

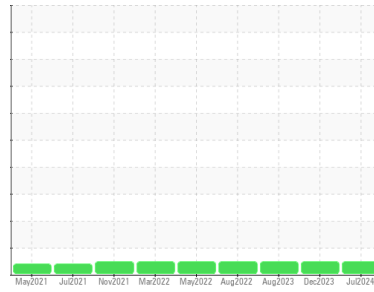


# OIL ANALYSIS REPORT



Area  
**COLORADO/443/EG - LOADER**  
 Machine Id  
**45.55L [COLORADO^443^EG - LOADER]**  
 Component  
**Hydraulic System**  
 Fluid  
**MOBIL MOBILTRANS AST 30 (24 GAL)**

### Sample Rating Trend



**NORMAL**



### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

#### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

### SAMPLE INFORMATION

| method        | limit/base  | current            | history1    | history2    |      |
|---------------|-------------|--------------------|-------------|-------------|------|
| Sample Number | Client Info | <b>WC0928626</b>   | WC0859591   | WC0799107   |      |
| Sample Date   | Client Info | <b>01 Jul 2024</b> | 07 Dec 2023 | 02 Aug 2023 |      |
| Machine Age   | hrs         | Client Info        | <b>4058</b> | 3523        | 3029 |
| Oil Age       | hrs         | Client Info        | <b>3874</b> | 3523        | 3029 |
| Oil Changed   | Client Info | <b>Not Chngd</b>   | Not Chngd   | Not Chngd   |      |
| Sample Status |             | <b>NORMAL</b>      | NORMAL      | NORMAL      |      |

### CONTAMINATION

| method | limit/base     | current    | history1 | history2 |
|--------|----------------|------------|----------|----------|
| Water  | WC Method >0.1 | <b>NEG</b> | NEG      | NEG      |

### WEAR METALS

| method   | limit/base | current         | history1 | history2 |    |
|----------|------------|-----------------|----------|----------|----|
| Iron     | ppm        | ASTM D5185m >20 | <b>4</b> | 6        | 6  |
| Chromium | ppm        | ASTM D5185m >10 | <b>0</b> | <1       | 0  |
| Nickel   | ppm        | ASTM D5185m >10 | <b>0</b> | <1       | 0  |
| Titanium | ppm        | ASTM D5185m     | <b>0</b> | <1       | 0  |
| Silver   | ppm        | ASTM D5185m     | <b>0</b> | 0        | <1 |
| Aluminum | ppm        | ASTM D5185m >10 | <b>1</b> | 1        | 2  |
| Lead     | ppm        | ASTM D5185m >10 | <b>0</b> | <1       | <1 |
| Copper   | ppm        | ASTM D5185m >75 | <b>1</b> | 3        | 3  |
| Tin      | ppm        | ASTM D5185m >10 | <b>0</b> | <1       | 0  |
| Vanadium | ppm        | ASTM D5185m     | <b>0</b> | 0        | 0  |
| Cadmium  | ppm        | ASTM D5185m     | <b>0</b> | <1       | 0  |

### ADDITIVES

| method     | limit/base | current     | history1    | history2 |      |
|------------|------------|-------------|-------------|----------|------|
| Boron      | ppm        | ASTM D5185m | <b>22</b>   | 18       | 21   |
| Barium     | ppm        | ASTM D5185m | <b>0</b>    | 2        | 0    |
| Molybdenum | ppm        | ASTM D5185m | <b>0</b>    | <1       | <1   |
| Manganese  | ppm        | ASTM D5185m | <b>0</b>    | <1       | <1   |
| Magnesium  | ppm        | ASTM D5185m | <b>12</b>   | 10       | 8    |
| Calcium    | ppm        | ASTM D5185m | <b>2399</b> | 1697     | 1893 |
| Phosphorus | ppm        | ASTM D5185m | <b>951</b>  | 877      | 926  |
| Zinc       | ppm        | ASTM D5185m | <b>1118</b> | 1046     | 1155 |
| Sulfur     | ppm        | ASTM D5185m | <b>4628</b> | 3864     | 4228 |

