

## **OIL ANALYSIS REPORT**

#### Sample Rating Trend



### Area OKLAHOMA 3590

## Component

Diesel Engine Fluid MYSTIK JT-8 SYN SUPER HD 15W40 (--- GAL)

#### DIAGNOSIS

#### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

### Wear

All component wear rates are normal.

#### Contamination

Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. No other contaminants were detected in the oil.

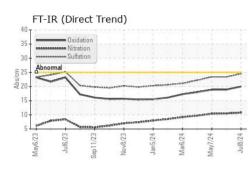
#### Fluid Condition

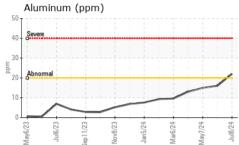
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

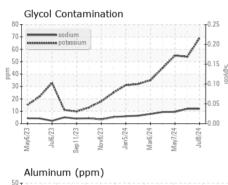
Sample Date         Client Info         08 Jul 2024         08 Jun 2024         07 May 2024           Machine Age         hrs         Client Info         2627         2473         2294           Oil Age         hrs         Client Info         1948         1794         1615           Oil Changed         Client Info         Not Changd         Not Changd         Not Changd           Sample Status         Client Info         Not Changd         Not Changd         Not Changd           CONTAMINATION         method         Imit/base         current         history1         history2           Fuel         WC Method         >5         <1.0         <1.0         <1.0         <1.0           Water         wC Method         >0.2         NEG         NEG         NEG           WeArt METALS         method         Imit/base         current         history1         history2           Iron         ppm         ASTM 05185m         >100         55         59         53         Change           Nickel         ppm         ASTM 05185m         >20         22         16         15         1         1         1         1         1         1         1         1         1         1 </th <th>SAMPLE INFORM</th> <th>IATION</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Machine Age         hrs.         Client Info         2627         2473         2294           Oil Age         hrs.         Client Info         1948         1794         1615           Oil Changed         Client Info         Not Changd         Not Changd         Not Changd           Sample Status         Imit/base         current         History1         History2           Fuel         WC Method         >5         <1.0         <1.0         <1.0           Water         WC Method         >0.2         NEG         NEG         NEG           Water         WC Method         >0.2         NEG         NEG         NEG           Viater         ppm         ASTM D5185m         >100         55         59         53           Chronium         ppm         ASTM D5185m         >4         0         0         <1           Silver         ppm         ASTM D5185m         >20         22         16         15           Lead         ppm         ASTM D5185m         >30         0         0         <1           Viandium         ppm         ASTM D5185m         >16         1         1         1           Viandium         ppm         ASTM D51	Sample Number		Client Info		WC0899584	WC0929926	WC0929925
Oil Age         hrs         Client Info         1948         1794         1615           Oil Changed         Client Info         Not Changd         Not Changd         Not Changd         Not Changd           Sample Status         Imit Post         current         history1         history2           Fuel         WC Method         >5         <1.0         <1.0         <1.0           Water         WC Method         >0.2         NEG         NEG         NEG           WEAR METALS         method         Imit/base         current         history1         history2           Iron         ppm         ASTM 05185m         >100         55         59         53           Chromium         ppm         ASTM 05185m         >4         0         0         <1           Silver         ppm         ASTM 05185m         >20         22         16         15           Lead         ppm         ASTM 05185m         >20         22         16         15           Lead         ppm         ASTM 05185m         >14         <1         1         1           Vanadium         ppm         ASTM 05185m         0         0         <1         1           Va	Sample Date		Client Info		08 Jul 2024	08 Jun 2024	07 May 2024
Oil Changed Sample Status         Client Info         Not Changd NORMAL         Not Changd NORMAL         Not Changd NORMAL         Not Changd NORMAL           CONTAMINATION         method         Imit/base         current         history1         history2           Fuel         WC Method         >5         <1.0	Machine Age	hrs	Client Info		2627	2473	2294
Oil Changed Sample Status         Client Info         Not Changd NORMAL         Not Changd NORMAL         Not Changd NORMAL         Not Changd NORMAL           CONTAMINATION         method         Imit/base         current         history1         history2           Fuel         WC Method         >5         <1.0	-	hrs	Client Info		1948	1794	1615
Sample Status         nethod         limit/base         current         NoRMAL         NORMAL           CONTAMINATION         method         >5         <1.0         <1.0         history1         history2           Fuel         WC Method         >5         <1.0         <1.0         <1.0         <1.0           Water         WC Method         >0.2         NEG         NEG         NEG           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >20         3         3         2           Nickel         ppm         ASTM D5185m         >40         0         0         <1           Silver         ppm         ASTM D5185m         >20         22         16         15           Lead         ppm         ASTM D5185m         >20         22         16         15           Lead         ppm         ASTM D5185m         >30         0         0         <1           Copper         ppm         ASTM D5185m         >30         4         4         4           Tin         ppm         ASTM D5185m         >30         0         0	Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
