

## **OIL ANALYSIS REPORT**

Sample Rating Trend

NORMAL

#### Machine Id **ARDA CURL CILH** Component

### Gearbox

Fluic PETRO CANADA HYDREX AW 100 (--- GAL)

#### Recommendation

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

#### Wear

All component wear rates are normal.

#### Contamination

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

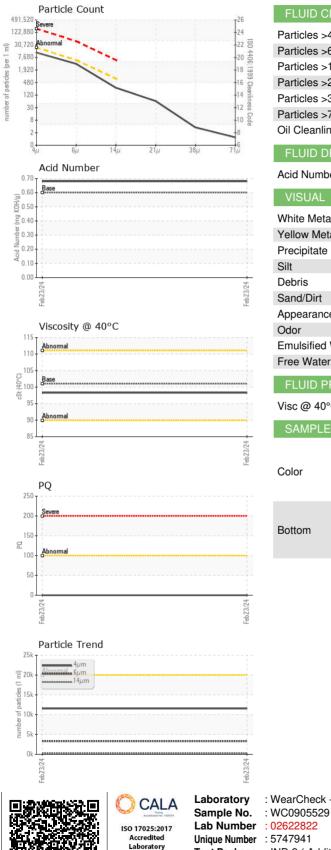
#### Fluid Condition

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

Sample Date         Client Info         23 Feb 2024             Wachine Age         hrs         Client Info         0             Dil Age         hrs         Client Info         0             Sample Status         Client Info         Not Changd             Sample Status         Client Info         Not Changd             CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >0.2         NEG             WEAR METALS         method         limit/base         current         history1         history2           PQ         ASTM DB184/         0               Itanium         ppm         ASTM DB185(m)         >200         <1             Silver         ppm         ASTM DB185(m)         >25         <1             Aluminum         ppm         ASTM DB185(m)         >200         <1             Aluminum         ppm	-)				Feb2024		
Sample Date         Client Info         23 Feb 2024             Wachine Age         hrs         Client Info         4000             Dil Age         hrs         Client Info         0             Sample Status         Client Info         NORMAL             CONTAMINATION         method         Imit/base         current         history1         history2           Water         WC Method         >0.2         NEG             WEAR METALS         method         limit/base         current         history1         history2           PQ         ASTM DB184/         0              Trainium         ppm         ASTM DB185(m)         >15         0            Nickel         ppm         ASTM DB185(m)         >20             Nickel         ppm         ASTM DB185(m)         >20             Silver         ppm         ASTM DB185(m)         >20             Aluminum         ppm         ASTM DB185(m)         >20	SAMPLE INFORM	<b>MATION</b>	method	limit/base	current	history1	history2
Machine Age         hrs         Client Info         4000             Dil Age         hrs         Client Info         0             Sample Status         Client Info         Not Changd             CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >.0.2         NEG             WEAR METALS         method         limit/base         current         history1         history2           PQ         ASTM DB184/         0              Tranum         ppm         ASTM DB185(m)         >15         0             Nickel         ppm         ASTM DB185(m)         >15         <1	Sample Number		Client Info		WC0905529		
Dil Age Dil Ghanged         Ins         Client Info         0             Sample Status         Image         Client Info         NoRMAL             CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >0.2         NEG             WEAR METALS         method         limit/base         current         history1         history2           PQ         ASTM D8184'         0              Train         ppm         ASTM D5185(m)         >15         0            Nickel         ppm         ASTM D5185(m)         >15         <1	Sample Date		Client Info		23 Feb 2024		
Dil Changed         Client Info         Not Changd             Sample Status         method         imit/base         current         history1         history2           Water         WC Method         >0.2         NEG             WEAR METALS         method         limit/base         current         history1         history2           PQ         ASTM D8184*         0             PQ         ASTM D5185(m)         >200         <1	Machine Age	hrs	Client Info		4000		
Sample Status         NORMAL             CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >0.2         NEG             WEAR METALS         method         limit/base         current         history1         history2           PQ         ASTM D6184*         0             Dronin         ppm         ASTM D6185(m)         >15         0             Nickel         ppm         ASTM D6185(m)         >15         0             Nickel         ppm         ASTM D6185(m)         >15         <1             Numinum         ppm         ASTM D6185(m)         >0             Aluminum         ppm         ASTM D6185(m)>25         0             Aluminum         ppm         ASTM D6185(m)         >5         0             Copper         ppm         ASTM D6185(m)         >5         0             Antimony         ppm         ASTM D51	Oil Age	hrs	Client Info		0		
CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         >0.2         NEG             WEAR METALS         method         limit/base         current         history1         history2           PQ         ASTM D8184/m         0              Chron         ppm         ASTM D8186/m         >200         <1	Oil Changed		Client Info		Not Changd		
Water         WC Method         >0.2         NEG             WEAR METALS         method         limit/base         current         history1         history2           PQ         ASTM D5186(m)         >200         <1	Sample Status				NORMAL		
WEAR METALS         method         limit/base         current         history1         history2           PQ         ASTM D8184'         0              Iron         ppm         ASTM D5186(m)         >200         <1	CONTAMINATIO	N	method	limit/base	current	history1	history2
PQ         ASTM D8184*         0             iron         ppm         ASTM D5185(m)         >200         <1	Water		WC Method	>0.2	NEG		
ron         ppm         ASTM D5185(m)         >200         <1             Chromium         ppm         ASTM D5185(m)         >15         0             Nickel         ppm         ASTM D5185(m)         >15         <1	WEAR METALS		method	limit/base	current	history1	history2
