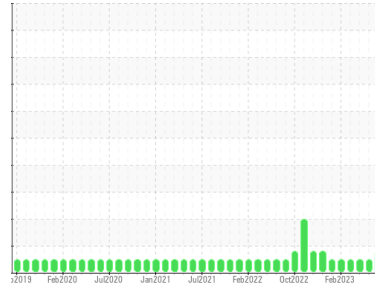




PROBLEM SUMMARY

Sample Rating Trend



SOOT

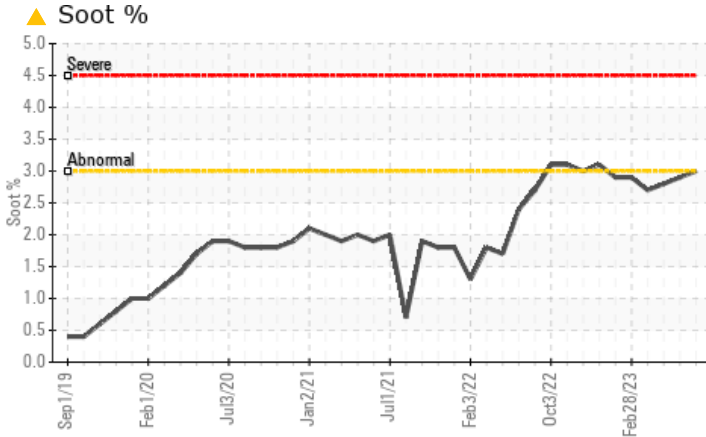


Machine Id
GERALD SHREVE (S/N 80G1-1067)

Component
Port Main Engine

Fluid
CHEVRON DELO 710 LS (300 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

| Sample Status | | | | ABNORMAL | NORMAL | NORMAL |
|---------------|---|-------------|----|-----------------|--------|--------|
| Soot % | % | *ASTM D7844 | >3 | ▲ 3 | 2.9 | 2.8 |

Customer Id: AMELOU
Sample No.: MW0050319
Lab Number: 05902091
Test Package: MAR 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Angela Borella +1 800-237-1369
angela.borella@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

| Action | Status | Date | Done By | Description |
|----------|--------|------|---------|---|
| Resample | --- | --- | ? | We recommend an early resample to monitor this condition. |

HISTORICAL DIAGNOSIS

11 Jun 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



02 May 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



01 Apr 2023 Diag: Wes Davis

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. 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. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

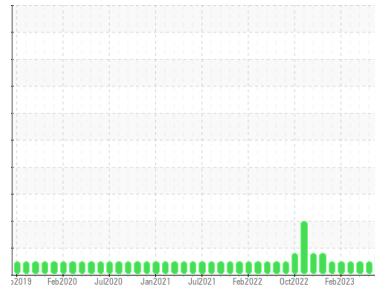
view report





OIL ANALYSIS REPORT

Sample Rating Trend



SOOT



Machine Id
GERALD SHREVE (S/N 80G1-1067)

Component
Port Main Engine

Fluid
CHEVRON DELO 710 LS (300 GAL)

DIAGNOSIS

▲ Recommendation

The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

▲ Contamination

Light concentration of carbon/soot present in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION

| method | limit/base | current | history1 | history2 |
|---------------|-------------|--------------------|-------------|-------------|
| Sample Number | Client Info | MW0050319 | MW0039281 | MW0050236 |
| Sample Date | Client Info | 03 Jul 2023 | 11 Jun 2023 | 02 May 2023 |
| Machine Age | hrs | Client Info | 31646 | 30945 |
| Oil Age | hrs | Client Info | 31646 | 30945 |
| Oil Changed | Client Info | Not Changed | Not Changed | Not Changed |
| Sample Status | | ABNORMAL | NORMAL | NORMAL |

CONTAMINATION

| method | limit/base | current | history1 | history2 |
|--------|------------|------------|----------|----------|
| Glycol | WC Method | NEG | NEG | NEG |

WEAR METALS

| method | limit/base | current | history1 | history2 | |
|----------|------------|-----------------|--------------|----------|----|
| Iron | ppm | ASTM D5185m >75 | 31 | 29 | 30 |
| Chromium | ppm | ASTM D5185m >8 | 2 | 2 | 2 |
| Nickel | ppm | ASTM D5185m >2 | 0 | <1 | <1 |
| Titanium | ppm | ASTM D5185m >3 | <1 | <1 | 0 |
| Silver | ppm | ASTM D5185m >2 | 0 | 0 | 0 |
| Aluminum | ppm | ASTM D5185m >15 | <1 | <1 | 2 |
| Lead | ppm | ASTM D5185m >18 | 6 | 6 | 7 |
| Copper | ppm | ASTM D5185m >80 | 25 | 26 | 22 |
| Tin | ppm | ASTM D5185m >14 | 9 | 10 | 12 |
| Vanadium | ppm | ASTM D5185m | <1 | 0 | 0 |
| Cadmium | ppm | ASTM D5185m | 0 | 0 | <1 |

ADDITIVES

| method | limit/base | current | history1 | history2 | |
|------------|------------|-------------|--------------|----------|------|
| Boron | ppm | ASTM D5185m | 44 | 32 | 34 |
| Barium | ppm | ASTM D5185m | 0 | 2 | 0 |
| Molybdenum | ppm | ASTM D5185m | 45 | 44 | 44 |
| Manganese | ppm | ASTM D5185m | <1 | <1 | <1 |
| Magnesium | ppm | ASTM D5185m | 13 | 17 | 12 |
| Calcium | ppm | ASTM D5185m | 3366 | 3237 | 3385 |
| Phosphorus | ppm | ASTM D5185m | 9 | 12 | 7 |
| Zinc | ppm | ASTM D5185m | 3 | 9 | 0 |
| Sulfur | ppm | ASTM D5185m | 2381 | 2398 | 2749 |

CONTAMINANTS

| method | limit/base | current | history1 | history2 | |
|-----------|------------|-----------------|----------------|----------|------|
| Silicon | ppm | ASTM D5185m >20 | 3 | 3 | 4 |
| Sodium | ppm | ASTM D5185m >75 | 3 | 1 | 1 |
| Potassium | ppm | ASTM D5185m >20 | 0 | 2 | 2 |
| Fuel | % | ASTM D3524 >4.0 | <1.0 | <1.0 | <1.0 |

INFRA-RED

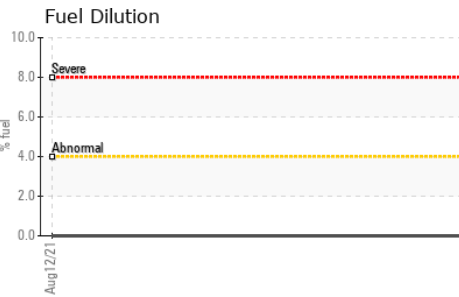
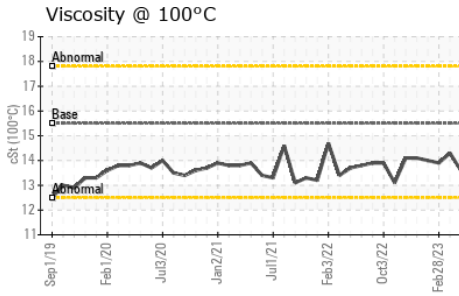
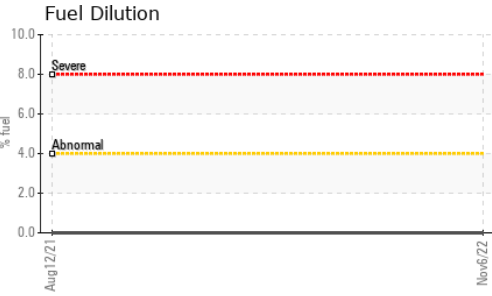
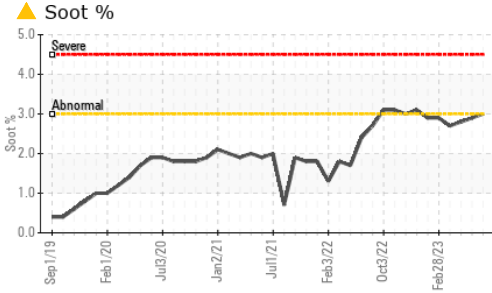
| method | limit/base | current | history1 | history2 | |
|-----------|------------|-----------------|-------------|----------|------|
| Soot % | % | *ASTM D7844 >3 | ▲ 3 | 2.9 | 2.8 |
| Nitration | Abs/cm | *ASTM D7624 >20 | 9.8 | 9.3 | 9.3 |
| Sulfation | Abs/.1mm | *ASTM D7415 >30 | 19.9 | 20.5 | 19.9 |

