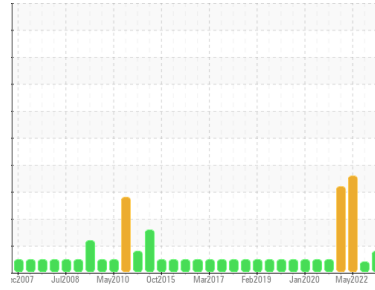




OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Area
RECUPERATION - BROYAGE [411]
 Machine Id
CONCASSEUR Bauxite 411 (boite de transfert) (S/N 411-C8-216)
 Component
Reduction Gear
 Fluid
ESSO SPARTAN EP 320 (--- LTR)

DIAGNOSIS

Recommendation

Confirmez la source du lubrifiant utilisé pour l'appoint/remplissage. Échantillonner de nouveau l'équipement au prochain intervalle de vidange afin d'en surveiller la condition. À NOTER: S.V.P. inclure, avec le prochain échantillon, des détails de la capacité du réservoir et le type et le degré de filtration.

Wear

Nous avons noté une hausse du taux d'aluminium. Les taux d'usure de tous les autres composants sont normaux.

Contamination

Il n'y a aucun indice de contamination dans l'huile.

Fluid Condition

Les niveaux d'additifs indiquent l'ajout d'une autre marque ou d'un autre type d'huile. L'état de l'huile est acceptable pour la durée de service.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		WC0835098	WC0782326	WC0677860
Sample Date	Client Info		13 Mar 2024	25 Jan 2023	05 May 2022
Machine Age	hrs	Client Info	0	0	0
Oil Age	hrs	Client Info	0	0	0
Oil Changed	Client Info		N/A	N/A	N/A
Sample Status			ATTENTION	ABNORMAL	SEVERE

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>150	60	33	39
Chromium	ppm	ASTM D5185(m)	>10	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>10	<1	<1	<1
Titanium	ppm	ASTM D5185(m)		<1	<1	<1
Silver	ppm	ASTM D5185(m)		0	0	0
Aluminum	ppm	ASTM D5185(m)	>25	28	10	11
Lead	ppm	ASTM D5185(m)	>100	0	<1	<1
Copper	ppm	ASTM D5185(m)	>50	<1	0	<1
Tin	ppm	ASTM D5185(m)	>10	0	0	0
Antimony	ppm	ASTM D5185(m)	>5	0	<1	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)	.4	32	30	27
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	<1	<1	<1
Manganese	ppm	ASTM D5185(m)		0	<1	<1
Magnesium	ppm	ASTM D5185(m)	0	4	4	0
Calcium	ppm	ASTM D5185(m)	0	553	542	6
Phosphorus	ppm	ASTM D5185(m)	250	343	381	343
Zinc	ppm	ASTM D5185(m)	0	2	1	2
Sulfur	ppm	ASTM D5185(m)		15613	16044	14615
Lithium	ppm	ASTM D5185(m)		1	1	<1

CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>50	23	15	20
Sodium	ppm	ASTM D5185(m)		<1	0	0
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1

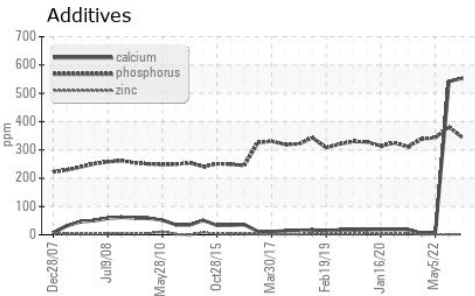
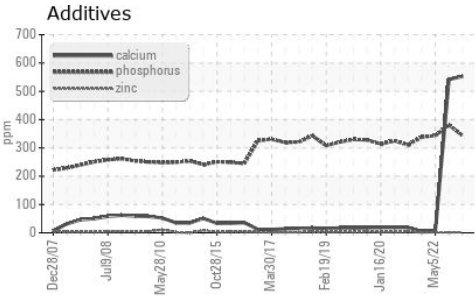
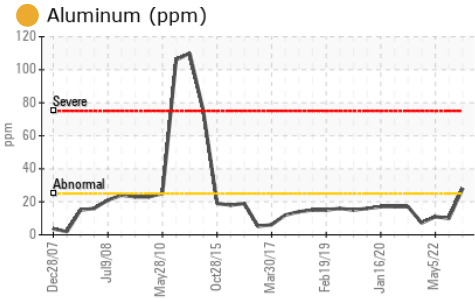
INFRA-RED

	method	limit/base	current	history1	history2	
Soot %	%	ASTM D7844*		0	0	0
Nitration	Abs/cm	ASTM D7624*		3.4	4.3	3.3
Sulfation	Abs/.1mm	ASTM D7415*		13.5	16.6	14.2

FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	ASTM D7414*		4.6	6.2	4.7

OIL ANALYSIS REPORT



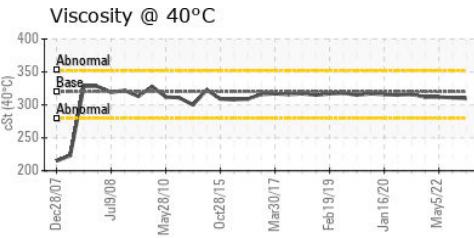
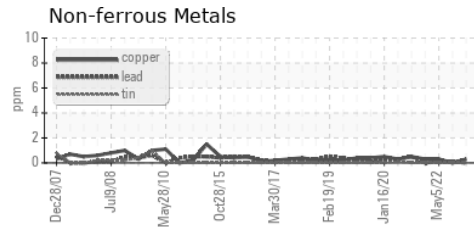
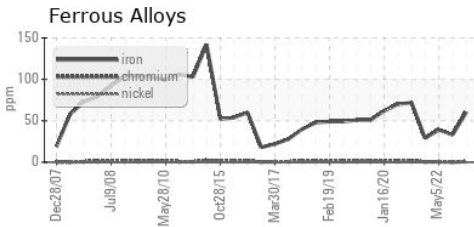
VISUAL	method	limit/base	current	history1	history2	
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 40°C	cSt	ASTM D7279(m)	320	310	▲ 311	312

SAMPLE IMAGES	method	limit/base	current	history1	history2
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GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0835098
Lab Number : **02622140**
Unique Number : 5747259
Test Package : IND 1 (Additional Tests: FT-IR)
Received : 14 Mar 2024
Tested : 14 Mar 2024
Diagnosed : 15 Mar 2024 - Kevin Marson

Rio Tinto - USINE VAUDREVIL BHB (Mill - Aluminum)
 1955 BD. MELLON, EDIFICE 401
 JONQUIERE, QC
 CA G7S 4L2
 Contact: Dany Bonneau
 dany.bonneau@riotinto.com
 T: (418)718-7771
 F: (418)699-2421

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.