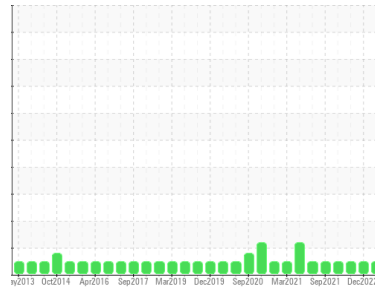




# OIL ANALYSIS REPORT

Sample Rating Trend



**NORMAL**



Area  
**Southcentral Power Plant**  
 Machine Id  
**13CTG-TLO**  
 Component  
**Turbine**  
 Fluid  
**MOBIL JET OIL II (150 GAL)**

## 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. Color 8.0.

## SAMPLE INFORMATION

|               | method      | limit/base  | current            | history1    | history2    |
|---------------|-------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info |             | <b>WC0784108</b>   | WC0567439   | WC0631013   |
| Sample Date   | Client Info |             | <b>26 Apr 2023</b> | 29 Dec 2022 | 20 Jun 2022 |
| Machine Age   | hrs         | Client Info | <b>0</b>           | 0           | 0           |
| Oil Age       | hrs         | Client Info | <b>5000</b>        | 2880        | 0           |
| Oil Changed   | Client Info |             | <b>Not Chngd</b>   | Not Chngd   | N/A         |
| Sample Status |             |             | <b>NORMAL</b>      | NORMAL      | NORMAL      |

## WEAR METALS

|          | method | limit/base      | current      | history1 | history2 |
|----------|--------|-----------------|--------------|----------|----------|
| Iron     | ppm    | ASTM D5185m >15 | <b>0</b>     | 0        | 0        |
| Chromium | ppm    | ASTM D5185m >4  | <b>&lt;1</b> | 0        | 0        |
| Nickel   | ppm    | ASTM D5185m >2  | <b>0</b>     | 0        | 0        |
| Titanium | ppm    | ASTM D5185m     | <b>0</b>     | 0        | 0        |
| Silver   | ppm    | ASTM D5185m     | <b>&lt;1</b> | 0        | 0        |
| Aluminum | ppm    | ASTM D5185m >10 | <b>&lt;1</b> | 0        | <1       |
| Lead     | ppm    | ASTM D5185m     | <b>&lt;1</b> | 0        | 0        |
| Copper   | ppm    | ASTM D5185m >5  | <b>0</b>     | 0        | <1       |
| Tin      | ppm    | ASTM D5185m >5  | <b>&lt;1</b> | <1       | <1       |
| Antimony | ppm    | ASTM D5185m     | <b>---</b>   | ---      | ---      |
| Vanadium | ppm    | ASTM D5185m     | <b>0</b>     | 0        | 0        |
| Cadmium  | ppm    | ASTM D5185m     | <b>0</b>     | 0        | 0        |

## ADDITIVES

|            | method | limit/base  | current      | history1 | history2 |
|------------|--------|-------------|--------------|----------|----------|
| Boron      | ppm    | ASTM D5185m | <b>0</b>     | 0        | 2        |
| Barium     | ppm    | ASTM D5185m | <b>0</b>     | 0        | 0        |
| Molybdenum | ppm    | ASTM D5185m | <b>&lt;1</b> | 0        | 0        |
| Manganese  | ppm    | ASTM D5185m | <b>&lt;1</b> | 0        | 0        |
| Magnesium  | ppm    | ASTM D5185m | <b>9</b>     | 0        | 0        |
| Calcium    | ppm    | ASTM D5185m | <b>0</b>     | 0        | 0        |
| Phosphorus | ppm    | ASTM D5185m | <b>2903</b>  | 2797     | 2806     |
| Zinc       | ppm    | ASTM D5185m | <b>4</b>     | 0        | 0        |
| Sulfur     | ppm    | ASTM D5185m | <b>0</b>     | 0        | 0        |

## CONTAMINANTS

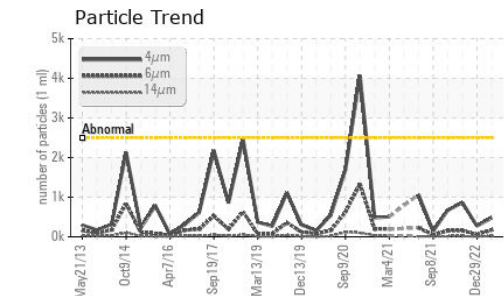
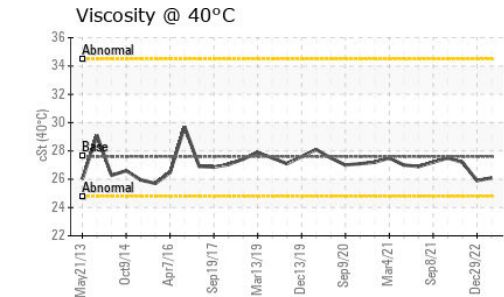
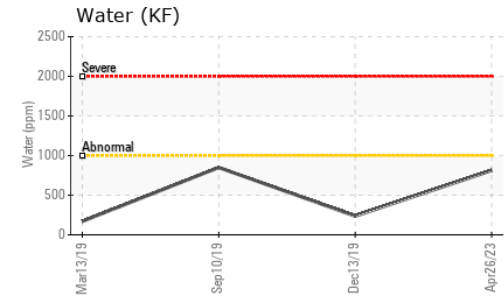
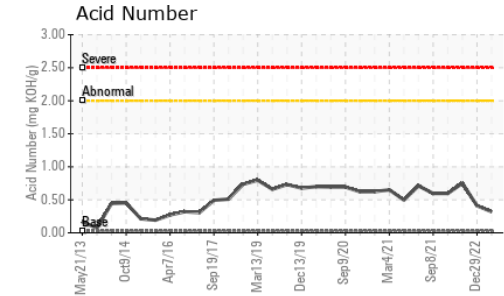
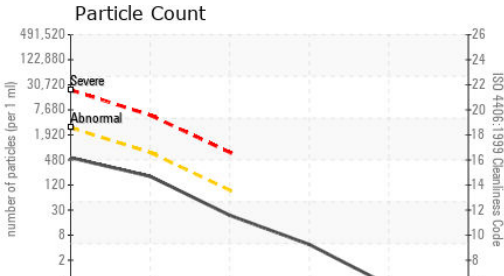
|           | method | limit/base       | current      | history1 | history2 |
|-----------|--------|------------------|--------------|----------|----------|
| Silicon   | ppm    | ASTM D5185m >15  | <b>&lt;1</b> | <1       | 0        |
| Sodium    | ppm    | ASTM D5185m      | <b>1</b>     | 0        | 4        |
| Potassium | ppm    | ASTM D5185m >20  | <b>&lt;1</b> | 0        | 0        |
| Water     | %      | ASTM D6304 >.1   | <b>0.081</b> | ---      | ---      |
| ppm Water | ppm    | ASTM D6304 >1000 | <b>812.5</b> | ---      | ---      |

