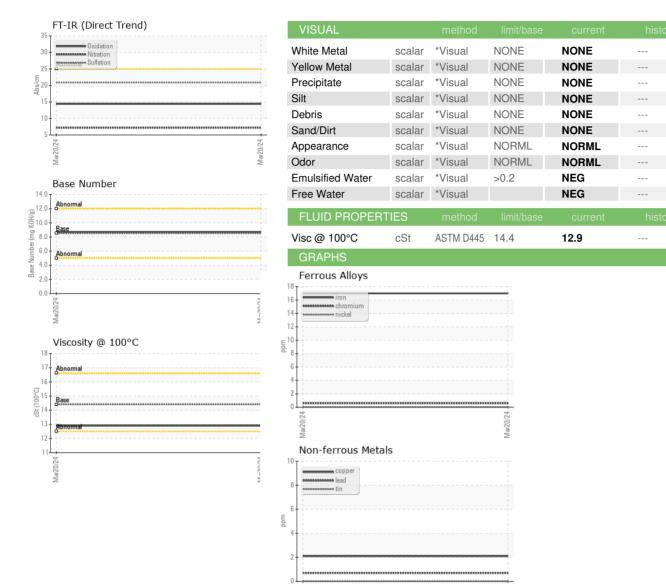
## Fluid Condition

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

Sample Date   Client Info   20 Mar 2024       Machine Age   mis   Client Info   38328					Mar2024		
Sample Number   Client Info   WC0883233   Sample Date   Client Info   20 Mar 2024   Sample Date   Client Info   11000   Sasza   Sasz							
Client Info   20 Mar 2024	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Machine Age   mls   Client Info   38328	Sample Number		Client Info		WC0883233		
Oil Age         mls         Client Info         11000	Sample Date		Client Info		20 Mar 2024		
Contained   Client Info   Changed   Client Info   NORMAL   Contained   Conta	Machine Age	mls	Client Info		38328		
CONTAMINATION	Oil Age	mls	Client Info		11000		
CONTAMINATION   method   limit/base   current   history1   history2	Oil Changed		Client Info		_		
Fuel	Sample Status				NORMAL		
Water Glycol         WC Method         >0.2         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >100         17             Chromium         ppm         ASTM D5185m         >20         <1             Nickel         ppm         ASTM D5185m         >4         0             Silver         ppm         ASTM D5185m         >4         0             Silver         ppm         ASTM D5185m         >4         0             Silver         ppm         ASTM D5185m         >40         <1             Silver         ppm         ASTM D5185m         >40         <1             Aluminum         ppm         ASTM D5185m         >40         <1             Copper         ppm         ASTM D5185m         >15         0             Tin         ppm         ASTM D5185m         >10         0	CONTAMINATION	J	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<1.0		
WEAR METALS	Water		WC Method	>0.2	NEG		
Iron	Glycol		WC Method		NEG		
Chromium	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>100	17		
Titanium		ppm	ASTM D5185m	>20			
Silver	Nickel	ppm	ASTM D5185m	>4	-		
Aluminum		ppm			0		
Lead	Silver	ppm	ASTM D5185m		-		
Copper         ppm         ASTM D5185m         >330         2             Tin         ppm         ASTM D5185m         >15         0             Vanadium         ppm         ASTM D5185m         <1		ppm	ASTM D5185m	>20	2		
Tin		ppm	ASTM D5185m	>40			
Vanadium         ppm         ASTM D5185m         <1             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         250         95             Barium         ppm         ASTM D5185m         10         0             Molybdenum         ppm         ASTM D5185m         100         67             Manganese         ppm         ASTM D5185m         100         67             Magnesium         ppm         ASTM D5185m         450         779             Magnesium         ppm         ASTM D5185m         3000         1291             Calcium         ppm         ASTM D5185m         3000         1291             Phosphorus         ppm         ASTM D5185m         1350         1279             Sulfur         ppm         ASTM D5185m         >25         5							
ADDITIVES				>15	-		
ADDITIVES							
Boron	Cadmium	ppm	ASTM D5185m		0		
Barium         ppm         ASTM D5185m         10         0             Molybdenum         ppm         ASTM D5185m         100         67             Manganese         ppm         ASTM D5185m         450         779             Magnesium         ppm         ASTM D5185m         3000         1291             Calcium         ppm         ASTM D5185m         3000         1291             Phosphorus         ppm         ASTM D5185m         1150         966             Zinc         ppm         ASTM D5185m         1350         1279             Sulfur         ppm         ASTM D5185m         4250         3780             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >20         4             Potassium         ppm         ASTM D7844 </th <th>ADDITIVES</th> <th></th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         100         67             Manganese         ppm         ASTM D5185m         450         779             Calcium         ppm         ASTM D5185m         3000         1291             Phosphorus         ppm         ASTM D5185m         1150         966             Zinc         ppm         ASTM D5185m         1350         1279             Sulfur         ppm         ASTM D5185m         4250         3780             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >216         1             Potassium         ppm         ASTM D5185m         >20         4             INFRA-RED         method         limit/base         current         history1         history2           Soot %         *ASTM D7824         >20	Boron	ppm	ASTM D5185m	250	95		
Manganese         ppm         ASTM D5185m         <1             Magnesium         ppm         ASTM D5185m         450         779             Calcium         ppm         ASTM D5185m         3000         1291             Phosphorus         ppm         ASTM D5185m         1150         966             Zinc         ppm         ASTM D5185m         1350         1279             Sulfur         ppm         ASTM D5185m         4250         3780             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >216         1             Potassium         ppm         ASTM D5185m         >20         4             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3	Barium	ppm	ASTM D5185m	10	0		
