

### Customer Information

SILVERADO SITE SERVICES - PME

Attention : Jason Tharp  
 Phone :  
 Fax :

### Equipment Information

Unit # : 889-010  
 Component : COOLANT  
 Location :  
 Unit Mfr/Model : CATERPILLAR PM313  
 Unit Serial # : CAT00PM3JJH200401  
 Comp Mfr/Model :  
 Comp Serial # :  
 Site Location :

### Coolant

Manufacturer :  
 Brand :  
 Grade :  
 Sample # : 2026/05/25-6  
 Lab Tracking # : 59E1 - 69112

V21-12  
 JW

# FLUID LIFE

EQUIPMENT RELIABILITY SERVICES

### Coolant Analysis

4371 Savaryn Drive SW, Edmonton  
 Alberta, Canada, T6X 2E8  
 Phone: 877 962 2400  
 Web: www.fluidlife.com

### Sample Information

Sample Date	Sample No.	Coolant Changed	Comp. Service	Oil Service	Units
2026/05/21	2026/05/25-6	N	-660		

### Physical Tests

Refractive Index	% Glycol	Freeze Point (°C)	Boiling Point (°C)	ph	Conductivity (µS/cm)
1.3877	52.2	-40	107	8.84	3243

### Appearance Tests

Sample Date	Color	Odor	Clarity	Precipitate	Magnetic Precipitate
2026/05/21	Orange	GD	CLR	TRACE	N

### Additives

Nitrites ppm

### Results

2026/05/21 Coolant is acceptable for use.  
 This sample of coolant is clear and bright.  
 Trace levels of precipitates were observed in this sample.

### Recommendations

2026/05/21 Resample next interval to monitor.

Key: Y - Yes N - Negative P - Positive R - Reportable S - Severe I - Insufficient Sample > - More Than < - Less Than ~ - Lab Estimated - Updated

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## Glossary

There are three different types of coolant on the market today. The traditional coolant uses inorganic acid technology. Organic acid technology (OAT) coolants have a longer life and use organic acids as inhibitors. The third type is a hybrid and uses both organic and inorganic acid inhibitors. As a rule of thumb, the different types should not be mixed as the additives may react and the coolant lose its properties.

**Freeze Point** - This indicates the temperature at which the coolant mixture will freeze.

**Boiling Point** - This is the temperature where the coolant will start boiling. Boiling will dramatically reduce the heat transfer properties of the coolant.

**pH** - This is an indication of the acidity/alkalinity of the coolant. The pH ranges depend on the type of coolant used.

**Conductivity** - This is measured in microsiemens per centimeter and as the value increases, there is a greater chance that current can be transmitted through the coolant. This can destroy the effectiveness of the inhibitors. In extreme cases, this will accelerate corrosion and/or pitting.

**Nitrites** - These are inhibitors that are sometimes used to prevent iron corrosion and cavitation.

**Reserve Alkalinity** - This is a measure of how much buffer is still available in the coolant. Note that the pH of a coolant will not change much until the buffer package is depleted. This is an optional additional test. If you would like to perform this test please contact your Account Manager or Customer Care at [customer care@fluidlife.com](mailto:customer care@fluidlife.com)

**Appearance Test** - A coolant should be clear with no distinctive odor or precipitate.

For further information, please see the Coolant Interpretation guide available from Fluid Life.

## Abbreviations

### Odor

**NH4** - Ammonia

**BUR** - Burnt odor

**FUN** - Fungal odor

**FUE** - Diesel fuel

**SOL** - Solvent

**GD** - Good, acceptable

### Clarity

**CLR** - Clear

**CLD** - Cloudy

**HAZ** - Hazy

### Precipitate

**FLU** - Fluffy

**CHU** - Chunks

**N** - Negative

**DIR** - Dirt

**FLA** - Flakes

**SLU** - Sludge

**TRACE** Trace

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Comp Mfr/Model : CATERPILLAR / PM313  
Comp Serial # : CAT00PM3JJHZ00401

### Lubricant

Manufacturer :  
Brand :  
Grade :  
Sample # : 2026/05/25-27  
Lab Tracking # : 59KQ - 69059



