

ENGINE

EQUIP NUM: CA304

SERIAL NUMBER: 3ZF01343

N030-55076-0108

CAT D6H

COMP SERIAL NUM: 7C0501

LABEL#: 201734402



Monitor Compartment

Interp By: Gregory Scribner

SAMPLE SHIP TIME (days) : 13

Interpreted On: 04-Apr-25

GALENA CONTRACTORS

ELEVATED SODIUM MAY BE RESIDUALS FROM COMBUSTED COOLANT ENTERING THROUGH THE CYLINDERS OR NRS COOLER (IF APPLICABLE). GLYCOL TEST IS NEGATIVE. SODIUM MAY ALSO BE ASSOCIATED WITH EXTERNAL CONTAMINANTS (FLY ASH, WASH SOLUTIONS, DIRT, GREASES ETC) OR SUPPLEMENTAL ADDITIVES. SLIGHTLY ELEVATED IRON AND CHROMIUM MAY BE SOURCED TO LINER AND RING WEAR. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL. MONITOR FOR COOLANT CONSUMPTION.

LTD

RECEIVED DATE: 17-Mar-25

SAMPLE INFORMATION

	04-Mar-25	04-Jul-23	15-Mar-22	02-Sep-21
Sampled Date	04-Mar-25	04-Jul-23	15-Mar-22	02-Sep-21
Sample Id	N030-55076-0108	N030-53193-0326	N030-52084-0182	N030-51256-0377
Lab Date	17-Mar-25	12-Jul-23	25-Mar-22	13-Sep-21
Meter [Hr]	20780	20524	20242	19991
Comp Meter [Hr]	20780	20524	20242	19991
Meter On Fluid	254	282	251	203
Fluid Brand	PETRO-CAN	PETRO-CAN	PETRO-CAN	PETRO-CAN
Fluid Weight	10W-30	15W-40	15W-40	15W-40
Fluid Type	DURON HP	DURON HP	DURON HP	DURON HP
Fluid Change	Y	Y	Y	Y
Filter Change	Y	Y	Y	Y
Make Up Fluid [L]	28			
Kidney Loop	U	U	U	U

CONDITION / CONTAMINATION

		04-Mar-25	04-Jul-23	15-Mar-22	02-Sep-21
VISCOSITY (Centistokes)					
V100	Viscosity at 100 C	14.50	11.90	15.00	13.2
VISCOSITY (Centistokes)					
V40	Viscosity at 40 C	100.4	79.50	110.6	92.2
VISCOSITY INDEX					
VI	Viscosity Index	149	144	141	143

WEAR LEVELS / ADDITIVES

		04-Mar-25	04-Jul-23	15-Mar-22	02-Sep-21
ELEMENTAL ANALYSIS (ppm)					
Na	Sodium	32	13	15	9
K	Potassium	8	2	3	2
Si	Silicon	3	2	3	3
Al	Aluminum	1	0	1	0
Fe	Iron	53	23	29	34
Cr	Chromium	4	10	2	11
Pb	Lead	4	1	3	2
Cu	Copper	1	1	0	1
Sn	Tin	1	0	0	1
Ni	Nickel	1	0	0	0
Ag	Silver	0	0	0	0
Ti	Titanium	0	0	0	0
V	Vanadium	0	0	0	0
Zn	Zinc	1236	1229	1376	1420
Ca	Calcium	1115	1111	1148	1225
Mg	Magnesium	1058	968	901	999
Ba	Barium	0	0	0	0
B	Boron	4	3	3	3
Mo	Molybdenum	66	61	61	64
P	Phosphorus	1024	986	1204	1047

INFRARED (UFM)

		04-Mar-25	04-Jul-23	15-Mar-22	02-Sep-21
ST	Soot	29	16	29	34
OXI	Oxidation	20	17	18	17
SUL	Sulfate By-Product	22	20	21	23
	Sulfur Products	22	20	21	23
NIT	Nitration	10	9	9	9

ANTIFREEZE

		04-Mar-25	04-Jul-23	15-Mar-22	02-Sep-21
A	Antifreeze	N	N	N	N

GLYCOL CONTENT (%)

		04-Mar-25	04-Jul-23	15-Mar-22	02-Sep-21
PGC	Percent Glycol Con	0.0122			

FUEL

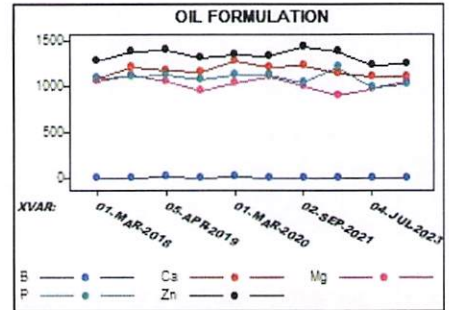
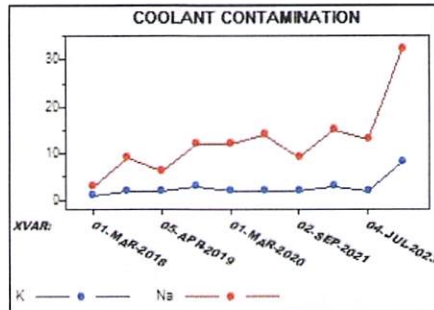
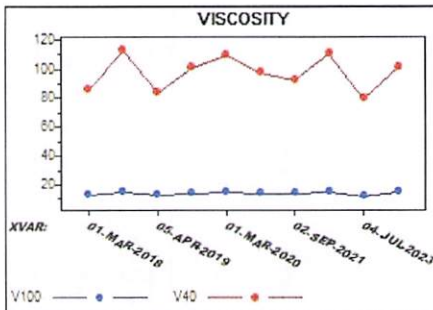
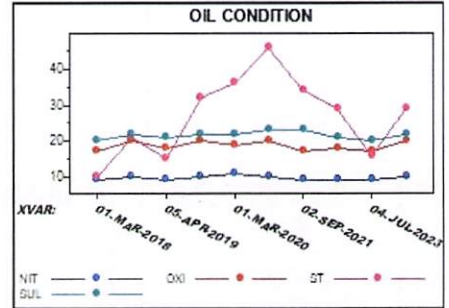
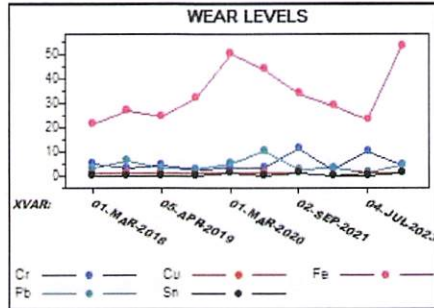
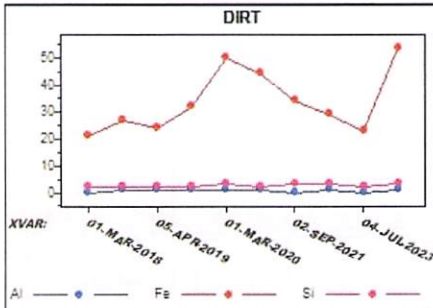
		04-Mar-25	04-Jul-23	15-Mar-22	02-Sep-21
F	Fuel	N	N	N	N

FUEL CONTENT (%)

		04-Mar-25	04-Jul-23	15-Mar-22	02-Sep-21
PFC	Percent Fuel		3.72		

WATER

		04-Mar-25	04-Jul-23	15-Mar-22	02-Sep-21
W	Water	N	N	N	N



Report Comment

VisionLink® will be the new home for S-O-S-SM Services fluid analysis. Begin the transition to VisionLink now - Sign up or log into vl.cat.com to update your settings, manage your fleet, configure your jobsites (groups), and view your samples. The ability for users to submit samples, track samples, view and graph sample history, and download reports are coming to VisionLink soon. Have any questions on SOS? Contact us 8:00am - 4:00pm MST M-F at SOS Support: 1-888-FINNING or oilsupport@finning.com.