Chromium         ppm         ASTM D5185(m)         >15         0             Nickel         ppm         ASTM D5185(m)         >15         <1	PQ		ASTM D8184*		0		
Nickel         ppm         ASTM D5185(m)         >15         <1             Titanium         ppm         ASTM D5185(m)         0              Silver         ppm         ASTM D5185(m)         >25         <1	Iron	ppm	ASTM D5185(m)	>200	<1		
Titanium       ppm       ASTM D5185(m)       0           Silver       ppm       ASTM D5185(m)       >25       <1	Chromium	ppm	ASTM D5185(m)	>15	0		
Silver         ppm         ASTM D5185(m)         0             Aluminum         ppm         ASTM D5185(m)         >25         <1	Nickel	ppm	ASTM D5185(m)	>15	<1		
Aluminum       ppm       ASTM D5185(m)       >25       <1	Titanium	ppm	ASTM D5185(m)		0		
Lead         ppm         ASTM D5165(m)         >100         0             Copper         ppm         ASTM D5165(m)         >200         <1	Silver	ppm	ASTM D5185(m)		0		
Copper         ppm         ASTM D5185(m)         >200         <1             Tin         ppm         ASTM D5185(m)         >25         0             Antimony         ppm         ASTM D5185(m)         >5         0             Vanadium         ppm         ASTM D5185(m)         0              Beryllium         ppm         ASTM D5185(m)         0              ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         0             Molybdenum         ppm         ASTM D5185(m)         0         0             Maganese         ppm         ASTM D5185(m)         0         0             Calcium         ppm         ASTM D5185(m)         0         0             Calcium         ppm         ASTM D5185(m)         0         0             Sulfur         ppm         ASTM D5185(m)	Aluminum	ppm	ASTM D5185(m)	>25	<1		
Tin         ppm         ASTM D5185(m)         >25         0             Antimony         ppm         ASTM D5185(m)         >5         0             Vanadium         ppm         ASTM D5185(m)         >5         0             Beryllium         ppm         ASTM D5185(m)         0              Cadmium         ppm         ASTM D5185(m)         0              ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         0         0             Molybdenum         ppm         ASTM D5185(m)         0         0             Maganese         ppm         ASTM D5185(m)         0         0             Calcium         ppm         ASTM D5185(m)         0         0             Calcium         ppm         ASTM D5185(m)         330         362        Sulfur         ppm         ASTM D5185(m) <td>Lead</td> <td>ppm</td> <td>ASTM D5185(m)</td> <td>&gt;100</td> <td>0</td> <td></td> <td></td>	Lead	ppm	ASTM D5185(m)	>100	0		
Antimony         ppm         ASTM D5185(m)         >5         0             Vanadium         ppm         ASTM D5185(m)         0              Beryllium         ppm         ASTM D5185(m)         0              Cadmium         ppm         ASTM D5185(m)         0              ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         0         <1             Barium         ppm         ASTM D5185(m)         0         0             Molybdenum         ppm         ASTM D5185(m)         0         0             Magnesium         ppm         ASTM D5185(m)         0         0             Magnesium         ppm         ASTM D5185(m)         50         56             Phosphorus         ppm         ASTM D5185(m)         330         362             Sulfur         ppm	Copper	ppm	ASTM D5185(m)	>200	<1		
Vanadium         ppm         ASTM D5185(m)         0             Beryllium         ppm         ASTM D5185(m)         0             Cadmium         ppm         ASTM D5185(m)         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         0         <            Barium         ppm         ASTM D5185(m)         0         0             Barium         ppm         ASTM D5185(m)         0         0             Molybdenum         ppm         ASTM D5185(m)         0         0             Magnesium         ppm         ASTM D5185(m)         0         0             Calcium         ppm         ASTM D5185(m)         50         56             Phosphorus         ppm         ASTM D5185(m)         760         1063             Sulfur         ppm         ASTM D5185(m)         >50         <1	Tin	ppm	ASTM D5185(m)	>25	0		
Beryllium         ppm         ASTM D5185(m)         0             Cadmium         ppm         ASTM D5185(m)         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         0         <1             Barium         ppm         ASTM D5185(m)         0         <1             Barium         ppm         ASTM D5185(m)         0         0             Molybdenum         ppm         ASTM D5185(m)         0         0         0             Maganese         ppm         ASTM D5185(m)         0         0         0             Calcium         ppm         ASTM D5185(m)         50         56             Phosphorus         ppm         ASTM D5185(m)         330         362             Sulfur         ppm         ASTM D5185(m)         760         1063             Lithium         ppm         ASTM	Antimony	ppm	ASTM D5185(m)	>5	0		
Cadmium         ppm         ASTM D5185(m)         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         0         <1             Barium         ppm         ASTM D5185(m)         0         0              Molybdenum         ppm         ASTM D5185(m)         0         0              Manganese         ppm         ASTM D5185(m)         0         0             Magnesium         ppm         ASTM D5185(m)         0         0             Calcium         ppm         ASTM D5185(m)         50         56             Phosphorus         ppm         ASTM D5185(m)         330         362             Sulfur         ppm         ASTM D5185(m)         760         1063             Lithium         ppm         ASTM D5185(m)         >50         <1             Silicon <t< td=""><td>Vanadium</td><td>ppm</td><td>ASTM D5185(m)</td><td></td><td>0</td><td></td><td></td></t<>	Vanadium	ppm	ASTM D5185(m)		0		
ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185(m)         0         <1	Beryllium	ppm	ASTM D5185(m)		0		
Boron         ppm         ASTM D5185(m)         0         <1             Barium         ppm         ASTM D5185(m)         0         0             Molybdenum         ppm         ASTM D5185(m)         0         0             Manganese         ppm         ASTM D5185(m)         0         0             Magnesium         ppm         ASTM D5185(m)         0         0             Calcium         ppm         ASTM D5185(m)         50         56             Phosphorus         ppm         ASTM D5185(m)         330         362             Zinc         ppm         ASTM D5185(m)         430         443             Sulfur         ppm         ASTM D5185(m)         760         1063             Lithium         ppm         ASTM D5185(m)         <<1	Cadmium	ppm	ASTM D5185(m)		0		
Barium         ppm         ASTM D5185(m)         0         0         0             Molybdenum         ppm         ASTM D5185(m)         0         0              Manganese         ppm         ASTM D5185(m)         0         0             Magnesium         ppm         ASTM D5185(m)         0         0             Calcium         ppm         ASTM D5185(m)         50         56             Phosphorus         ppm         ASTM D5185(m)         330         362             Zinc         ppm         ASTM D5185(m)         760         1063             Sulfur         ppm         ASTM D5185(m)         760         1063             Lithium         ppm         ASTM D5185(m)         <<1              Silicon         ppm         ASTM D5185(m)         >50         <1             Sodium         ppm         ASTM D5185(m)         >50         <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185(m)         0         0             Manganese         ppm         ASTM D5185(m)         0         0              Magnesium         ppm         ASTM D5185(m)         0         0              Calcium         ppm         ASTM D5185(m)         50         56             Calcium         ppm         ASTM D5185(m)         330         362             Phosphorus         ppm         ASTM D5185(m)         430         443             Sulfur         ppm         ASTM D5185(m)         760         1063             Lithium         ppm         ASTM D5185(m)         760         1063             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >50         <1	Boron	ppm	ASTM D5185(m)	0			
Manganese         ppm         ASTM D5185(m)         0         0         0             Magnesium         ppm         ASTM D5185(m)         0         0              Calcium         ppm         ASTM D5185(m)         50         56             Phosphorus         ppm         ASTM D5185(m)         330         362             Zinc         ppm         ASTM D5185(m)         430         443             Sulfur         ppm         ASTM D5185(m)         760         1063             Lithium         ppm         ASTM D5185(m)         760         1063             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >50         <1	Barium	ppm	ASTM D5185(m)	0	0		
Magnesium         ppm         ASTM D5185(m)         0         0             Calcium         ppm         ASTM D5185(m)         50         56             Phosphorus         ppm         ASTM D5185(m)         330         362             Zinc         ppm         ASTM D5185(m)         430         443             Sulfur         ppm         ASTM D5185(m)         760         1063             Lithium         ppm         ASTM D5185(m)         760         1063             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >50         <1             Sodium         ppm         ASTM D5185(m)         0	Molybdenum	ppm	ASTM D5185(m)	0	0		
Calcium         ppm         ASTM D5185(m)         50         56             Phosphorus         ppm         ASTM D5185(m)         330         362             Zinc         ppm         ASTM D5185(m)         430         443             Sulfur         ppm         ASTM D5185(m)         760         1063             Lithium         ppm         ASTM D5185(m)         760         1063             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >50         <1	Manganese	ppm	ASTM D5185(m)	0	0		
Phosphorus         ppm         ASTM D5185(m)         330         362             Zinc         ppm         ASTM D5185(m)         430         443             Sulfur         ppm         ASTM D5185(m)         760         1063             Lithium         ppm         ASTM D5185(m)         760         1063             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >50         <1	Magnesium	ppm	ASTM D5185(m)	0	0		
Zinc         ppm         ASTM D5185(m)         430         443             Sulfur         ppm         ASTM D5185(m)         760         1063             Lithium         ppm         ASTM D5185(m)         <<1	Calcium	ppm	ASTM D5185(m)	50	56		
Sulfur         ppm         ASTM D5185(m)         760         1063             Lithium         ppm         ASTM D5185(m)         760         1063             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185(m)         >50         <1             Sodium         ppm         ASTM D5185(m)         >0	Phosphorus	ppm	ASTM D5185(m)	330	362		
LithiumppmASTM D5185(m)<1CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185(m) >50<1	Zinc	ppm	ASTM D5185(m)	430	443		
CONTAMINANTS     method     limit/base     current     history1     history2       Silicon     ppm     ASTM D5185(m) >50     <1	Sulfur	ppm	ASTM D5185(m)	760	1063		
Silicon         ppm         ASTM D5185(m)         >50         <1             Sodium         ppm         ASTM D5185(m)         0	Lithium	ppm	ASTM D5185(m)		<1		
Sodium         ppm         ASTM D5185(m)         0	CONTAMINANTS	;	method	limit/base	current	history1	history2
	Silicon	ppm	ASTM D5185(m)	>50	<1		
	Sodium		ASTM D5185(m)		0		
	Potassium		ASTM D5185(m)	>20	<1		



