

OIL ANALYSIS REPORT

Sample Rating Trend





Area Ewing Hauling **MACK 2577** Component

Diesel Engine Fluid

GIBRALTAR 15W/40 SUPER S-3 LX (11)

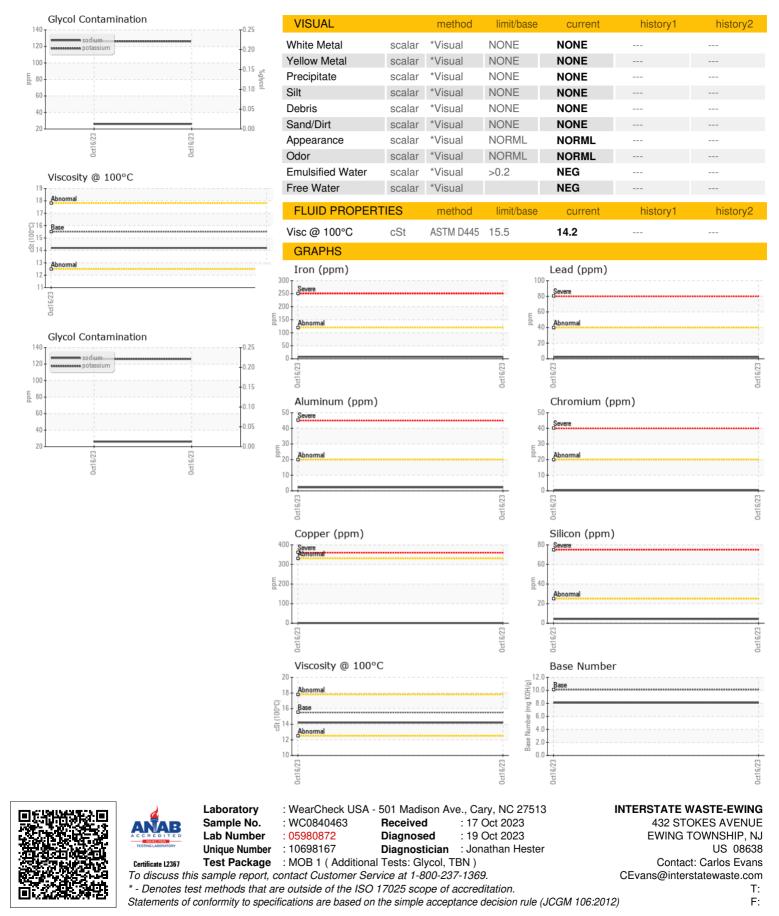
DIAGNOSIS	SAMPLE INFORMAT	ION method	limit/base	current	history1	history2
A Recommendation	Sample Number	Client Info		WC0840463		
We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.	Sample Date	Client Info		16 Oct 2023		
	Machine Age hrs			0		
	Oil Age hrs	Client Info		0		
	Oil Changed	Client Info		N/A		
Wear	Sample Status			ABNORMAL		
All component wear rates are normal. Contamination	CONTAMINATION	method	limit/base	current	history1	history2
Sodium and/or potassium levels are high.	Fuel	WC Method		<1.0		
Fluid Condition The BN result indicates that there is suitable alkalinity remaining in the oil.	WEAR METALS	method	limit/base	current	history1	history2
	lron pp	m ASTM D5185m	>120	7		
	Chromium pp			<1		
	Nickel pp			<1		
	Titanium pp			<1		
	Silver pp			<1		
	Aluminum pp			2		
	Lead pp			2		
	Copper pp		>330	<1		
	Tin pp		>15	<1		
	Vanadium pp	m ASTM D5185m		<1		
	Cadmium pp	m ASTM D5185m		0		
	ADDITIVES	method	limit/base	current	history1	history2
	1.00111120					,
	Boron pp			2		
		m ASTM D5185m		2 0		
	Boron pp	m ASTM D5185m m ASTM D5185m				
	Boron pp Barium pp	m ASTM D5185m m ASTM D5185m m ASTM D5185m		0		
	Boron pp Barium pp Molybdenum pp	m ASTM D5185m m ASTM D5185m m ASTM D5185m m ASTM D5185m	66	0 79		
	Boron pp Barium pp Molybdenum pp Manganese pp	M ASTM D5185m	66 1000	0 79 <1		
	Boron pp Barium pp Molybdenum pp Manganese pp Magnesium pp	M ASTM D5185m	66 1000 1050	0 79 <1 899	 	
	BoronppBariumppMolybdenumppManganeseppMagnesiumppCalciumpp	M ASTM D5185m	66 1000 1050 1150	0 79 <1 899 1287		
	BoronppBariumppMolybdenumppManganeseppMagnesiumppCalciumppPhosphoruspp	m ASTM D5185m	66 1000 1050 1150	0 79 <1 899 1287 1123	 	
	BoronppBariumppMolybdenumppManganeseppMagnesiumppCalciumppPhosphorusppZincpp	m ASTM D5185m	66 1000 1050 1150	0 79 <1 899 1287 1123 1420	 	
	BoronppBariumppMolybdenumppManganeseppMagnesiumppCalciumppPhosphorusppZincppSulfurpp	m ASTM D5185m m ASTM D5185m	66 1000 1050 1150 1270 limit/base	0 79 <1 899 1287 1123 1420 3781	 	
	BoronppBariumppMolybdenumppManganeseppMagnesiumppCalciumppPhosphorusppZincppSulfurppCONTAMINANTSpp	m ASTM D5185m m ASTM D5185m	66 1000 1050 1150 1270 limit/base	0 79 <1 899 1287 1123 1420 3781 current	 	 history2
