



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id  
**HL82235 Port Crane**  
Component  
**Port Crane**  
Fluid  
**ESSO UNIVIS N 22 (850 LTR)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WC0807833</b>	WC0676994	WC0471588
Sample Date		Client Info		<b>15 May 2024</b>	29 May 2022	03 May 2021
Machine Age	hrs	Client Info		<b>1115</b>	1087	997
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Not Changed</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Changed</b>	N/A	Not Changd
Sample Status				<b>NORMAL</b>	ATTENTION	ATTENTION

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>20	<b>0</b>	5	7
Chromium	ppm	ASTM D5185(m)	>10	<b>0</b>	0	<1
Nickel	ppm	ASTM D5185(m)	>10	<b>0</b>	<1	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Silver	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Aluminum	ppm	ASTM D5185(m)	>10	<b>0</b>	0	<1
Lead	ppm	ASTM D5185(m)	>20	<b>0</b>	1	<1
Copper	ppm	ASTM D5185(m)	>20	<b>&lt;1</b>	13	2
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

## CONTAMINATION

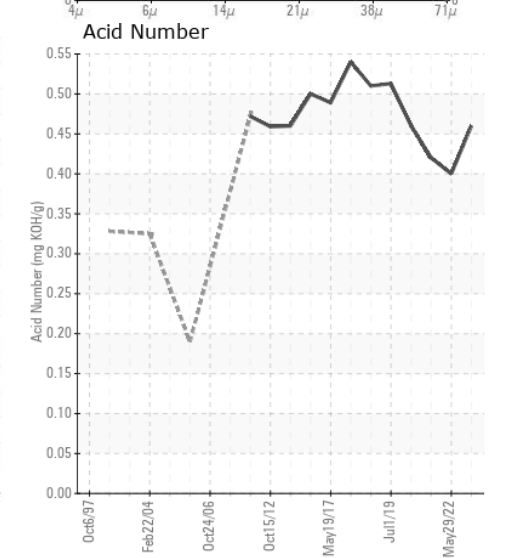
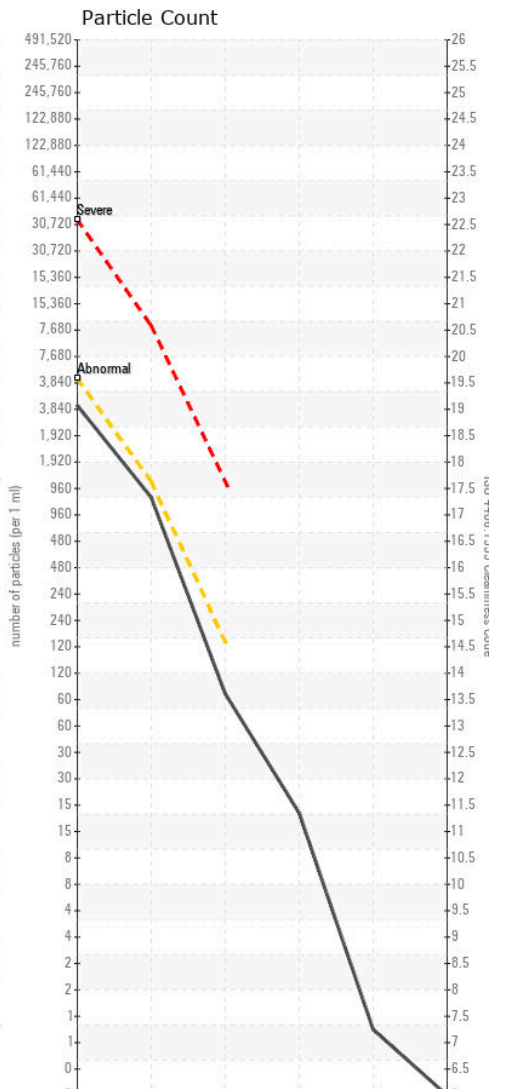
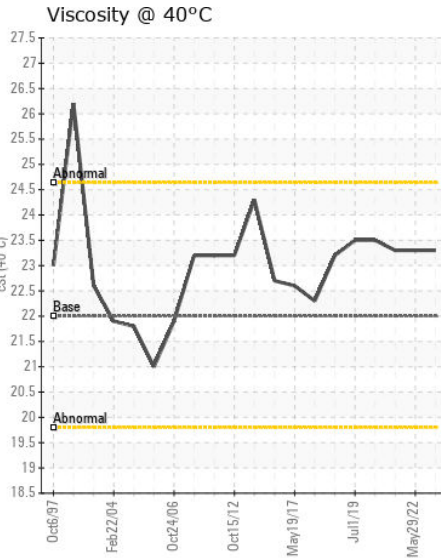
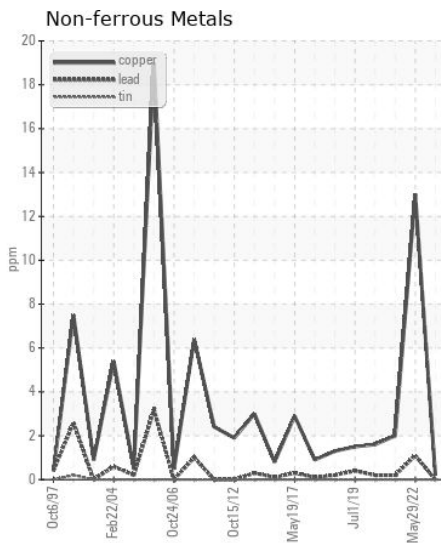
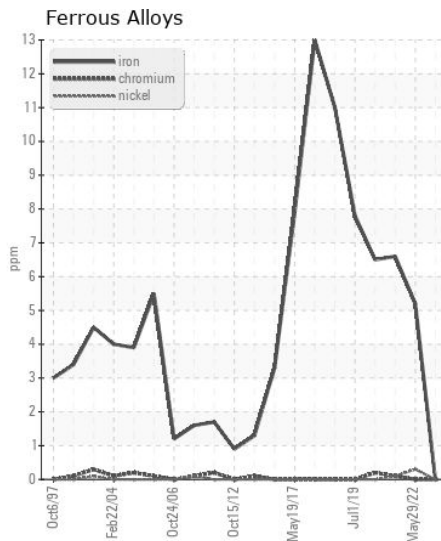
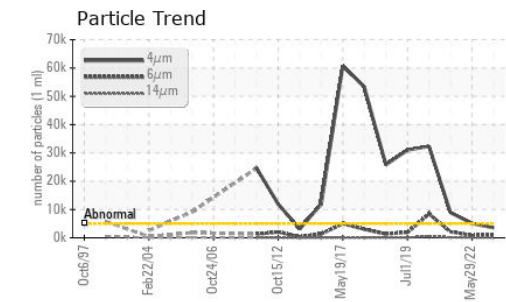
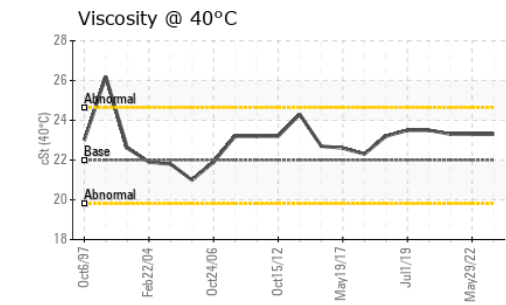
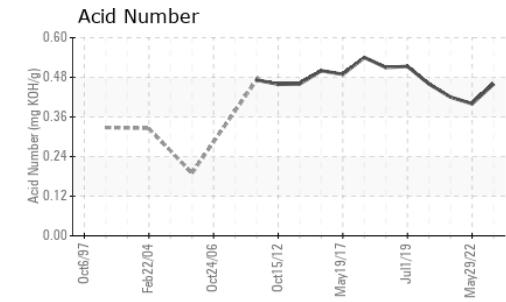
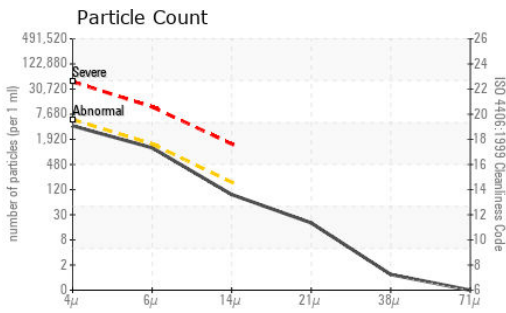
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185(m)	>15	<b>0</b>	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	<b>0</b>	<1	<1
Water		WC Method	>0.05	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>5000	<b>3523</b>	5066	8905
