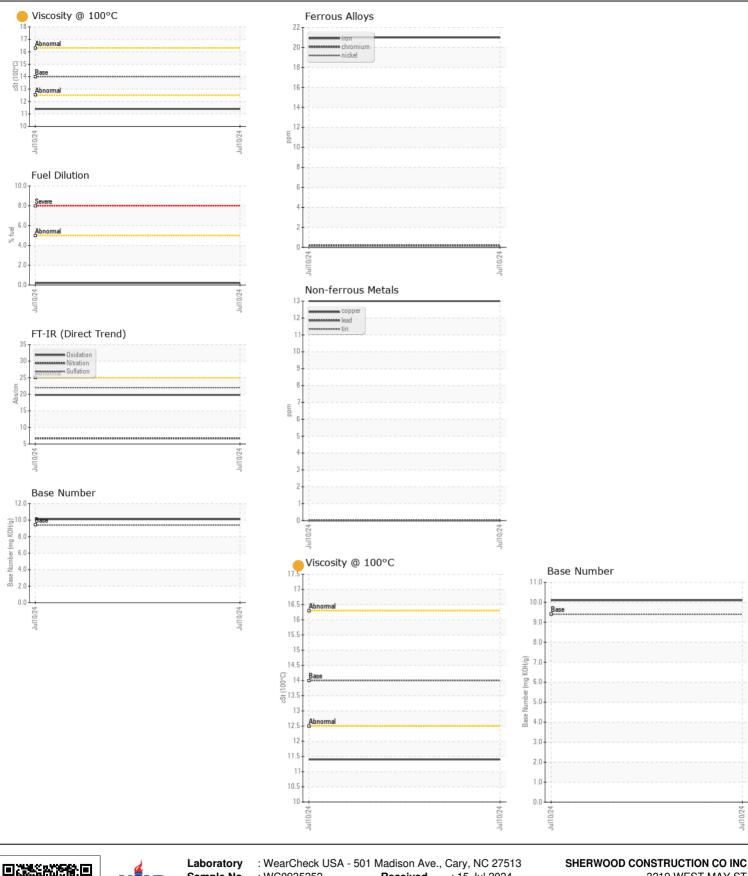


Machine Id **78.265** [] Component **Diesel Engine** Fluid **MOBIL DELVAC 1300 SUPER15W40 (--- GAL)**

Chromium ppm ASTM D5185m >20 <1						~~~~~		
Sample Number Client Into NO023322	RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
next service interval to monitor. Sample Date Cleff thin Glaft and service interval to monitor. Machine Age hns Cleff thin Sample	No corrective action is recommended at this time. Resample at the	Sample Number		Client Info		WC0935252		
Machane Age Prop Clinkingino 368 Filter Age hrs Clent Info 368 Filter Age hrs Clent Info 368 OII Changed Clent Info Na Na Sample Status NA NA Matal levels are typical for a new component breaking in. Info ppm ASTM 0515m -00 Matal levels are typical for a new component breaking in. Nokel ppm ASTM 0515m -00 Autainium ppm ASTM 0515m -00 Autainium ppm ASTM 0515m -00 Autainium ppm ASTM 0515m -00 Autainium ppm ASTM 0515m -00		Sample Date		Client Info		10 Jul 2024		
Filter Age Ins Client Indo Not Range Ind Range I		Machine Age	hrs	Client Info		368		
Oil Changed Filter Changed Sampet Client Info Net Changed Name Net C		Oil Age	hrs	Client Info		368		
Filter Changed Client Info NA Sample Status Iron ppm ASTM DS185 >100 210		Filter Age	hrs	Client Info		368		
Sample Status NTEND0 Inc.		Oil Changed		Client Info		Not Changd		
Iron ppm ASTM DS16m >100 21 Metal levels are typical for a new component breaking in. Promound astM DS16m >20 Nickel ppm ASTM DS16m >4 0 Tatanum ppm ASTM DS16m >4 0 Silver ppm ASTM DS16m >3 0 Auminum ppm ASTM DS16m >0 Lead ppm ASTM DS16m >0 0 Vanadum ppm ASTM DS16m >0 0 Vanadum ppm ASTM DS16m >5 0 Vanadum ppm ASTM DS16m >5 0				Client Info		N/A		
Metal levels are typical for a new component breaking in. Chromium Nickel ppm ASTM 05885 ASTM 05865 20 <1		Sample Status				ATTENTION		
Metal levels are typical for a new component breaking in. Chromium Nickel ppm ASTM 05885 ASTM 05865 20 <1	WEAR Metal levels are typical for a new component breaking in.	Iron	ppm	ASTM D5185m	>100	21		
Number piptil Astro bolise piptil piptil piptil<		Chromium	ppm	ASTM D5185m	>20	<1		
Silver ppm ASTU D3150m >3 0 Aluminum ppm ASTU D3150m >20 S Lead ppm ASTU D3156m >30 0 0 Copper ppm ASTU D3156m >30 13 Vanadium ppm ASTU D3156m >10		Nickel	ppm	ASTM D5185m	>4	0		
Aluminum ppm ASTM D318m >20 5 Lead ppm ASTM D318m >40 0 Copper Main D318m >430 01 Vanadium ppm ASTM D318m >15 0 Vanadium ppm ASTM D318m >25 38 Potassium pm ASTM D324 >5 0.2 Fuel v% ASTM D324 >3 0.3 Sold % % MSIM D784 >3 0.3 Sold % % MSIM D784 >3 0.3		Titanium		ASTM D5185m		0		
