

RITCHEE EQUIPMENT, INC.
PAUL BARNETTE
P.O. BOX 1588
PRINCETON, WV 24740

FAX: 304-325-5525
 PHONE: 304-325-5525
 SAMPLE TYPE: **OIL**
 SAMPLE SHIP TIME (days): 12

COMPANY NAME: RITCHEE EQUIPMENT, INC.
 CUSTOMER EQUIP NUM: RITCHEE
 COMPARTMENT NAME: ENGINE
 SERIAL NUMBER: DHC00757
 MANUFACTURER: CATERPILLAR
 MODEL: 930H
 JOB SITE:
 EXT WARR NUMBER:

SHOP JOB NUM:
 COMP SERIAL NUM:
 COMPARTMENT MODEL:
 COMP MANUFACTURER:
 SAMPLE LABEL NUM:
 FLUID BRAND/WEIGHT: UNKNOWN
 FLUID TYPE:
 EXT WARR EXPIRE DATE:
 FUEL CONSUMED:



Carter
Fluids Analysis Laboratory
1330 Lynchburg Turnpike
Salem, VA 24153-5457
540-387-1111
www.catermachinery.com

LAB CONTROL NUMBER	SAMPLE DATE	PROCESS DATE	EQUIPMENT METER	METER ON FLUID	FLUID CHANGED	MAKE UP FLUID	MAKE UP FLUID UNITS	FILTER CHANGED
D100-50232-0143	07-Aug-2020	19-Aug-2020	13913 HR		Unknown			
No Action Required								
NO PROBLEMS PRESENTLY ASSOCIATED WITH THIS SAMPLE. CONTINUE SAMPLING AT THE NORMAL INTERVAL.								
B270-47123-0159	02-May-2017	03-May-2017	11110 HR	6968 HR	No			No
No Action Required								
NO PROBLEMS PRESENTLY ASSOCIATED WITH THIS SAMPLE. CONTINUE SAMPLING AT THE NORMAL INTERVAL.								

Wear Metals (ppm)	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	B	Mo	Ni	Ag	Ti	V	Mn	Cd	Ca	Mg	Zn	P	Ba
D100-50232-0143	2	6	0	3	0	0	4	2	0	225	6	0	0	2	2			1358	676	1216		1052
B270-47123-0159	19	12	0	1	0	0	2	1	2	5	11	0	0	2	0	0		2288	120	1131		978

Oil Condition / Particle Count (c/ml)	ST	OXI	NIT	SUL	W	A	F	V100
D100-50232-0143	0	14	7	22	N	N	N	13.9
B270-47123-0159	47	13	7	19	N	N	N	13.9

Ag = Silver, Al = Aluminum, B = Boron, Ca = Calcium, Cr = Chromium, Cu = Copper, Fe = Iron, P = Phosphorus, K = Potassium, Li = Lithium, Mg = Magnesium, Mo = Molybdenum, Na = Sodium, Ni = Nickel, Pb = Lead, Si = Silicon, Sn = Tin, S = Sulfur, V = Vanadium, Zn = Zinc, A = Antineuse, F = Fuel, W = Water, P = Positive, N = Negative, T = Trace, E = Excessive, NIT = Nitration, OXI = Oxidation, ST = Soot, SUL = Sulfation, ISO = ISO Rating, PFC = Percent Fuel Content, PCI = Particle Quantifying Index, NAW = Sall Water, FL Pt = Flash Point, TAN = Total Acid Number, TBN = Total Base Number, H2O = Karl Fisher result, V100 = Viscosity@100C, V40 = Viscosity@40C, PVI = Particle Volume Indicator

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.

RTICHE EQUIPMENT, INC.
PAUL BARNETTE
P.O. BOX 1588
PRINCETON, WV 24740

COMPANY NAME : RTICHE EQUIPMENT, INC.
 CUSTOMER EQUIP NUM : RTICHE
 COMPARTMENT NAME : RADIATOR
 SERIAL NUMBER : DHCD07/57
 MANUFACTURER : CATERPILLAR
 MODEL : 930H
 JOB SITE :
 EXT WARR NUMBER :
 SAMPLE TYPE: **COOLANT - RAD_1**
 SAMPLE SHIP TIME (days) : 0

SHOP JOB NUM :
 COMP SERIAL NUM :
 COMPARTMENT MODEL :
 COMP MANUFACTURER :
 SAMPLE LABEL NUM :
 FLUID BRAND/WEIGHT :
 FLUID TYPE : UNKNOWN
 EXT WARR EXPIRE DATE :
 FUEL CONSUMED :



Carter **CAT**

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LAB CONTROL NUMBER	SAMPLE DATE	PROCESS DATE	EQUIPMENT METER	METER ON FLUID	FLUID CHANGED	MAKE UP FLUID	MAKE UP FLUID UNITS
D100-50232-1006	19-Aug-2020	19-Aug-2020	13813 HR		Unknown		

No Action Required

ALL TESTS APPEAR NORMAL FOR THIS COOLANT. SAMPLE AGAIN AT REGULAR INTERVAL TO MONITOR THE COOLING SYSTEM.

