

ENGINE

EQUIP NUM: CCP39

SERIAL NUMBER: K0420205

UNKNOWN MC013



Action Required

Interp By: James Durning

Interpreted On: 14-Oct-24

T08P-54288-1415

SAMPLE SHIP TIME (days) : 5

CAPE MINING

CAPE MINING_118

BODDINGTON

LOCATION: BODDINGTON

RECEIVED DATE: 14-Oct-24

High lead, elevated viscosity and infrared levels may be caused by incorrect operating temperatures. Is this compartment operating in the correct temperature range? Iron is high. Check for wear debris and resample after any adjustments or repairs. For enquiries regarding this evaluation, please contact Jim Durning Ph 08 9377 9757.

SAMPLE INFORMATION



	09-Oct-24	10-Sep-24	08-Aug-24	31-Jul-24
Sample Id	T08P-54288-1415	T08P-54260-0209	T08P-54228-0724	T08P-54220-0709
Lab Date	14-Oct-24	16-Sep-24	15-Aug-24	07-Aug-24
Meter [Hr]	9243.3	9000.0	8757.0	8700.0
Comp Meter [Hr]	9243.3	9000.0	8757.0	8700.0
Meter On Fluid	243.3	243.0	57.0	235.0
Fluid Brand	TOTAL	TOTAL	TOTAL	TOTAL
Fluid Weight	15W-40	15W-40	15W-40	15W-40
Fluid Type	RUBIA TIR 7400	RUBIA TIR 7400	RUBIA TIR 7400	RUBIA TIR 7400
Fluid Change	Y	Y	Y	Y
Filter Change	Y	Y	Y	Y
Total Fluid Added	0	0	0	0

PREVIOUS SAMPLE

The iron and lead concentrations are high. Slight dirt entry indicated. The PQ index is increasing. Inspect the engine oil filter(s) for debris. Check the air intake system, seals, breathers, fill point/cap and dipstick for dirt entry points. Resample to confirm any maintenance, adjustments or repairs. Infrared analysis shows elevated soot. Has this had dusty/restricted air filter elements? Inspect turbocharger and induction system condition. The oil viscosity (V40/V100) is higher than the specification for the reported oil. Oxidation, nitration and sulfation are increasing. Is this component operating within the normal temperature range? Suggest engine evaluation - boost, blowby etc. For all sample information update requests, please contact the SOS Lab on (08) 9377 9521. For enquiries regarding this evaluation, please contact Steve de Boer on (08) 9377 9575.

For additional sample history, go to: [S.O.S WEB](#)

CONDITION-CONTAMINATION

		09-Oct-24	10-Sep-24	08-Aug-24	31-Jul-24
OIL CONDITION					
ST	Soot	37	44	24	47
OXI	Oxidation	20	18	15	24
SUL	Sulfur Products	26	25	21	25
NIT	Nitration	11	11	9	12

VISCOSITY (Centistokes)

		09-Oct-24	10-Sep-24	08-Aug-24	31-Jul-24
V100	Viscosity at 100 C	16.52	15.69	15.04	16.55

VISCOSITY (Centistokes)

		09-Oct-24	10-Sep-24	08-Aug-24	31-Jul-24
V40	Viscosity at 40 C	130.9	126.7	120.1	144.1

CRACKLE TEST

		09-Oct-24	10-Sep-24	08-Aug-24	31-Jul-24
W	Water	N	N	N	N

FUEL

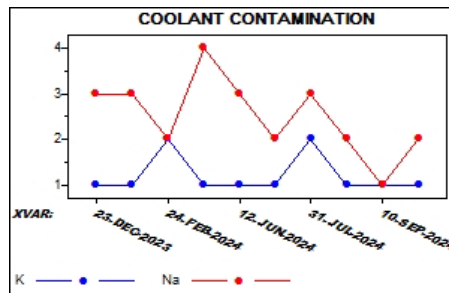
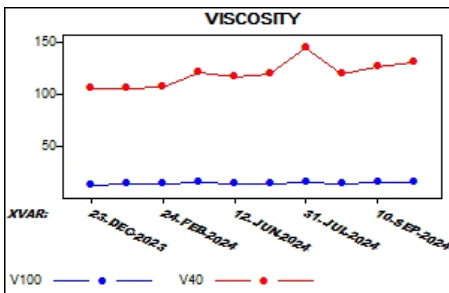
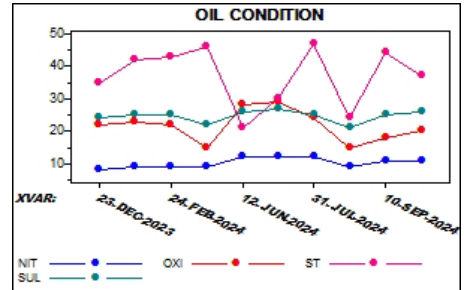
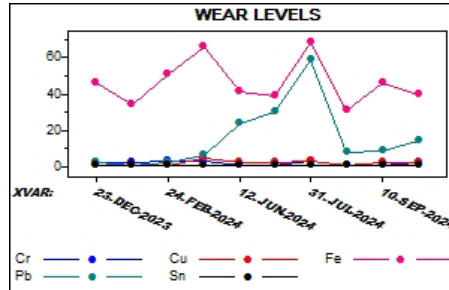
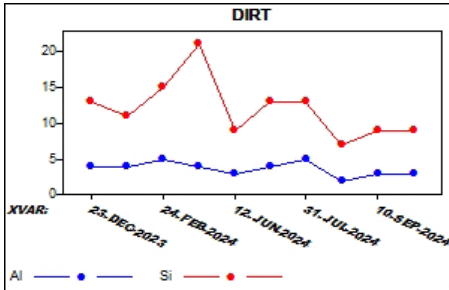
		09-Oct-24	10-Sep-24	08-Aug-24	31-Jul-24
F	Fuel	N			

OIL CLEANLINESS

		09-Oct-24	10-Sep-24	08-Aug-24	31-Jul-24
PQI					
PQI	PQ Index	9	10	2	13

ADDITIVES-WEAR LEVELS

		09-Oct-24	10-Sep-24	08-Aug-24	31-Jul-24
ELEMENTS (PPM) ASTM D5185					
Cu	Copper	2	2	1	3
Fe	Iron	40	46	31	68
Cr	Chromium	2	1	1	3
Al	Aluminum	3	3	2	5
Pb	Lead	14	9	8	59
Sn	Tin	<1	<1	<1	<1
Si	Silicon	9	9	7	13
Na	Sodium	2	1	2	3
K	Potassium	<1	<1	<1	2
Mo	Molybdenum	15	20	4	23
Ni	Nickel	<1	<1	<1	<1
Ag	Silver	<1	<1	<1	<1
Ti	Titanium	<1	<1	<1	<1
V	Vanadium	<1	<1	<1	<1
Mn	Manganese	<1	<1	<1	1
Cd	Cadmium	0	0	0	0
Ca	Calcium	2675	2509	2591	2035
P	Phosphorus	1036	1023	967	817
Zn	Zinc	1281	1251	1109	993
Mg	Magnesium	85	102	54	330
Ba	Barium	<1	<1	<1	<1
B	Boron	39	66	5	25
Sb	Antimony	0	0	0	0
Li	Lithium	<1	<1	<1	<1



Report Comment

NOTICE: This analysis is intended as an aid in predicting mechanical wear and is based upon the supplied information and the results presented in this report. All reported values are tested according to in-house test methods. The results are on an "as received" sample basis. The information supplied by the client is listed in the Sample Information panel of the above report. No guarantee, expressed or implied, is made against failure of this piece of equipment or component.