

OIL ANALYSIS REPORT

Ewing Hauling **PETERBILT 2594**

Component **Diesel Engine**

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

Recommendation

Resample at the next service interval to monitor.

Wear

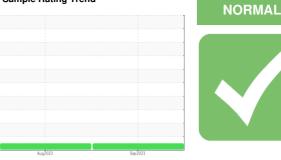
All component wear rates are normal.

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.



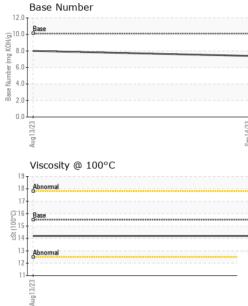
Sample Rating Trend

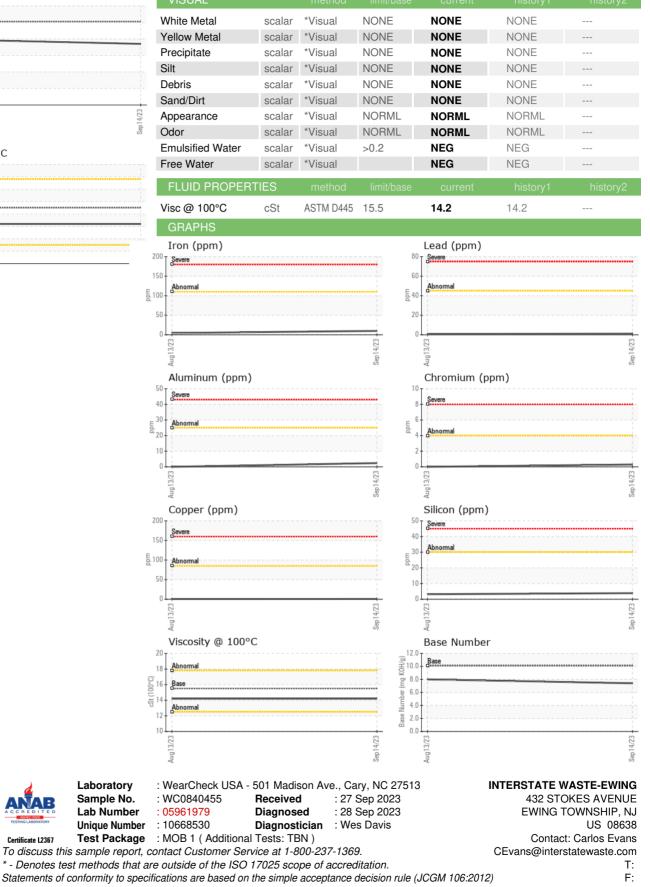


			Aug2023	Sep2023		
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0840455	WC0830851	
Sample Date		Client Info		14 Sep 2023	13 Aug 2023	
Machine Age	hrs	Client Info		16106	0	
Oil Age	hrs	Client Info		450	150	
Oil Changed		Client Info		Changed	N/A	
Sample Status				NORMAL	NORMAL	
CONTAMINATIO	N	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
Glycol		WC Method		NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	10	4	
Chromium	ppm	ASTM D5185m	>4	<1	0	
Nickel	ppm	ASTM D5185m	>2	0	0	
Titanium	ppm	ASTM D5185m		0	0	
Silver	ppm	ASTM D5185m	>2	0	<1	
Aluminum	ppm	ASTM D5185m	>25	2	0	
Lead	ppm	ASTM D5185m	>45	1	<1	
Copper	ppm	ASTM D5185m	>85	<1	<1	
Tin	ppm	ASTM D5185m	>4	<1	0	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		10	16	
Barium	ppm	ASTM D5185m		0	2	
Molybdenum	ppm	ASTM D5185m	66	67	72	
Manganese	ppm	ASTM D5185m		<1	0	
	ppiii	AOTIVI DOTOOTTI				
Magnesium	ppm	ASTM D5185m	1000	839	781	
Calcium			1000 1050	839 1337		
-	ppm	ASTM D5185m			781	
Calcium	ppm ppm	ASTM D5185m ASTM D5185m	1050	1337	781 1418	
Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	1050 1150	1337 1038	781 1418 1062	
Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1050 1150	1337 1038 1296	781 1418 1062 1259	
Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	1050 1150 1270	1337 1038 1296 3458	781 1418 1062 1259 3736	
Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	1050 1150 1270 limit/base	1337 1038 1296 3458 current	781 1418 1062 1259 3736 history1	 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	1050 1150 1270 limit/base >30	1337 1038 1296 3458 current 4	781 1418 1062 1259 3736 history1 3	 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1050 1150 1270 limit/base >30	1337 1038 1296 3458 current 4 3	781 1418 1062 1259 3736 history1 3 0	 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	1050 1150 1270 imit/base >30 >20	1337 1038 1296 3458 current 4 3 <1	781 1418 1062 1259 3736 history1 3 0 1	 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm 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	1050 1150 1270 limit/base >30 >20 limit/base >3	1337 1038 1296 3458 current 4 3 <1 current	781 1418 1062 1259 3736 history1 3 0 1 1 history1	 history2 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm 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	1050 1150 1270 limit/base >30 >20 limit/base >3	1337 1038 1296 3458 current 4 3 <1 current 0.5	781 1418 1062 1259 3736 history1 3 0 1 1 history1 0.2	 history2 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844	1050 1150 1270 imit/base >30 >20 imit/base >3 >20	1337 1038 1296 3458 current 4 3 <1 current 0.5 8.9	781 1418 1062 1259 3736 history1 3 0 1 1 history1 0.2 7.1	 history2 history2 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm % Abs/cm Abs/.1mm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7624	1050 1150 1270 limit/base >30 limit/base >3 >20 >3 >20	1337 1038 1296 3458 current 4 3 <1 current 0.5 8.9 20.3	781 1418 1062 1259 3736 history1 3 0 1 1 history1 0.2 7.1 18.7	 history2 history2 history2
Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm ppm ppm 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 *ASTM D7844 *ASTM D7624 *ASTM D7624 *ASTM D7624	1050 1150 1270 imit/base >30 220 imit/base >3 >20 >30 >30 >30	1337 1038 1296 3458 current 4 3 <1 current 0.5 8.9 20.3 current	781 1418 1062 1259 3736 history1 3 0 1 history1 0.2 7.1 18.7 history1	 history2 history2 history2 history2



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Certificate L2367