### CONTAMINANTS

| method    | limit/base | current         | history1 | history2 |   |
|-----------|------------|-----------------|----------|----------|---|
| Silicon   | ppm        | ASTM D5185m >20 | <b>4</b> | 4        | 4 |
| Sodium    | ppm        | ASTM D5185m     | <b>2</b> | 0        | 0 |
| Potassium | ppm        | ASTM D5185m >20 | <b>0</b> | 2        | 2 |

### FLUID CLEANLINESS

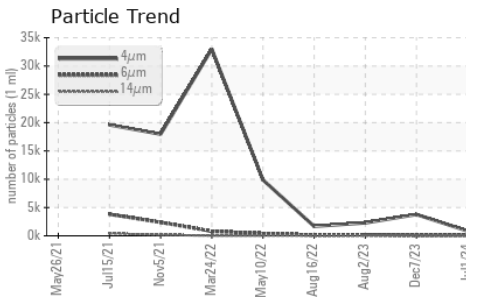
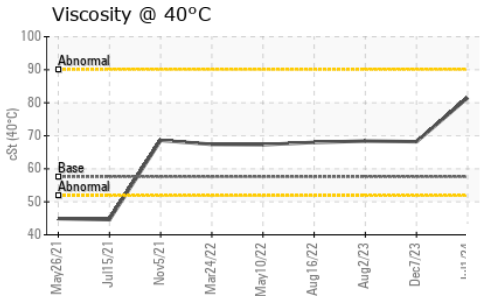
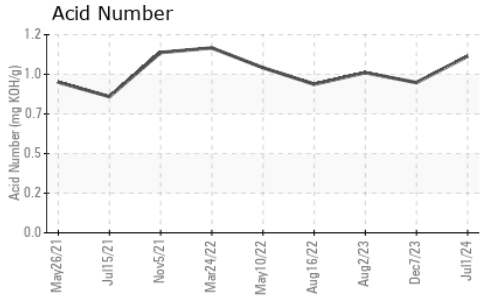
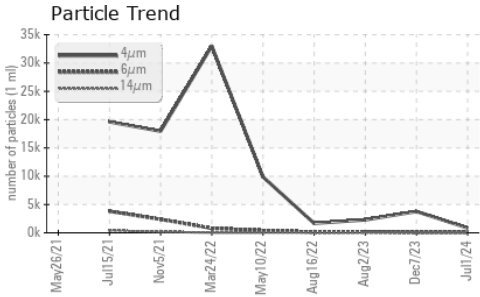
| method          | limit/base             | current         | history1 | history2 |
|-----------------|------------------------|-----------------|----------|----------|
| Particles >4µm  | ASTM D7647             | <b>850</b>      | 3772     | 2291     |
| Particles >6µm  | ASTM D7647 >2500       | <b>110</b>      | 74       | 199      |
| Particles >14µm | ASTM D7647 >640        | <b>9</b>        | 4        | 10       |
| Particles >21µm | ASTM D7647 >160        | <b>1</b>        | 1        | 2        |
| Particles >38µm | ASTM D7647 >40         | <b>0</b>        | 0        | 0        |
| Particles >71µm | ASTM D7647 >10         | <b>0</b>        | 0        | 0        |
| Oil Cleanliness | ISO 4406 (c) >--/18/16 | <b>17/14/10</b> | 19/13/9  | 18/15/10 |

### FLUID DEGRADATION

| method           | limit/base | current    | history1    | history2 |      |
|------------------|------------|------------|-------------|----------|------|
| Acid Number (AN) | mg KOH/g   | ASTM D8045 | <b>1.07</b> | 0.91     | 0.97 |



