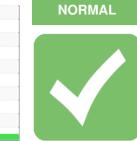


# **OIL ANALYSIS REPORT**

Sample Rating Trend





Machine Id **CATERPILLAR D6 LGP 10043 (S/N KEW01175)** Component **Right Final Drive** Fluid

{not provided} (--- GAL)

#### DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

#### Wear

All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

#### Fluid Condition

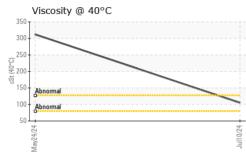
The condition of the oil is acceptable for the time in service.

| SAMPLE INFORM  | 1ATION   | method  | limit/base  | current  | history1   | history2  |
|--|--|---|---|--|--|---|
| Sample Number  |  | Client Info   |   | WC0899097  | WC0888163  |   |
| Sample Date  |  | Client Info   |   | 10 Jul 2024  | 24 May 2024  |   |
| Machine Age  | hrs  | Client Info   |   | 1224   | 601  |   |
| Oil Age  | hrs  | Client Info   |   | 623  | 601  |   |
| Oil Changed  |  | Client Info   |   | Changed  | Changed  |   |
| Sample Status  |  |   |   | NORMAL   | NORMAL   |   |
| CONTAMINATION  | ١  | method  | limit/base  | current  | history1   | history2  |
| Water  |  | WC Method   | >0.2  | NEG  | NEG  |   |
| WEAR METALS  |  | method  | limit/base  | current  | history1   | history2  |
| Iron   | ppm  | ASTM D5185m   | >800  | 14   | 37   |   |
| Chromium   | ppm  | ASTM D5185m   | >10   | <1   | <1   |   |
| Nickel   | ppm  | ASTM D5185m   | >5  | 0  | 0  |   |
| Titanium   | ppm  | ASTM D5185m   | >15   | 0  | 0  |   |
| Silver   | ppm  | ASTM D5185m   | >2  | 0  | 0  |   |
| Aluminum   | ppm  | ASTM D5185m   | >75   | 0  | <1   |   |
| Lead   | ppm  | ASTM D5185m   | >10   | 0  | 0  |   |
| Copper   | ppm  | ASTM D5185m   | >75   | 0  | 2  |   |
| Tin  | ppm  | ASTM D5185m   | >8  | 0  | 0  |   |
| Vanadium   | ppm  | ASTM D5185m   |   | 0  | 0  |   |
| Cadmium  | ppm  | ASTM D5185m   |   | 0  | 0  |   |
| ADDITIVES  |  | method  | limit/base  | current  | history1   | history2  |
| Boron  | ppm  | ASTM D5185m   |   | 151  | 122  |   |
|  | ppm  | AOTHI DOTOOIII  |   | 131  |  |   |
| Barium   | ppm  | ASTM D5185m   |   | 0  | 0  |   |
|  |  |   |   | -  |  |   |
| Barium   | ppm  | ASTM D5185m   |   | 0  | 0  |   |
| Barium<br>Molybdenum   | ppm<br>ppm   | ASTM D5185m<br>ASTM D5185m  |   | 0<br>0   | 0<br>0   |   |
| Barium<br>Molybdenum<br>Manganese  | ppm<br>ppm<br>ppm  | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   |   | 0<br>0<br>0  | 0<br>0<br>2  |   |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium   | ppm<br>ppm<br>ppm<br>ppm   | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  |   | 0<br>0<br>0<br>0   | 0<br>0<br>2<br>3   |   |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium  | ppm<br>ppm<br>ppm<br>ppm<br>ppm                                    | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   |   | 0<br>0<br>0<br>0<br>164  | 0<br>0<br>2<br>3<br>424  |   |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                             | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  |   | 0<br>0<br>0<br>0<br>164<br>342   | 0<br>0<br>2<br>3<br>424<br>367   |   |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                             | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m   | limit/base  | 0<br>0<br>0<br>0<br>164<br>342<br>30   | 0<br>0<br>2<br>3<br>424<br>367<br>51   | <br><br><br>  |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                             | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  | limit/base<br>>400  | 0<br>0<br>0<br>164<br>342<br>30<br>3296  | 0<br>0<br>2<br>3<br>424<br>367<br>51<br>14175  |   |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm                      | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m  |   | 0<br>0<br>0<br>164<br>342<br>30<br>3296<br>current   | 0<br>0<br>2<br>3<br>424<br>367<br>51<br>14175<br>history1  | <br><br><br><br><br>history2  |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon   | ppm                            | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br><b>method</b><br>ASTM D5185m   | >400  | 0<br>0<br>0<br>0<br>164<br>342<br>30<br>3296<br><u>current</u><br>4  | 0<br>0<br>2<br>3<br>424<br>367<br>51<br>14175<br>history1<br>4   | <br><br><br><br>history2  |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium   | ppm                            | ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br>ASTM D5185m<br><b>method</b><br>ASTM D5185m<br>ASTM D5185m  | >400  | 0<br>0<br>0<br>164<br>342<br>30<br>3296<br>current<br>4<br>2   | 0<br>0<br>2<br>3<br>424<br>367<br>51<br>14175<br>history1<br>4<br>6  | <br><br><br><br>history2  |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium  | ppm                            | ASTM D5185m<br>ASTM D5185m   | >400<br>>20   | 0<br>0<br>0<br>164<br>342<br>30<br>3296<br><u>current</u><br>4<br>2<br><1  | 0<br>0<br>2<br>3<br>424<br>367<br>51<br>14175<br>history1<br>4<br>6<br>2   | <br><br><br><br>history2<br><br>  |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>VISUAL  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm               | ASTM D5185m<br>ASTM D5185m   | >400<br>>20<br>limit/base   | 0<br>0<br>0<br>164<br>342<br>30<br>3296<br>current<br>4<br>2<br><1<br>current  | 0<br>0<br>2<br>3<br>424<br>367<br>51<br>14175<br>history1<br>4<br>6<br>2<br>2<br>history1  | <br><br><br><br>history2<br><br><br>history2                                  |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>VISUAL<br>White Metal   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m<br>ASTM D5185m   | >400<br>>20<br>limit/base<br>NONE   | 0<br>0<br>0<br>164<br>342<br>30<br>3296<br>current<br>4<br>2<br><1<br>2<br><1<br>kone  | 0<br>0<br>2<br>3<br>424<br>367<br>51<br>14175<br><u>history1</u><br>4<br>6<br>2<br>2<br><u>history1</u><br>NONE<br>NONE<br>NONE<br>NONE  | <br><br><br><br>history2<br><br><br>history2                                  |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>VISUAL<br>White Metal<br>Yellow Metal   | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m<br>ASTM D5185m<br>XM D5185m  | >400<br>>20<br>limit/base<br>NONE<br>NONE   | 0<br>0<br>0<br>164<br>342<br>30<br>3296<br><u>current</u><br>4<br>2<br><1<br><u>current</u><br>NONE<br>NONE  | 0<br>0<br>2<br>3<br>424<br>367<br>51<br>14175<br><u>history1</u><br>4<br>6<br>2<br>2<br><u>history1</u><br>NONE<br>NONE<br>NONE<br>NONE<br>NONE  | <br><br><br><br>history2<br><br><br>history2                                  |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>VISUAL<br>White Metal<br>Yellow Metal<br>Precipitate  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m<br>ASTM D5185m<br>Yisual<br>*Visual  | >400<br>>20<br>limit/base<br>NONE<br>NONE<br>NONE   | 0<br>0<br>0<br>164<br>342<br>30<br>3296<br><u>current</u><br>4<br>2<br><1<br><u>current</u><br>NONE<br>NONE<br>NONE<br>NONE  | 0<br>0<br>2<br>3<br>424<br>367<br>51<br>14175<br><u>history1</u><br>4<br>6<br>2<br>2<br><u>history1</u><br>NONE<br>NONE<br>NONE<br>NONE  | <br><br><br><br><br>history2<br><br>history2<br><br>history2                  |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>VISUAL<br>White Metal<br>Yellow Metal<br>Precipitate<br>Silt  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m<br>ASTM D5185m<br>*Visual<br>*Visual<br>*Visual<br>*Visual   | >400<br>>20<br>limit/base<br>NONE<br>NONE<br>NONE<br>NONE                                 | 0<br>0<br>0<br>164<br>342<br>30<br>3296<br><u>current</u><br>4<br>2<br><1<br><u>current</u><br>NONE<br>NONE<br>NONE<br>NONE<br>NONE                                | 0<br>0<br>2<br>3<br>424<br>367<br>51<br>14175<br><u>history1</u><br>4<br>6<br>2<br>2<br><u>history1</u><br>NONE<br>NONE<br>NONE<br>NONE<br>NONE  | <br><br><br><br>history2<br><br>history2<br><br>history2<br>                  |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>VISUAL<br>White Metal<br>Yellow Metal<br>Precipitate<br>Silt<br>Debris  | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m<br>ASTM D5185m<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual  | >400<br>>20<br>Imit/base<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE                          | 0<br>0<br>0<br>164<br>342<br>30<br>3296<br>current<br>4<br>2<br><1<br>current<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE                                      | 0<br>0<br>2<br>3<br>424<br>367<br>51<br>14175<br>history1<br>4<br>6<br>2<br><u>history1</u><br>4<br>6<br>2<br><u>NONE</u><br>NONE<br>NONE<br>NONE<br>NONE<br>NONE                        | <br><br><br><br>history2<br><br><br>history2<br><br>history2<br>              |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>VISUAL<br>White Metal<br>Yellow Metal<br>Precipitate<br>Silt<br>Debris<br>Sand/Dirt                               | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m<br>ASTM D5185m<br>Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual | >400<br>>20<br>Iimit/base<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE                         | 0<br>0<br>0<br>164<br>342<br>30<br>3296<br>current<br>4<br>2<br><1<br>current<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NON                       | 0<br>0<br>2<br>3<br>424<br>367<br>51<br>14175<br>history1<br>4<br>6<br>2<br>2<br>history1<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NON                                 | <br><br><br><br>history2<br><br><br>history2<br><br>history2<br><br>          |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>VISUAL<br>White Metal<br>Yellow Metal<br>Yellow Metal<br>Precipitate<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m<br>ASTM D5185m<br>Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual                                  | >400<br>>20<br>Iimit/base<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NORE | 0<br>0<br>0<br>10<br>164<br>342<br>30<br>3296<br>current<br>4<br>2<br><1<br>current<br>4<br>2<br><1<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NON | 0<br>0<br>2<br>3<br>424<br>367<br>51<br>14175<br>history1<br>4<br>6<br>2<br>2<br>history1<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NON                                 | <br><br><br><br>history2<br><br><br>history2<br><br>history2<br><br>          |
| Barium<br>Molybdenum<br>Manganese<br>Magnesium<br>Calcium<br>Phosphorus<br>Zinc<br>Sulfur<br>CONTAMINANTS<br>Silicon<br>Sodium<br>Potassium<br>VISUAL<br>White Metal<br>Yellow Metal<br>Precipitate<br>Silt<br>Debris<br>Sand/Dirt<br>Appearance<br>Odor         | ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm<br>ppm | ASTM D5185m<br>ASTM D5185m<br>Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual<br>*Visual | >400<br>>20<br>Iinit/base<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NON  | 0<br>0<br>0<br>164<br>342<br>30<br>3296<br><u>current</u><br>4<br>2<br><1<br><u>current</u><br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NON         | 0<br>0<br>2<br>3<br>424<br>367<br>51<br>14175<br>history1<br>4<br>6<br>2<br>2<br>history1<br>A<br>6<br>2<br>2<br>history1<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NONE<br>NON | <br><br><br><br>history2<br><br><br>history2<br><br><br><br><br><br><br><br>- |

