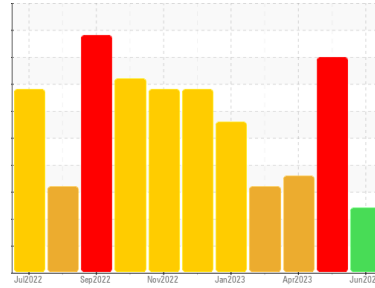


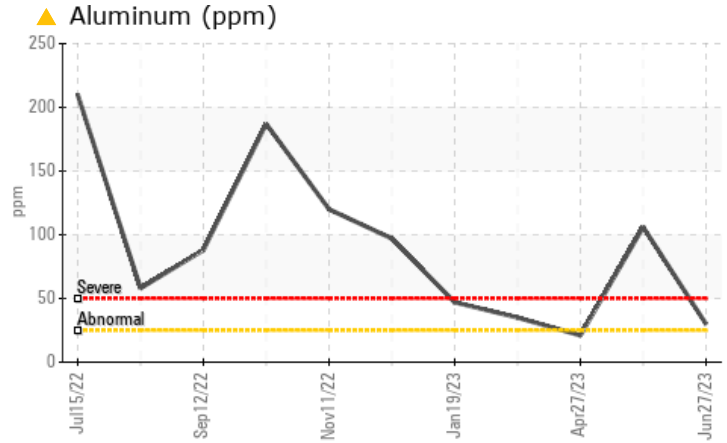
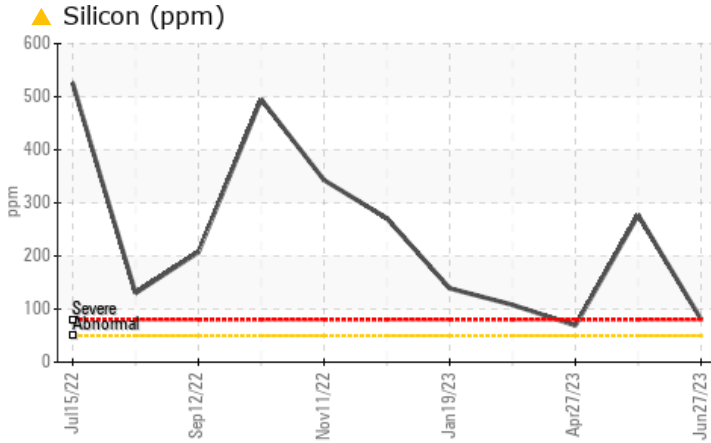
PROBLEM SUMMARY

Sample Rating Trend



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

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				ABNORMAL	SEVERE	ABNORMAL
Aluminum	ppm	ASTM D5185m	>25	▲ 30	▲ 106	▲ 21
Silicon	ppm	ASTM D5185m	>50	▲ 81	● 277	▲ 69

Customer Id: DELSHR
Sample No.: PCA0093212
Lab Number: 05893843
Test Package: IND 2



To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@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
Check Dirt Access	---	---	?	We advise that you check all areas where dirt can enter the system.

HISTORICAL DIAGNOSIS

31 May 2023 Diag: Jonathan Hester

DIRT



We advise that you check all areas where dirt can enter the system. We recommend an early resample to monitor this condition. The copper level is abnormal. All other component wear rates are normal. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. 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.

view report



27 Apr 2023 Diag: Jonathan Hester

DIRT



We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor. The copper level is abnormal. All other component wear rates are normal. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

view report



01 Mar 2023 Diag: Don Baldrige

DIRT



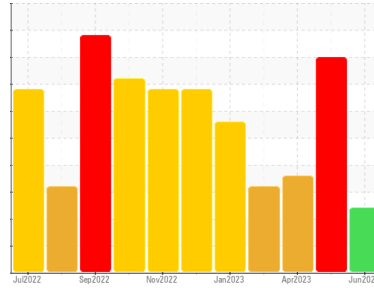
We advise that you check all areas where dirt can enter the system. We recommend an early resample to monitor this condition. The copper level is abnormal. All other component wear rates are normal. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

view report



OIL ANALYSIS REPORT

Sample Rating Trend



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

DIAGNOSIS

Recommendation
 We advise that you check all areas where dirt can enter the system. Resample at the next service interval to monitor.

Wear
 All component wear rates are normal.

Contamination
 Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Fluid Condition
 The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PCA0093212	PCA0096198	PCA0096211
Sample Date	Client Info	27 Jun 2023	31 May 2023	27 Apr 2023
Machine Age	mls Client Info	0	0	0
Oil Age	mls Client Info	0	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		ABNORMAL	SEVERE	ABNORMAL

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >500	70	219	86
Chromium	ppm ASTM D5185m >7	1	3	2
Nickel	ppm ASTM D5185m	<1	<1	0
Titanium	ppm ASTM D5185m	2	6	1
Silver	ppm ASTM D5185m	0	0	0
Aluminum	ppm ASTM D5185m >25	▲ 30	▲ 106	▲ 21
Lead	ppm ASTM D5185m >35	0	2	1
Copper	ppm ASTM D5185m >50	43	▲ 118	▲ 68
Tin	ppm ASTM D5185m >5	<1	3	<1
Vanadium	ppm ASTM D5185m	0	<1	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	<1	17	21
Barium	ppm ASTM D5185m	180	▲ 566	66
Molybdenum	ppm ASTM D5185m	0	<1	<1
Manganese	ppm ASTM D5185m	<1	4	1
Magnesium	ppm ASTM D5185m	9	22	7
Calcium	ppm ASTM D5185m	76	▲ 320	62
Phosphorus	ppm ASTM D5185m	145	242	233
Zinc	ppm ASTM D5185m	23	30	21
Sulfur	ppm ASTM D5185m	8253	8393	6693

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >50	▲ 81	◆ 277	▲ 69
Sodium	ppm ASTM D5185m	10	40	54
Potassium	ppm ASTM D5185m >20	9	39	8

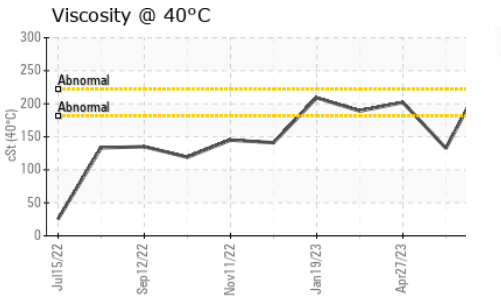
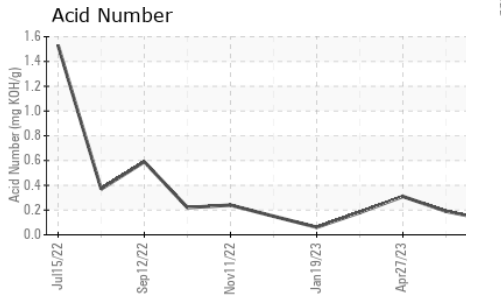
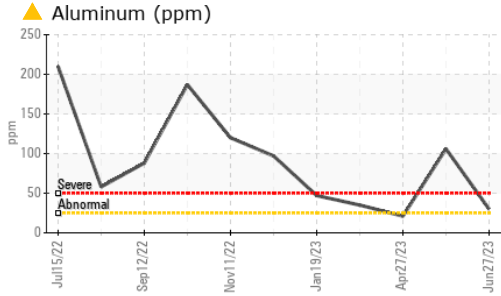
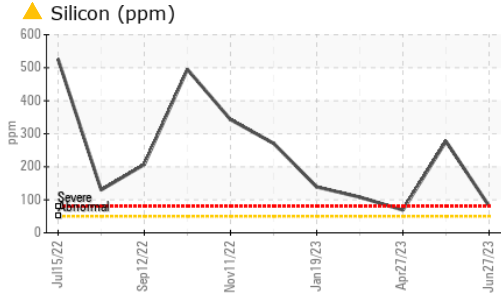
FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D8045	0.12	0.19	0.31