CONTAMINATION         method         limit/base         current         history1         history2           Fuel         WC Method         >5         <1.0         <1.0         <1.0           Water         WC Method         >5.2         NEG         NEG         NEG           Wear         WC Method         >0.2         NEG         NEG         NEG           Iron         ppm         ASTM 05185m         >100         55         59         53           Otromium         ppm         ASTM 05185m         >20         3         3         2           Nickel         ppm         ASTM 05185m         >3         0         0         <1           Itanium         ppm         ASTM 05185m         >30         0         0         <1           Aluminum         ppm         ASTM 05185m         >30         4         4         4           Tin         ppm         ASTM 05185m         >330         4         4         4           Tin         ppm         ASTM 05185m         >330         4         4         4           Tin         ppm         ASTM 05185m         >15         <1         <1         1           Caddium	-				•	Ŭ	Ũ
Fuel         WC Method         >5         <1.0	· ·	J	method	limit/base	current	history1	history2
Water         WC Method         >0.2         NEG         NEG         NEG           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >100         55         59         53           Ohromium         ppm         ASTM D5185m         >20         3         3         2           Nickel         ppm         ASTM D5185m         >20         3         3         2           Nickel         ppm         ASTM D5185m         >20         22         16         15           Lead         ppm         ASTM D5185m         >30         0         0         -1           Copper         ppm         ASTM D5185m         >330         4         4         4           Tin         ppm         ASTM D5185m         >15         <1         <1         1           Cadmium         ppm         ASTM D5185m         0         0         0         1           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         0         <1 </th <th></th> <th></th> <th></th> <th></th> <th>&lt;1.0</th> <th></th> <th></th>					<1.0		
Iron         ppm         ASTM D5185m         >100         55         59         53           Chromium         ppm         ASTM D5185m         >20         3         3         2           Nickel         ppm         ASTM D5185m         >4         0         0         <1				>0.2			
Chromium         ppm         ASTM D5185m         >20         3         3         2           Nickel         ppm         ASTM D5185m         >4         0         0         <1           Titanium         ppm         ASTM D5185m         >3         0         0         0           Silver         ppm         ASTM D5185m         >3         0         0         0           Aluminum         ppm         ASTM D5185m         >20         22         16         15           Lead         ppm         ASTM D5185m         >40         0         0         <1           Copper         ppm         ASTM D5185m         >40         0         0         <1           Cadmium         ppm         ASTM D5185m         >15         <1         <1         1           Cadmium         ppm         ASTM D5185m         0         0         <1         1           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         0         <1           Magneseum         ppm         ASTM D5185m         60         63         61	WEAR METALS		method	limit/base	current	history1	history2
Chromium         ppm         ASTM D5185m         >20         3         3         2           Nickel         ppm         ASTM D5185m         >4         0         0         <1           Titanium         ppm         ASTM D5185m         >3         0         0         0           Silver         ppm         ASTM D5185m         >3         0         0         0           Aluminum         ppm         ASTM D5185m         >20         22         16         15           Lead         ppm         ASTM D5185m         >40         0         0         <1           Copper         ppm         ASTM D5185m         >40         0         0         <1           Cadmium         ppm         ASTM D5185m         >15         <1         <1         1           Cadmium         ppm         ASTM D5185m         0         0         <1         1           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         0         <1           Magneseum         ppm         ASTM D5185m         60         63         61	Iron	ppm	ASTM D5185m	>100	55	59	53
Nickel         ppm         ASTM D5185m         >4         0         0         <1	-						
Titanium         ppm         ASTM D5185m         <1							
Silver         ppm         ASTM D5185m         >3         0         0         0           Aluminum         ppm         ASTM D5185m         >20         22         16         15           Lead         ppm         ASTM D5185m         >40         0         0         <1           Copper         ppm         ASTM D5185m         >330         4         4         4           Tin         ppm         ASTM D5185m         >15         <1         <1         1           Vanadium         ppm         ASTM D5185m         >15         <1         <1         1           Cadmium         ppm         ASTM D5185m         0         0         <1         1           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         0         <1           Molybdenum         ppm         ASTM D5185m         0         0         0         <1           Marganese         ppm         ASTM D5185m         942         1065         926         <1021           Zinc         ppm         ASTM D5185m         11271         1376         1				~ 1	-		
