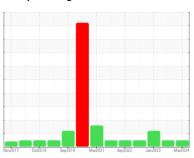


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



EQ82 TAILSTOCK

Component

Hydraulic System

AW HYDRAULIC OIL ISO 46 (450 LTR)

DI			

Recommendation

Little or no information is provided as to the component and lubricant being tested. Recommendations are therefore generic in nature and may not apply to the current application. Please forward information as to equipment type, reservoir capacity, lubricant type and any pertinent information to allow for a more accurate assessment. Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) AW HYDRAULIC OIL ISO 46. Please confirm. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with

Wear

All component wear rates are normal.

Contamination

next sample.

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

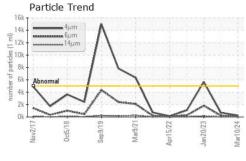
Fluid Condition

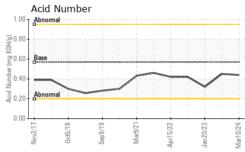
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

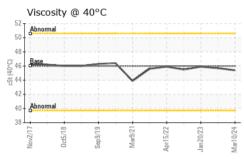
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0908463	WC0857818	WC0780957
Sample Date		Client Info		10 Mar 2024	25 Sep 2023	20 Jan 2023
	hrs	Client Info		0 Wai 2024		
Machine Age	hrs	Client Info		0	0	0
Oil Changed	1115	Client Info		N/A	N/A	N/A
Oil Changed		Client inio		NORMAL	NORMAL	ATTENTION
Sample Status				NONWAL	NONIVIAL	ATTENTION
CONTAMINATION	١	method	limit/base	current	history1	history2
Water		WC Method	>0.05	NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	0	0	2
Chromium	ppm	ASTM D5185(m)	>20	0	0	<1
Nickel	ppm	ASTM D5185(m)	>20	<1	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	<1	0	0
Lead	ppm	ASTM D5185(m)	>20	0	0	<1
Copper	ppm	ASTM D5185(m)	>20	<1	<1	8
Tin	ppm	ASTM D5185(m)	>20	0	0	<1
Antimony	ppm	ASTM D5185(m)		0	0	<1
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base	current 0	history1	history2 <1
	ppm					
Boron		ASTM D5185(m)	5	0	<1	<1
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)	5 5	0 0	<1 <1	<1
Boron Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5	0 0 0	<1 <1 0	<1 0 0
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5	0 0 0 0	<1 <1 0	<1 0 0 0
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300	0 0 0 0 <1	<1 <1 0 0 0 0 36 334	<1 0 0 0 0 <1
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185(m)	5 5 5 25 200	0 0 0 0 <1 35	<1 <1 0 0 0 0 36	<1 0 0 0 0 <1 51
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185(m)	5 5 5 25 200 300	0 0 0 0 <1 35 336 392 729	<1 <1 0 0 0 0 36 334	<1 0 0 0 0 <1 51 351
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	5 5 5 25 200 300 370	0 0 0 0 <1 35 336 392	<1 <1 0 0 0 0 36 334 412	<1 0 0 0 0 <1 51 351 402
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	5 5 5 25 200 300 370	0 0 0 0 <1 35 336 392 729	<1 <1 0 0 0 0 36 334 412 705	<1 0 0 0 0 <1 51 351 402 855
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	5 5 5 25 200 300 370 2500	0 0 0 0 <1 35 336 392 729 <1	<1 <1 0 0 0 36 334 412 705 <1	<1 0 0 0 <1 51 351 402 855 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	5 5 5 25 200 300 370 2500	0 0 0 0 <1 35 336 392 729 <1	<1 <1 0 0 0 36 334 412 705 <1	<1 0 0 0 <1 51 351 402 855 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) method ASTM D5185(m)	5 5 5 25 200 300 370 2500	0 0 0 0 <1 35 336 392 729 <1	<1 <1 0 0 0 36 334 412 705 <1 history1 0	<1 0 0 0 <1 51 351 402 855 <1 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	5 5 5 25 200 300 370 2500	0 0 0 0 <1 35 336 392 729 <1 current 0 <1	<1 <1 0 0 0 36 334 412 705 <1 history1 0 <1	<1 0 0 0 <1 51 351 402 855 <1 history2 <1 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	5 5 5 25 200 300 370 2500 limit/base >15	0 0 0 0 <1 35 336 392 729 <1 current 0 <1	<1 <1 0 0 0 36 334 412 705 <1 history1 0 <1 0	<1 0 0 0 0 <1 51 351 402 855 <1 history2 <1 <1 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) MASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	5 5 5 25 200 300 370 2500 limit/base >15 >20	0 0 0 0 <1 35 336 392 729 <1 current 0 <1 <1	<1 <1 0 0 0 0 36 334 412 705 <1 history1 0 history1	<1 0 0 0 0 <1 51 351 402 855 <1 history2 <1 0 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m)	5 5 5 25 200 300 370 2500 limit/base >15 >20 limit/base >5000	0 0 0 0 <1 35 336 392 729 <1 current 0 <1 <1	<1 <1 0 0 0 0 36 334 412 705 <1 history1 0 history1 683	<1 0 0 0 0 <1 51 351 402 855 <1 history2 <1 <1 0 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) METHOD ASTM D5185(m)	5 5 5 25 200 300 370 2500 limit/base >15 >20 limit/base >5000 >1300 >160	0 0 0 0 0 <1 35 336 392 729 <1 current 0 <1 <1 current 259 76	<1 <1 0 0 0 0 36 334 412 705 <1 history1 0 <10 683 206	<1 0 0 0 0 <1 51 351 402 855 <1 history2 <1 <1 0 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) METHOD ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 limit/base >15 >20 limit/base >5000 >1300 >160	0 0 0 0 0 <1 35 336 392 729 <1 current 0 <1 <1 current 259 76 7	<1 <1 0 0 0 0 36 334 412 705 <1 history1 0 <1 0 history1 683 206 19	<1 0 0 0 0 <1 51 351 402 855 <1 history2 <1 <1 0 history2 5665 1826 153
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) METHOD ASTM D5185(m) ASTM D5185(m) METHOD ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 limit/base >15 >20 limit/base >5000 >1300 >160 >40	0 0 0 0 <1 35 336 392 729 <1 current 0 <1 <1 current 259 76 7	<1 <1 0 0 0 0 36 334 412 705 <1 history1 0 <10 history1 683 206 19 7	<1 0 0 0 0 <1 51 351 402 855 <1 history2 <1 <1 0 history2 5665 1826 153 41