TRANS ENGINE

**EQUIP NUM: CA304
CAT D6H**

**SERIAL NUMBER: 3ZF01343
COMP SERIAL NUM: 7C0501**

**Interp By: Salvatore Borelli
Interpreted On: 13-Jul-23**

N030-53193-0326
LABEL#: 201165125
SAMPLE SHIP TIME (days) : 9
GALENA CONTRACTORS LTD
RECEIVED DATE: 13-Jul-23

Monitor Compartment

ELEVATED CHROMIUM MAY BE SOURCED TO PISTON RING WEAR. FUEL TEST IS NEGATIVE. OTHER READINGS APPEAR TO BE NORMAL. INSPECT OIL FILTER(S) FOR ANY EVIDENCE OF LARGER VISIBLE DEBRIS TRAPPED IN THE FILTER ELEMENT(S). RESAMPLE AT THE NEXT SERVICE INTERVAL TO MONITOR.

SAMPLE INFORMATION

	04-Jul-23	15-Mar-22	02-Sep-21	22-Oct-20
Sampled Date	04-Jul-23	15-Mar-22	02-Sep-21	22-Oct-20
Sample Id	N030-53193-0326	N030-52084-0182	N030-51256-0377	N030-50303-0439
Lab Date	12-Jul-23	25-Mar-22	13-Sep-21	29-Oct-20
Meter [Hr]	20524	20242	19991	19540
Comp Meter [Hr]	20524	20242	19991	19540
Meter On Fluid	282	251	203	328
Fluid Brand	PETRO-CAN	PETRO-CAN	PETRO-CAN	PETRO-CAN
Fluid Weight	15W-40	15W-40	15W-40	15W-40
Fluid Type	DURON HP	DURON HP	DURON HP	DURON HP
Oil Change	Y	Y	Y	Y
Filter Change	Y	Y	Y	Y
Kidney Loop	U	U	U	U

CONDITION / CONTAMINATION

		04-Jul-23	15-Mar-22	02-Sep-21	22-Oct-20
VISCOSITY (Centistokes)					
V100	Viscosity at 100 C	11.90	15.00	13.2	13.4
VISCOSITY (Centistokes)					
V40	Viscosity at 40 C	79.50	110.6	92.2	97.9
VISCOSITY INDEX					
VI	Viscosity Index	144	141	143	136

WEAR LEVELS / ADDITIVES

		04-Jul-23	15-Mar-22	02-Sep-21	22-Oct-20
ELEMENTAL ANALYSIS (ppm)					
Na	Sodium	13	15	9	14
K	Potassium	2	3	2	2
Si	Silicon	2	3	3	2
Al	Aluminum	0	1	0	1
Fe	Iron	23	29	34	44
Cr	Chromium	10	2	11	3
Pb	Lead	1	3	2	10
Cu	Copper	1	0	1	1
Sn	Tin	0	0	1	0
Ni	Nickel	0	0	0	0
Ag	Silver	0	0	0	0
Ti	Titanium	0	0	0	0
V	Vanadium	0	0	0	0
Zn	Zinc	1229	1376	1420	1323
Ca	Calcium	1111	1148	1225	1212
Mg	Magnesium	968	901	999	1106
Ba	Barium	0	0	0	0
B	Boron	3	3	3	4
Mo	Molybdenum	61	61	64	55
P	Phosphorus	986	1204	1047	1127

ANTIFREEZE					
A	Antifreeze	N	N	N	N

FUEL					
F	Fuel	N	N	N	N

FUEL CONTENT (%)					
PFC	Percent Fuel	3.72			

WATER					
W	Water	N	N	N	N

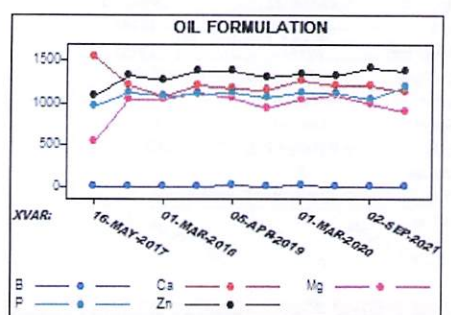
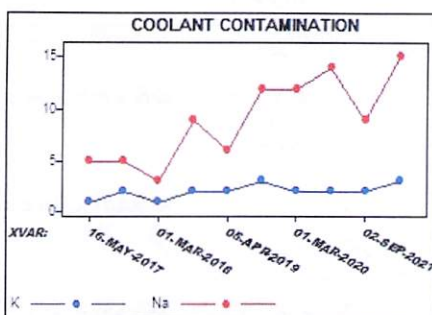
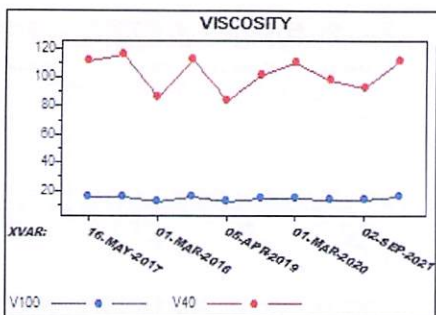
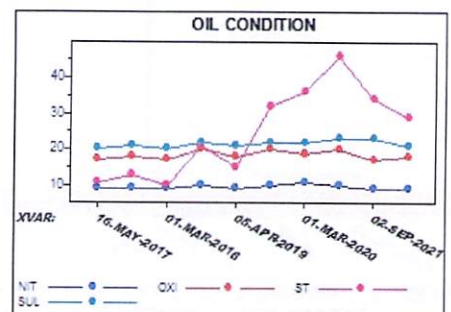
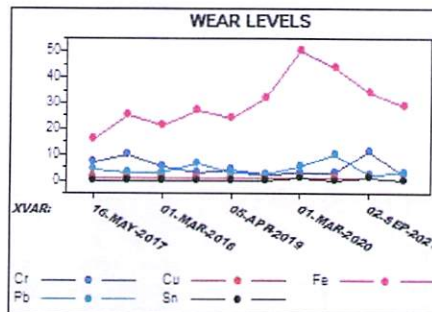
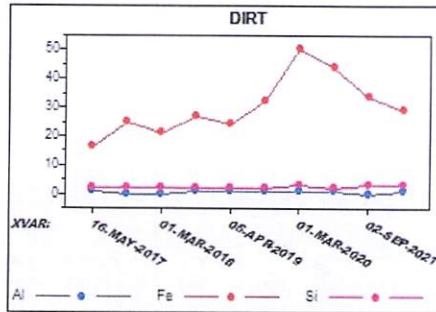
Engine overhauled for rebuild. RAY'S AWARD 20524

ENGINE
 SERIAL NUMBER: 3ZF01343
 EQUIP NUM: CA304
 CAT D6H
 COMP SERIAL NUM: 7C0501

N030-52084-0182



No Action Required



Report Comment

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJVUrs>. Access our online platform: <https://soswebmc.cat.com/cat-sos/samples>. Want to sign up for online portal?, Go Paperless? Or have any questions on SOS? Contact us 8:00am - 4:00pm MST M-F at SOS Support: 1-888-FINNING or oilsupport@finning.com.