# **OIL ANALYSIS REPORT**



FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>20000	11547		
Particles >6µm		ASTM D7647	>5000	3310		
Particles >14µm		ASTM D7647	>640	237		
Particles >21µm		ASTM D7647	>160	55		
Particles >38µm		ASTM D7647	>40	3		
Particles >71µm		ASTM D7647	>10	1		
Dil Cleanliness		ISO 4406 (c)	>21/19/16	21/19/15		
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.60	0.68		
VISUAL		method	limit/base	current	history1	history2
Vhite Metal	scalar	Visual*	NONE	NONE		
ellow Metal	scalar	Visual*	NONE	NONE		
Precipitate	scalar	Visual*	NONE	NONE		
Silt		Visual*	NONE	NONE		
Debris	scalar	Visual*	NONE	NONE		
Sand/Dirt		Visual*	NONE	NONE		
Appearance	scalar	Visual*	NORML	NORML		
Ddor	scalar	Visual*	NORML	NORML		
Emulsified Water	scalar	Visual*	>0.2	NEG		
Free Water	scalar	Visual*	20.L	NEG		
			Des 14 /le e e e			
FLUID PROPERT			limit/base	current	history1	history2
/isc @ 40°C	cSt	ASTM D7279(m)	101	98.3		
SAMPLE IMAGES	5	method	limit/base	current	history1	history2
Color					no image	no image
Bottom					no image	no image
Bottom					no image	no image

575 DURHAM ST. WEST Received : 18 Mar 2024 Tested : 20 Mar 2024 WALKERTON, ON Diagnosed : 20 Mar 2024 - Wes Davis CA NOG 2V0 Test Package : IND 2 (Additional Tests: PQ, PrtCount, TAN Man) Contact: Derek Kuntz To discuss this sample report, contact Customer Service at 1-800-268-2131. dkuntz@larsenhinge.com T: (519)881-1320 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. F: 519883593

Contact/Location: Derek Kuntz - LARWAL