Aluminum ppm ASTM D5185m >20 5 Lead ppm ASTM D5185m >40 0 Copper Matri D5185m >40 0 Vanadium ppm ASTM D5185m >40 0 Vanadium ppm ASTM D5185m >10 Vanadium ppm ASTM D5185m >10 0 White Metal scalar "Visual NONE NONE		Silver	ppm	ASTM D5185m	>3	0		
Lead ppm ATM D3158 -40 0 Copper ppm ASM D5158 -15 0 Tin ppm ASM D5158 -15 0 Vanadium ppm ASM D5158 -15 0 Vanadium ppm ASM D5158 -15 0 Vanadium ppm ASM D5158 -55 0 Velow scalar Visual NONE ASM Veloptent negligible. There is no indication of any contamination in the oil. Stifcon ppm ASTM D5158 -20 -1 Fuel ontent negligible. There is no indication of any contamination in the oil. Stifcon ppm ASTM D5185 -20 AC Stifcon ppm ASTM D518 -30 AC Stiffation Abs (Im ASTM D745 -30		Aluminum		ASTM D5185m	>20	5		
Copper ppm ASTM 05155m >-330 13 Tin ppm ASTM 05155m 0 Vanadium ppm ASTM 05155m 0 0 White Metal scalar Visual NONE NONE NONE Fuel content negligible. There is no indication of any contamination in the oil. Silicon ppm ASTM 05155m >2.0 <1 Varead % % ASTM 05155m >0.2 Visual % % % % % Water % % % % % % Soot % % % % % % % % Soot % % % % % % % Soot % % % %		Lead		ASTM D5185m	>40	0		
Tin ppm ASTM 0516s >15 0 Vanadium ppm ASTM 0516s 0 White Metal scalar 'Visual NONE NONE CONTAMINATION Silicon ppm ASTM 0516s >25 38 Fuel content negligible. There is no indication of any contamination in the oil. Silicon ppm ASTM 0516s >20 -1 Fuel content negligible. There is no indication of any contamination in the oil. Silicon ppm ASTM 0516s >20 -1 Glycol Water Cu WC Method >0.2 NEG Sold % % YSIM D784 >0 3 0.3 Sold % % YSIM D784 >00 NORE NORE Sold % % Yisual NORE		Copper		ASTM D5185m	>330	13		
White Metal Yellow Metal scalar 'Visual NONE NONE NONE <td< th=""><th></th><th></th><th>ppm</th><th>ASTM D5185m</th><th>>15</th><th>0</th><th></th><th></th></td<>			ppm	ASTM D5185m	>15	0		
Yellow Metal scalar *Visual NONE ···· ···· CONTAMINATION Silicon ppm ASTM D518m >25 38 ···· ···· Fuel content negligible. There is no indication of any contamination in the oil. potassium ppm ASTM D518m >20 <1 ···· ···· Glycol WC Method Sol NEG ···· ···· ···· Sol % % ASTM D518m >20 AC ···· ···· Sol % % ASTM D518m >20 AC ···· ···· Glycol WC Method Sol NEG ···· ···· ···· Nitration Abs(m 'ASTM D718' >30 22.0 ···· ···· ···· Sulfation Abs(m 'ASTM D718' >30 22.0 ···· ···· ···· Sand/Dirt scalar 'Visual NONE NONE ···· ···· ···· The oil viscosity is lower than normal. The BN re		Vanadium		ASTM D5185m		0		
