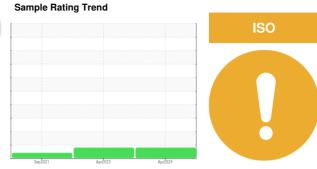


# **OIL ANALYSIS REPORT**

Area [22662] 6008L

Hydraulic System

Hydraulic System Oil (--- GAL)



#### Recommendation

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. ( Customer Sample Comment: ConocoPhillips power drive 10w)

### Wear

All component wear rates are normal.

### Contamination

There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

#### **Fluid Condition**

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0836208	WC0793294	WC0549021
Sample Date		Client Info		03 Apr 2024	10 Apr 2023	07 Sep 2021
Machine Age	hrs	Client Info		5981	5758	5106
Oil Age	hrs	Client Info		2000	652	1106
Oil Changed		Client Info		Changed	Not Changd	Changed
Sample Status				ATTENTION	ABNORMAL	ABNORMAL
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	9	10	9
Chromium	ppm	ASTM D5185m	>10	0	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>10	0	<1	0
Lead	ppm	ASTM D5185m	>10	0	0	<1
Copper	ppm	ASTM D5185m	>75	24	22	17
Tin	ppm	ASTM D5185m	>10	0	0	<1
Antimony	ppm	ASTM D5185m				0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current	history1	history2
	ppm		limit/base			
Boron		ASTM D5185m	limit/base	8	9	17
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	8 0	9	17 0
Boron Barium Molybdenum Manganese Magnesium	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	8 0 3	9 0 4 <1 66	17 0 4 <1 69
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	8 0 3 0	9 0 4 <1	17 0 4 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	8 0 3 0 49 1753 626	9 0 4 <1 66 1920 760	17 0 4 <1 69 2056 797
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	8 0 3 0 49 1753 626 714	9 0 4 <1 66 1920 760 954	17 0 4 <1 69 2056 797 952
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	8 0 3 0 49 1753 626	9 0 4 <1 66 1920 760	17 0 4 <1 69 2056 797
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	8 0 3 0 49 1753 626 714	9 0 4 <1 66 1920 760 954	17 0 4 <1 69 2056 797 952
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m		8 0 3 0 49 1753 626 714 2644 current	9 0 4 <1 66 1920 760 954 3180	17 0 4 <1 69 2056 797 952 2631
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	8 0 3 0 49 1753 626 714 2644 current	9 0 4 <1 66 1920 760 954 3180 history1 4 <1	17 0 4 <1 69 2056 797 952 2631 history2 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	8 0 3 0 49 1753 626 714 2644 current	9 0 4 <1 66 1920 760 954 3180 history1	17 0 4 <1 69 2056 797 952 2631 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	8 0 3 0 49 1753 626 714 2644 current 3 4 0	9 0 4 <1 66 1920 760 954 3180 history1 4 <1 0	17 0 4 <1 69 2056 797 952 2631 history2 3 <1 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >20 >20 limit/base >5000	8 0 3 0 49 1753 626 714 2644  current 3 4 0  current 6675	9 0 4 <1 66 1920 760 954 3180 history1 4 <1 0 history1  ▲ 21389	17 0 4 <1 69 2056 797 952 2631 history2 3 <1 <1 history2 ▲ 17634
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >20 >20 limit/base	8 0 3 0 49 1753 626 714 2644 current 3 4 0	9 0 4 <1 66 1920 760 954 3180 history1 4 <1 0	17 0 4 <1 69 2056 797 952 2631 history2 3 <1 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D7647 ASTM D7647	limit/base >20 >20 limit/base >5000 >1300 >160	8 0 3 0 49 1753 626 714 2644  current 3 4 0 current 6675 312 24	9 0 4 <1 66 1920 760 954 3180 history1 4 <1 0 history1  ▲ 21389 331 16	17 0 4 <1 69 2056 797 952 2631 history2 3 <1 <1 history2  17634 230 9
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  MEthod ASTM D5185m	limit/base >20 >20 limit/base >5000 >1300 >160	8 0 3 0 49 1753 626 714 2644  current 3 4 0 current 6675 312	9 0 4 <1 66 1920 760 954 3180 history1 4 <1 0 history1  ▲ 21389 331	17 0 4 <1 69 2056 797 952 2631 history2 3 <1 <1 history2 ▲ 17634 230
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	limit/base >20 >20 limit/base >5000 >1300 >160 >40 >10	8 0 3 0 49 1753 626 714 2644  current 3 4 0  current  6675 312 24 5 0	9 0 4 <1 66 1920 760 954 3180 history1 4 <1 0 history1  ▲ 21389 331 16	17 0 4 <1 69 2056 797 952 2631 history2 3 <1 <1 history2  17634 230 9
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  METHOD  ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	limit/base >20 >20 limit/base >5000 >1300 >160 >40 >10	8 0 3 0 49 1753 626 714 2644  current 3 4 0 current 6675 312 24 5	9 0 4 <1 66 1920 760 954 3180 history1 4 <1 0 history1  ▲ 21389 331 16 4	17 0 4 <1 69 2056 797 952 2631 history2  3 <1 <1  history2  ▲ 17634 230 9 1



## **OIL ANALYSIS REPORT**







Certificate 12367

Laboratory Sample No.

: WC0836208 Lab Number : 06149507 Unique Number : 10979585

Test Package : CONST

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 15 Apr 2024 **Tested** : 16 Apr 2024 Diagnosed : 17 Apr 2024 - Don Baldridge

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)

MANHATTAN ROAD AND BRIDGE

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Contact: JAMES STEELMON james.steelmon@manhattanrb.com

T:

Report Id: MANTUL [WUSCAR] 06149507 (Generated: 04/17/2024 19:55:33) Rev: 1

Submitted By: JAMES STEELMON

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