

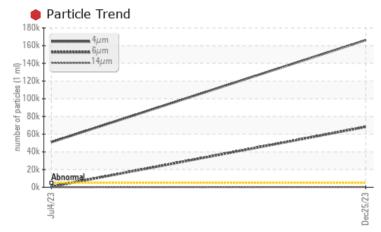
PROBLEM SUMMARY

ORIN CONTRACTORS

Component Hydraulic System

PETRO CANADA HYDREX AW 46 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.

PROBLEMATIC TEST RESULTS							
Sample Status		SEVERE	SEVERE				
Particles >4µm	ASTM D7647 >5000	🛑 166263	60999				
Particles >6µm	ASTM D7647 >1300	68224	673				
Oil Cleanliness	ISO 4406 (c) >19/17/14	4 25/23/15	23/17/11				

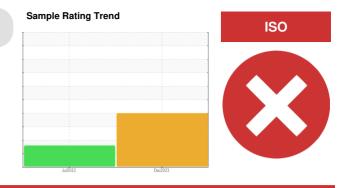
Customer Id: RONVAU Sample No.: WC0888455 Lab Number: 02607150 Test Package: MOBCE



To manage this report scan the QR code

To discuss the diagnosis or test data: Kevin Marson +1 (289)291-4644 x4644 <u>Kevin.Marson@wearcheck.com</u>

To change component or sample information: Gloria Gonzalez +1 (289)291-4643 x4643 gloria.gonzalez@wearcheck.com



RECOMMENDED	ACTIONS			
Action	Status	Date	Done By	Description
Change Filter			?	We recommend you service the filters on this component.
Resample			?	Resample in 30-45 days to monitor this situation.
Check Breathers			?	The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather.
Check Seals			?	Check seals and/or filters for points of contaminant entry.

HISTORICAL DIAGNOSIS



04 Jul 2023 Diag: Kevin Marson

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.All component wear rates are normal. There is a high amount of silt (particulates < 14 microns in size) present in the oil. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.





OIL ANALYSIS REPORT

Area ORIN CONTRACTORS Machine Id 180 Component

Hydraulic System Fluid PETRO CANADA HYDREX AW 46 (--- GAL)

DIAGNOSIS

Recommendation

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation.

Wear

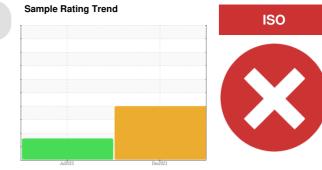
All component wear rates are normal.

Contamination

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

Fluid Condition

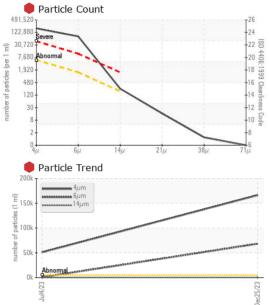
The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

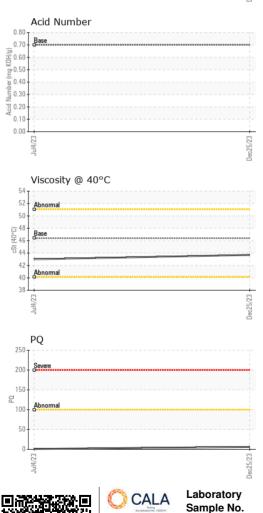


SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0888455	LH0270756	
Sample Date		Client Info		25 Dec 2023	04 Jul 2023	
Machine Age	hrs	Client Info		0	4820	
Oil Age	hrs	Client Info		0	0	
Oil Changed		Client Info		Changed	Not Changd	
Sample Status				SEVERE	SEVERE	
CONTAMINATIO	N	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184*		6	1	
Iron	ppm	ASTM D5185(m)	>20	32	32	
Chromium	ppm	ASTM D5185(m)	>10	1	1	
Nickel	ppm	ASTM D5185(m)	>10	<1	0	
Titanium	ppm	ASTM D5185(m)		0	<1	
Silver	ppm	ASTM D5185(m)		0	<1	
Aluminum	ppm	ASTM D5185(m)	>10	9	6	
Lead	ppm	ASTM D5185(m)	>10	<1	<1	
Copper	ppm	ASTM D5185(m)	>75	6	5	
Tin	ppm	ASTM D5185(m)	>10	0	0	
Antimony	ppm	ASTM D5185(m)		0	0	
Vanadium	ppm	ASTM D5185(m)		0	0	
Beryllium	ppm	ASTM D5185(m)		0	0	
Cadmium	ppm	ASTM D5185(m)		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	<1	<1	
Barium	ppm	ASTM D5185(m)	0	0	0	
Molybdenum	ppm	ASTM D5185(m)	0	0	0	
Manganese	ppm	ASTM D5185(m)	0	0	<1	
Magnesium	ppm	ASTM D5185(m)	0	10	14	
Calcium	ppm	ASTM D5185(m)	50	103	96	
Phosphorus	ppm	ASTM D5185(m)	330	385	412	
Zinc	ppm	ASTM D5185(m)	430	493	487	
Sulfur	ppm	ASTM D5185(m)	760	1184	1084	
Lithium	ppm	ASTM D5185(m)		<1	<1	
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	7	4	
Sodium	ppm	ASTM D5185(m)		1	<1	
Potassium	ppm	ASTM D5185(m)	>20	1	<1	



OIL ANALYSIS REPORT





FLUID CLEANLIN	NESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	• 166263	6 50999	
Particles >6µm		ASTM D7647	>1300	68224	673	
Particles >14µm		ASTM D7647	>160	2 15	18	
Particles >21µm		ASTM D7647	>40	14	6	
Particles >38µm		ASTM D7647	>10	1	1	
Particles >71µm		ASTM D7647	>3	0	1	
Oil Cleanliness		ISO 4406 (c)	>19/17/14	• 25/23/15	• 23/17/11	
FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.70	0.48		
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	VLITE	NONE	
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	
Appearance	scalar	Visual*	NORML	NORML	NORML	
Odor	scalar	Visual*	NORML	NORML	NORML	
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	
Free Water	scalar	Visual*		NEG	NEG	
FLUID PROPER	TIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46.4	43.7	43.0	
SAMPLE IMAGE	S .	method	limit/base	current	history1	history2
Color						no image
Bottom					(max. 80 °C)	no image

: WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 RONI/IRON SHORE EXCAVATING LTD. Sample No. : WC0888455 Recieved : 08 Jan 2024 100 MACINTOSH BLVD VAUGHAN, ON Lab Number : 02607150 Diagnosed : 11 Jan 2024 ISO 17025:2017 Accredited Laboratory Unique Number : 5708236 Diagnostician : Kevin Marson CA L4K 4P3 Test Package : MOBCE (Additional Tests: PQ) Contact: Service Team To discuss this sample report, contact Customer Service at 1-800-268-2131. service.team@roni.ca Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab. T: Validity of results and interpretation are based on the sample and information as supplied. F: