

Machine Id 8806 Component Diesel Engine Fluid DIESEL ENGINE OIL SAE 10W30 (--- QTS)

Beample at the next service interval to monitor. Bample Number Sample Date Client Into Dispension Dispension Client Into Dispension D	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Salipie Date Client Info 2 Vol azity 0 Intervention Machine Age mits Client Info 0 0 Oil Age mits Client Info 0 0 Oil Changed Client Info NA NA NA Oil Changed Client Info NA NA Sample Status NA NA Mit component wear rates are normal. In one ppm ASTR05555 -4 0 0 Nokel ppm ASTR05555 -4 0 0 Silver ppm ASTR05555 -4 0 0 Silver ppm ASTR05555 -4 0 0 Silver ppm ASTR05555 -4 0 0 Vanadum ppm ASTR05555 -5 6 8 Tin ppm ASTR05555		Sample Number		Client Info		IL06073756	IL05696752	
Oil Age mis Client Info 0 0 0 0 Filter Age mis Client Info 0 0 0 Oil Changed Client Info NA NA NA NA NA WEAR Info ppm ASIM 0515m >100 19 28 All component wear rates are normal. Info ppm ASIM 0515m >20 <1 1 Nick ppm ASIM 0515m >20 <1 1 Chromium ppm ASIM 0515m >30 0 0 Titanium ppm ASIM 0515m >33 0 0 Queap ppm ASIM 0515m >40 4 11 Commum ppm ASIM 0515m >40 4 11 Titanium ppm ASIM 0515m >40 4 11 Value ppm <t< th=""><th>Resample at the next service interval to monitor.</th><th>Sample Date</th><th></th><th>Client Info</th><th></th><th>27 Oct 2023</th><th>11 Oct 2022</th><th></th></t<>	Resample at the next service interval to monitor.	Sample Date		Client Info		27 Oct 2023	11 Oct 2022	
Filter Age OII Changed Client Info NA NA ···· WEAR Nickel Client Info NA NA ···· All component wear rates are normal. Info N NA ···· NA ···· Nickel ppm ASTM 58166 20 -1 0 ···· Nickel ppm ASTM 58166 -4 0 0 ···· Nickel ppm ASTM 58166 -4 0 0 ···· Nickel ppm ASTM 58166 -4 0 0 ···· Quert ppm ASTM 58166 -4 0 0 ···· Quert ppm ASTM 58166 -4 0 0 ···· Quert ppm ASTM 58166 -5 1 ····· ···· Quert ppm ASTM 58166 -5 1 ····· ····· Vanadum ppm ASTM 58166 -5 1 ······		Machine Age	mls	Client Info		0	0	
Oil Changed Fitter Changed Sample Status Olient Info NA		Oil Age	mls	Client Info		0	0	
Filter Changed Sample Status Client. Into NA NA NA NA WEAR Iron ppm ASIN D585m 100 19 2.8 All component wear rates are normal. from ppm ASIN D585m 2100 Nickel ppm ASIN D585m 20 Silver ppm ASIN D585m 200 0 Lead ppm ASIN D585m 200 4 11 Copper ppm ASIN D585m 200 4 11 Vanadium ppm ASIN D585m 200 4 11 Vanadium ppm ASIN D585m 200 0 Vanadium ppm ASIN D585m 200 0 Vanadium ppm ASIN D585m 200 6 6 Vanadium ppm ASIN D585m		Filter Age	mls	Client Info		0	0	
Sample StatusNORMAMARCIALPWEARInonpmSTM DESso101928.0 <td< th=""><th></th><th>Oil Changed</th><th></th><th>Client Info</th><th></th><th>N/A</th><th>N/A</th><th></th></td<>		Oil Changed		Client Info		N/A	N/A	