ENGINE

EQUIP NUM: CA304

SERIAL NUMBER: 3ZF01343

N030-51256-0377

CAT D6H

COMP SERIAL NUM: 7C0501

LABEL#: 200756080



Monitor Compartment

Interp By: Peter Lewandowski

SAMPLE SHIP TIME (days) : 11

Interpreted On: 14-Sep-21

GALENA CONTRACTORS

LTD

RECEIVED DATE: 13-Sep-21

CHROME IS ELEVATED AND MAY INDICATE PISTON RING WEAR. ALL OTHER WEAR METAL READINGS ARE ACCEPTABLE. INSPECT OIL FILTER(S) FOR ANY EVIDENCE OF LARGER VISIBLE DEBRIS TRAPPED IN THE FILTER ELEMENT(S). CHANGE OIL. RESAMPLE TO MONITOR.

SAMPLE INFORMATION

Sampled Date	02-Sep-21	22-Oct-20	01-Mar-20	06-Feb-20
Sample Id	N030-51256-0377	N030-50303-0439	N030-51068-0335	N030-50049-1141
Lab Date	13-Sep-21	29-Oct-20	09-Mar-21	18-Feb-20
Meter [Hr]	19991	19540	19788	19212
Comp Meter [Hr]	19991	19540	19788	19212
Meter On Fluid	203	328	328	252
Fluid Brand	PETRO-CAN	PETRO-CAN	PETRO-CAN	PETRO-CAN
Fluid Weight	15W-40	15W-40	10W-30	15W-40
Fluid Type	DURON HP	DURON HP	DURON SHP	DURON HP
Fluid Change	Y	Y	Y	Y
Filter Change	Y	Y	Y	Y
Kidney Loop	U	U	U	U

PREVIOUS SAMPLE

ELEVATED LEAD SOURCED PRIMARILY TO MAIN/ROD BEARING OVERLAY WEAR AND/OR NON-MECHANICAL SOURCES. INSPECT OIL FILTER(S) FOR ANY EVIDENCE OF LARGER VISIBLE DEBRIS TRAPPED IN THE FILTER ELEMENT(S). OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE TO MONITOR.

CONDITION / CONTAMINATION

	02-Sep-21	22-Oct-20	01-Mar-20	06-Feb-20
VISCOSITY (Centistokes)				
V100 Viscosity at 100 C	13.2	13.4	14.6	14.0
VISCOSITY (Centistokes)				
V40 Viscosity at 40 C	92.2	97.9	109.5	100.8

WEAR LEVELS / ADDITIVES

	02-Sep-21	22-Oct-20	01-Mar-20	06-Feb-20
ELEMENTAL ANALYSIS (ppm)				
Na Sodium	9	14	12	12
K Potassium	2	2	2	3
Si Silicon	3	2	3	2
Al Aluminum	0	1	1	1
Fe Iron	34	44	50	32
Cr Chromium	11	3	3	2
Pb Lead	2	10	5	2
Cu Copper	1	1	1	1
Sn Tin	1	0	1	0
Ni Nickel	0	0	0	1
Ag Silver	0	0	0	0
Ti Titanium	0	0	0	0
V Vanadium	0	0	0	0
Zn Zinc	1420	1323	1345	1312
Ca Calcium	1225	1212	1275	1155
Mg Magnesium	999	1106	1046	949
Ba Barium	0	0	0	0
B Boron	3	4	5	4
Mo Molybdenum	64	55	63	60
P Phosphorus	1047	1127	1118	1074

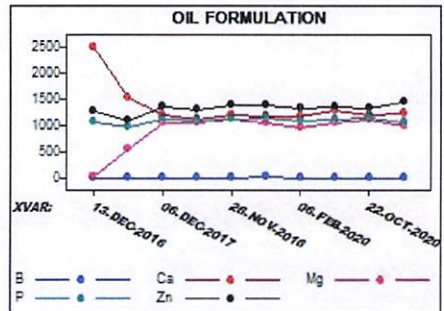
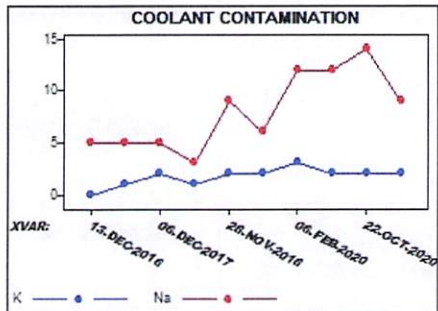
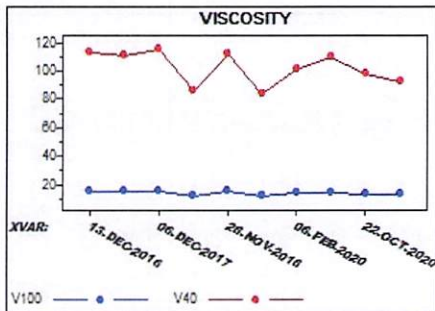
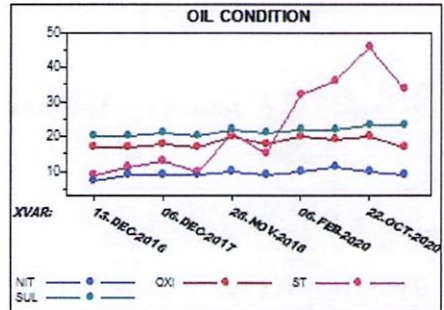
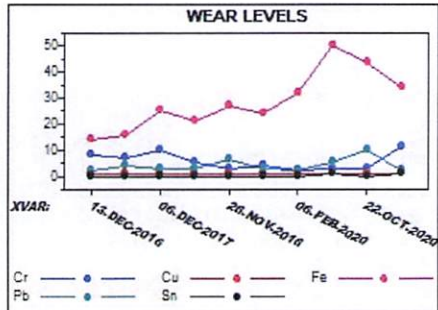
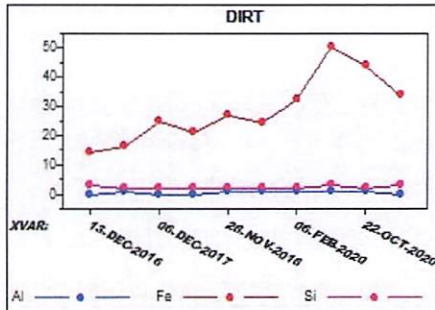
	02-Sep-21	22-Oct-20	01-Mar-20	06-Feb-20
VISCOSITY INDEX				
VI Viscosity Index	143	136	137	141
INFRARED (UFM)				
ST Soot	34	46	36	32
OXI Oxidation	17	20	19	20
SUL Sulfur Products	23	23	22	22
NIT Nitration	9	10	11	10

	02-Sep-21	22-Oct-20	01-Mar-20	06-Feb-20
ANTIFREEZE				
A Antifreeze	N	N	N	N

	02-Sep-21	22-Oct-20	01-Mar-20	06-Feb-20
FUEL				
F Fuel	N	N	N	N

	02-Sep-21	22-Oct-20	01-Mar-20	06-Feb-20
WATER				
W Water	N	N	N	N

HRSD W.P.



