

Oil Cleanliness





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. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

PROBLEMATIC TEST RESULTS							
Sample Status			SEVERE	ABNORMAL	ATTENTION		
Particles >4µm	ASTM D7647	>5000	47070	1 4345	3750		
Particles >6µm	ASTM D7647	>1300	6637	1734	900		

ISO 4406 (c) >19/17/14 🔺 23/20/14 🔺 21/18/12 😑 19/18/15

Customer Id: SPE95BRA Sample No.: WC0616919 Lab Number: 02627361 Test Package: IND 2



To manage this report scan the QR code

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

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

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.	
Contact Required			?	Please contact your representative for information regarding the proper sampling kits for your service.	
Alert			?	NOTE: We recommend using IND 3 test kits,	
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

06 Oct 2022 Diag: Wes Davis

The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.All component wear rates are normal. Oil Cleanliness are abnormally high. Particles >4µm are abnormally high. Particles >6µm are notably high. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.





29 Aug 2011 Diag: Bill Quesnel

We recommend you service the filters on this component. Resample at the next service interval to monitor. Please contact a WearCheck representative for the purchase of the proper sampling kits for your service. NOTE: WearCheck recommends purchasing Advanced Oil Monitoring (AOM) kits for this system. The AOM test package includes advanced level testing to determine the suitability of turbine and large industrial compressor oils for continued use.All component wear rates are normal. There is a light amount of silt (particulates < 14 microns in size) present in the oil. The condition of oil is suitable for further service.



20 Apr 2011 Diag: Wes Davis

condition of oil is suitable for further service.





Resample at the next service interval to monitor All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The



OIL ANALYSIS REPORT

Area [114101] PRESS #2 AFTER FILTERS

Hydraulic System

PETRO CANADA HYDREX AW 68 (20000 LTR)

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. Please contact your representative for information regarding the proper sampling kits for your service. NOTE: We recommend using IND 3 test kits, this testkit includes Analytical Ferrography which provides a detailed morphological analysis of wear particles present in the fluid.

🛑 Wear

Copper ppm levels are noted. All other 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 Rating Trend

SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0616919	WC0616922	WC22091246
Sample Date		Client Info		04 Apr 2024	06 Oct 2022	29 Aug 2011
Machine Age	yrs	Client Info		0	0	0
Oil Age	yrs	Client Info		0	6	0
Oil Changed		Client Info		N/A	Filtered	N/A
Sample Status				SEVERE	ABNORMAL	ATTENTION
CONTAMINATION	N	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	2	3	<1
Chromium	ppm	ASTM D5185(m)	>20	0	0	0
Nickel	ppm	ASTM D5185(m)	>20	0	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>20	0	<1	0
Lead	ppm	ASTM D5185(m)	>20	0	<1	<1
Copper	ppm	ASTM D5185(m)	>20	<u> </u>	3	<1
Tin	ppm	ASTM D5185(m)	>20	0	0	0
Antimony	ppm	ASTM D5185(m)		0	0	0
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
Boron	ppm	ASTM D5185(m)	0	<1	<1	0
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)	0	0	0	0
Magnesium	ppm	ASTM D5185(m)	0	<1	0	0
Calcium	ppm	ASTM D5185(m)	50	19	27	101
Phosphorus	ppm	ASTM D5185(m)	330	282	326	232
Zinc	ppm	ASTM D5185(m)	430	258	284	289
Sulfur	ppm	ASTM D5185(m)	760	527	599	595
Lithium	ppm	ASTM D5185(m)		<1	<1	<1
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	0	0	<1
Sodium	ppm	ASTM D5185(m)		0	<1	1
Potassium	ppm	ASTM D5185(m)	>20	0	0	0
FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >4um		ASTM D7647	>5000	47070	14345	3750
Particles >6um		ASTM D7647	>1300	▲ 6637	1734	1900
Particles >14um		ASTM D7647	>160	127	34	240
Particles <21um		ASTM D7647	>40	19	11	30
Particles \38um		ASTM D7647	>10	0	0	3
Particles >71um		ASTM D7647	>3	0	0	0
			10/17/17	A 23/20/1/	21/18/12	19/18/15
0:52:12) Day: 1		100 4400 (0)	213/11/14		cation: Chris Ma	= SPE05BRA



OIL ANALYSIS REPORT



FLUID DEGRADA	TION	method	limit/base	current	history1	history2
cid Number (AN)	mg KOH/g	ASTM D974*	0.60	0.40	0.47	0.622
VISUAL		method	limit/base	current	history1	history2
/hite Metal	scalar	Visual*	NONE	NONE	NONE	VLITE
ellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
recipitate	scalar	Visual*	NONE	NONE	NONE	NONE
ilt	scalar	Visual*	NONE	NONE	NONE	LIGHT
ebris	scalar	Visual*	NONE	NONE	NONE	VLITE
and/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
ppearance	scalar	Visual*	NORML	NORML	NORML	NORML
dor	scalar	Visual*	NORML	NORML	NORML	NORML
mulsified Water	scalar	Visual*	>0.05	NEG	NEG	NEG
ree Water	scalar	Visual*		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
isc @ 40°C	cSt	ASTM D7279(m)	67.4	66.1	66.4	66.9
SAMPLE IMAGES	;	method	limit/base	current	history1	history2
olor						
ottom				C and a set		
rtFilter				no image	no image	

폍 0.30 Acid Nu (70°C) B -) *3 65 60 Abnorma



	Laboratory				
Testing Accreditation No. 1005019	Sample No.	:			
025:2017	Lab Number	1			
edited	Unique Number				
oratory	Test Package				
iccurse this	cample report				

Apr20/11

0ct6/22

Received Tested Diagnosed

: 08 Apr 2024 : 09 Apr 2024

WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 SPECTRA ALUMINUM PRODUCTS INC. 95 REAGENS INDUSTRIAL PKWY BRADFORD, ON

: 09 Apr 2024 - Kevin Marson

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.

WC0616919

02627361

5760493

IND 2

cmayr@spectraaluminum.com T: (905)778-8093 F: (905)778-8054

Report Id: SPE95BRA [WCAMIS] 02627361 (Generated: 04/09/2024 09:53:12) Rev: 1

Contact/Location: Chris Mayr - SPE95BRA

CA L3Z 2A4

Contact: Chris Mayr