	BoronppBariumppMolybdenumppManganeseppMagnesiumppCalciumppPhosphorusppZincppSulfurppCONTAMINANTSpp	m ASTM D5185m m ASTM D5185m	66 1000 1050 1150 1270 limit/base >25	0 79 <1 899 1287 1123 1420 3781 current 4	 	 history2
	BoronppBariumppMolybdenumppManganeseppMagnesiumppCalciumppPhosphorusppZincppSulfurppCONTAMINANTSsiliconSiliconppSodiumpp	m ASTM D5185m m ASTM D5185m	66 1000 1050 1150 1270 limit/base >25	0 79 <1 899 1287 1123 1420 3781 current 4 26	 history1	 history2
	BoronppBariumppMolybdenumppManganeseppMagnesiumppCalciumppPhosphorusppZincppSulfurppSiliconppSodiumppPotassiumpp	m ASTM D5185m m ASTM D5185m	66 1000 1050 1150 1270 limit/base >25	0 79 <1 899 1287 1123 1420 3781 <u>current</u> 4 26 ▲ 126	 history1	history2
	BoronppBariumppMolybdenumppManganeseppMagnesiumppCalciumppPhosphorusppZincppSulfurppCONTAMINANTSppSiliconppSodiumppPotassiumppGlycol%	m ASTM D5185m m ASTM D5185m	66 1000 1050 1150 1270 limit/base >25 >20 limit/base	0 79 <1 899 1287 1123 1420 3781 current 4 26 ▲ 126 NEG	 history1 	 history2 history2
	BoronppBariumppMolybdenumppManganeseppMagnesiumppCalciumppPhosphorusppZincppSulfurppCONTAMINANTSsiliconSiliconppPotassiumppGlycol%INFRA-RED%	m ASTM D5185m m ASTM D5185m	66 1000 1050 1150 1270 limit/base >25 >20 limit/base >4	0 79 <1 899 1287 1123 1420 3781 current 4 26 ↓ 126 NEG current	 history1 history1	 history2 history2
	BoronppBariumppMolybdenumppManganeseppMagnesiumppCalciumppPhosphorusppZincppSulfurppSulfurppSoliconppSodiumppPotassiumppGlycol%NitrationAb	m ASTM D5185m m ASTM D5185m	66 1000 1050 1150 1270 limit/base >25 >20 limit/base >4 >20	0 79 <1 899 1287 1123 1420 3781 current 4 26 ▲ 126 NEG current 0.5	 history1 history1	history2 history2 history2
	BoronppBariumppMolybdenumppManganeseppMagnesiumppCalciumppPhosphorusppZincppSulfurppSulfurppSoliconppSodiumppPotassiumppGlycol%NitrationAb	m ASTM D5185m m ASTM D5185m	66 1000 1050 1150 1270 limit/base >25 >20 limit/base >4 >20	0 79 <1 899 1287 1123 1420 3781 current 4 26 ▲ 126 NEG NEG 0.5 6.8	 history1 history1 	 history2 history2 history2
	BoronppBariumppMolybdenumppManganeseppMagnesiumppCalciumppPhosphorusppZincppSulfurppSulfurppSodiumppPotassiumppGlycol%NitrationAbSulfationAbSulfationAb	m ASTM D5185m m ASTM D5185m	66 1000 1050 1150 1270 imit/base >25 >20 imit/base >4 >20 >30 imit/base	0 79 <1 899 1287 1123 1420 3781 current 4 26 126 NEG 0.5 6.8 17.7	 history1 history1 history1	 history2 history2 history2

Base Number (BN) mg KOH/g ASTM D2896 10.1

8.1



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