

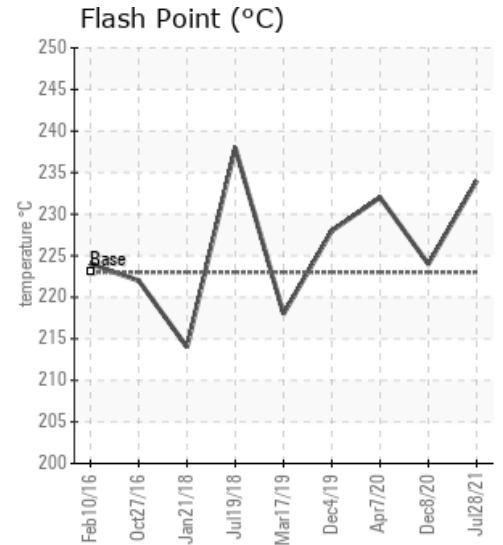
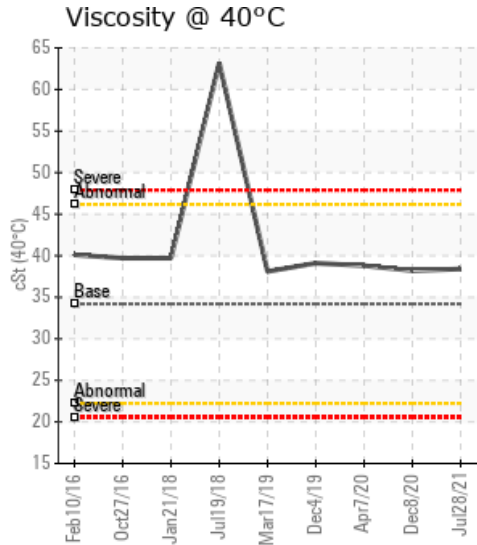
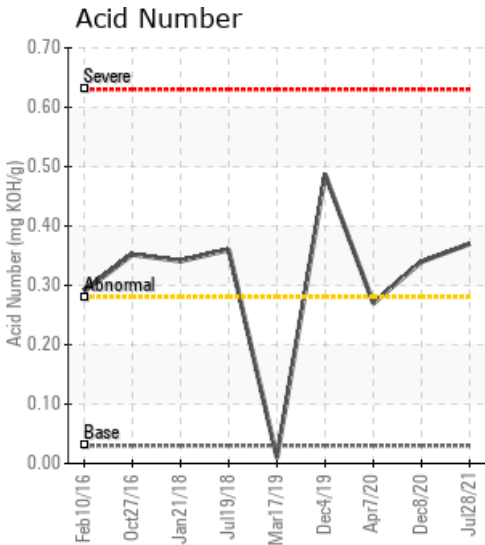
[11-21-55-20W5M] H-1210

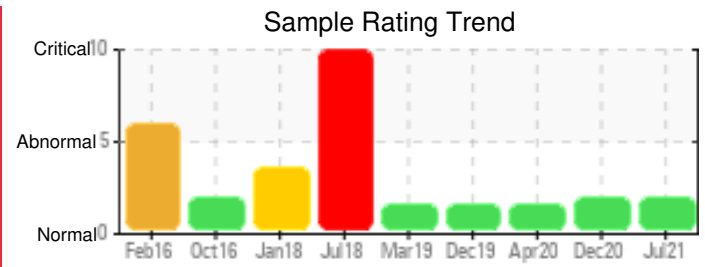
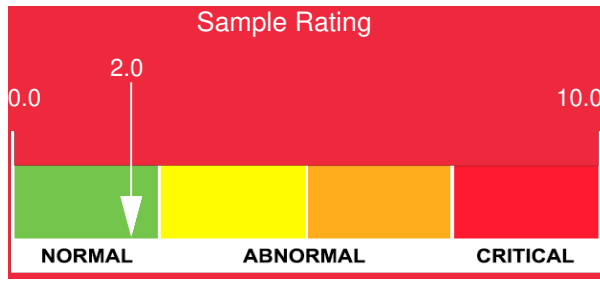
| Customer: PTRHTF20228 | System Information | Sample Information |
|--|--|--|
| PEYTO EXPLORATION Box 7198 EDSON, AB T7E 1V4 Canada Attn: Logan Pillage Tel: (780)712-9444 E-Mail: Lpillage@Peyto.com | System Volume: 27000 ltr Bulk Operating Temp: 320F / 160C Heating Source: Blanket: Fluid: PETRO CANADA PETRO-THERM Make: ALCO | Lab No: 02436774 Analyst: Terry Veenstra Sample Date: 07/28/21 Received Date: 08/04/21 Completed: 08/17/21 Terry Veenstra terry.veenstra@hollyfrontier.com |