Soliton pp ASTM D5185n >25 38 Fuel content negligible. There is no indication of any contamination in the oil. Potassium pp ASTM D5185n >20 <1 Fuel % ASTM D5185n >20 <1 Water WC Method >0.2 NEG Glycol WC Method >0.2 NEG Sold % % ASTM D784 >3 0.3 Silf cond Abs/tm Yisual NONE Sulfation Abs/tm Yisual NONE Odor scalar Yisual NORE Appearance scalar Yisual NORM NORM Poil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type. Sodium pp ASTM D		White Metal	scalar	*Visual	NONE	NONE		
Public content negligible. There is no indication of any contamination in the oil. Potassium ppm ASTM D5185m s20		Yellow Metal	scalar	*Visual	NONE	NONE		
Public content negligible. There is no indication of any contamination in the oil. Potassium ppm ASTM D5185m s20								
Fuel content negligible. There is no indication of any contamination in the oil. Fuel % ASTM D3824 >5 0.2 Water WC Method >0.2 NEG Glycol WC Method >0.2 NEG Sol % MSTM D744 3 0.3 Nitration Abs/cm 'ASTM D7624 >20 6.7 Nitration Abs/cm 'ASTM D7624 >00 20 Sulfation Abs/cm 'ASTM D7624 >00 6.7 Sulfation Abs/cm 'ASTM D7624 >00 RONE Sulfation Abs/cm 'Assalar 'Visual NONE NONE Sand/Dirt scalar 'Visual NORM NORM Appearance scalar 'Visual NORM NOR <th>CONTAMINATION</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	CONTAMINATION							
the oil. Puel % And MU0324 >> 0.2 Inc. Inc. Inc. Water Water W Water W Wolter W CMethod >0.2 NEG Inc. Inc. Glycol WC Method >0.2 NEG Inc. Inc. Inc. Inc. Soot % % 'ASTM D7844 >3 0.3 Inc. Inc. Inc. Soot % % 'ASTM D7844 >3 0.3 Inc. Inc. Inc. Soot % % 'ASTM D7844 >3 0.3 Inc. Inc. Inc. Soot % % 'ASTM D7844 >3 0.3 Inc. Inc. Inc. Sulfation Abs/Im 'ASIM D7624 >0 0.02 NOR Inc. Inc. Debris scalar 'Visual NONE NONE Inc. Inc. Inc. Appearance scalar 'Visual NORM NORM Inc. Inc. Inc. The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. C								
Glycol WC Method NEG Soot % % *ASTM D784 <3 0.3 Nitration Abs/ *ASTM D784 <30 6.7 Nitration Abs/ *ASTM D784 <30 6.7 Sulfation Abs/ *ASTM D784 >30 6.7 Sulfation Abs/ *ASTM D784 NONE NONE E.0 Sulfation scalar *Visual NONE NONE Sand/Dirl scalar *Visual NORE NORE Appearance scalar *Visual NORE NORE FLUID CONDITION Sodium ppm ASTM D5185m 0 54 The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type. Sodium ppm ASTM D5185m			%					
Soot % % *ASTM D7844 >3 0.3 Nitration Abs/cm *ASTM D762 >20 6.7 Sulfation Abs/cm *ASTM D762 >30 22.0 Sulfation Abs/cm *Visual NONE NONE NONE Silf scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Appearance scalar *Visual NORM NORM Appearance scalar *Visual NORM NORM Appearance scalar *Visual NORM NORM Appearance scalar *Visual NORM Modor scalar *Visual NORM					>0.2			