Aluminum         ppm         ASTM D5185m         >20         22         16         15           Lead         ppm         ASTM D5185m         >40         0         0         <1           Copper         ppm         ASTM D5185m         >330         4         4         4           Tin         ppm         ASTM D5185m         >15         <1         <1         1           Vanadium         ppm         ASTM D5185m         >15         <1         <1         1           Cadmium         ppm         ASTM D5185m         0         0         <1         1           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         <1         1           Molybdenum         ppm         ASTM D5185m         0         0         <1         1           Maganese         ppm         ASTM D5185m         60         63         61         1           Magnesium         ppm         ASTM D5185m         942         1065         926         26           Calcium         ppm         ASTM D5185m         1169         1220 <t< th=""><th></th><th></th><th></th><th>-3</th><th></th><th></th><th></th></t<>				-3			
Lead         ppm         ASTM D5185m         >40         0         0         <1							
Copper         ppm         ASTM D5185m         >330         4         4         4           Tin         ppm         ASTM D5185m         >15         <1         <1         1           Vanadium         ppm         ASTM D5185m         >15         <1         <1         1           Cadmium         ppm         ASTM D5185m         0         0         <1         <1           Cadmium         ppm         ASTM D5185m         0         0         <1         <1           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         <1         <1           Molybdenum         ppm         ASTM D5185m         0         0         <1         1           Manganese         ppm         ASTM D5185m         60         63         61           Manganesium         ppm         ASTM D5185m         942         1065         926           Calcium         ppm         ASTM D5185m         1169         1220         1092           Phosphorus         ppm         ASTM D5185m         1075         1102         1021           Zi							
TinppmASTM D5185m>15<1							
Vanadium         ppm         ASTM D5185m         <1					-		
Cadmium         ppm         ASTM D5185m         0         0         <1				>15			
ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         0         0           Barium         ppm         ASTM D5185m         0         0         <1         0         0         <1           Molybdenum         ppm         ASTM D5185m         60         63         61         1         1         1           Magnesium         ppm         ASTM D5185m         942         1065         926         021         1092         1092         1092         1092         1092         1092         1092         1092         1092         1092         1092         1092         1092         1021							
Boron         ppm         ASTM D5185m         0         0         0         0           Barium         ppm         ASTM D5185m         0         0         0         <1           Molybdenum         ppm         ASTM D5185m         60         63         61           Manganese         ppm         ASTM D5185m         60         63         61           Manganese         ppm         ASTM D5185m         942         1065         926           Calcium         ppm         ASTM D5185m         942         1065         926           Calcium         ppm         ASTM D5185m         1169         1220         1092           Phosphorus         ppm         ASTM D5185m         1075         1102         1021           Zinc         ppm         ASTM D5185m         1271         1376         1256           Sulfur         ppm         ASTM D5185m         2664         3560         3283           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         69         54         55           Glycol         %         'ASTM D584		ppm	ASTM D5185m		0		
Barium         ppm         ASTM D5185m         0         0         <1	ADDITIVES		method				history2
Molybdenum         ppm         ASTM D5185m         60         63         61           Manganese         ppm         ASTM D5185m         <1         1         1         1           Magnesium         ppm         ASTM D5185m         942         1065         926         26           Calcium         ppm         ASTM D5185m         942         1065         926         26           Calcium         ppm         ASTM D5185m         942         1065         926         26           Calcium         ppm         ASTM D5185m         942         1021         1021         21           Zinc         ppm         ASTM D5185m         1075         1102         1021         256           Sulfur         ppm         ASTM D5185m         2664         3560         3283         2663           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         69         54         55           Golycol         %         *ASTM D5185m         >20         69         NEG         NEG           INFRA-RED         method         limit/base         current <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>							
Maganese         ppm         ASTM D5185m         <1	Boron	ppm	ASTM D5185m			0	0
Magnesium         ppm         ASTM D5185m         942         1065         926           Calcium         ppm         ASTM D5185m         1169         1220         1092           Phosphorus         ppm         ASTM D5185m         1075         1102         1021           Zinc         ppm         ASTM D5185m         1075         1102         1021           Zinc         ppm         ASTM D5185m         1271         1376         1256           Sulfur         ppm         ASTM D5185m         2664         3560         3283           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         4         5         5           Sodium         ppm         ASTM D5185m         >20         69         54         55           Glycol         %         *ASTM D2982         NEG         NEG         NEG         NEG           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.3         1.3         1.3           Nitration						0 0	