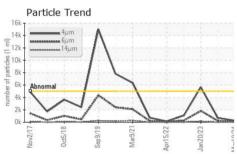


OIL ANALYSIS REPORT









FLUID DEGRADA	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D974*	0.57	0.44	0.45	0.32
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	NONE	NONE
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*	>0.05	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46	45.4	45.7	45.9
SAMPLE IMAGES		method	limit/base	current	history1	history2

Color			
Bottom			

GR	APHS							
Fer	rous Allo	ys					Particle Count	- 26
	iron chromiu	ım					122,880 - Servere	-24
	IIICKEI	-					30,720	-22
Nov2/17	0ct5/18	Sep9/19	Mar9/21	Apr15/22	Jan20/23	Mar10/24	7,680 Abnormal 1,920 1,9	180 4406:1999 Cleanliness Code
N	ő	S	Σ	Apr	Jan	Mar	<u>a</u> 1,920	18 199
	n-ferrous	Metal	S				180 480	16 Cea
10	copper				À		120	14 mes
5 5+	nananan lead						30-	-12 G
0							8	10
Nov2/17	0ct5/18	Sep9/19	Mar9/21	Apr15/22	Jan20/23 -	0/24	2	-8
Nov	Oct	Sep	Mai	Apri	Jan2	Mar10/24	$0 + \mu = 6\mu = 14\mu = 21\mu = 38\mu$	-6
Viso	cosity @	40°C					A si el Alexandre a se	71 <u>µ</u>
55 Abno	ormal		77	[]			3 1.00 Abnormal	
Base Base Abno							E 0.50	
40 Abno	ormal	-					ACIG NUMBER Abnormal Base Abnormal Abnormal Base Abnormal Abnormal	
35		6	-	2		4	2 2 8 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9	4
Nov2/17	0ct5/18	Sep9/19	Mar9/21.	Apr15/22	Jan 20/23	Mar10/24	Aci Nov2/17 Oct5/18 Sep9/19 Apr15/22 Jan20/23	Mar10/24
~	_	03	_	A	- F	Σ	Ja Age	Σ



CALA ISO 17025:2017 Accredited Laboratory

Laboratory Sample No.

: WC0908463 Lab Number : 02621079

Unique Number : 5746198 Test Package : IND 2

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Received **Tested**

: 11 Mar 2024 : 12 Mar 2024 Diagnosed

: 12 Mar 2024 - Wes Davis

CA N8N 2L9 Contact: Guilherme Medeiros Guilherme.Medeiros@astrex.ca T: (226)363-0100

To discuss this sample report, contact Customer Service at 1-800-268-2131. Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. Validity of results and interpretation are based on the sample and information as supplied.

Contact/Location: Guilherme Medeiros - ASTWIN

F:

ASTREX

383 PATILLO RD

WINDSOR, ON