Report Comment

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TRANSMISSION POWER

SHIFT

N030-51257-0724
 LABEL#: 200755918
 SAMPLE SHIP TIME (days) : 11
GALENA CONTRACTORS LTD
 RECEIVED DATE: 14-Sep-21

EQUIP NUM: CA304

CAT D6H

 **No Action Required**

SERIAL NUMBER: 3ZF01343

COMP SERIAL NUM: 7C0501

Interp By: Peter Lewandowski
 Interpreted On: 15-Sep-21

WEAR METAL ANALYSIS INDICATES ACCEPTABLE WEAR RATE. NO PROBLEMS PRESENTLY ASSOCIATED WITH THIS SAMPLE. CONTINUE SAMPLING AT THE NORMAL INTERVAL.

SAMPLE INFORMATION

	03-Sep-21	06-Jul-18
Sampled Date	03-Sep-21	06-Jul-18
Sample Id	N030-51257-0724	N030-48198-0266
Lab Date	14-Sep-21	17-Jul-18
Meter [Hr]	19991	18519
Comp Meter [Hr]	4367	2684
Meter On Fluid	1535	73
Fluid Brand	PETRO-CAN	PETRO-CAN
Fluid Weight	30	30
Fluid Type	PRODURO	PRODURO
Fluid Change	Y	N
Filter Change	Y	Y
Kidney Loop	U	U

PREVIOUS SAMPLE

VISIBLE GRANULAR DEBRIS IN OIL. WEAR METAL ANALYSIS INDICATES ACCEPTABLE WEAR RATE. OIL CONDITION ANALYSIS IS ACCEPTABLE ENSURE LIMITED CHANCE OF CONTAMINATION WHEN SAMPLING. RE SAMPLE AT THE NEXT SERVICE INTERVAL.

CONDITION / CONTAMINATION

	03-Sep-21	06-Jul-18
VISCOSITY (Centistokes)		
V100 Viscosity at 100 C	10.5	11.0
VISCOSITY (Centistokes)		
V40 Viscosity at 40 C	85.1	87.5

WEAR LEVELS / ADDITIVES

	03-Sep-21	06-Jul-18
ELEMENTAL ANALYSIS (ppm)		
Na Sodium	1	0
K Potassium	2	0
Si Silicon	5	1
Al Aluminum	1	0
Fe Iron	10	5
Cr Chromium	0	0
Pb Lead	0	0
Cu Copper	6	4
Sn Tin	0	0
Ni Nickel	0	0
Ag Silver	0	0
Ti Titanium	0	0
V Vanadium	0	0
Zn Zinc	1210	1280
Ca Calcium	2825	3044
Mg Magnesium	87	11
Ba Barium	0	0
B Boron	2	0
Mo Molybdenum	5	0
P Phosphorus	986	1032

VISCOSITY INDEX

	03-Sep-21	06-Jul-18
VI Viscosity Index	106	112

INFRARED (UFM)

	03-Sep-21	06-Jul-18
ST Soot	0	0
OXI Oxidation	3	3
SUL Sulfur Products	17	16
NIT Nitration	3	3

ANTIFREEZE

	03-Sep-21	06-Jul-18
A Antifreeze	N	N

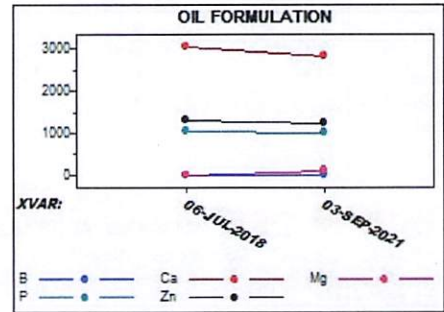
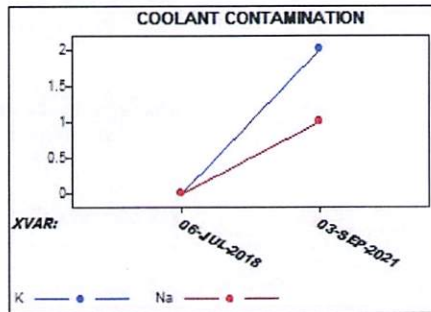
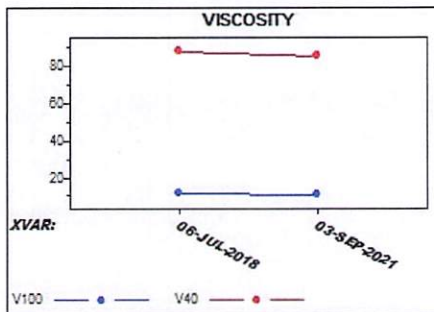
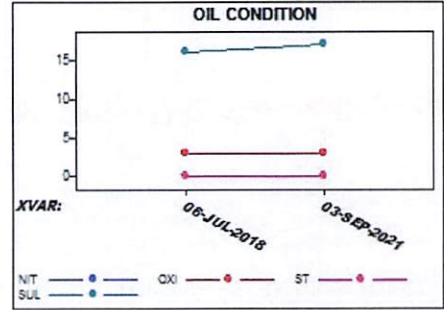
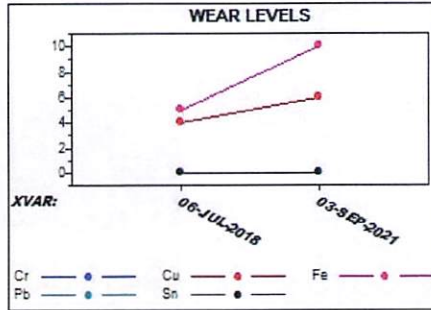
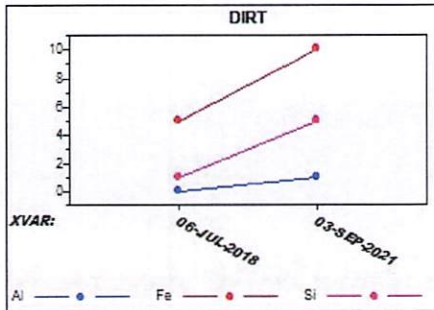
WATER

	03-Sep-21	06-Jul-18
W Water	N	N

CLEANLINESS

	03-Sep-21	06-Jul-18
PARTICLE COUNT		
ISO ISO Code Rating	23/21/15	DEBRIS
PC Ra PC Rating		B1
4µ 4µ	70612	
6µ 6µ	17608	
10µ 10µ	1019	
14µ 14µ	213	
18µ 18µ	54	
21µ 21µ	27	
38µ 38µ	1	
50µ 50µ	1	

*Filter clean pretty much
 minor clutch & Hummer*



Report Comment

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ENGINE
EQUIP NUM: CA304
CAT D6H
SERIAL NUMBER: 3ZF01343
COMP SERIAL NUM: 7C0501
N030-51068-0335

LABEL#: 200169191

SHOP JOB NUM :

SAMPLE SHIP TIME (days) : 373

GALENA CONTRACTORS
LTD
No Action Required
Interp By: Greg Eyre
Interpreted On: 10-Mar-21