EQUIPMENT RELIABILITY SERVICES

### Oil Analysis

4371 Savaryn Drive SW, Edmonton  
Alberta, Canada T6X 2E8  
Phone: 877 962 2400

Sample		Wear Metals ppm														Additives ppm							
Sample Number	Sample Date	Aluminum	Iron	Copper	Lead	Tin	Chromium	Nickel	Titanium	Silver	Vanadium	Antimony	Beryllium	Manganese	Cadmium	Calcium	Zinc	Phosphorus	Magnesium	Molybdenum	Boron	Barium	Lithium
Ref. Sample																							
05/25-027	2026/05/21	0	5	1	0	0	0	0	0	0	0	0	0	0	0	1193	1245	1197	958	65	4	0	0
02/13-101	2026/02/05	2	15	6	1	1	0	0	0	0	0	0	0	0	0	1144	1141	1056	865	55	12	0	0

Sample Information								Contaminants ppm			Physical Tests							Additional Tests		
Sample Date	Oil Mfr.	Oil Brand	Oil Grade	Component Service	Oil Service	Units	Oil Chg	Sodium	Potassium	Silicon	Visc 40°C cSt	Visc 100°C cSt	Visc Index	Water	Glycol %	Fuel %	Soot %	NIT (DT) (Abs/0.1mm)	OX (DT) (Abs/0.1mm)	
Ref. Sample																				
2026/05/21				~660	~2		N	0	3	7		13.51		N	NT	NT	0.11	5.73	17.1	
2026/02/05				~658			Y	2	6	15		11.83		N	NT	<0.60	0.19	8.25	21.6	

### Results

2026/05/21 Tested wear and contamination levels are within acceptable limits.  
2026/02/05 Assuming normal oil service life, tested wear and contamination are within acceptable limits.

### Recommendations

2026/05/21 Resample next interval to monitor.  
2026/02/05 Resample next interval to monitor.

Key: Y - Yes N - Negative P - Positive R - Reportable U - Unacceptable S - Severe I - Insufficient Sample - Data could not be provided NT - Not Triggered - Updated ~ - Lab Estimated

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Unit Serial # : CAT00PM3JJHZ00401  
Comp Mfr/Model : CATERPILLAR / PM313  
Comp Serial # : CAT00PM3JJHZ00401

## Lubricant

Manufacturer :  
Brand :  
Grade :  
Sample # : 2026/05/25-27  
Lab Tracking # : 59KQ - 69059

# FLUID LIFE

EQUIPMENT RELIABILITY SERVICES

## Trend Analysis

4371 Savaryn Drive SW, Edmonton  
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## Additional Tests

Sul (DT)  
(Abs/0.1mm)

20.2

23.0

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Comp Mfr/Model : CATERPILLAR / PM313  
Comp Serial # : CAT00PM3JJHZ00401

### Lubricant

Manufacturer :  
Brand :  
Grade :  
Sample # : 2026/05/25-27  
Lab Tracking # : 59KQ - 69059

# FLUID LIFE

EQUIPMENT RELIABILITY SERVICES

### Trend Analysis

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### Your Sample Rank

0.0

Normal  
0 - 5

Elevated  
5 - 8

High  
8 - 9

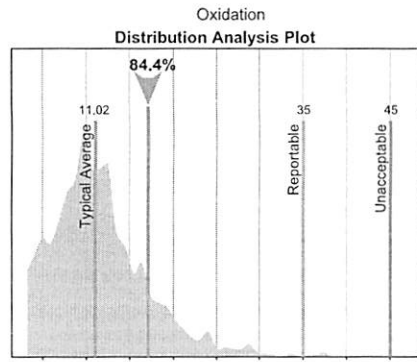
Very High  
Over 9

10

Sample rank ranges from zero to ten. The higher the sample rank, the more abnormal the sample results are.

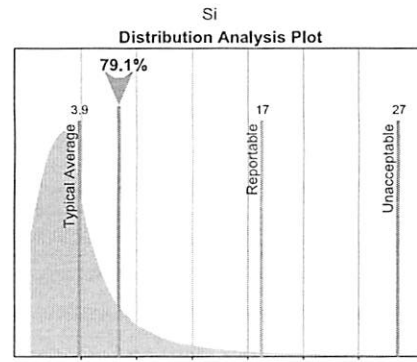
### Top Trends Analysis

Oxidation Test Rank 4.3



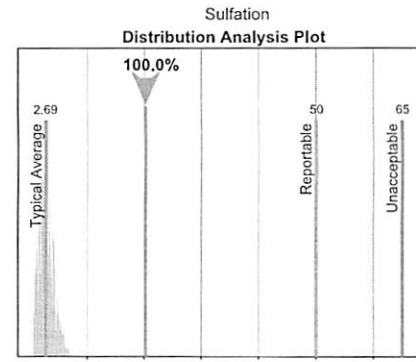
2044 CATERPILLAR DIESEL ENGINE FLEET - OFF ROAD Samples

Si Test Rank 3.5



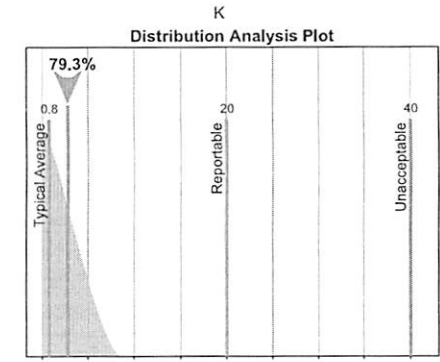
34138 CATERPILLAR DIESEL ENGINE FLEET - CONSTRUCTION Samples

Sulfation Test Rank 3.2



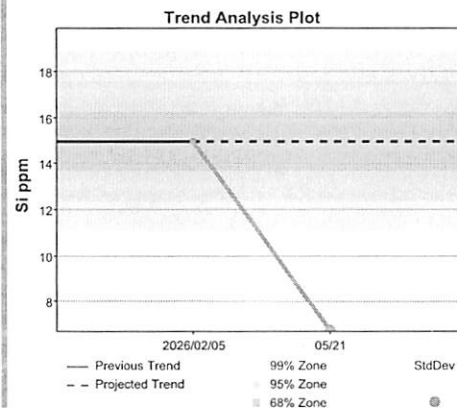
2045 CATERPILLAR DIESEL ENGINE FLEET - OFF ROAD Samples

K Test Rank 1.5

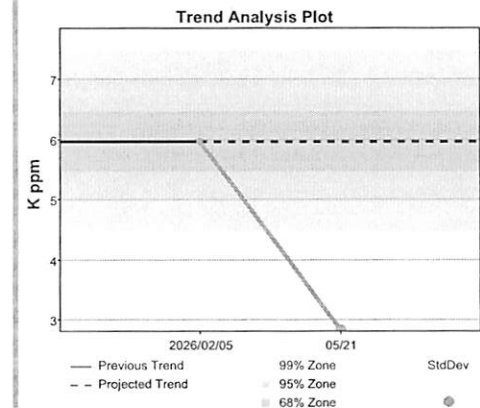


34138 CATERPILLAR DIESEL ENGINE FLEET - CONSTRUCTION Samples

No trend analysis available.



No trend analysis available.



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Component : HYDRAULIC  
Location :  
Unit Mfr/Model : CATERPILLAR / PM313  
Unit Serial # : CAT00PM3JJHZ00401  
Comp Mfr/Model :  
Comp Serial # :

### Lubricant

Manufacturer :  
Brand :  
Grade :  
Sample # : 2026/05/25-40  
Lab Tracking # : 59JC - 69057



EQUIPMENT RELIABILITY SERVICES

### Oil Analysis

4371 Savaryn Drive SW, Edmonton  
Alberta, Canada T6X 2E8  
Phone: 877 962 2400

Sample		Wear Metals ppm														Additives ppm							
Sample Number	Sample Date	Aluminum	Iron	Copper	Lead	Tin	Chromium	Nickel	Titanium	Silver	Vanadium	Antimony	Beryllium	Manganese	Cadmium	Calcium	Zinc	Phosphorus	Magnesium	Molybdenum	Boron	Barium	Lithium
Ref. Sample																							
05/25-040	2026/05/21	0	6	6	0	0	0	0	0	0	0	0	0	0	0	145	789	627	6	0	0	0	0

Sample Information								Contaminants ppm			Physical Tests			
Sample Date	Oil Mfr.	Oil Brand	Oil Grade	Component Service	Oil Service	Units	Oil Chg	Sodium	Potassium	Silicon	Visc 40°C cSt	Visc 100°C cSt	Visc Index	Water
Ref. Sample														
2026/05/21				~660			N	1	0	2		6.55		N

### Results

2026/05/21 Tested wear and contamination levels are within acceptable limits.