WEAR Iron ppm ASTM 10515m >100 19 28 All component wear rates are normal. Thickel ppm ASTM 10515m >20 <1 1 Nickel ppm ASTM 10515m >20 <1 1 Nickel ppm ASTM 10515m >3 0 0 All component wear rates are normal. Nickel ppm ASTM 10515m >3 0 0 All component wear rates are normal. Nickel ppm ASTM 10515m >3 0 0 0 All component wear rates are normal. None normal ppm ASTM 10515m >3 0 </th <th></th> <th>Filter Changed</th> <th></th> <th>Client Info</th> <th></th> <th>N/A</th> <th>N/A</th> <th></th>		Filter Changed		Client Info		N/A	N/A	
All component wear rates are normal. Chromium ppm ASTM 05185m >-20 <1		Sample Status				NORMAL	MARGINAL	
All component wear rates are normal. Nickel pp ASTM D5185n >4 0 0	WEAR	Iron	ppm	ASTM D5185m	>100	19	28	
Nicket ppm ASTM 5586 24 0 0		Chromium	ppm	ASTM D5185m	>20	<1	1	
Silver pp ASTM DS185 >3 0 0		Nickel	ppm	ASTM D5185m	>4	0	0	
Aluminum ppm ASTM D5185m >20 3 4 Lead ppm ASTM D5185m >40 4 11 Copper ppm ASTM D5185m >30 2 7 Tin ppm ASTM D5185m >10 0 0 White Metal scalar "Visual NONE NONE NONE White Metal scalar "Visual NONE NONE NONE There is no indication of any contamination in the oil. Silicon ppm ASTM D5185m >25 6 6 Water WC Method >2 1.0 \$.7 \$.7 Water WC Method >2 1.0 \$.3 .7 Water WC Method >2 1.0 \$.3 Solit scalar */Visual NONE NONE NONE		Titanium	ppm	ASTM D5185m		<1	0	
Aluminum ppm ASIN D518m >20 3 4 Lead ppm ASIN D518m >40 4 11 Copper ppm ASIN D518m >30 2 7 Tin ppm ASIN D5185m >15 1 1 Vanadium ppm ASIN D5185m >55 1 0 0 White Metal scalar "Visual NONE NONE NONE Vallow Metal scalar "Visual NONE NONE There is no indication of any contamination in the oil. Silion ppm ASIN D5185m >20 6 6 Water WC Method >2 rito Water WC Method >2 rito Water WC Method >2 rito <t< th=""><th>Silver</th><th>ppm</th><th>ASTM D5185m</th><th>>3</th><th>0</th><th>0</th><th></th></t<>		Silver	ppm	ASTM D5185m	>3	0	0	
Lead ppm ASTM D515m >-40 4 11		Aluminum		ASTM D5185m	>20	3	4	
Copper Tin ppm ASTM 0516m >330 2 7 Tin ppm ASTM 0516m >15 1 1 Vanadium ppm ASTM 0516m >15 1 1 White Metal scalar Visual NONE NONE NONE CONTAMINATION Silicon ppm ASTM 0516m >20 6 8 Potassium ppm ASTM 0516m >20 6 8 Water WC Method >0.2 NEG NEG Water WC Method >0.2 NEG NEG Sott % % MSTM 07624 >20 9.6 11.2 Sultation Abs(m Mone NONE NONE NONE Sultation Abs(m Yisual NORM NONE NONE Soft scalar Visual		Lead		ASTM D5185m	>40	4	11	
Tin ppm ASTM Disks >15 1 1 Vanadium ppm ASTM Disks 0		Copper		ASTM D5185m	>330	2	7	
White Metal Yellow Metal scalar 'Visual NONE NONE NONE CONTAMINATION Silicon ppm ASTM D5185m >25 6 8 There is no indication of any contamination in the oil. Silicon ppm ASTM D5185m >25 6 6 6 Water WC Method >50 <1.0 3.7 Glycol WC Method >50 <1.0 3.7 Water WC Method >50 <1.0 3.7 Sold % % 'ASTM D7844 >3 0.6 11.2 Sulfation Abs:1mm 'ASTM D7415 >30 21.2 24.0 Sulfation Abs:1mm 'ASTM D7415 >30 21.2 24.0 Sulfation Abs:1mm 'ASTM D7415 >30 21.2 24.0 Sulfation Abs:1mm 'ASTM D7415 >		Tin	ppm	ASTM D5185m	>15	1	1	