## INFRA-RED

|           | method   | limit/base  | current      | history1 | history2 |
|-----------|----------|-------------|--------------|----------|----------|
| Soot %    | %        | *ASTM D7844 | <b>0.3</b>   | ---      | ---      |
| Nitration | Abs/cm   | *ASTM D7624 | <b>8.9</b>   | ---      | ---      |
| Sulfation | Abs/.1mm | *ASTM D7415 | <b>205.4</b> | ---      | ---      |



# OIL ANALYSIS REPORT



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WC0784108 **Received** : 26 May 2023  
**Lab Number** : 05858548 **Tested** : 31 May 2023  
**Unique Number** : 10493013 **Diagnosed** : 31 May 2023 - Jonathan Hester  
**Test Package** : PLANT ( Additional Tests: Color-ASTM, FT-IR )

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)

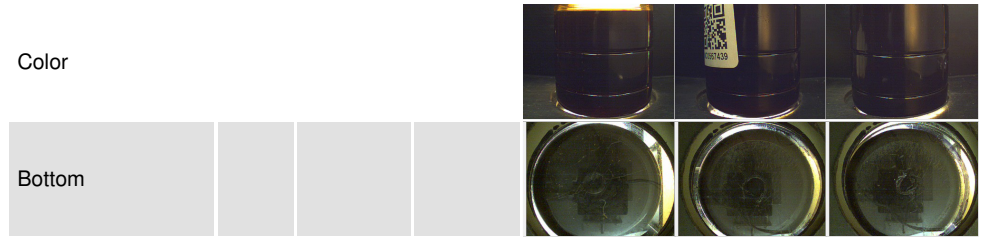
| FLUID CLEANLINESS | method       | limit/base | current         | history1 | history2 |
|-------------------|--------------|------------|-----------------|----------|----------|
| Particles >4µm    | ASTM D7647   | >2500      | <b>479</b>      | 273      | 863      |
| Particles >6µm    | ASTM D7647   | >640       | <b>171</b>      | 60       | 155      |
| Particles >14µm   | ASTM D7647   | >80        | <b>20</b>       | 5        | 17       |
| Particles >21µm   | ASTM D7647   | >20        | <b>4</b>        | 1        | 7        |
| Particles >38µm   | ASTM D7647   | >4         | <b>0</b>        | 0        | 0        |
| Particles >71µm   | ASTM D7647   | >3         | <b>0</b>        | 0        | 0        |
| Oil Cleanliness   | ISO 4406 (c) | >18/16/13  | <b>16/15/11</b> | 15/13/10 | 17/14/11 |

| FLUID DEGRADATION | method               | limit/base | current      | history1 | history2 |
|-------------------|----------------------|------------|--------------|----------|----------|
| Oxidation         | Abs./1mm *ASTM D7414 |            | <b>228.8</b> | ---      | ---      |
| Acid Number (AN)  | mg KOH/g ASTM D8045  | 0.03       | <b>0.32</b>  | 0.41     | 0.75     |

| VISUAL           | method         | limit/base | current      | history1 | history2 |
|------------------|----------------|------------|--------------|----------|----------|
| White Metal      | scalar *Visual | NONE       | <b>NONE</b>  | NONE     | VLITE    |
| Yellow Metal     | scalar *Visual | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Precipitate      | scalar *Visual | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Silt             | scalar *Visual | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Debris           | scalar *Visual | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Sand/Dirt        | scalar *Visual | NONE       | <b>NONE</b>  | NONE     | NONE     |
| Appearance       | scalar *Visual | NORML      | <b>NORML</b> | NORML    | NORML    |
| Odor             | scalar *Visual | NORML      | <b>NORML</b> | NORML    | NORML    |
| Emulsified Water | scalar *Visual | >.1        | <b>NEG</b>   | NEG      | NEG      |
| Free Water       | scalar *Visual |            | <b>NEG</b>   | NEG      | NEG      |

| FLUID PROPERTIES | method             | limit/base | current     | history1 | history2 |
|------------------|--------------------|------------|-------------|----------|----------|
| Visc @ 40°C      | cSt ASTM D445      | 27.6       | <b>26.1</b> | 25.9     | 27.2     |
| ASTM Color       | scalar *ASTM D1500 |            | <b>8.0</b>  | 8.0      | >8.0     |

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



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