Recommendation: TAN and Pentane Insolubles are marginally high. Ensure Gas blanket is functioning to prevent oxidation of fluid. Resample in 6 months.

Comments: Pentane Insolubles levels are abnormally high. Acid Number (AN) is abnormally high.

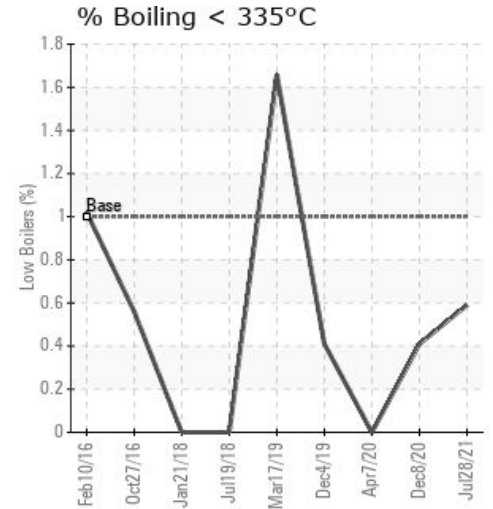
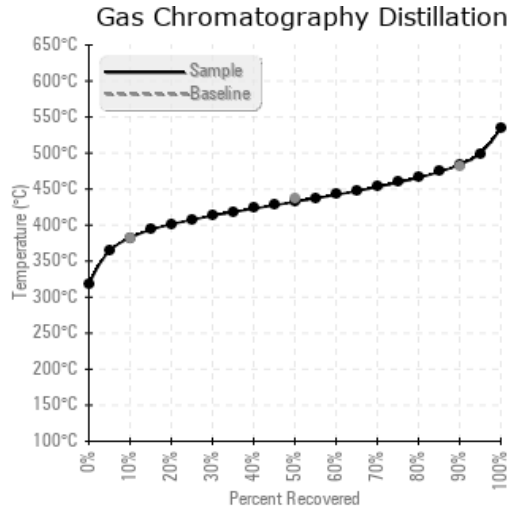
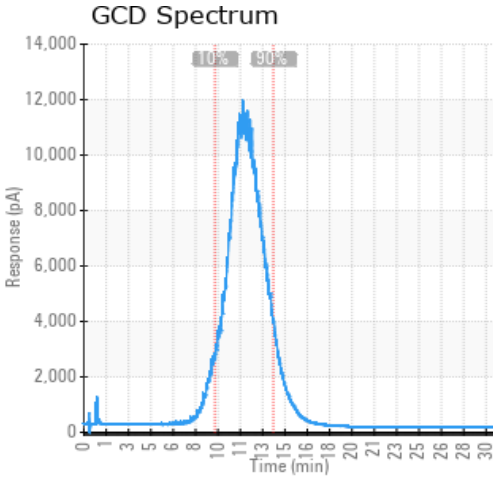
| Sample Date | Received Date | Fluid Age | Sample Location | Flash Point (COC) | Water (KF) | Viscosity (40°C) | Acid Number | Solids | GCD 10% | GCD 50% | GCD 90% | GCD % < 335°C |
|---------------|---------------|-----------|----------------------|-------------------|------------|------------------|-------------|--------|-----------|-----------|-----------|---------------|
| | mm/dd/yy | | | °F/°C | ppm | cSt | mg/KOH/g | %wt | °F/°C | °F/°C | °F/°C | % |
| 07/28/21 | 08/04/21 | 0.0y | DISCHARGE OF PUMP | 453 / 234 | 21.6 | 38.4 | 0.37 | 0.489 | 720 / 382 | 810 / 432 | 903 / 484 | 0.59 |
| 12/08/20 | 12/11/20 | 0.0y | Discharge of pump | 435 / 224 | 9.7 | 38.2 | 0.34 | 0.490 | 722 / 383 | 812 / 434 | 909 / 487 | 0.41 |
| 04/07/20 | 04/14/20 | 0.0y | | 450 / 232 | 10.6 | 38.8 | 0.27 | 0.934 | 724 / 384 | 813 / 434 | 908 / 487 | 0.00 |
| 12/04/19 | 12/09/19 | 0.0y | DISCHARGE | 442 / 228 | 25.9 | 39.1 | 0.487 | 0.723 | 716 / 380 | 808 / 431 | 908 / 487 | 0.41 |
| 03/17/19 | 03/18/19 | 0.0y | DISCHARGE OF THE PUM | 424 / 218 | 12.5 | 38.1 | 0.01 | 1.11 | 702 / 372 | 798 / 426 | 896 / 480 | 1.66 |
| Baseline Data | | | | 433 / 223 | | 34.2 | 0.03 | | 720 / 382 | 817 / 436 | 900 / 482 | 1.00 |





