



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
T.M.B.
Machine Id
5502-CVD-007

Component
7 Gearbox
Fluid
ESSO SPARTAN EP 220 (18 LTR)

RECOMMENDATION

Nous vous recommandons de vérifier la présence de particules métalliques visibles dans l'huile. Nous vous recommandons de vidanger l'huile de ce composant si vous ne l'avez pas déjà fait. Nous vous recommandons d'échantillonner de nouveau dès que possible afin de contrôler la situation.

WEAR

Présence d'une faible concentration de métal visible. Usure des engrenages.

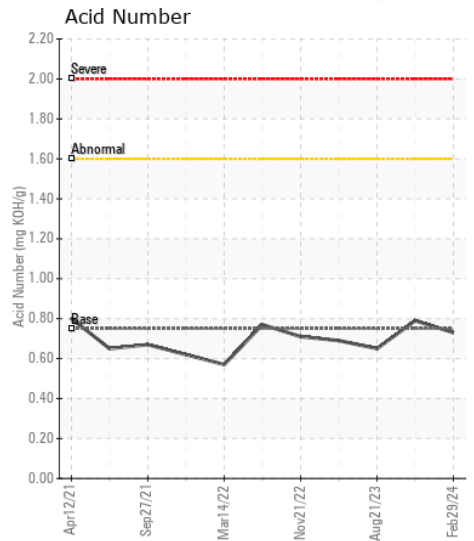
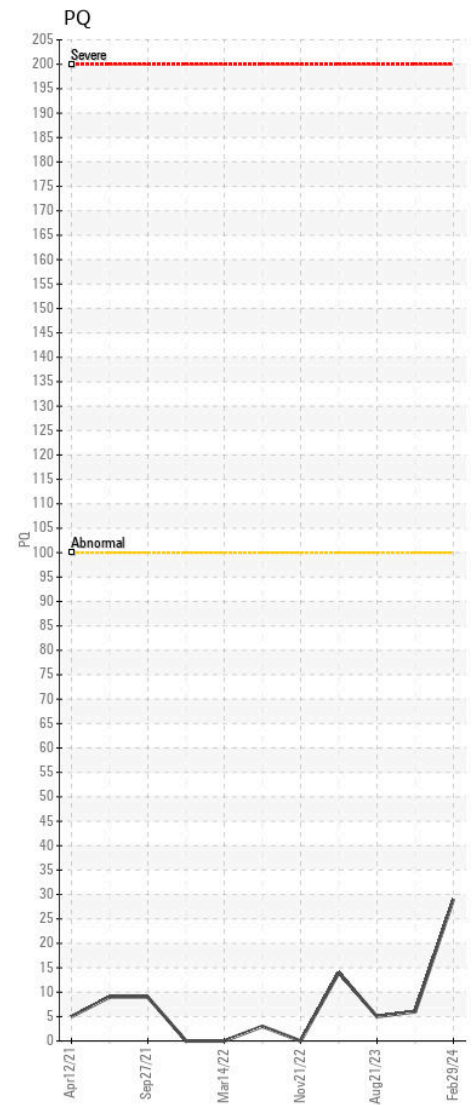
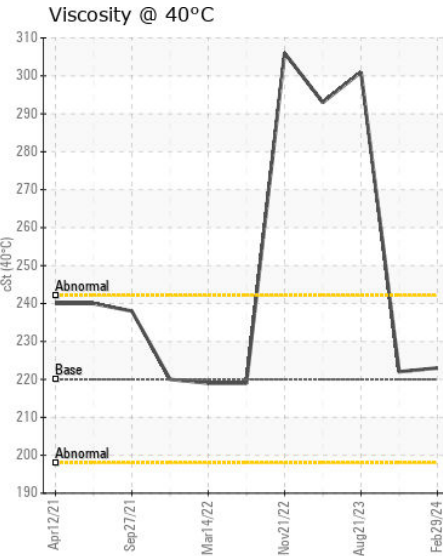
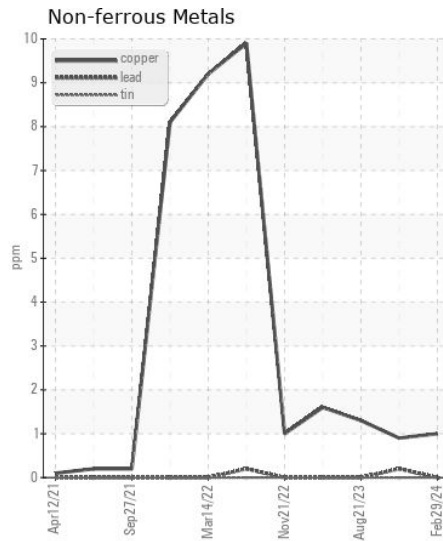
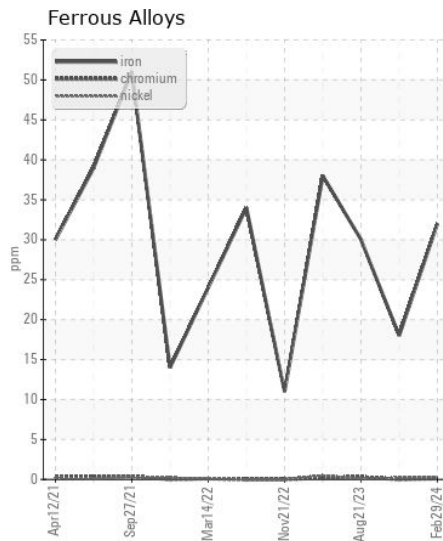
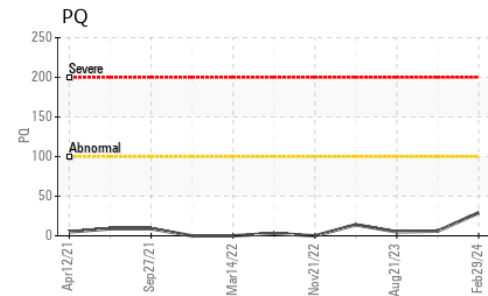
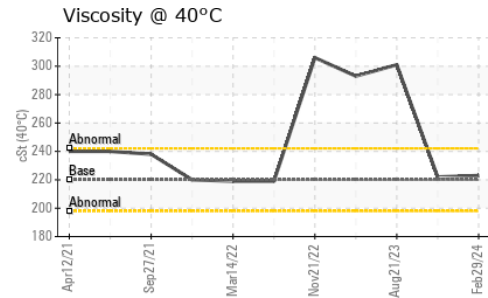
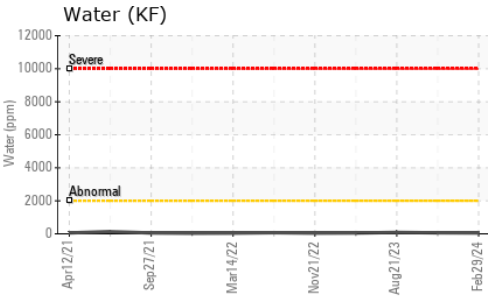
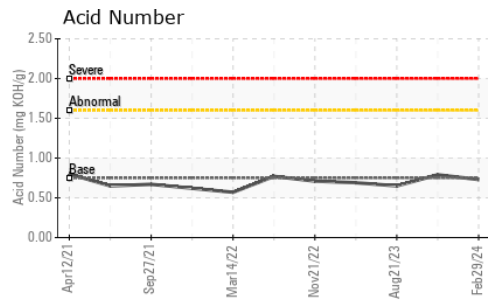
CONTAMINATION