Particles >6µm		ASTM D7647	>1300	<b>1055</b>	819	2120
Particles >14µm		ASTM D7647	>160	<b>81</b>	42	156
Particles >21µm		ASTM D7647	>40	<b>17</b>	7	34
Particles >38µm		ASTM D7647	>10	<b>1</b>	0	2
Particles >71µm		ASTM D7647	>3	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>19/17/14</b>	20/17/13	20/18/14
Silt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	Visual*	NONE	<b>VLITE</b>	VLITE	NONE
Sand/Dirt	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	Visual*	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	Visual*	>0.05	<b>NEG</b>	NEG	NEG

## FLUID CONDITION

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

Sodium	ppm	ASTM D5185(m)		<b>2</b>	<1	<1
Boron	ppm	ASTM D5185(m)	.3	<b>0</b>	<1	<1
Barium	ppm	ASTM D5185(m)		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	0	<b>0</b>	0	0
Manganese	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Magnesium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	<1	<1
Calcium	ppm	ASTM D5185(m)	49	<b>39</b>	23	24
Phosphorus	ppm	ASTM D5185(m)	192	<b>267</b>	329	293
Zinc	ppm	ASTM D5185(m)	237	<b>359</b>	368	342
Sulfur	ppm	ASTM D5185(m)		<b>1062</b>	997	980
Acid Number (AN)	mg KOH/g	ASTM D974*		<b>0.46</b>	0.40	0.42
Visc @ 40°C	cSt	ASTM D7279(m)	22	<b>23.3</b>	23.3	23.3



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0807833  
**Lab Number** : 02637150  
**Unique Number** : 5786312  
**Test Package** : MAR 2  
**Received** : 23 May 2024  
**Tested** : 27 May 2024  
**Diagnosed** : 27 May 2024 - Wes Davis

**CANADIAN COAST GUARD**  
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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.