Magnesium         ppm         ASTM D5185m         450         779             Calcium         ppm         ASTM D5185m         3000         1291             Phosphorus         ppm         ASTM D5185m         1150         966             Zinc         ppm         ASTM D5185m         1350         1279             Sulfur         ppm         ASTM D5185m         4250         3780             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >216         1             Potassium         ppm         ASTM D5185m         >20         4             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7624         >20         7.2             Sulfation         Abs/.1mm         *ASTM D7414 <td>Molybdenum</td> <td>ppm</td> <td>ASTM D5185m</td> <td>100</td> <th>67</th> <td></td> <td></td>	Molybdenum	ppm	ASTM D5185m	100	67		
Calcium         ppm         ASTM D5185m         3000         1291             Phosphorus         ppm         ASTM D5185m         1150         966             Zinc         ppm         ASTM D5185m         1350         1279             Sulfur         ppm         ASTM D5185m         4250         3780             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >216         1             Potassium         ppm         ASTM D5185m         >20         4             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1             Sulfation         Abs/.1mm         *ASTM D7415         >30         20.9             FLUID DEGRADATION         *ASTM D7414	Manganese	ppm	ASTM D5185m		<1		
Phosphorus         ppm         ASTM D5185m         1150         966             Zinc         ppm         ASTM D5185m         1350         1279             Sulfur         ppm         ASTM D5185m         4250         3780             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >216         1             Potassium         ppm         ASTM D5185m         >20         4             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1             Nitration         Abs/cm         *ASTM D7624         >20         7.2             Sulfation         Abs/.1mm         *ASTM D7415         >30         20.9             FLUID DEGRADATION         method         li		ppm			_		
Zinc	Calcium	ppm		3000			
Sulfur         ppm         ASTM D5185m         4250         3780             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >216         1             Potassium         ppm         ASTM D5185m         >20         4             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1             Nitration         Abs/.mm         *ASTM D7624         >20         7.2             Sulfation         Abs/.1mm         *ASTM D7415         >30         20.9             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.4	Phosphorus	ppm		1150	966		
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         5             Sodium         ppm         ASTM D5185m         >216         1             Potassium         ppm         ASTM D5185m         >20         4             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1             Nitration         Abs/cm         *ASTM D7624         >20         7.2             Sulfation         Abs/.1mm         *ASTM D7415         >30         20.9             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.4		ppm			-		
Silicon   ppm   ASTM D5185m   >25   5	Sulfur	ppm	ASTM D5185m	4250	3780		
Sodium	CONTAMINANTS		method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185m         >20         4             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1             Nitration         Abs/cm         *ASTM D7624         >20         7.2             Sulfation         Abs/.1mm         *ASTM D7415         >30         20.9             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.4	Silicon	ppm	ASTM D5185m	>25	5		
INFRA-RED	Sodium	ppm	ASTM D5185m	>216	1		
Soot %         %         *ASTM D7844 >3         1             Nitration         Abs/cm         *ASTM D7624 >20         7.2             Sulfation         Abs/.1mm         *ASTM D7415 >30         20.9             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414 >25         14.4	Potassium	ppm	ASTM D5185m	>20	4		
Nitration         Abs/cm         *ASTM D7624         >20         7.2             Sulfation         Abs/.1mm         *ASTM D7415         >30         20.9             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.4	INFRA-RED		method	limit/base	current	history1	history2
Sulfation         Abs/.1mm         *ASTM D7415         >30         20.9             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.4	Soot %	%	*ASTM D7844	>3	1		
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 14.4	Nitration	Abs/cm		>20	7.2		
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30	20.9		
	FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 8.5 8.7	Oxidation	Abs/.1mm	*ASTM D7414	>25	14.4		
	Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.7		



## **OIL ANALYSIS REPORT**







Certificate 12367

Laboratory Sample No. Lab Number : 06139187 Unique Number : 10963995 Test Package : FLEET

:St (100°C)

: WC0883233

Viscosity @ 100°C

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 04 Apr 2024 **Tested** : 05 Apr 2024

Diagnosed : 05 Apr 2024 - Wes Davis

**FRESHPOINT** 8801 EXCHANGE DRVIE ORLANDO, FL US 32809

Contact: CRAIG EVANS evans\_craig@sbcglobal.net 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)

Base Number

12.0 (mg KOH/g) 0.8

6.0 Base 2.0 0.0

F: