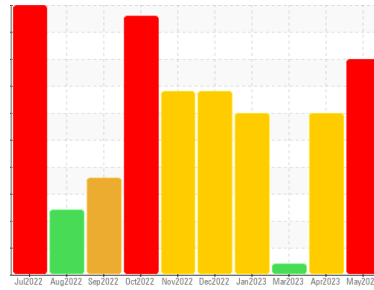


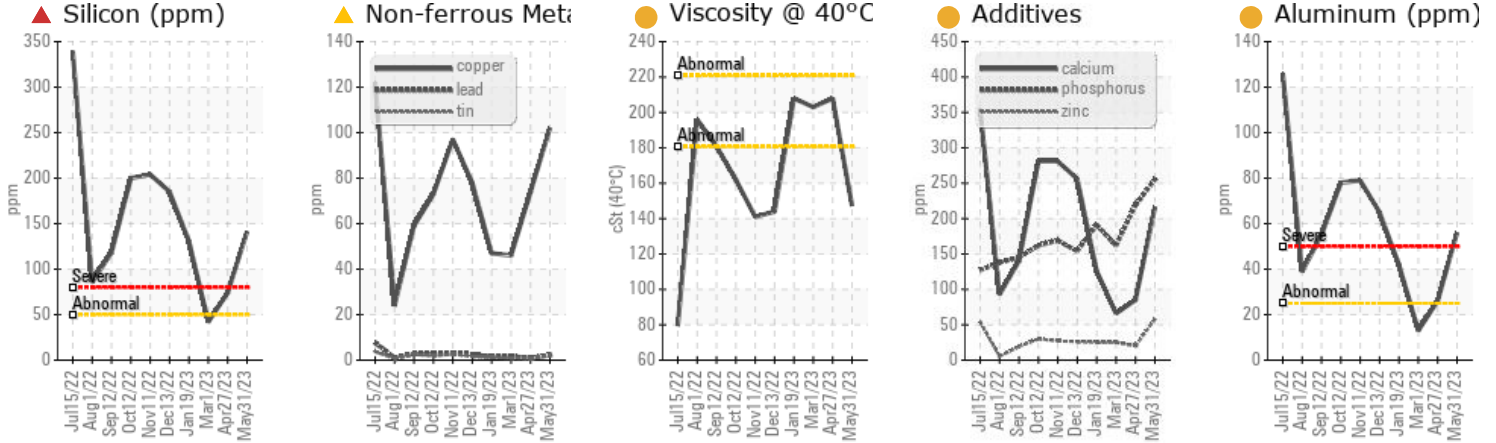
PROBLEM SUMMARY

Sample Rating Trend



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

COMPONENT CONDITION SUMMARY



RECOMMENDATION

We advise that you check all areas where dirt can enter the system. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	ABNORMAL	ABNORMAL
Copper	ppm	ASTM D5185m	>50	▲ 102	74	46
Silicon	ppm	ASTM D5185m	>50	▲ 141	▲ 74	42

Customer Id: DELSHR
Sample No.: PCA0096206
Lab Number: 05864460
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
Resample	MISSED	Jul 13 2023	?	We recommend an early resample to monitor this condition.
Check Dirt Access	MISSED	Jul 13 2023	?	We advise that you check all areas where dirt can enter the system.

HISTORICAL DIAGNOSIS

WATER



27 Apr 2023 Diag: Jonathan Hester

We advise that you check for the source of water entry. We advise that you check all areas where dirt can enter the system. 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. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The AN level is acceptable for this fluid.

[view report](#)



VIS DEBRIS



01 Mar 2023 Diag: Don Baldrige

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

[view report](#)



DIRT



19 Jan 2023 Diag: Don Baldrige

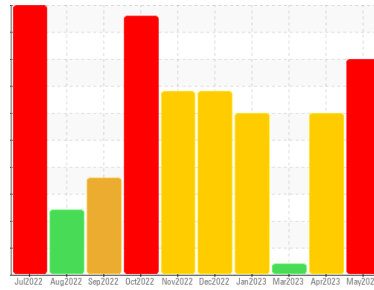
We advise that you check all areas where dirt can enter the system. We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress. The AN level is acceptable for this fluid. The oil is no longer serviceable due to the presence of contaminants.

[view report](#)



OIL ANALYSIS REPORT

Sample Rating Trend



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

DIAGNOSIS

Recommendation
 We advise that you check all areas where dirt can enter the system. We recommend an early resample to monitor this condition.

Wear
 The copper level is abnormal. All other component wear rates are normal.

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

Fluid Condition
 An additive depletion is indicated. Viscosity of sample indicates oil is within ISO 150 range, advise investigate. Confirm oil type. The AN level is acceptable for this fluid.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PCA0096206	PCA0096212	PCA0090230
Sample Date	Client Info	31 May 2023	27 Apr 2023	01 Mar 2023
Machine Age	mls	Client Info	0	0
Oil Age	mls	Client Info	0	0
Oil Changed	Client Info	N/A	N/A	N/A
Sample Status		SEVERE	ABNORMAL	ABNORMAL

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >500	126	103	118
Chromium	ppm	ASTM D5185m >7	2	2	1
Nickel	ppm	ASTM D5185m	<1	0	<1
Titanium	ppm	ASTM D5185m	2	1	1
Silver	ppm	ASTM D5185m	0	0	0
Aluminum	ppm	ASTM D5185m >25	56	26	13
Lead	ppm	ASTM D5185m >35	2	<1	2
Copper	ppm	ASTM D5185m >50	102	74	46
Tin	ppm	ASTM D5185m >5	2	<1	<1
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	21	29	4
Barium	ppm	ASTM D5185m	259	98	55
Molybdenum	ppm	ASTM D5185m	3	<1	1
Manganese	ppm	ASTM D5185m	2	1	2
Magnesium	ppm	ASTM D5185m	21	6	8
Calcium	ppm	ASTM D5185m	216	85	66
Phosphorus	ppm	ASTM D5185m	255	219	162
Zinc	ppm	ASTM D5185m	58	20	25
Sulfur	ppm	ASTM D5185m	7946	6475	9018