Calcium         ppm         ASTM D5185m         1169         1220         1092           Phosphorus         ppm         ASTM D5185m         1075         1102         1021           Zinc         ppm         ASTM D5185m         1271         1376         1256           Sulfur         ppm         ASTM D5185m         2664         3560         3283           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         4         5         5           Sodium         ppm         ASTM D5185m         >25         4         5         5           Sodium         ppm         ASTM D5185m         >20         69         54         55           Glycol         %         *ASTM D2982         NEG         NEG         NEG         NEG           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.3         1.3         1.3           Nitration         Abs/cm         *ASTM D7624         >20         10.8         10.5         10.4	Barium	ppm	ASTM D5185m		0	0 0	<1
Phosphorus         ppm         ASTM D5185m         1075         1102         1021           Zinc         ppm         ASTM D5185m         1271         1376         1256           Sulfur         ppm         ASTM D5185m         2664         3560         3283           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         4         5         5           Sodium         ppm         ASTM D5185m         >25         4         5         5           Sodium         ppm         ASTM D5185m         >20         69         54         55           Glycol         %         *ASTM D2982         NEG         NEG         NEG         NEG           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.3         1.3         1.3           Nitration         Abs/cm         *ASTM D7624         >20         10.8         10.5         10.4           Sulfation         Abs/.1mm         *ASTM D7415         >30         24.5         23.4	Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m		0 60	0 0 63	<1 61
Zinc         ppm         ASTM D5185m         1271         1376         1256           Sulfur         ppm         ASTM D5185m         2664         3560         3283           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         4         5         5           Sodium         ppm         ASTM D5185m         >25         4         5         5           Sodium         ppm         ASTM D5185m         >20         69         54         55           Solgvol         %         *ASTM D2982         NEG         NEG         NEG           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.3         1.3         1.3           Nitration         Abs/cm         *ASTM D7624         >20         10.8         10.5         10.4	Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		0 60 <1	0 0 63 1	<1 61 1
Sulfur         ppm         ASTM D5185m         2664         3560         3283           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         4         5         5           Sodium         ppm         ASTM D5185m         >25         4         5         5           Sodium         ppm         ASTM D5185m         >20         69         54         55           Glycol         %         *ASTM D2982         NEG         NEG         NEG           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.3         1.3         1.3           Nitration         Abs/cm         *ASTM D7624         >20         10.8         10.5         10.4           Sulfation         Abs/.1mm         *ASTM D7415         >30         24.5         23.4         23.4	Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 60 <1 942	0 0 63 1 1065	<1 61 1 926
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         4         5         5           Sodium         ppm         ASTM D5185m         >25         4         5         5           Sodium         ppm         ASTM D5185m         >20         69         54         55           Glycol         %         *ASTM D2982         NEG         NEG         NEG           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.3         1.3         1.3           Nitration         Abs/cm         *ASTM D7624         >20         10.8         10.5         10.4           Sulfation         Abs/.1mm         *ASTM D7415         >30         24.5         23.4         23.4	Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 60 <1 942 1169	0 0 63 1 1065 1220	<1 61 1 926 1092
Silicon         ppm         ASTM D5185m         >25         4         5         5           Sodium         ppm         ASTM D5185m         12         12         10           Potassium         ppm         ASTM D5185m         >20         69         54         55           Glycol         %         *ASTM D2982         NEG         NEG         NEG           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.3         1.3         1.3           Nitration         Abs/cm         *ASTM D7624         >20         10.8         10.5         10.4           Sulfation         Abs/.1mm         *ASTM D7415         >30         24.5         23.4         23.4	Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 60 <1 942 1169 1075	0 0 63 1 1065 1220 1102	<1 61 1 926 1092 1021
Sodium         ppm         ASTM D5185m         12         12         10           Potassium         ppm         ASTM D5185m         >20         69         54         55           Glycol         %         *ASTM D2982         NEG         NEG         NEG           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.3         1.3         1.3           Nitration         Abs/cm         *ASTM D7624         >20         10.8         10.5         10.4           Sulfation         Abs/.1mm         *ASTM D7415         >30         24.5         23.4         23.4	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		0 60 <1 942 1169 1075 1271	0 0 63 1 1065 1220 1102 1376	<1 61 1 926 1092 1021 1256