### Recommendations

2026/05/21 Resample next interval to monitor.

Key: Y - Yes N - Negative P - Positive R - Reportable U - Unacceptable S - Severe I - Insufficient Sample - Data could not be provided NT - Not Triggered ▲ - Updated -- - Lab Estimated

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Phone :

**Equipment Information**

Unit # : 889-010  
Component : HYDRAULIC  
Location :  
Unit Mfr/Model : CATERPILLAR / PM313  
Unit Serial # : CAT00PM3JJH200401  
Comp Mfr/Model :  
Comp Serial # :

**Lubricant**

Manufacturer :  
Brand :  
Grade :  
Sample # : 2026/05/25-40  
Lab Tracking # : 59JC - 69057

**Trend Analysis**

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Alberta, Canada T6X 2E8  
Phone: 877 962 2400

**Your Sample Rank**

0.0

Normal  
0 - 5

Elevated  
5 - 8

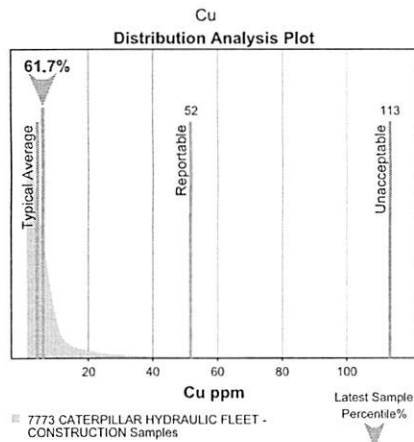
High  
8 - 9

Very High  
Over 9  
10

Sample rank ranges from zero to ten. The higher the sample rank, the more abnormal the sample results are.

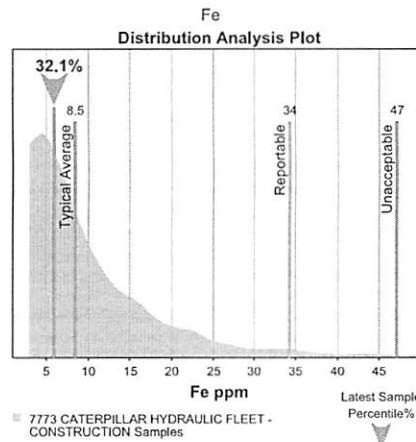
**Top Trends Analysis**

Cu Test Rank 1.4



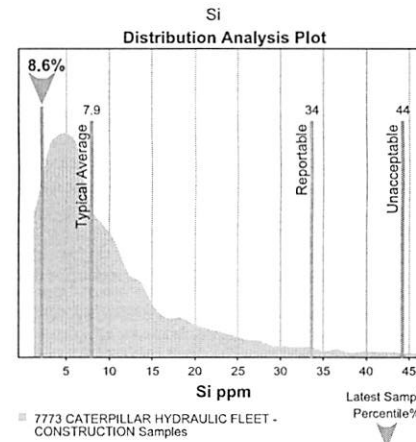
No trend analysis available.

Fe Test Rank 0.2



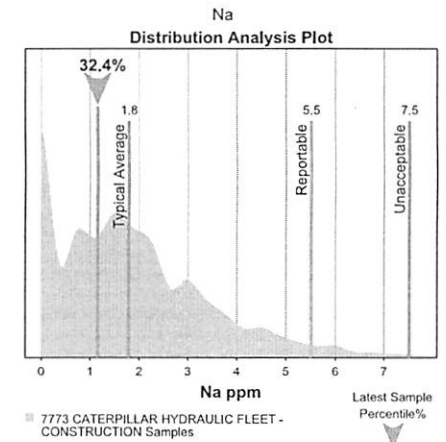
No trend analysis available.

Si Test Rank 0.1



No trend analysis available.

Na Test Rank 0.0



No trend analysis available.