SLIGHTLY ELEVATED IRON CONTENT. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

SAMPLE INFORMATION

	01-Mar-20	06-Feb-20	05-Apr-19	28-Nov-18
Sampled Date	01-Mar-20	06-Feb-20	05-Apr-19	28-Nov-18
Sample Id	N030-51068-0335	N030-50049-1141	N030-49107-0699	N030-48341-0058
Lab Date	09-Mar-21	18-Feb-20	17-Apr-19	07-Dec-18
Meter [Hr]	19788	19212	18960	18714
Comp Meter [Hr]	19788	19212	18960	18714
Meter On Fluid	328	252	246	258
Fluid Brand	PETRO-CAN	PETRO-CAN	PETRO-CAN	PETRO-CAN
Fluid Weight	10W-30	15W-40	10W-30	15W-40
Fluid Type	DURON SHP	DURON HP	DURON HP	DURON HP
Fluid Change	Y	Y	Y	Y
Filter Change	Y	Y	Y	Y
Washdown Loop	U	U	U	U

PREVIOUS SAMPLE

DIRT AND WEAR METALS APPEAR TO BE AT ACCEPTABLE LEVELS. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

CONDITION / CONTAMINATION

	01-Mar-20	06-Feb-20	05-Apr-19	28-Nov-18
VISCOSITY (Centistokes)				
V100 Viscosity at 100 C	14.6	14.0	12.5	15.0

WATER

	01-Mar-20	06-Feb-20	05-Apr-19	28-Nov-18
W Water	N	N	N	N

VISCOSITY (Centistokes)

	01-Mar-20	06-Feb-20	05-Apr-19	28-Nov-18
V40 Viscosity at 40 C	109.5	100.8	84.0	111.9

VISCOSITY INDEX

	01-Mar-20	06-Feb-20	05-Apr-19	28-Nov-18
VI Viscosity Index	137	141	146	139

INFRARED (UFM)

	01-Mar-20	06-Feb-20	05-Apr-19	28-Nov-18
ST Soot	36	32	15	21
OXI Oxidation	19	20	18	20
SUL Sulfur Products	22	22	21	22
NIT Nitration	11	10	9	10

FUEL

	01-Mar-20	06-Feb-20	05-Apr-19	28-Nov-18
F Fuel	N	N	N	N

ANTIFREEZE

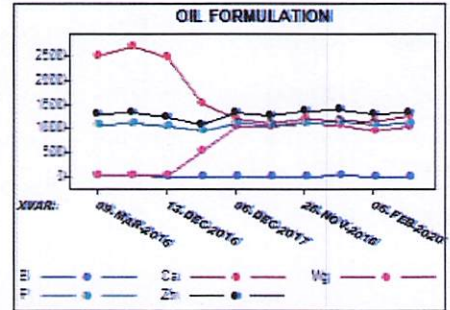
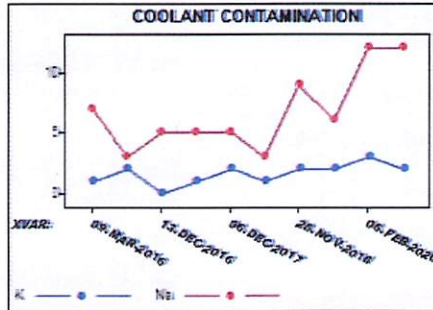
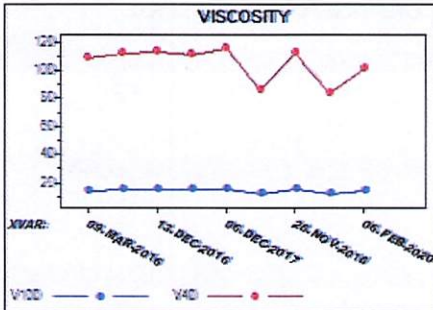
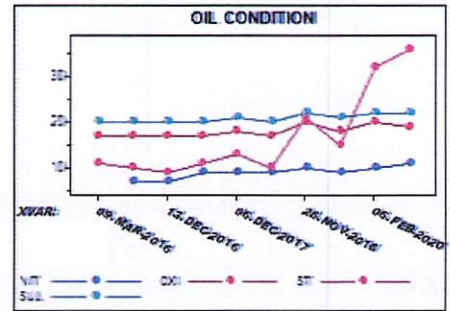
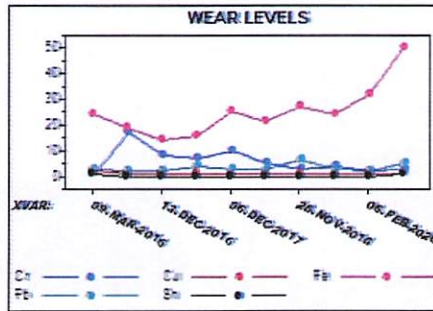
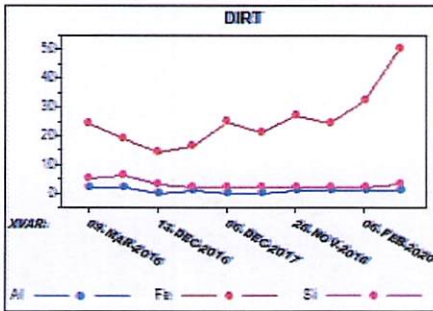
	01-Mar-20	06-Feb-20	05-Apr-19	28-Nov-18
A Antifreeze	N	N	N	N

WEAR LEVELS / ADDITIVES

	01-Mar-20	06-Feb-20	05-Apr-19	28-Nov-18
--	-----------	-----------	-----------	-----------

ELEMENTAL ANALYSIS (ppm)

	01-Mar-20	06-Feb-20	05-Apr-19	28-Nov-18
Na Sodium	12	12	6	9
K Potassium	2	3	2	2
Si Silicon	3	2	2	2
Al Aluminum	1	1	1	1
Fe Iron	50	32	24	27
Cr Chromium	3	2	4	3
Pb Lead	5	2	3	6
Cu Copper	1	1	1	1
Sn Tin	1	0	0	0
Ni Nickel	0	1	0	0
Ag Silver	0	0	0	0
Ti Titanium	0	0	0	0
V Vanadium	0	0	0	0
Zn Zinc	1345	1312	1388	1375
Ca Calcium	1275	1155	1171	1212
Mg Magnesium	1046	949	1064	1123
Ba Barium	0	0	0	0
B Boron	5	4	9	3
Mo Molybdenum	63	60	71	74
P Phosphorus	1118	1074	1128	1112



Report Comment

Our sample reports has been updated! For more information on the new report, go to - <https://www.youtube.com/watch?v=4h8bREJVUrs>. Access our online platform: <https://soswebmc.cat.com/cat-sos/samples>. Want to sign up for online portal?, Go Paperless? Or have any questions on SOS? Contact us 8:00am - 4:00pm MST M-F at SOS Support: 1-888-FINNING or oilsupport@finning.com.