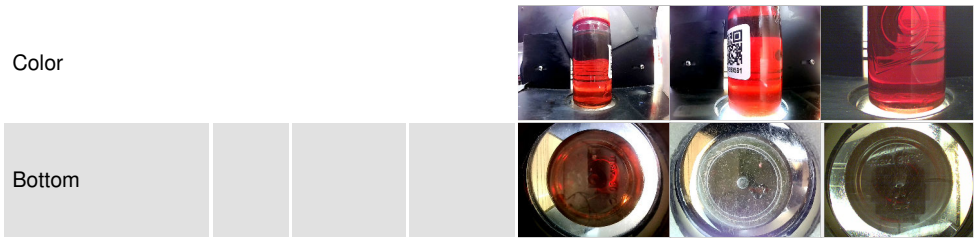
# OIL ANALYSIS REPORT



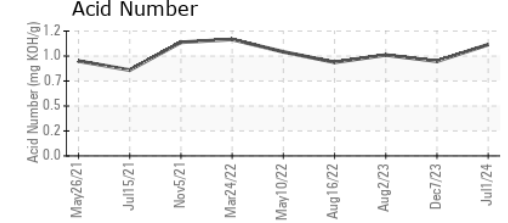
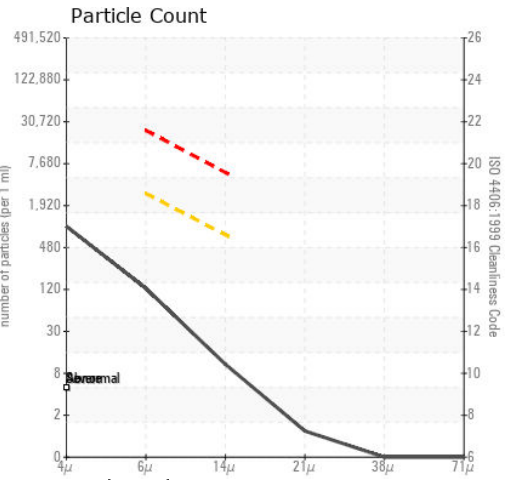
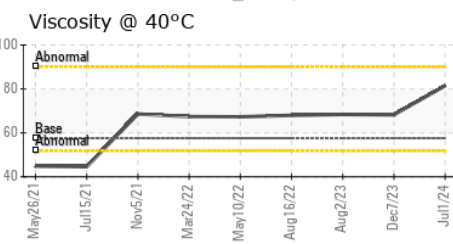
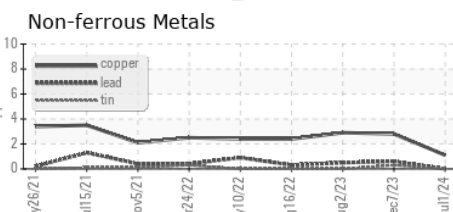
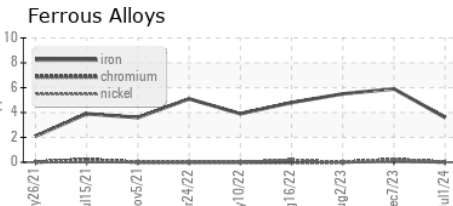
| VISUAL           | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| White Metal      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Yellow Metal     | scalar | *Visual    | NONE    | NONE     | NONE     |
| Precipitate      | scalar | *Visual    | NONE    | NONE     | NONE     |
| Silt             | scalar | *Visual    | NONE    | NONE     | NONE     |
| Debris           | scalar | *Visual    | NONE    | NONE     | NONE     |
| Sand/Dirt        | scalar | *Visual    | NONE    | NONE     | NONE     |
| Appearance       | scalar | *Visual    | NORML   | NORML    | NORML    |
| Odor             | scalar | *Visual    | NORML   | NORML    | NORML    |
| Emulsified Water | scalar | *Visual    | >0.1    | NEG      | NEG      |
| Free Water       | scalar | *Visual    |         | NEG      | NEG      |

| FLUID PROPERTIES | method | limit/base | current | history1 | history2 |
|------------------|--------|------------|---------|----------|----------|
| Visc @ 40°C      | cSt    | ASTM D445  | 57.6    | 81.5     | 68.2     |

| SAMPLE IMAGES | method | limit/base | current | history1 | history2 |
|---------------|--------|------------|---------|----------|----------|
|---------------|--------|------------|---------|----------|----------|



## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0928626 **Received** : 15 Jul 2024  
**Lab Number** : 06236749 **Tested** : 16 Jul 2024  
**Unique Number** : 11125583 **Diagnosed** : 16 Jul 2024 - Wes Davis  
**Test Package** : CONST

**SHERWOOD CONSTRUCTION CO INC**  
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 doug.king@sherwood.net  
 T: (316)617-3161  
 F: x:

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)