Potassium         ppm         ASTM D5185m         >20         69         54         55           Glycol         %         *ASTM D2982         NEG         NEG         NEG           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.3         1.3         1.3           Nitration         Abs/cm         *ASTM D7624         >20         10.8         10.5         10.4           Sulfation         Abs/.1mm         *ASTM D7415         >30         24.5         23.4         23.4	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	limit/base	0 60 <1 942 1169 1075 1271 2664	0 0 63 1 1065 1220 1102 1376 3560	<1 61 1 926 1092 1021 1256
Glycol         %         *ASTM D2982         NEG         NEG         NEG           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.3         1.3         1.3           Nitration         Abs/cm         *ASTM D7624         >20         10.8         10.5         10.4           Sulfation         Abs/.1mm         *ASTM D7415         >30         24.5         23.4         23.4	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		0 60 <1 942 1169 1075 1271 2664 current	0 0 63 1 1065 1220 1102 1376 3560 history1	<1 61 1 926 1092 1021 1256 3283 history2
INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1.3         1.3         1.3           Nitration         Abs/cm         *ASTM D7624         >20         10.8         10.5         10.4           Sulfation         Abs/.1mm         *ASTM D7415         >30         24.5         23.4         23.4	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		0 60 <1 942 1169 1075 1271 2664 <u>current</u> 4	0 0 63 1 1065 1220 1102 1376 3560 history1 5	<1 61 1 926 1092 1021 1256 3283 history2 5
Soot %         %         *ASTM D7844         >3         1.3         1.3         1.3           Nitration         Abs/cm         *ASTM D7624         >20         10.8         10.5         10.4           Sulfation         Abs/.1mm         *ASTM D7415         >30         24.5         23.4         23.4	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	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	>25	0 60 <1 942 1169 1075 1271 2664 current 4 12	0 0 63 1 1065 1220 1102 1376 3560 history1 5 12	<1 61 1 926 1092 1021 1256 3283 history2 5 10
Nitration         Abs/cm         *ASTM D7624         >20         10.8         10.5         10.4           Sulfation         Abs/.1mm         *ASTM D7415         >30         24.5         23.4         23.4	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	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 D5185m	>25	0 60 <1 942 1169 1075 1271 2664 current 4 12 69	0 0 63 1 1065 1220 1102 1376 3560 history1 5 12 54	<1 61 1 926 1092 1021 1256 3283 history2 5 10 55
Nitration         Abs/cm         *ASTM D7624         >20         10.8         10.5         10.4           Sulfation         Abs/.1mm         *ASTM D7415         >30         24.5         23.4         23.4	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D2982	>25 >20	0 60 <1 942 1169 1075 1271 2664 <u>current</u> 4 12 69 NEG	0 0 63 1 1065 1220 1102 1376 3560 history1 5 12 5 12 54 NEG	<1 61 1 926 1092 1021 1256 3283 history2 5 10 55
Sulfation         Abs/.1mm         *ASTM D7415         >30         24.5         23.4         23.4	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED	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 D5185m *ASTM D2982	>25 >20 limit/base	0 60 <1 942 1169 1075 1271 2664 <i>current</i> 4 12 69 NEG	0 0 63 1 1065 1220 1102 1376 3560 history1 5 12 54 NEG history1	<1 61 926 1092 1021 1256 3283 history2 5 10 55 10 55 NEG history2
FLUD DECDADATION mothod limit/here summed history.	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot %	ppm i ppm i ppm i ppm i ppm i ppm i ppm i ppm i ppm i ppm i % i	ASTM D5185m ASTM D5185m *ASTM D2982 method *ASTM D7844	>25 >20 limit/base >3	0 60 <1 942 1169 1075 1271 2664 <u>current</u> 4 12 69 NEG NEG	0 0 63 1 1065 1220 1102 1376 3560 history1 5 12 54 12 54 NEG NEG history1 1.3	<pre>&lt;1     61     61     1     926     1092     1021     1256     3283     history2     5     10     55     10     55     NEG     history2     1.3</pre>
FLOID DEGRADATION metriod limit/base current history1 history2	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D2982 *ASTM D2982 at ASTM D7844 *ASTM D7844	>25 >20 limit/base >3 >20	0 60 <1 942 1169 1075 1271 2664 <u>current</u> 4 12 69 NEG NEG 1.3 10.8	0 0 63 1 1065 1220 1102 1376 3560 history1 5 12 54 NEG NEG history1 1.3 10.5	<pre>&lt;1     61     61     1     926     1092     1021     1256     3283     history2     5     10     55     NEG     NEG     history2     1.3     10.4</pre>
Oxidation Abs/.1mm *ASTM D7414 >25 20.0 18.9 18.9	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D2982 *ASTM D2982 at ASTM D7844 *ASTM D7844	>25 >20 limit/base >3 >20	0 60 <1 942 1169 1075 1271 2664 <u>current</u> 4 12 69 NEG NEG 1.3 10.8	0 0 63 1 1065 1220 1102 1376 3560 history1 5 12 54 NEG NEG history1 1.3 10.5	<1 61 926 1092 1021 1256 3283 history2 5 10 55 10 55 NEG history2 1.3 10.4
Base Number (BN)         mg KOH/g         ASTM D2896         7.5         7.6         7.9	Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Glycol INFRA-RED Soot % Nitration Sulfation	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 D5185m *ASTM D2982 <b>method</b> *ASTM D7844 *ASTM D7624 *ASTM D7415	>25 >20 <b>limit/base</b> >3 >20 >30 <b>limit/base</b>	0 60 <1 942 1169 1075 1271 2664 <i>current</i> 4 12 69 <b>NEG</b> <b>kEG</b> 1.3 10.8 24.5	0 0 63 1 1065 1220 1102 1376 3560 history1 5 12 54 NEG history1 1.3 1.3 10.5 23.4	<1 61 1 926 1092 1021 1256 3283 history2 5 10 55 10 55 NEG NEG 1.3 10.4 23.4