| Sample Date | Iron | Chromium | Nickel | Aluminum | Copper | Lead | Tin | Cadmium | Silver | Vanadium | Silicon | Sodium | Potassium | Titanium | Molybdenum | Antimony | Manganese | Lithium | Boron | Magnesium | Calcium | Barium | Phosphorus | Zinc |
|---------------|------|----------|--------|----------|--------|------|-----|---------|--------|----------|---------|--------|-----------|----------|------------|----------|-----------|---------|-------|-----------|---------|--------|------------|------|
| 07/28/21 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12/08/20 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 04/07/20 | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12/04/19 | 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 03/17/19 | 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Baseline Data | | | 0 | 0 | | | | | | 0 | | | 0 | 0 | | | | 0 | | | | | 0 | |

Elemental analysis results (above) in parts per million (ppm). [10,000 ppm = 1.0%]



Historical Comments

| | |
|----------|---|
| 12/08/20 | The Pentane insolubles is higher than normal however has improved since last sample. They TAN is higher than it was since last sample. Ensure gas blanket is in good operating condition. Continue to operate and resample in 6 months. Pentane Insolubles levels are abnormally high. Acid Number (AN) is abnormally high. |
| 04/07/20 | The fluid is in a good condition and suitable for further use. Despite the kidney loop filtration the solids content of the fluid has increased slightly. There is no indication in the analysis to explain this. It means it's either related to the repeatability/reproducibility of the test method or filtration is not efficient. Please ensure that filter elements are replaced before they reach high delta p to avoid rupture and/or solids carry-over. Please re-sample in 6 months. Pentane Insolubles levels are severely high. |
| 12/04/19 | The fluid is in a good condition and suitable for further use. AN is slightly high which has resulted in some corrosion to take place. (Fe)Pentane insolubles (solids) content has just exceeded the reportable limit of 0.5% with 0.7%. This is not a problem at this moment. System is equipped with kidney loop filtration which seems to work efficient. Next sample will show that better. Please resample in 6 months. Comment for Logan: it is not recommended to connect this system with system H-802 because the fluid of system H-802 would contaminate this Fluid resulting in a reduction of the remaining life of the Fluid. It would also foul system H-1210 Pentane Insolubles levels are severely high. Acid Number (AN) is abnormally high. |
| 03/17/19 | The fluid is in a good condition but the Pentane Insoluble (solids) content is high. It is recommended to start filtration of the fluid and re-sample when filtration is completed. Pentane Insolubles levels are severely high. |