

# **OIL ANALYSIS REPORT**

Sample Rating Trend







FSP145484 Component Diesel Engine Fluid DIESEL ENGINE OIL SAE 40 (--- QTS)

#### DIAGNOSIS

Machine Id

### 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 INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0903261		
Sample Date		Client Info		21 Mar 2024		
Machine Age	mls	Client Info		59558		
Oil Age	mls	Client Info		0		
Oil Changed		Client Info		Changed		
Sample Status				NORMAL		
CONTAMINATION	٧	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0		
Water		WC Method	>0.2	NEG		
Glycol		WC Method		NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	9		
Chromium	ppm	ASTM D5185m	>20	<1		
Nickel	ppm	ASTM D5185m	>4	<1		
Titanium	ppm	ASTM D5185m		6		
Silver	ppm	ASTM D5185m	>3	0		
Aluminum	ppm	ASTM D5185m	>20	5		
Lead	ppm	ASTM D5185m	>40	<1		
Copper	ppm	ASTM D5185m	>330	10		
Tin	ppm	ASTM D5185m	>15	1		
Vanadium	ppm	ASTM D5185m		<1		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base 250	current 224	history1	history2
	ppm ppm					
Boron		ASTM D5185m	250	224		
Boron Barium	ppm	ASTM D5185m ASTM D5185m	250 10	224 0		
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	250 10	224 0 57		
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100	224 0 57 <1		
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450	224 0 57 <1 623		
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000	224 0 57 <1 623 1534	  	  
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	250 10 100 450 3000 1150	224 0 57 <1 623 1534 949	   	   
Boron 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 ASTM D5185m	250 10 100 450 3000 1150 1350	224 0 57 <1 623 1534 949 1123	    	
Boron 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 ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250	224 0 57 <1 623 1534 949 1123 4024		
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 ASTM D5185m	250 10 100 450 3000 1150 1350 4250	224 0 57 <1 623 1534 949 1123 4024 current	     history1	     history2
Boron 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 ASTM D5185m ASTM D5185m <b>method</b>	250 10 100 450 3000 1150 1350 4250 <b>limit/base</b> >25	224 0 57 <1 623 1534 949 1123 4024 current 8	     history1 	    history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	250 10 100 450 3000 1150 1350 4250 <b>limit/base</b> >25 >216	224 0 57 <1 623 1534 949 1123 4024 <b>current</b> 8 2	     history1	     history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 <b>limit/base</b> >25 >216 >20	224 0 57 <1 623 1534 949 1123 4024 current 8 2 5	     history1  	    history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 216 >216 >216 >20	224 0 57 <1 623 1534 949 1123 4024 <b>current</b> 8 2 5 5	     history1   history1	     history2    history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 <b>limit/base</b> >25 >216 >20 <b>limit/base</b> >3	224 0 57 <1 623 1534 949 1123 4024 current 8 2 5 5 current 0.5	     history1   history1 	    history2  history2  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 20 imit/base >25 >216 >20 imit/base >3 >20	224 0 57 <1 623 1534 949 1123 4024 <i>current</i> 8 2 5 <i>current</i> 0.5 7.6	     history1   history1  history1	     history2   history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 <b>binit/base</b> >25 >216 >20 <b>binit/base</b> >3 >20 >30	224 0 57 <1 623 1534 949 1123 4024 <b>current</b> 8 2 5 <b>current</b> 0.5 7.6 20.0	      history1  history1  history1	      history2  history2  history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	250 10 100 450 3000 1150 1350 4250 <b>limit/base</b> >25 >216 >20 <b>limit/base</b> >3 >20 >30	224 0 57 <1 623 1534 949 1123 4024 <b>current</b> 8 2 5 <b>current</b> 0.5 7.6 20.0 <b>current</b>		    history2  history2  history2  history2

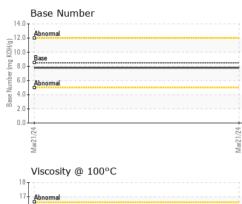


16 -()0 15 -Base 14 -

13 Abnormal 12 11 +2/12/2 W

# **OIL ANALYSIS REPORT**

VISUAL



	VISUAL		method	limit/base		history1	history2
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
	Precipitate	scalar	*Visual	NONE	NONE		
	Silt	scalar		NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
Mar21/24	Appearance	scalar	*Visual	NORML	NORML		
Ma	Odor	scalar	*Visual	NORML	NORML		
°C	Emulsified Water	scalar	*Visual	>0.2	NEG		
	Free Water	scalar	*Visual		NEG		
						la i a ta mud	histow.0
	FLUID PROPERT	IES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	14.4	13.3		
	GRAPHS						
1	Ferrous Alloys						
A.C. 1 C.	8 -						
14 m	o - nickel						
	6						
	E d d						
	4						
	2						
	0 4						
	#21/24			Mar21/24			
	Ma			Ma			
	Non-ferrous Metal	S					
	copper						
	8 - seesesseese lead						
	б- Е						
	변 역 4						
	2 -						
	0						
				/24			
	Mar21/24			Mar21/24			
	 Viscosity @ 100°C			~			
	<sup>18</sup> T			14.	Base Number		
	17- Abnormal				Abnormal		
	16			12.	.0 7 4		
				(0)10. HOX DB 8. January Barrier Barrier 4.	Base		
	(2015 Base 314			<u>в</u> 8.	.0 -		
	<del>7</del> 14-			q 6.	Abnormal		
	13 - Abnormal			2 92 4.	.0		
	12			2.			
	11			0			
	1/24						1/24
	Mar21/24			Mar21/24	Mar21/24		Mar21/24
Laboratory Sample No. Lab Number Unique Number Test Package	: 10956302 : FLEET	Recei Teste Diagr	ived : 02 ed : 03 nosed : 03	2 Apr 2024 3 Apr 2024 3 Apr 2024 - V	Ves Davis	Contact:	FRESHPOINT HANGE DRVIE ORLANDO, FL US 32809 CRAIG EVANS
To discuss this sample report,						evans_craig	@sbcglobal.net ∙⊤
* - Denotes test methods that a Statements of conformity to sp					n rule (JCGM 106:	2012)	T: F:

Contact/Location: CRAIG EVANS - FREORL Page 2 of 2