Report Id: TRANEW [WUSCAR] 06236585 (Generated: 07/16/2024 10:05:38) Rev: 1



## **OIL ANALYSIS REPORT**



| FLUID PRO                   | PERTIES | method      | limit/base           | current  | history1    | history2                 |
|-----------------------------|---------|-------------|----------------------|----------|-------------|--------------------------|
| Visc @ 40°C                 | cSt     | ASTM D445   |                      | 105      | 312         |                          |
| SAMPLE IM                   | AGES    | method      | limit/base           | current  | history1    | history2                 |
| Color                       |         |             |                      | no image | no image    | no image                 |
| 00101                       |         |             |                      | no image | no image    | no image                 |
| Bottom                      |         |             |                      | no image | no image    | no image                 |
|                             |         |             |                      |          |             |                          |
| GRAPHS<br>Ferrous Alloy     | 'S      |             |                      |          |             |                          |
| 40<br>35                    |         |             |                      |          |             |                          |
| 30 -                        |         |             |                      |          |             |                          |
| 25 -<br>톱 20 -              |         |             |                      |          |             |                          |
| 15                          |         |             | /                    |          |             |                          |
| 10-<br>5-                   |         |             |                      |          |             |                          |
|                             |         |             | -                    |          |             |                          |
| May24/24                    |         |             | Jul10/24             |          |             |                          |
| Non-ferrous                 | Metals  |             |                      |          |             |                          |
| 9 copper                    |         |             |                      |          |             |                          |
| 8 tin                       |         |             |                      |          |             |                          |
| 6-<br>틆 5-                  |         |             |                      |          |             |                          |
| 4                           |         |             |                      |          |             |                          |
| 3-2-                        |         |             |                      |          |             |                          |
|                             |         |             |                      |          |             |                          |
| May24/24                    |         |             | Jul10/24             |          |             |                          |
| ≅<br>Viscosity @ 4          | 10°C    |             | 7                    |          |             |                          |
| 350                         |         |             |                      |          |             |                          |
| 300                         |         |             |                      |          |             |                          |
| 250-<br>ç                   |         |             |                      |          |             |                          |
| (J. 00<br>00<br>73          |         |             |                      |          |             |                          |
| 150 Abnormal                |         |             |                      |          |             |                          |
| 100 Abnormal                |         |             |                      |          |             |                          |
| 50 47                       |         |             | /24                  |          |             |                          |
| May24/24                    |         |             | Jul10/24             |          |             |                          |
| : WearCheck USA             |         |             |                      | т        | RADER CONST |                          |
| : WC0899097<br>r : 06236585 | Test    | :ed :16     | Jul 2024<br>Jul 2024 |          |             | DRAWER 157<br>EW BERN, N |
| r :11125419<br>e :CONST     | Diag    | Inosed : 16 | Jul 2024 - W         | es Davis | Contact     | US 2856<br>MIKE WYAT :   |



Test Package : CONST Certificate L2367 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)

US 28563 Contact: MIKE WYATT mwyatt@traderconstruction.com T: (252)633-1399 F: (252)638-4871

Contact/Location: MIKE WYATT - TRANEW

Page 2 of 2