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PHONE: 1-888 FINNING (346-6464)

Email: digitalservices@finning.com Web: www.finning.com

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 GALENA CONTRACTORS LTD
 BOX 70 - 100 Mill Rd
 NAKUSP, BC
 V0G 1R0
 PHONE: 2502654100
 FAX: 2502653831
 Email:

Interp By: Peter Leggo

EQUIPMENT

EQUIP NUM: CA304
 SERIAL NUMBER: 3ZF01343
 MODEL : D6H
 MANUFACTURER : CAT
 COMPANY NAME : GALENA CONTRACTORS LTD
 JOB SITE :
 AREA:
 REGION:

SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE
 COMP SERIAL NUM: 7C0501
 COMPARTMENT MODEL :
 LABEL#: 200574952
 SHOP JOB NUM :
 SAMPLE TYPE: OIL
 SAMPLE SHIP TIME (days) : 7
 SAMPLE LOCATION :

**Monitor
Compartment**

ELEVATED LEAD SOURCED PRIMARILY TO MAIN/ROD BEARING OVERLAY WEAR AND/OR NON-MECHANICAL SOURCES. INSPECT OIL FILTER(S) FOR ANY EVIDENCE OF LARGER VISIBLE DEBRIS TRAPPED IN THE FILTER ELEMENT(S). OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE TO MONITOR.

LAB #

N030-50303-0439

PROCESS 29-Oct-20
DATE**WEAR/CONTAMINATION - ADDITIVES/FORMULATION**

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Na	K	Si	Al	Fe	Cr	Pb	Cu	Sn	Ni	Ag	Ti	V	Zn	Ca	Mg	Ba	B	Mo	P
22-Oct-20	N030-50303-0439	19540	328	Y	Y	14	2	2	1	44	3	10	1	0	0	0	0	0	1323	1212	1106	0	4	55	1127
06-Feb-20	N030-50049-1141	19212	252	Y	Y	12	3	2	1	32	2	2	1	0	1	0	0	0	1312	1155	949	0	4	60	1074
05-Apr-19	N030-49107-0699	18960	246	Y	Y	6	2	2	1	24	4	3	1	0	0	0	0	0	1388	1171	1064	0	9	71	1128
28-Nov-18	N030-48341-0058	18714	258	Y	Y	9	2	2	1	27	3	6	1	0	0	0	0	0	1375	1212	1123	0	3	74	1112

OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	A	F
22-Oct-20	N030-50303-0439	19540	328	PETRO-CAN	DURON HP	15W-40	Y	Y	13.4	97.9	136	46	20	23	10	N	N
06-Feb-20	N030-50049-1141	19212	252	PETRO-CAN	DURON HP	15W-40	Y	Y	14.0	100.8	141	32	20	22	10	N	N
05-Apr-19	N030-49107-0699	18960	246	PETRO-CAN	DURON HP	10W-30	Y	Y	12.5	84.0	146	15	18	21	9	N	N
28-Nov-18	N030-48341-0058	18714	258	PETRO-CAN	DURON HP	15W-40	Y	Y	15.0	111.9	139	21	20	22	10	N	N

OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	W
22-Oct-20	N030-50303-0439	Y	Y	N
06-Feb-20	N030-50049-1141	Y	Y	N
05-Apr-19	N030-49107-0699	Y	Y	N
28-Nov-18	N030-48341-0058	Y	Y	N

*PAY HAS BEEN
INFORMED Engine
IS ~~NOT~~ HOWLED
UP.*

A = Antifreeze, Ag = Silver, Al = Aluminum, B = Boron, Ba = Barium, Ca = Calcium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

Notice: This analysis is intended as an aid in predicting mechanical wear. No guarantee, expressed or implied, is made against failure of this piece of equipment or a component thereof.

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 V0G 1R0
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 FAX: 2502653831
 Email:

EQUIPMENT

CUSTOMER EQUIP NUM : CA304
 SERIAL NUMBER : 3ZF01343
 MODEL : D6H
 MANUFACTURER : CAT
 COMPANY NAME : GALENA CONTRACTORS LTD
 JOB SITE :
 AREA:
 REGION:

SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE
 COMP SERIAL NUM : 7C0501
 COMPARTMENT MODEL :
 LABEL#: 200205921
 SHOP JOB NUM :
 SAMPLE TYPE: OIL
 SAMPLE SHIP TIME (days) : 12
 SAMPLE LOCATION :

Interp By: Gregory Scribner

**No Action
Required**

DIRT AND WEAR METALS APPEAR TO BE AT ACCEPTABLE LEVELS. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

LAB #

N030-50049-1141

PROCESS DATE 18-Feb-20

WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Na	K	Si	Al	Fe	Cr	Pb	Cu	Sn	Ni	Ag	Ti	V	Zn	Ca	Mg	Ba	B	Mo	P
06-Feb-20	N030-50049-1141	19212	252	Y	Y	12	3	2	1	32	2	2	1	0	1	0	0	0	1312	1155	949	0	4	60	1074
05-Apr-19	N030-49107-0699	18960	246	Y	Y	6	2	2	1	24	4	3	1	0	0	0	0	0	1388	1171	1064	0	9	71	1128
28-Nov-18	N030-48341-0058	18714	258	Y	Y	9	2	2	1	27	3	6	1	0	0	0	0	0	1375	1212	1123	0	3	74	1112
01-Mar-18	N030-48071-0663	18456	220	Y	Y	3	1	2	0	21	5	3	1	0	0	0	0	0	1278	1098	1059	0	4	65	1091

OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	A	F
06-Feb-20	N030-50049-1141	19212	252	PETRO-CAN	DURON HP	15W-40	Y	Y	14.0	100.8	141	32	20	22	10	N	N
05-Apr-19	N030-49107-0699	18960	246	PETRO-CAN	DURON HP	10W-30	Y	Y	12.5	84.0	146	15	18	21	9	N	N
28-Nov-18	N030-48341-0058	18714	258	PETRO-CAN	DURON HP	15W-40	Y	Y	15.0	111.9	139	21	20	22	10	N	N
01-Mar-18	N030-48071-0663	18456	220	PETRO-CAN	DURON-E	10W-30	Y	Y	12.5	86.0	142	10	17	20	9	N	N

OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	W
06-Feb-20	N030-50049-1141	Y	Y	N
05-Apr-19	N030-49107-0699	Y	Y	N
28-Nov-18	N030-48341-0058	Y	Y	N
01-Mar-18	N030-48071-0663	Y	Y	N

A = Antifreeze, Ag = Silver, Al = Aluminum, B = Boron, Ba = Barium, Ca = Calcium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

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EQUIPMENT

CUSTOMER EQUIP NUM : CA304
 SERIAL NUMBER : 3ZF01343
 MODEL : D6H
 MANUFACTURER : CAT
 COMPANY NAME : GALENA CONTRACTORS LTD
 JOB SITE :
 AREA:
 REGION:

SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE
 COMP SERIAL NUM : 7C0501
 COMPARTMENT MODEL :
 LABEL#:
 SHOP JOB NUM :
 SAMPLE TYPE: OIL
 SAMPLE SHIP TIME (days) : 12
 SAMPLE LOCATION :

Interp By: Greg Eyre

No Action
 Required

SLIGHTLY ELEVATED CHROMIUM CONTENT. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