White Metal Yellow Metal scalar 'Visual NONE NONE NONE CONTAMINATION Silicon ppm ASTM D5185m >-25 6 8 There is no indication of any contamination in the oil. Silicon ppm ASTM D5185m >-25 6 6 Water WC Method >-0.2 NEG NEG Glycol WC Method >-0.2 NEG NEG Nitration Absci nm 'ASTM D7844 >-20 0.6 11.2 Suffation Absci nm 'ASTM D7844 >-20 0.6 11.2 Suffation Absci nm 'ASTM D7844 >-20 0.6 11.2 Suffation Absci nm 'ASTM D7845 >-00 21.2 24.0 Suffation Absci nm 'ASTM D7845 >-00 21.2 24.0 Suffation Absci nm 'ASTM D7845 NONE NONE		Vanadium		ASTM D5185m		0	0	
Silicon ppm ASTM 05185m >25 6 8 Potassium ppm ASTM 05185m >20 6 6 Fuel WC Method >5 <1.0 ▲ 3.7 Water WC Method >0.2 NEG NEG Glycol WC Method >0.2 NEG NEG Soft % %5 MSTM 05185m 20.2 NEG Nutration Abs/cm %51M 07844 >3 0.3 0.4 Soft % %5 MSTM 07844 >3 0.3 0.4 Soft % scalar Visual NONE NONE NONE NONE NONE<		White Metal	scalar	*Visual	NONE	NONE	NONE	
Potassium ppm ASTM 05/85m >20 6 6 Fuel WC Method >5 <1.0 ▲ 3.7 Water WC Method >0.2 NEG NEG Glycol WC Method >0.2 NEG NEG Soot % % 'ASTM 07844 >3 0.3 0.4 Soot % % 'ASTM 07845 >30 21.2 24.0 Sulfation Abs:1mm 'ASTM 07845 >30 21.2 24.0 Debris scalar 'Visual NONE NONE NONE NONE Debris scalar 'Visual NONE NONE NONE Odor scalar 'Visual NORE NOREG The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service. Sodium pm ASTM 05185m 10 0 <tr< th=""><th></th><th>Yellow Metal</th><th>scalar</th><th>*Visual</th><th>NONE</th><th>NONE</th><th>NONE</th><th></th></tr<>		Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Potassium ppm ASTM 05/85m >20 6 6 Fuel WC Method >5 <1.0 ▲ 3.7 Water WC Method >0.2 NEG NEG Glycol WC Method >0.2 NEG NEG Soot % % 'ASTM 07844 >3 0.3 0.4 Soot % % 'ASTM 07845 >30 21.2 24.0 Sulfation Abs:1mm 'ASTM 07845 >30 21.2 24.0 Debris scalar 'Visual NONE NONE NONE NONE Debris scalar 'Visual NONE NONE NONE Odor scalar 'Visual NORE NOREG The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service. Sodium pm ASTM 05185m 10 0 <tr< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></tr<>								
Fuel WC Method >5 <1.0 \land 3.7 Water WC Method >0.2 NEG NEG Glycol WC Method >0.2 NEG NEG Soot % % ASTM D764 >30 21.2 24.0 Sulfation Abs/tm 'ASTM D7415 >30 21.2 24.0 Sulfation Abs/tm 'ASTM D7415 >30 21.2 24.0 Sulfation Abs/tm 'ASTM D7415 >30 21.2 24.0 Sulfation Abs/tm 'Yisual NONE NONE NONE NONE Sand/Diri scalar 'Visual NONE NONE NONE Appearance scalar 'Visual NORM NORML NORML Moto scalar 'Visual NORM NORML NORML Appearance scalar 'Visual NORML NORML NORML Moto <	CONTAMINATION				-			
Full Worker Worker Worker No No No No Water Worker Worker Worker NEG NEG NEG	There is no indication of any contamination in the oil.		ppm					
Glycol WC Method NEG NEG Soot % % *ASTM D7844 >3 0.3 0.4 Nitration Abs/rm *ASTM D7844 >3 0.3 0.4 Sulfation Abs/rm *ASTM D7844 >30 0.4 Sulfation Abs/rm *ASTM D7844 >30 0.4 Sulfation Abs/rm *ASTM D7845 >30 0.12 24.0 Sulfation Abs/rm *Visual NONE NONE NONE NONE Debris scalar *Visual NOR NORM NORM NORM Appearance scalar *Visual NOR NORM NORM More scalar *Visual NOR NORM NORM Sodium scalar *Visual NOR NORM NORM Baron ppm ASTM D5185m 1								
