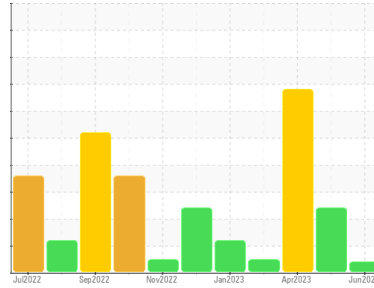




# PROBLEM SUMMARY

Sample Rating Trend



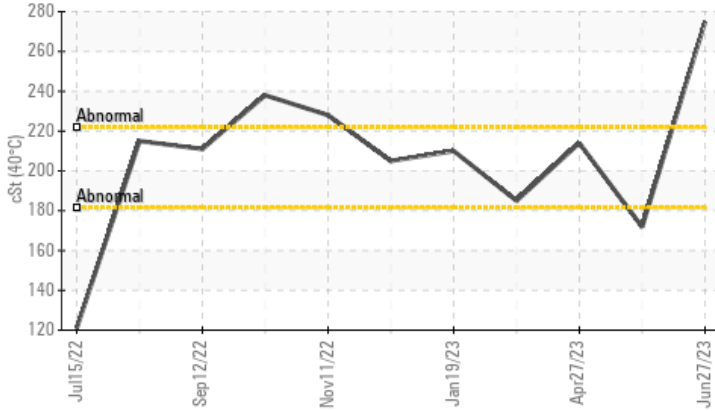
## VISCOSITY



Machine Id  
**BASIN DRILLING 105**  
 Component  
**3 Pump**  
 Fluid  
**BAD ASS 220 (--- GAL)**

### COMPONENT CONDITION SUMMARY

▲ Viscosity @ 40°C



### RECOMMENDATION

Resample at the next service interval to monitor.

### PROBLEMATIC TEST RESULTS

Sample Status			ATTENTION	ABNORMAL	SEVERE
Visc @ 40°C	cSt	ASTM D445	▲ 274.9	▲ 171.8	214

Customer Id: DELSHR  
 Sample No.: PCA0093213  
 Lab Number: 05893844  
 Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:  
 Doug Bogart +1 (800)237-1369 x4016  
[dougb@wearcheckusa.com](mailto:dougb@wearcheckusa.com)

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

## RECOMMENDED ACTIONS

There are no recommended actions for this sample.

## HISTORICAL DIAGNOSIS

### 31 May 2023 Diag: Jonathan Hester

#### VISCOSITY



No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. Additive levels indicate the addition of a different brand, or type of oil. Viscosity of sample indicates oil is within ISO 150 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

view report



### 27 Apr 2023 Diag: Jonathan Hester

#### WATER



We advise that you check for the source of water entry. We advise that you follow the water drain-off procedure for this component. We recommend an early resample to monitor this condition. All component wear rates are normal. Excessive free water present. There is a light concentration of water present in the oil. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid.

view report



### 01 Mar 2023 Diag: Don Baldrige

#### NORMAL

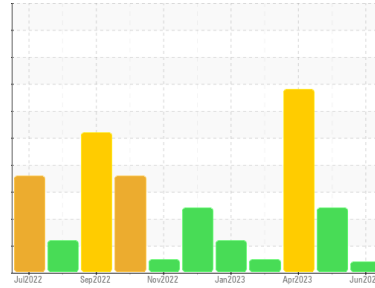


Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



Machine Id  
**BASIN DRILLING 105**  
 Component  
**3 Pump**  
 Fluid  
**BAD ASS 220 (--- GAL)**



**DIAGNOSIS**

- Recommendation**  
Resample at the next service interval to monitor.
- Wear**  
All component wear rates are normal.
- Contamination**  
There is no indication of any contamination in the oil.
- Fluid Condition**  
The oil viscosity is higher than normal. Confirm oil type. The AN level is acceptable for this fluid.

**SAMPLE INFORMATION**

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>PCA0093213</b>	PCA0096205	PCA0096213
Sample Date	Client Info	<b>27 Jun 2023</b>	31 May 2023	27 Apr 2023
Machine Age	mls Client Info	<b>0</b>	0	0
Oil Age	mls Client Info	<b>0</b>	0	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ATTENTION</b>	ABNORMAL	SEVERE

**WEAR METALS**

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >500	<b>21</b>	23	64
Chromium	ppm ASTM D5185m >7	<b>0</b>	<1	2
Nickel	ppm ASTM D5185m	<b>0</b>	0	0
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	0	<1
Silver	ppm ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >25	<b>2</b>	0	13
Lead	ppm ASTM D5185m >35	<b>0</b>	<1	<1
Copper	ppm ASTM D5185m >50	<b>8</b>	3	36
Tin	ppm ASTM D5185m >5	<b>0</b>	0	<1
Antimony	ppm ASTM D5185m	<b>---</b>	0	---
Vanadium	ppm ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

**ADDITIVES**

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	<b>0</b>	▲ 232	14
Barium	ppm ASTM D5185m	<b>13</b>	▲ 0	21
Molybdenum	ppm ASTM D5185m	<b>0</b>	2	<1
Manganese	ppm ASTM D5185m	<b>0</b>	<1	<1
Magnesium	ppm ASTM D5185m	<b>5</b>	13	5
Calcium	ppm ASTM D5185m	<b>22</b>	63	46
Phosphorus	ppm ASTM D5185m	<b>138</b>	▲ 773	219
Zinc	ppm ASTM D5185m	<b>21</b>	46	38
Sulfur	ppm ASTM D5185m	<b>7659</b>	▲ 16579	7197