FLUID DEGRADATION

| method | limit/base | current | history1 | history2 | |
|------------------|------------|-----------------|------------|----------|-----|
| Oxidation | Abs/.1mm | *ASTM D7414 >25 | 8.5 | 10.1 | 8.3 |
| Base Number (BN) | mg KOH/g | ASTM D2896 10.5 | 6.1 | 6.7 | 6.4 |



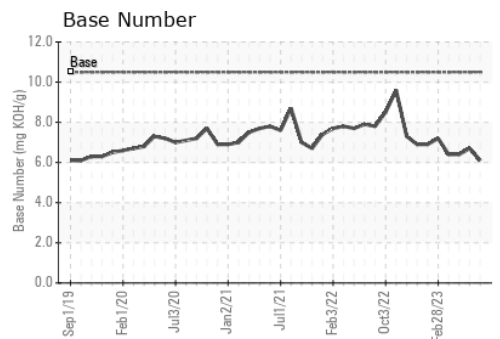
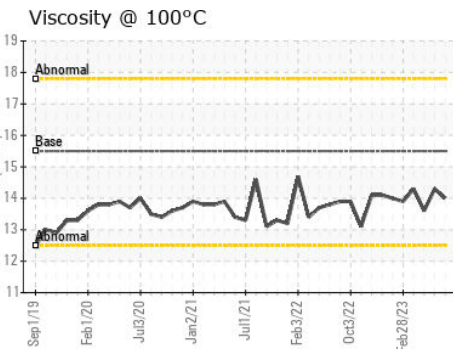
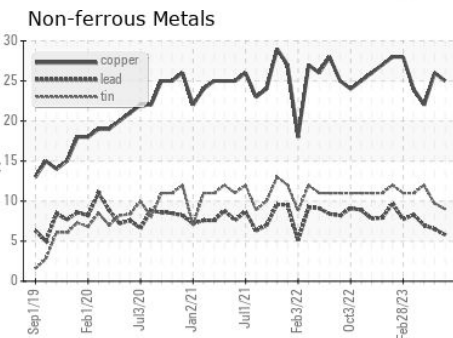
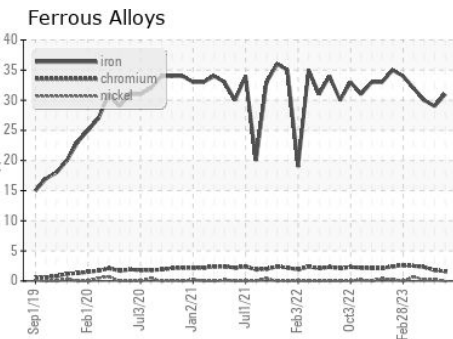
OIL ANALYSIS REPORT



| 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 @ 100°C | cSt | ASTM D445 | 15.5 | 14.0 | 14.3 | 13.6 |

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : MW0050319 Received : 19 Jul 2023
 Lab Number : 05902091 Diagnosed : 21 Jul 2023
 Unique Number : 10563447 Diagnostician : Angela Borella
 Test Package : MAR 2 (Additional Tests: FuelDilution)

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)

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