Nitration Abs/cm *ASTM D7624 >20 6.7 Sulfation Abs/1m *ASTM D7624 >20 6.7 Sulfation Abs/1m *ASTM D7415 >30 22.0 Silf scalar *Visual NONE NONE Debris scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORM NORML Odor scalar *Visual NORML NORML Propearance scalar *Visual NORML NORML Odor scalar *Visual NORML NORML Propearance scalar *Visual NORML NORML Molodor scalar *Visual NORML NORML Molodor scalar *Visual NORML Molodor ppm ASTM D5185m 0 </th <th></th> <th>01</th> <th></th> <th>0</th> <th></th> <th></th> <th></th>			01		0			
Sulfation Abs:/imm 'ASTM D7415 >30 22.0 Silt scalar 'Visual NONE NONE Debris scalar 'Visual NONE NONE Sand/Dirt scalar 'Visual NONE NONE Appearance scalar 'Visual NORM NORML Odo scalar 'Visual NORML NORML Debris scalar 'Visual NORML NORML Sand/Dirt scalar 'Visual NORML NORML Odo scalar 'Visual NORML								
Siltscalar'VisualNONENONEDebrisscalar'VisualNONENONESand/Dirtscalar'VisualNONENONEAppearancescalar'VisualNORMNORMLOdorscalar'VisualNORMNORMLEmulsified Watescalar'VisualNORMNORMLEmulsified Watescalar'VisualNORMSodiurnppmASTM D5185m054BoronppmASTM D5185m054BariumppmASTM D5185m03MolybdenumppmASTM D5185m042ManganeseppmASTM D5185m0510MangesiumppmASTM D5185m0510MangesiumppmASTM D5185m0510MangensiumppmASTM D5185m0510MangensiumppmASTM D5185m0510MangensiumppmASTM D5185m0510MangensiumppmASTM D5185m0510MangensiumppmASTM D5185m101034Mangensium <td< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th></td<>								
Debris scalar *Visual NONE Sand/Dirt scalar *Visual NONE NONE Appearance scalar *Visual NORL NORL Appearance scalar *Visual NORL NORL Odor scalar *Visual NORL NORL Odor scalar *Visual NORL NORL Odor scalar *Visual NORL NORL FUUD CONDITION Sodium pp ASTM D5185m 0 64 Boron pp ASTM D5185m 0 3 Barium pp ASTM D5185m 0 3 Magnaese pp ASTM D5185m 0 42 Magnaese pp ASTM D5185m 0 510 Calcium pp ASTM D5185m 0 510 Su								
Sand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMNORMLIncometorIncometorIncometorOdorscalar*VisualNORMNORMLIncometorIncometorIncometorIncometorEmulsified Watescalar*VisualvisualvisualvisualvisualIncometorIncometorIncometorFLUID CONDITIONSodiumppmASTM D5185m054IncometorIncomeIncometorIncometorIncometorIncometorIncometorIncometorIncometorIncometorIncometorIncometorIncometorIncometorIncometor </th <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>								
Appearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGSodiumppmASTM D5185m054BoronppmASTM D5185m054BariumppmASTM D5185m03MolybdenumppmASTM D5185m042MagneseppmASTM D5185m0510MagnesiumppmASTM D5185m0510CalciumppmASTM D5185m0510MagnesiumppmASTM D5185m0510PhosphorusppmASTM D5185m0510SulfurppmASTM D5185mI1034OxidationAbs'Itm'ASTM D5185mI1034Base Number (BN)mGKHgASTM D5185mI10.1Base Number (BN)mGKHgASTM D5185mI10.1MagneseppmASTM D5185mI10.1								
Odorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGFLUID CONDITIONSodiumppmASTM D5185m054BoronppmASTM D5185m054BariumppmASTM D5185m03MolybdenumppmASTM D5185m042MaganeseeppmASTM D5185m0510MagnesiumppmASTM D5185m0510MagnesiumppmASTM D5185m0510CalciumppmASTM D5185m0510MagnesiumppmASTM D5185m0510CalciumppmASTM D5185m0510MagnesiumppmASTM D5185m0510CalciumppmASTM D5185m0510SulfurppmASTM D5185m1034CxidationAb:1mm'ASTM D7141>2519.8Base Number (BN)mg KOHgASTM D2869.410.1Sulfurpg KOHgASTM D28869.410.1Sase Number (BN)mg KOHgASTM D28869.410.1<								
Emulsified Water scalar *Visual >0.2 NEG FLUID CONDITION Sodium ppm ASTM D5185m 0 54 Boron ppm ASTM D5185m 0 54 Barium ppm ASTM D5185m 0 3 Molybdenum ppm ASTM D5185m 0 42 Manganese ppm ASTM D5185m 0 510 Magnesium ppm ASTM D5185m 0 510 Calcium ppm ASTM D5185m 0 510 Phosphorus ppm ASTM D5185m 0 510 Sulfur ppm ASTM D5185m 1034 Oxidation Abs/:tm *ASTM D5185m 1034 Base Number (BN) mg KOHg ASTM D286 9.4 10.1								
Sodium ppm ASTM D5185m 4 Boron ppm ASTM D5185m 0 54 Barium ppm ASTM D5185m 0 3 Molybdenum ppm ASTM D5185m 0 42 Manganese ppm ASTM D5185m 0 42 Magnesium ppm ASTM D5185m 0 510 Magnesium ppm ASTM D5185m 0 510 Phosphorus ppm ASTM D5185m 0 510 Zinc ppm ASTM D5185m 0 510 Sulfur ppm ASTM D5185m 0 10.34 Oxidation Abs/Imm *ASTM D7414 >25 19.8 Base Number (BN) mgK0Hg ASTM D2886 9.4 10.1								
Boron ppm ASTM D5185m 0 54 Barium ppm ASTM D5185m 0 3 Molybdenum ppm ASTM D5185m 0 42 Manganese ppm ASTM D5185m 0 42 Magnesium ppm ASTM D5185m 0 510 Magnesium ppm ASTM D5185m 0 510 Calcium ppm ASTM D5185m 0 510 Magnesium ppm ASTM D5185m 0 510 Calcium ppm ASTM D5185m 0 510 Phosphorus ppm ASTM D5185m 0 910 Zinc ppm ASTM D5185m 0 9103 Sulfur ppm ASTM D5185m 1034 Oxidation Abs/.1mm *ASTM D5185m 10.4 Base Number (BN) mg KOHg ASTM D286 9.4 10.1			Scalai	visuai	20.2			
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type. Barium ppm ASTM D5185m 0 32 Molybdenum ppm ASTM D5185m 0 42 Manganese ppm ASTM D5185m 0 510 Magnesium ppm ASTM D5185m 0 510 Calcium ppm ASTM D5185m 0 510 Calcium ppm ASTM D5185m 0 510 The osphorus ppm ASTM D5185m 0 910 Sulfur ppm ASTM D5185m 1034 Oxidation Abs/.1mm *ASTM D5185m 1034 Base Number (BN) mg KOHg ASTM D5185m 10.1	FLUID CONDITION	Sodium	ppm	ASTM D5185m		4		