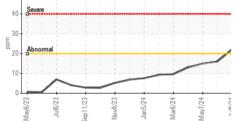


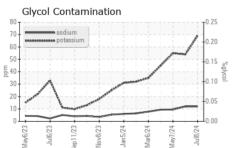
# **OIL ANALYSIS REPORT**





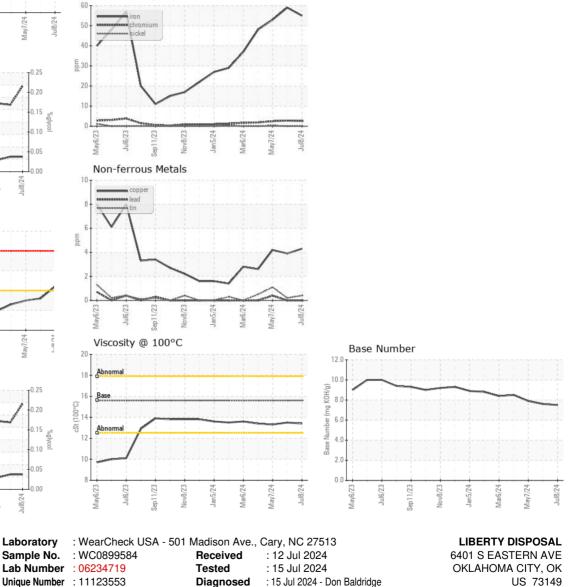


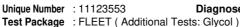




VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.6	13.4	13.5	13.3

GRAPHS Ferrous Alloys





Diagnosed

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.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Report Id: SEAOKL [WUSCAR] 06234719 (Generated: 07/15/2024 11:51:50) Rev: 1

Certificate 12367

Contact/Location: M Rutherford - SEAOKL

T:

F:

Contact: M Rutherford

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