LAB #

N030-49107-0699

PROCESS 17-Apr-19
 DATE

WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Na	K	Si	Al	Fe	Cr	Pb	Cu	Sn	Ni	Ag	Ti	V	Zn	Ca	Mg	Ba	B	Mo	P
05-Apr-19	N030-49107-0699	18960	246	Y	Y	6	2	2	1	24	4	3	1	0	0	0	0	0	1388	1171	1064	0	9	71	1128
28-Nov-18	N030-48341-0058	18714	258	Y	Y	9	2	2	1	27	3	6	1	0	0	0	0	0	1375	1212	1123	0	3	74	1112
01-Mar-18	N030-48071-0663	18456	220	Y	Y	3	1	2	0	21	5	3	1	0	0	0	0	0	1278	1098	1059	0	4	65	1091
06-Dec-17	N030-47348-0757	18237	318	Y	Y	5	2	2	0	25	10	3	1	0	0	0	0	0	1331	1211	1052	0	3	60	1121

OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	A	F
05-Apr-19	N030-49107-0699	18960	246	PETRO-CAN	DURON HP	10W-30	Y	Y	12.5	84.0	146	15	18	21	9	N	N
28-Nov-18	N030-48341-0058	18714	258	PETRO-CAN	DURON HP	15W-40	Y	Y	15.0	111.9	139	21	20	22	10	N	N
01-Mar-18	N030-48071-0663	18456	220	PETRO-CAN	DURON-E	10W-30	Y	Y	12.5	86.0	142	10	17	20	9	N	N
06-Dec-17	N030-47348-0757	18237	318	PETRO-CAN	DURON-E	15W-40	Y	Y	15.1	114.8	137	13	18	21	9	N	N

OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	W
05-Apr-19	N030-49107-0699	Y	Y	N
28-Nov-18	N030-48341-0058	Y	Y	N
01-Mar-18	N030-48071-0663	Y	Y	N
06-Dec-17	N030-47348-0757	Y	Y	N

A = Antifreeze, Ag = Silver, Al = Aluminum, B = Boron, Ba = Barium, Ca = Calcium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

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 Email:

Interp By: Peter Leggo

EQUIPMENT

CUSTOMER EQUIP NUM : CA304
 SERIAL NUMBER : 3ZF01343
 MODEL : D6H
 MANUFACTURER : CAT
 COMPANY NAME : GALENA CONTRACTORS LTD
 JOB SITE :
 AREA :
 REGION :

SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE
 COMP SERIAL NUM : 7C0501
 COMPARTMENT MODEL :
 LABEL# : 4972795
 SHOP JOB NUM :
 SAMPLE TYPE : OIL
 SAMPLE SHIP TIME (days) : 9
 SAMPLE LOCATION :

Monitor Compartment

ELEVATED LEAD SOURCED PRIMARILY TO MAIN/ROD BEARING OVERLAY WEAR AND/OR NON-MECHANICAL SOURCES. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL. INSPECT OIL FILTER(S) FOR ANY EVIDENCE OF LARGER VISIBLE DEBRIS TRAPPED IN THE FILTER ELEMENT(S).

LAB #

N030-48341-0058

PROCESS 07-Dec-18
 DATE

WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Na	K	Si	Al	Fe	Cr	Pb	Cu	Sn	Ni	Ag	Ti	V	Zn	Ca	Mg	Ba	B	Mo	P
28-Nov-18	N030-48341-0058	18714	258	Y	Y	9	2	2	1	27	3	6	1	0	0	0	0	0	1375	1212	1123	0	3	74	1112
01-Mar-18	N030-48071-0663	18456	220	Y	Y	3	1	2	0	21	5	3	1	0	0	0	0	0	1278	1098	1059	0	4	65	1091
06-Dec-17	N030-47348-0757	18237	318	Y	Y	5	2	2	0	25	10	3	1	0	0	0	0	0	1331	1211	1052	0	3	60	1121
16-May-17	N030-47144-0148	17919	280	Y	Y	5	1	2	1	16	7	4	1	0	0	0	0	0	1089	1537	548	0	3	32	955

OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	A	F
28-Nov-18	N030-48341-0058	18714	258	PETRO-CAN	DURON HP	15W-40	Y	Y	15.0	111.9	139	21	20	22	10	N	N
01-Mar-18	N030-48071-0663	18456	220	PETRO-CAN	DURON-E	10W-30	Y	Y	12.5	86.0	142	10	17	20	9	N	N
06-Dec-17	N030-47348-0757	18237	318	PETRO-CAN	DURON-E	15W-40	Y	Y	15.1	114.8	137	13	18	21	9	N	N
16-May-17	N030-47144-0148	17919	280	PETRO-CAN	DURON-E	15W-40	Y	Y	14.9	110.8	139	11	17	20	9	N	N

OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	W
28-Nov-18	N030-48341-0058	Y	Y	N
01-Mar-18	N030-48071-0663	Y	Y	N
06-Dec-17	N030-47348-0757	Y	Y	N
16-May-17	N030-47144-0148	Y	Y	N

High lead nothing in oil filter

A = Antifreeze, Ag = Silver, Al = Aluminum, B = Boron, Ba = Barium, Ca = Calcium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

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 Email:

Interp By: Peter Leggo

EQUIPMENT

CUSTOMER EQUIP NUM : CA304
 SERIAL NUMBER : 3ZF01343
 MODEL : D6H
 MANUFACTURER : CAT
 COMPANY NAME : GALENA CONTRACTORS LTD
 JOB SITE :
 AREA:
 REGION:

SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE
 COMP SERIAL NUM : 7C0501
 COMPARTMENT MODEL :
 LABEL#: 4696210
 SHOP JOB NUM :
 SAMPLE TYPE: OIL
 SAMPLE SHIP TIME (days) : 11
 SAMPLE LOCATION :

**No Action
 Required**

CHROME IS ELEVATED AND MAY INDICATE PISTON RING WEAR. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE AT THE NEXT SERVICE INTERVAL.

LAB #

N030-48071-0663

PROCESS 12-Mar-18

DATE

WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Na	K	Si	Al	Fe	Cr	Pb	Cu	Sn	Ni	Ag	Ti	V	Zn	Ca	Mg	Ba	B	Mo	P
01-Mar-18	N030-48071-0663	18456	220	Y	Y	3	1	2	0	21	5	3	1	0	0	0	0	0	1278	1098	1059	0	4	65	1091
06-Dec-17	N030-47348-0757	18237	318	Y	Y	5	2	2	0	25	10	3	1	0	0	0	0	0	1331	1211	1052	0	3	60	1121
16-May-17	N030-47144-0148	17919	280	Y	Y	5	1	2	1	16	7	4	1	0	0	0	0	0	1089	1537	548	0	3	32	955
13-Dec-16	N030-46357-0081	17639	264	Y	Y	5	0	3	0	14	8	2	1	<0	0	0	0	<0	1247	2482	9	0	5	0	1055

OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	A	F
01-Mar-18	N030-48071-0663	18456	220	PETRO-CAN	DURON-E	10W-30	Y	Y	12.5	86.0	142	10	17	20	9	N	N
06-Dec-17	N030-47348-0757	18237	318	PETRO-CAN	DURON-E	15W-40	Y	Y	15.1	114.8	137	13	18	21	9	N	N
16-May-17	N030-47144-0148	17919	280	PETRO-CAN	DURON-E	15W-40	Y	Y	14.9	110.8	139	11	17	20	9	N	N
13-Dec-16	N030-46357-0081	17639	264	PETRO-CAN	DURON-E	15W-40	Y	Y	15.6	112.8		9	17	20	7	N	NT

OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	W
01-Mar-18	N030-48071-0663	Y	Y	N
06-Dec-17	N030-47348-0757	Y	Y	N
16-May-17	N030-47144-0148	Y	Y	N
13-Dec-16	N030-46357-0081	Y	Y	N

A = Antifreeze, Ag = Silver, Al = Aluminum, B = Boron, Ba = Barium, Ca = Calcium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

Notice: This analysis is intended as an aid in predicting mechanical wear. No guarantee, expressed or implied, is made against failure of this piece of equipment or a component thereof.

