

OIL ANALYSIS REPORT

Sample Rating Trend





KEMP QUARRIES / BCS - MILL CREEK [66781] TTT008 Component

Rear Right Final Drive

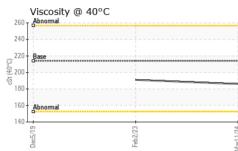
Fluid

PETRO CANADA PRODURO TO-4 SAE 50 (--- GAL)

| | | | | c2019 | Feb2023 Mar20 | 124 | |
|---|------------------|------------|-------------|------------|---------------|-------------|-------------|
| DIAGNOSIS | SAMPLE INFOF | RMATION | method | limit/base | current | history1 | history2 |
| Recommendation | Sample Number | | Client Info | | PCA0108981 | PCA0086698 | PCA46228009 |
| Resample at the next service interval to monitor. (| Sample Date | | Client Info | | 11 Mar 2024 | 02 Feb 2023 | 05 Dec 2019 |
| Customer Sample Comment: PM-1 sampled fluid) | Machine Age | hrs | Client Info | | 7033 | 6859 | 6342 |
| Wear | Oil Age | hrs | Client Info | | 7033 | 6859 | 0 |
| All component wear rates are normal. | Oil Changed | | Client Info | | N/A | Changed | N/A |
| Contamination | Sample Status | | | | NORMAL | NORMAL | NORMAL |
| There is no indication of any contamination in the oil. | CONTAMINA | ΓΙΟΝ | method | limit/base | current | history1 | history2 |
| Fluid Condition | Water | | WC Method | >0.2 | NEG | NEG | NEG |
| The condition of the oil is acceptable for the time in service. | WEAR METAL | _S | method | limit/base | current | history1 | history2 |
| service. | Iron | ppm | ASTM D5185m | >800 | 74 | 58 | 35 |
| | Chromium | ppm | ASTM D5185m | >10 | <1 | <1 | 0 |
| | Nickel | ppm | ASTM D5185m | >5 | <1 | 0 | 0 |
| | Titanium | ppm | ASTM D5185m | >15 | 1 | <1 | 0 |
| | Silver | ppm | ASTM D5185m | | 0 | 0 | 0 |
| | Aluminum | ppm | ASTM D5185m | >75 | 13 | 3 | 1 |
| | Lead | ppm | ASTM D5185m | | 0 | 0 | 0 |
| | Copper | ppm | ASTM D5185m | >75 | <1 | <1 | 0 |
| | Tin | ppm | ASTM D5185m | | <1 | 0 | 0 |
| | Vanadium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| | Cadmium | ppm | ASTM D5185m | | 0 | 0 | 0 |
| | ADDITIVES | | method | limit/base | current | history1 | history2 |
| | Boron | ppm | ASTM D5185m | 2 | <1 | 0 | 3 |
| | Barium | ppm | ASTM D5185m | 0 | 0 | 0 | 0 |
| | Molybdenum | ppm | ASTM D5185m | | 1 | <1 | 2 |
| | Manganese | ppm | ASTM D5185m | 0 | 1 | <1 | 0 |
| | Magnesium | ppm | ASTM D5185m | | 17 | 13 | 36 |
| | Calcium | ppm | ASTM D5185m | | 3003 | 3007 | 2389 |
| | Phosphorus | ppm | ASTM D5185m | | 1053 | 1018 | 941 |
| | Zinc | ppm | ASTM D5185m | | 1260 | 1206 | 938 |
| | Sulfur | ppm | ASTM D5185m | | 5494 | 9004 | |
| | CONTAMINA | | method | limit/base | current | history1 | history2 |
| | Silicon | ppm | ASTM D5185m | | 95 | 19 | 7 |
| | Sodium | | ASTM D5185m | 2700 | 95 | 0 | 2 |
| | Potassium | ppm ppm | ASTM D5185m | >20 | 7 | 3 | 1 |
| | 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 | >0.2 | NEG | NEG | |
| | Free Water | scalar | *Visual | 2.012 | NEG | NEG | |
| | | Scalal | Visual | | nLG | NLU | |



OIL ANALYSIS REPORT



| Visc @ 40°C SAMPLE IMAC Color Bottom | cSt GES | ASTM D445 method | 213.9 limit/base | 186 current | 191 history1 | history2 |
|---|--|--|--|--|--|--|
| Color | GES | method | limit/base | | history1 | history2 |
| | | | | no imago | | |
| Bottom | | | | no image | no image | no image |
| | | | | no image | no image | no image |
| GRAPHS | | | | | | |
| Iron (ppm) | | | 20 | Lead (ppm) | | |
| Samara | 1 | | | Sminn | | |
| E 1000 | | | | | | |
| | | | | Abnormal | 1 | |
| 500 | | | 5 | | | |
| | eb 2/23 – | | 11/24 | | eb2/23 | |
| — | Ŧ | | Ma | | | |
| 200 - Severe | | | | I Smore | | |
| 150 - | | | 20 |) - | | |
| Abnormal | | | | Abnemal | | |
| 50 | | | | Ī | | |
| 0 L : | /23 | | | | /23 | |
| — | Feb 2 | | Mar11 | | Feb 2 | |
| Copper (ppm) | | | 1000 | | | |
| 150 | | | 800 | | | |
| Ē 100 - | | | 600 E | | | |
| a Abnoimaí | | | 400 | Ĩ | | |
| | | | 200 | | | |
| | eb 2/23 | | ar11/24 | lec5/19 | eb2/23 | |
| Viscosity @ 40°C | | | Ma | | L. | |
| 260 Abnormal | | | | calcium | | |
| 1 | | | 2500 | - STATES STATES STATES | S | |
| \$ 9 200 - ₹3 | | | | | | |
| | | | | | | |
| 140 | 23 | | | | | |
| Dec5/ | Feb2/ | | Mar11/ | Dec5/ | Feb2/ | |
| : PCA0108981 : 06121810 : 10935961 : MOB 1 | Recei Teste Diagn | ved : 18 d : 19 losed : 21 | r, NC 27513 3 Mar 2024 9 Mar 2024 Mar 2024 - Jonat | | Contact: | 609 Lazy E F Noel, M US 648 TRAVIS ELL |
| | Iron (ppm) Iron (ppm) Abnormal Abnormal Abnormal Abnormal Abnormal Copper (ppm) Copper (ppm) | Iron (ppm) Iron (ppm) Abnomal Abnomal Abnomal Aluminum (ppm) Copper (ppm) Coppe | Iron (ppm) Iron (ppm) Anomal Anomal Anomal Anomal Anomal Anomal Anomal Copper (ppm) Copper | Iron (ppm) Iron (| Tron (ppm) Lead (ppm) Lead (ppm) Lead (ppm) Lead (ppm) Lead (ppm) Lead (ppm) Lead (ppm) Lead (ppm) Lead (ppm) Chromium (pp) Chromium (ppm) Corper (ppm) Lead (ppm) Silicon (ppm) Silicon (ppm) Lead (ppm) Silicon (ppm) Silicon (ppm) Lead (ppm) Silicon (ppm) Lead (ppm) Silicon (ppm) Silico | Tron (ppm) Tron (|