La teneur en eau est négligeable. Il n'y a aucun indice de contamination dans l'huile.

FLUID CONDITION

Le AN est acceptable pour ce fluide. l'huile n'est plus en état de service en raison d'une usure anormale et/ou sévère.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0902398	WC0884528	WC0818925
Sample Date		Client Info		29 Feb 2024	05 Dec 2023	21 Aug 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	NORMAL	ABNORMAL
PQ		ASTM D8184*		29	6	5
Iron	ppm	ASTM D5185(m)	>200	32	18	30
Chromium	ppm	ASTM D5185(m)	>15	<1	0	<1
Nickel	ppm	ASTM D5185(m)	>15	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	<1	0
Aluminum	ppm	ASTM D5185(m)	>25	2	1	1
Lead	ppm	ASTM D5185(m)	>100	0	<1	0
Copper	ppm	ASTM D5185(m)	>200	1	<1	1
Tin	ppm	ASTM D5185(m)	>25	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	▲ LIGHT	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185(m)	>50	<1	<1	1
Potassium	ppm	ASTM D5185(m)	>20	<1	0	<1
Water	%	ASTM D6304*	>0.2	0.004	0.005	0.008
ppm Water	ppm	ASTM D6304*	>2000	49	60	86.4
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	VLITE	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*	>0.2	NEG	NEG	NEG
Sodium	ppm	ASTM D5185(m)		<1	<1	<1
Boron	ppm	ASTM D5185(m)	.5	29	31	30
Barium	ppm	ASTM D5185(m)		0	<1	<1
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)		0	0	<1
Magnesium	ppm	ASTM D5185(m)	0	1	<1	1
Calcium	ppm	ASTM D5185(m)	1.7	6	7	1
Phosphorus	ppm	ASTM D5185(m)	250	327	321	336
Zinc	ppm	ASTM D5185(m)	.3	4	5	3
Sulfur	ppm	ASTM D5185(m)		14847	14641	14680
Acid Number (AN)	mg KOH/g	ASTM D974*	0.75	0.73	0.79	0.65
Visc @ 40°C	cSt	ASTM D7279(m)	220	223	222	▲ 301



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **RTA - ALMA**
Sample No. : WC0902398 **Received** : 01 Mar 2024 3000 RUE DES PINS OUEST, BATISSE 7103 MEZZALINE
Lab Number : 02619405 **Tested** : 04 Mar 2024 ALMA, QC
Unique Number : 5736515 **Diagnosed** : 04 Mar 2024 - Kevin Marson CA G8B 6T3
Test Package : IND 2 (Additional Tests: Bottom, BottomAnalysis, FilterPatch, KF, TAN Man) **Contact:** Guy Dufour
 To discuss this sample report, contact Customer Service at 1-800-268-2131. **guy.dufour-almacou@riotinto.com**
 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: (418)480-6004**