CONTACT INFORMATION

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 BOX 70 - 100 Mill Rd
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 Email:

EQUIPMENT

CUSTOMER EQUIP NUM : CA304
 SERIAL NUMBER : 3ZF01343
 MODEL : D6H
 MANUFACTURER : CAT
 COMPANY NAME : GALENA CONTRACTORS LTD
 JOB SITE :
 AREA:
 REGION:

SAMPLE INFORMATION

COMPARTMENT NAME : TRANSMISSION POWER SHIFT
 COMP SERIAL NUM : 7C0501
 COMPARTMENT MODEL :
 LABEL#: 4732552
 SHOP JOB NUM :
 SAMPLE TYPE: OIL
 SAMPLE SHIP TIME (days) : 11
 SAMPLE LOCATION :

Interp By: Dallas Livingston

No Action Required

VISIBLE GRANULAR DEBRIS IN OIL. WEAR METAL ANALYSIS INDICATES ACCEPTABLE WEAR RATE. OIL CONDITION ANALYSIS IS ACCEPTABLE. ENSURE LIMITED CHANCE OF CONTAMINATION WHEN SAMPLING. RE SAMPLE AT THE NEXT SERVICE INTERVAL.

LAB #
 N030-48198-0266
 PROCESS DATE 17-Jul-18

WEAR/CONTAMINATION - ADDITIVES/FORMULATION																									
SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Na	K	Si	Al	Fe	Cr	Pb	Cu	Sn	Ni	Ag	Ti	V	Zn	Ca	Mg	Ba	B	Mo	P
06-Jul-18	N030-48198-0266	18519	73	N	Y	0	0	1	0	5	0	0	4	0	0	0	0	0	1280	3044	11	0	0	0	1032

OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION																
SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	A
06-Jul-18	N030-48198-0266	18519	73	PETRO-CAN	PRODURO	30	N	Y	11.0	87.5	112	0	3	16	3	N

OIL CLEANLINESS						
SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	ISO	PC Rating	W
06-Jul-18	N030-48198-0266	N	Y	DEBRIS	B1	N

See picture clutch material found in FILTER & SCREEN.

A = Antifreeze, Ag = Silver, Al = Aluminum, B = Boron, Ba = Barium, Ca = Calcium, Cr = Chromium, Cu = Copper, Fe = Iron, ISO = ISO Rating, K = Potassium, Mg = Magnesium, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc

Notice: This analysis is intended as an aid in predicting mechanical wear. No guarantee, expressed or implied, is made against failure of this piece of equipment or a component thereof.

MAKEM. 24/18. P6H.
CA 304 Transmissa
clutch material.

h3507



CONTACT INFORMATION

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 Email:

EQUIPMENT

CUSTOMER EQUIP NUM : CA304
 SERIAL NUMBER : 3ZF01343
 MODEL : D6H
 MANUFACTURER : CAT
 COMPANY NAME : GALENA CONTRACTORS LTD
 JOB SITE :
 AREA :
 REGION :

SAMPLE INFORMATION

COMPARTMENT NAME : ENGINE
 COMP SERIAL NUM : 7C0501
 COMPARTMENT MODEL :
 LABEL# : 4838288
 SHOP JOB NUM :
 SAMPLE TYPE : OIL
 SAMPLE SHIP TIME (days) : 8
 SAMPLE LOCATION :

Interp By: Peter Lewandowski

**Monitor
Compartment**

CHROME IS ELEVATED AND MAY INDICATE PISTON RING WEAR. ALL OTHER WEAR METAL READINGS ARE ACCEPTABLE. OTHER READINGS APPEAR TO BE NORMAL. RESAMPLE IN 250 HOURS TO MONITOR.

LAB #

N030-47348-0757

PROCESS DATE 14-Dec-17

WEAR/CONTAMINATION - ADDITIVES/FORMULATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID CHANGE	FILTER CHANGE	Na	K	Si	Al	Fe	Cr	Pb	Cu	Sn	Ni	Ag	Ti	V	Zn	Ca	Mg	Ba	B	Mo	P
06-Dec-17	N030-47348-0757	18237	318	Y	Y	5	2	2	0	25	10	3	1	0	0	0	0	0	1331	1211	1052	0	3	60	1121
16-May-17	N030-47144-0148	17919	280	Y	Y	5	1	2	1	16	7	4	1	0	0	0	0	0	1089	1537	548	0	3	32	955
13-Dec-16	N030-46357-0081	17639	264	Y	Y	5	0	3	0	14	8	2	1	<0	0	0	0	<0	1247	2482	9	0	5	0	1055
23-Sep-16	N030-46274-0147	17375	248	Y	Y	3	2	6	2	19	17	2	1	<0	<0	0	0	<0	1319	2694	11	0	32	1	1123

OIL FORMULATION - OIL CONDITION - OIL CONTAMINATION

SAMPLE DATE	SAMPLE ID	METER (HR)	METER ON FLUID	FLUID BRAND	FLUID TYPE	FLUID WEIGHT	FLUID CHANGE	FILTER CHANGE	V100	V40	VI	ST	OXI	SUL	NIT	A	F
06-Dec-17	N030-47348-0757	18237	318	PETRO-CAN	DURON-E	15W-40	Y	Y	15.1	114.8	137	13	18	21	9	N	N
16-May-17	N030-47144-0148	17919	280	PETRO-CAN	DURON-E	15W-40	Y	Y	14.9	110.8	139	11	17	20	9	N	N
13-Dec-16	N030-46357-0081	17639	264	PETRO-CAN	DURON-E	15W-40	Y	Y	15.6	112.8		9	17	20	7	N	NT
23-Sep-16	N030-46274-0147	17375	248	PETRO-CAN	DURON-E	15W-40	Y	Y	15.2	112.4		10	17	20	7	N	NT

OIL CLEANLINESS

SAMPLE DATE	SAMPLE ID	FLUID CHANGE	FILTER CHANGE	W
06-Dec-17	N030-47348-0757	Y	Y	N
16-May-17	N030-47144-0148	Y	Y	N
13-Dec-16	N030-46357-0081	Y	Y	N
23-Sep-16	N030-46274-0147	Y	Y	N

A = Antifreeze, Ag = Silver, Al = Aluminum, B = Boron, Ba = Barium, Ca = Calcium, Cr = Chromium, Cu = Copper, F = Fuel, Fe = Iron, K = Potassium, Mg = Magnesium, Mo = Molybdenum, NIT = Nitration, Na = Sodium, Ni = Nickel, OXI = Oxidation, P = Phosphorus, Pb = Lead, ST = Soot, SUL = Sulfation, Si = Silicon, Sn = Tin, Ti = Titanium, V = Vanadium, V100 = Viscosity@100C, V40 = Viscosity@40C, VI = Viscosity Index, W = Water, Zn = Zinc