Barum ppm ASTM D5185m 0 3 1 1 Molybdenum ppm ASTM D5185m 0 42 1 1 Manganese ppm ASTM D5185m 0 42 1 1 Magnesium ppm ASTM D5185m 0 510 1 1 Magnesium ppm ASTM D5185m 0 510 1 1 Calcium ppm ASTM D5185m 0 510 1 1 Phosphorus ppm ASTM D5185m 0 910 1 1 Zinc ppm ASTM D5185m 1034 1 1 Sulfur ppm ASTM D5185m 1034 1 1 Oxidation Abs/.1mm *ASTM D5185m 19.8 1 1 Base Number (BN) mg KOHg ASTM D2896 9.4 10.1 1 1		Boron	ppm	ASTM D5185m	0	54		
Molybdenum ppm ASIM D5185m 0 42 Manganese ppm ASTM D5185m 0 510 Magnesium ppm ASTM D5185m 0 510 Calcium ppm ASTM D5185m 0 510 Phosphorus ppm ASTM D5185m 0 910 Zinc ppm ASTM D5185m 1034 Sulfur ppm ASTM D5185m 1034 Oxidation Abs/.1mm *ASTM D5185m 2 19.8 Base Number (BN) mg KOHg ASTM D2896 9.4 10.1		Barium	ppm			3		
Magnesium ppm ASTM D5185m 0 510 Calcium ppm ASTM D5185m 1742 Phosphorus ppm ASTM D5185m 1742 Zinc ppm ASTM D5185m 1034 Sulfur ppm ASTM D5185m 1034 Oxidation Abs/.1mm *ASTM D5185m 25 19.8 Base Number (BN) mg KOHg ASTM D2896 9.4 10.1		Molybdenum	ppm	ASTM D5185m	0	42		
Calcium ppm ASTM D5185m 1742 Phosphorus ppm ASTM D5185m 0 910 Zinc ppm ASTM D5185m 1034 Sulfur ppm ASTM D5185m 3149 Oxidation Abs/.1mm *ASTM D7414 >25 19.8 Base Number (BN) mg KOHg ASTM D2896 9.4 10.1		Manganese	ppm			2		
Phosphorus ppm ASTM D5185m 910 Zinc ppm ASTM D5185m 1034 Sulfur ppm ASTM D5185m 1034 Oxidation Abs/.1mm *ASTM D7414 >25 19.8 Base Number (BN) mg KOHg ASTM D2896 9.4 10.1		-	ppm	ASTM D5185m	0	510		
Zinc ppm ASTM D5185m 1034 Sulfur ppm ASTM D5185m M 3149 Oxidation Abs/.1mm *ASTM D7414 >25 19.8 Base Number (BN) mg KOHg ASTM D2896 9.4 10.1		Calcium	ppm			1742		
Sulfur ppm ASTM D5185m 3149 Oxidation Abs/.1mm *ASTM D7414 >25 19.8 Base Number (BN) mg KOHg ASTM D2896 9.4 10.1			ppm					
Oxidation Abs/.1mm *ASTM D7414 >25 19.8 Base Number (BN) mg KOH/g ASTM D2896 9.4 10.1			ppm			1034		
Base Number (BN) mg KOH/g ASTM D2896 9.4 10.1			ppm			3149		
Visc @ 100°C cSt ASTM D445 14 🧶 11.4			mg KOH/g			10.1		
		Visc @ 100°C	cSt	ASTM D445	14	11.4		



Sample No. : WC0935252 Received 3219 WEST MAY ST : 15 Jul 2024 Lab Number : 06235709 Tested WICHITA, KS : 17 Jul 2024 Unique Number : 11124543 : 17 Jul 2024 - Jonathan Hester US 67213 Diagnosed Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN) Contact: SHAWN SOUTH Certificate L2367 shawn.south@sherwood.net 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. T: x: F: x: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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