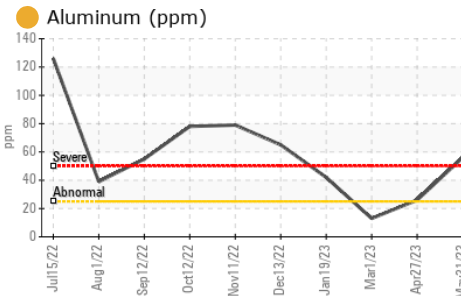
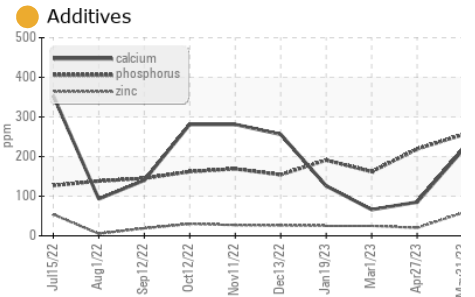
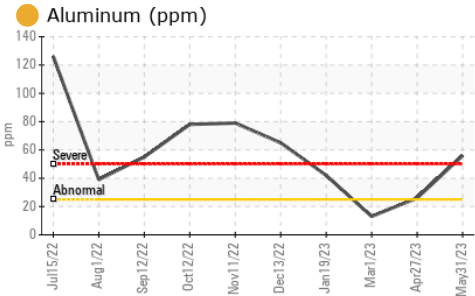
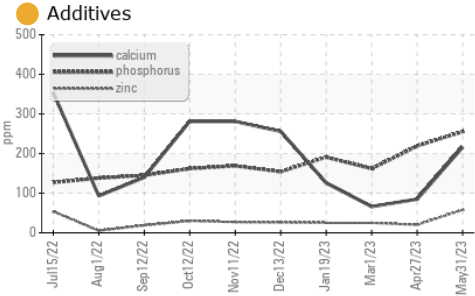
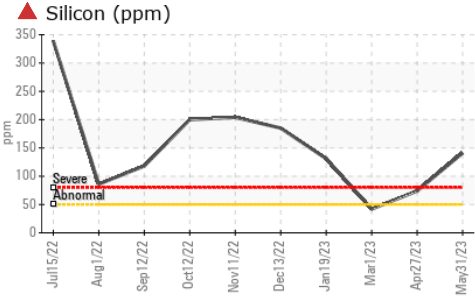
CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >50	141	74	42
Sodium	ppm	ASTM D5185m	13	12	7
Potassium	ppm	ASTM D5185m >20	20	10	4

FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	0.30	0.32	0.22

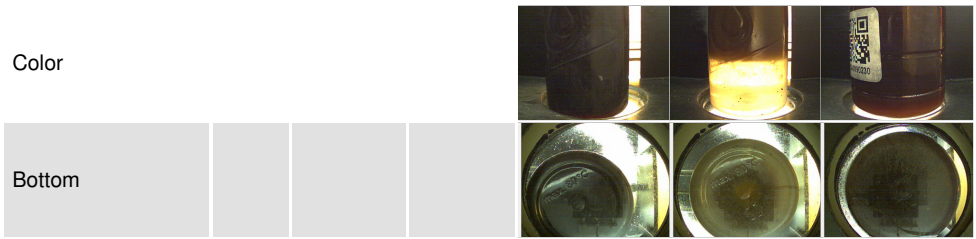
OIL ANALYSIS REPORT



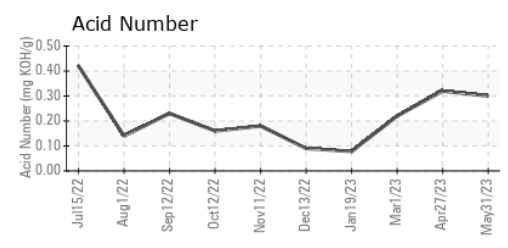
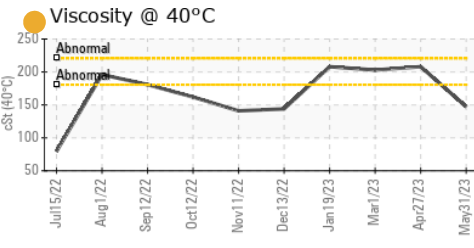
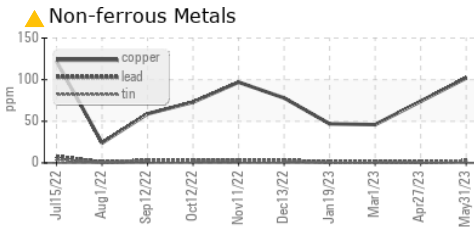
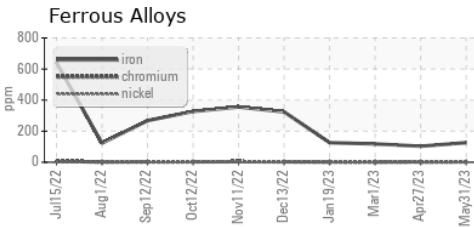
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	NEG	▲ 0.2%	NEG
Free Water	scalar	*Visual	NEG	● >10%	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	● 147.4	208	203

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0096206
Lab Number : 05864460
Unique Number : 10498925
Test Package : IND 2

Received : 05 Jun 2023
Tested : 09 Jun 2023
Diagnosed : 09 Jun 2023 - Jonathan Hester

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)