Soot % % *ASTM D7844 >3 0.3 0.4 Nitration Abs/cm *ASTM D7624 >20 9.6 11.2 Sulfation Abs/cm *ASTM D7624 >20 9.6 11.2 Sulfation Abs/cm *ASTM D7614 >30 21.2 24.0 Sulfation Abs/cm *Visual NONE NONE NONE Debris scalar *Visual NONE NONE NONE Appearance scalar *Visual NORM NORML NORML Odor scalar *Visual NORM NORML NORML Odor scalar *Visual NORM NORML NORML Odor scalar *Visual NORM NORML NORML Dodor scalar *Visual NORM NORML NORML Boron <td< th=""><th></th><th></th><th></th><th></th><th>>0.2</th><th></th><th></th><th></th></td<>					>0.2			
Nitration Abs/cm *ASTM D7624 >20 9.6 11.2 Sulfation Abs/1m *ASTM D7415 >30 21.2 24.0 Silt scalar *Visual NONE NONE NONE Debris scalar *Visual NONE NONE NONE Sand/Dirl scalar *Visual NORE NONE NONE Appearance scalar *Visual NORM NORML NORML Odor scalar *Visual NORM NORML Odor scalar *Visual NORM NORML Odor scalar *Visual NORM NORML The BN result indicates that there is suitable alkalinity remaining in the oil is acceptable for the time in service. Boron ppm ASTM D5185m 10 0 Molybdenum ppm ASTM D5185m 100 54 23 <tr< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></tr<>								
SulfationAbs/.tm'ASTM D7415>3021.224.0Siltscalar'VisualNONENONENONEDebrisscalar'VisualNONENONENONESand/Dirtscalar'VisualNONENONENONEAppearancescalar'VisualNORMNORMLNORMLOdorscalar'VisualNORMNORMLNORMLOdorscalar'VisualNORMNORMLNORMLOdorscalar'VisualNORMNORMLNORMLOdorscalar'VisualNORNORMNORMLBoronppmASTM D5185m250422366BariumppmASTM D5185m10000MaganeseppmASTM D5185m10054233MagnesiumppmASTM D5185m10014351349PhosphorusppmASTM D5185m30014351349PhosphorusppmASTM D5185m1506297033SulfurppmASTM D5185m150621749SulfurppmASTM D5185m150621749SulfurppmASTM D5185m150621749SulfurppmASTM D5185m150621749Sul								
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Debrisscalar*VisualNONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORUNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*VisualNORMLNORMLNORMLNORMLFLUID CONDITIONSodiumppmASTM D5185m204236BoronppmASTM D5185m1000BariumppmASTM D5185m100MolybdenumppmASTM D5185m100ManganeseppmASTM D5185m100542.3MarganesiumppmASTM D5185m300014351349PhosphorusppmASTM D5185m1150629703ZincppmASTM D5185m1350821749SulfurppmASTM D5185m1350821749								
Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGBoronppmASTM D5185m2504236BariumppmASTM D5185m10000MolybdenumppmASTM D5185m10054233MaganeseeppmASTM D5185m100457617MagnesiumppmASTM D5185m300014351349PhosphorusppmASTM D5185m1150629703ZincppmASTM D5185m1350821749SulfurppmASTM D5185m425023773271								
Appearance Odorscalar*VisualNORMLNORMLNORMLNORMLNORMLNORMLNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGFLUID CONDITIONSodiumppmASTM D5185m25042366BoronppmASTM D5185m25042366BariumppmASTM D5185m1000MolybdenumppmASTM D5185m10054233MaganesseppmASTM D5185m10054233MagnesiumppmASTM D5185m300014351349PhosphorusppmASTM D5185m1150629703ZincppmASTM D5185m1350821749SulfurppmASTM D5185m425023773271								
Odorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEGNEGNEGNEGNEGNEGFLUID CONDITIONSodiumppmASTM D5185m2504236BoronppmASTM D5185m1000BariumppmASTM D5185m10054230MolybdenumppmASTM D5185m10054230MagnesiumppmASTM D5185m10054230MagnesiumppmASTM D5185m300014351349PhosphorusppmASTM D5185m300014351349ZincppmASTM D5185m1350821749SulfurppmASTM D5185m1350821749						-		
Emulsified Waterscalar*Visual>0.2NEGFLUID CONDITIONSodiumppmASTM D5185m02BoronppmASTM D5185m10000BariumppmASTM D5185m10000MolybdenumppmASTM D5185m10054230MaganeseppmASTM D5185m10054230MagnesiumppmASTM D5185m4504576177CalciumppmASTM D5185m3000143551349PhosphorusppmASTM D5185m1150629703ZincppmASTM D5185m1350821749SulfurppmASTM D5185m425023773271						-		
FLUID CONDITIONSodiumppmASTM D5185m02BoronppmASTM D5185m2504236BariumppmASTM D5185m1000MolybdenumppmASTM D5185m1005423ManganeseppmASTM D5185m450457617MagnesiumppmASTM D5185m300014351349PhosphorusppmASTM D5185m1150629703ZincppmASTM D5185m1350821749SulfurppmASTM D5185m425023773271					-	-		
BoronppmASTM D5185m2504236BariumppmASTM D5185m1000BariumppmASTM D5185m1005423MolybdenumppmASTM D5185m1005423ManganeseppmASTM D5185m450457617MagnesiumppmASTM D5185m300014351349PhosphorusppmASTM D5185m1150629703ZincppmASTM D5185m1350821749SulfurppmASTM D5185m425023773271		Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
BoronppmASTM D5185m2504236BariumppmASTM D5185m1000BariumppmASTM D5185m1005423MolybdenumppmASTM D5185m1005423ManganeseppmASTM D5185m450457617MagnesiumppmASTM D5185m300014351349PhosphorusppmASTM D5185m1150629703ZincppmASTM D5185m1350821749SulfurppmASTM D5185m425023773271	FLUID CONDITION	Sodium	ppm	ASTM D5185m		0	2	
BariumppmASTM D5185m1000MolybdenumppmASTM D5185m1005423ManganeseppmASTM D5185m1005411MagnesiumppmASTM D5185m450457617CalciumppmASTM D5185m300014351349PhosphorusppmASTM D5185m1150629703ZincppmASTM D5185m1350821749SulfurppmASTM D5185m425023773271	The BN result indicates that there is suitable alkalinity remaining in the	Boron	ppm	ASTM D5185m	250	42	36	
Molybdenum ppm ASTM D5185m 100 54 23 Manganese ppm ASTM D5185m 100 <1		Barium				0	0	
Magnesium ppm ASTM D5185m 450 457 617 Calcium ppm ASTM D5185m 3000 1435 1349 Phosphorus ppm ASTM D5185m 1150 629 703 Zinc ppm ASTM D5185m 1350 821 749 Sulfur ppm ASTM D5185m 4250 2377 3271		Molybdenum	ppm	ASTM D5185m	100	54	23	
Calcium ppm ASTM D5185m 3000 1435 1349 Phosphorus ppm ASTM D5185m 1150 629 703 Zinc ppm ASTM D5185m 1350 821 749 Sulfur ppm ASTM D5185m 4250 2377 3271		Manganese	ppm	ASTM D5185m		<1	1	
Phosphorus ppm ASTM D5185m 1150 629 703 Zinc ppm ASTM D5185m 1350 821 749 Sulfur ppm ASTM D5185m 4250 2377 3271		Magnesium	ppm	ASTM D5185m	450	457	617	
Zinc ppm ASTM D5185m 1350 821 749 Sulfur ppm ASTM D5185m 4250 2377 3271		Calcium	ppm	ASTM D5185m	3000	1435	1349	
Sulfur ppm ASTM D5185m 4250 2377 3271		Phosphorus	ppm	ASTM D5185m	1150	629	703	
Sulfur ppm ASTM D5185m 4250 2377 3271		Zinc	ppm	ASTM D5185m	1350	821	749	
		Sulfur		ASTM D5185m	4250	2377	3271	
		Oxidation	Abs/.1mm			20.1	16.8	