**CONTAMINANTS**

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >50	<b>8</b>	4	44
Sodium	ppm ASTM D5185m	<b>1</b>	0	10
Potassium	ppm ASTM D5185m >20	<b>&lt;1</b>	<1	4

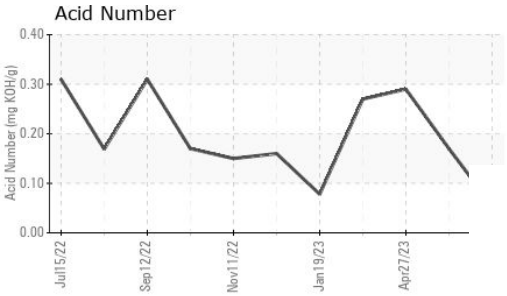
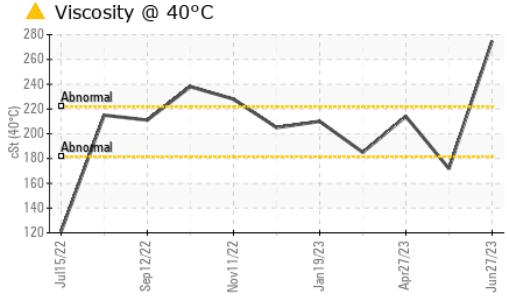
**FLUID DEGRADATION**

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D8045	<b>0.055</b>	0.17	0.29

**VISUAL**

method	limit/base	current	history1	history2
White Metal	scalar *Visual NONE	<b>NONE</b>	LIGHT	NONE
Yellow Metal	scalar *Visual NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar *Visual NONE	<b>NONE</b>	NONE	NONE
Silt	scalar *Visual NONE	<b>NONE</b>	NONE	NONE
Debris	scalar *Visual NONE	<b>NONE</b>	▲ MODER	▲ MODER
Sand/Dirt	scalar *Visual NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar *Visual NORML	<b>NORML</b>	NORML	NORML
Odor	scalar *Visual NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar *Visual	<b>NEG</b>	NEG	▲ 0.2%
Free Water	scalar *Visual	<b>NEG</b>	NEG	---

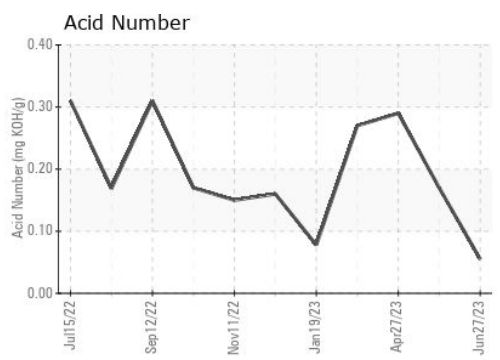
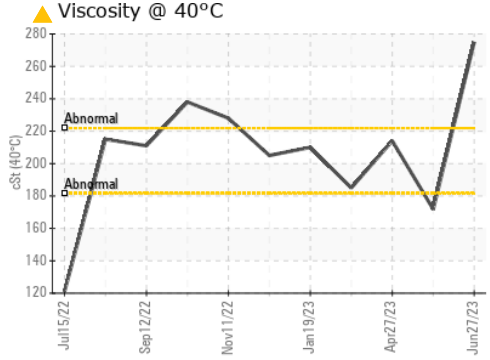
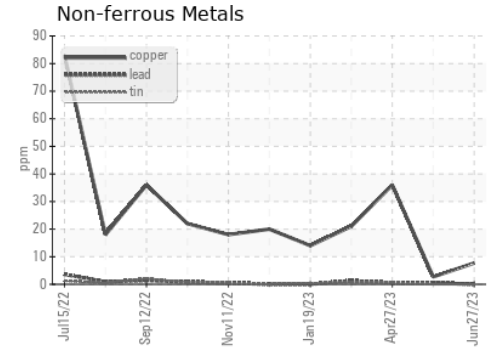
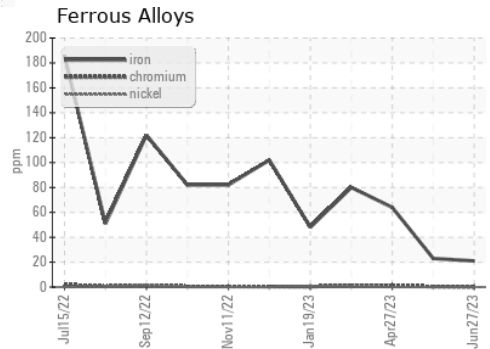
# OIL ANALYSIS REPORT



FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		▲ 274.9	▲ 171.8	214

SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						

## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0093213 **Received** : 10 Jul 2023  
**Lab Number** : 05893844 **Diagnosed** : 13 Jul 2023  
**Unique Number** : 10549654 **Diagnostician** : Doug Bogart  
**Test Package** : IND 2

**DELTA FUEL COMPANY**  
 1000 WELLS ISLAND RD  
 SHREVEPORT, LA  
 US 71107  
 Contact: BRAD GORDON  
 bgordon@deltafuel.com  
 T: (318)780-3921  
 F:

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)