VISUAL

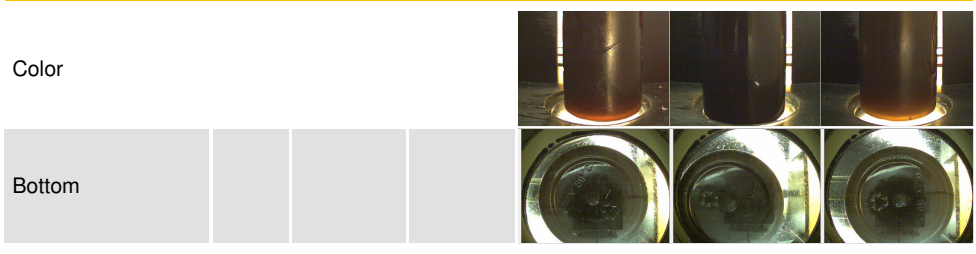
method	limit/base	current	history1	history2
White Metal	scalar *Visual NONE	NONE	NONE	NONE
Yellow Metal	scalar *Visual NONE	NONE	NONE	NONE
Precipitate	scalar *Visual NONE	NONE	NONE	NONE
Silt	scalar *Visual NONE	NONE	NONE	NONE
Debris	scalar *Visual NONE	NONE	▲ MODER	▲ MODER
Sand/Dirt	scalar *Visual NONE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

OIL ANALYSIS REPORT

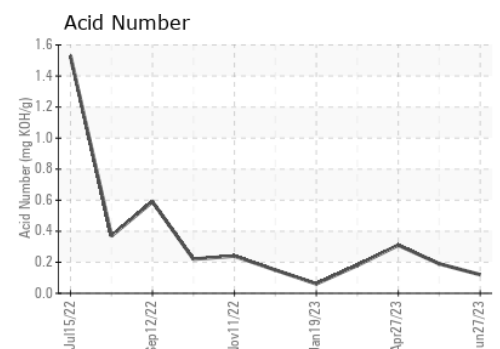
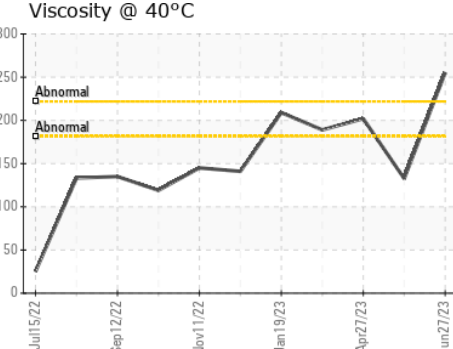
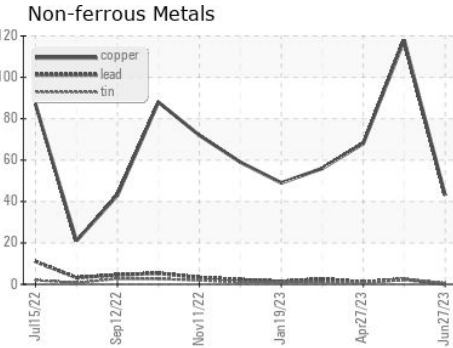
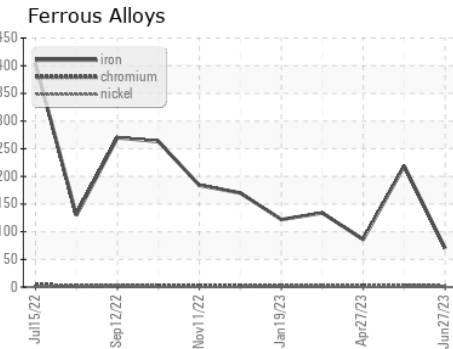


FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445		255	▲ 132.6	202

SAMPLE IMAGES		method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0093212 **Received** : 10 Jul 2023
Lab Number : 05893843 **Diagnosed** : 12 Jul 2023
Unique Number : 10549653 **Diagnostician** : Jonathan Hester
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:

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)