Base Number (BN) mg KOH/g ASTM D2896 8.5

ASTM D445 10.9

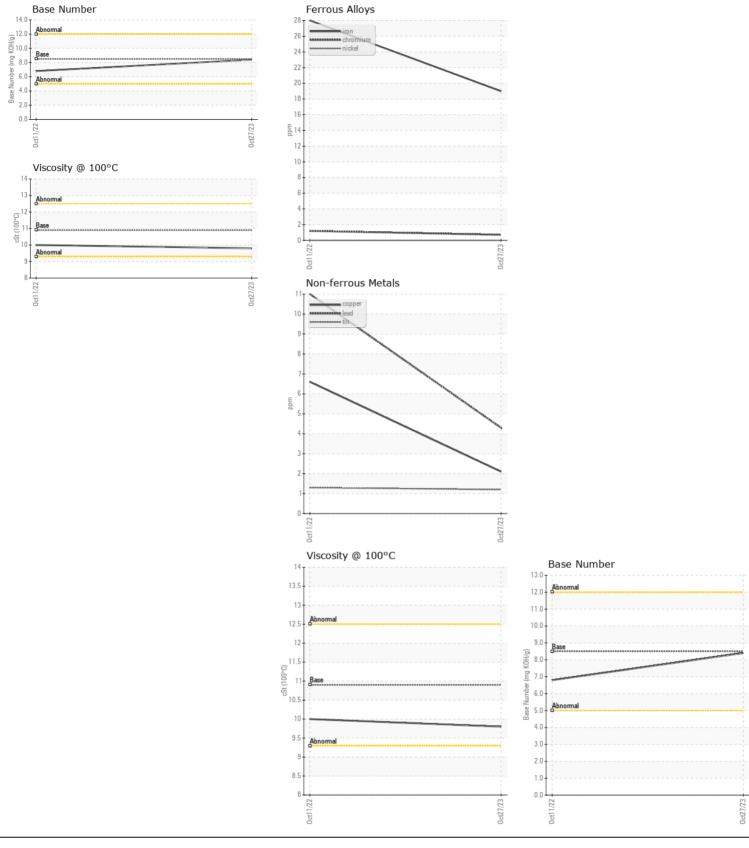
Visc @ 100°C cSt

6.8

10.0

8.4

9.8





Laboratory Sample No. Lab Number

: IL06073756 : 06073756 Unique Number : 10855847 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Recieved : 30 Jan 2024 : 31 Jan 2024 Diagnosed Diagnostician : Don Baldridge

IDEALEASE-NORCROSS 4571 NORTH BUFORD HWY NORCROSS, GA US 30071-2808

T:

* - 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)

To discuss this sample report, contact Customer Service at 1-800-237-1369.

F: (770)300-0614

Contact: RICK MARKS

Certificate L2367

Contact/Location: RICK MARKS - IDENORGA

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