Data	BP	FP	GL	pH	CON
D100-50232-1006	107	-38	49	7.4	4103

Data	NO2	Odor	Color	App	Foam	Oil	Paint
D100-50232-1006	428	norm	rd	clear	norm	none	none

Al = Aluminum, Cu = Copper, Fe = Iron, K = Potassium, Na = Sodium, Pb = Lead, Sn = Tin, V = Vanadium, Zn = Zinc, BO3 = Borate, CaC = Ca as CaCO3, MgC = Mg as CaCO3, MoO4 = Molybdate, PO4 = Phosphate, SiO3 = Silicate, TH = Total Hardness, Cl = Chloride, CO3 = Carbonate, GLO = Glycolate, NO2 = Nitrite, NO3 = Nitrate, PO4 = Phosphate, SAC = Sulfate, SO4 = Sulfate, TT = Toluene, BP = Boil Point(°C), FP = Freeze Point(°C), GL = Glycol, CON = Conductivity, App = Appearance, Paint = Precipitate Amount, PApp = Precipitate Appearance, PCol = Precipitate Color, PProp = Precipitate Property, CType = Coolant Type

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RITCHEE EQUIPMENT, INC.
PAUL BARNETTE
P.O. BOX 1888
PRINCETON, WV 24740

FAX: 304-325-6525
 PHONE: 304-325-6525
SAMPLE TYPE: OIL
 SAMPLE SHIP TIME (days): 2

COMPANY NAME: RITCHEE EQUIPMENT, INC.
 CUSTOMER EQUIP NUM: RITCHEE
 DEPARTMENT NAME: TRANSMISSION POWER SHIFT
 SERIAL NUMBER: DHC00757
 MANUFACTURER: CATERPILLAR
 MODEL: 930H
 JOB SITE:
 EXT WARR NUMBER:
 SHOP JOB NUM:
 COMP SERIAL NUM:
 COMPARTMENT MODEL:
 COMP MANUFACTURER:
 SAMPLE LABEL NUM: NO INFO GIVEN
 FLUID BRAND/WEIGHT:
 FLUID TYPE:
 EXT WARR EXPIRE DATE:
 FUEL CONSUMED:



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LAB CONTROL NUMBER: D100-50232-0116 SAMPLE DATE: 17-Aug-2020 PROCESS DATE: 19-Aug-2020 EQUIPMENT METER: 13913 HR METER ON FLUID: FLUID CHANGED: MAKE UP FLUID: MAKE UP FLUID UNITS: FILTER CHANGED:

No Action Required

NO PROBLEMS PRESENTLY ASSOCIATED WITH THIS SAMPLE. CONTINUE SAMPLING AT THE NORMAL INTERVAL.

Wear Metals (ppm)	D100-50232-0116																		
	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	B	Mo	Ni	Ag	Ti	V	Ca	Mg	Zn	P
13	18	0	7	0	0	6	3	0	84	1	0	0	2	0	2887	28	1205	961	

Oil Condition / Particle Count (ctn/l)	D100-50232-0116															
	BT	OXI	NIT	SUL	W	A	V100	180	4µ	6µ	10µ	14µ	18µ	21µ	38µ	50µ
0	5	5	18	N	N	9.8	2218/15	24788	3142	525	172	87	73	20	8	

Ag = Silver, Al = Aluminum, B = Boron, Ca = Calcium, Cr = Chromium, Cu = Copper, Fe = Iron, P = Phosphorus, K = Potassium, Li = Lithium, Mg = Magnesium, Mo = Molybdenum, Na = Sodium, Ni = Nickel, Pb = Lead, Si = Silicon, Sn = Tin, S = Sulfur, V = Vanadium, Zn = Zinc, A = Antifreeze, F = Fuel, W = Water, P = Positive, N = Negative, T = Trace, E = Excessive, NIT = Nitration, OXI = Oxidation, ST = Soot, SUL = Sulfation, ISO = ISO Rating, PFC = Percent Fuel Content, PCI = Particle Quantifying Index, NaW = Salt Water, FL Pt = Flash Point, TAN = Total Acid Number, TBN = Total Base Number, H2O = Karl Fisher result, V100 = Viscosity@100C, V40 = Viscosity@40C, PVI = Particle Volume Indicator

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RITCH PRESERVATI
P O BOX 1085
PRINCETON, WVA

FAX:
 PHONE: 304-325-8195
 SAMPLE TYPE: **OIL**
 SAMPLE SEED TIME (days):

COMPANY NAME : RITCHEE EQUIPMENT, INC.
 CUSTOMER EQUIP NUM : RITCHEE
 COMPARTMENT NAME : HYDRAULIC SYSTEM
 SERIAL NUMBER : DH00757
 MANUFACTURER : CATERPILLAR
 MODEL : 930H
 JOB SITE :
 EXT WARR NUMBER :

SHOP JOB NUM :
 COMP SERIAL NUM :
 COMPARTMENT MODEL :
 COMP MANUFACTURER :
 SAMPLE LABEL NUM :
 FLUID BRAND/WEIGHT :
 FLUID TYPE :
 EXT WARR EXPIRE DATE :
 FUEL CONSUMED :

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LAB CONTROL NUMBER	SAMPLE DATE	PROCESS DATE	EQUIPMENT METER	METER ON FLUID	FLUID CHANGED	MAKE UP FLUID	MAKE UP FLUID UNITS	FILTER CHANGED
D100-50232-0103	17-Aug-2020	19-Aug-2020	13913 HR		Unknown			

Monitor Compartment

HIGH WATER CONCENTRATION (>1% H2O). OTHER READINGS APPEAR TO BE NORMAL. CHANGE OIL IN COMPARTMENT. CHECK POSSIBLE SOURCES OF CONTAMINATION. SHORT SAMPLE TO MONITOR COMPARTMENT.

Wear Metals (ppm)	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	B	Mo	Ni	Ag	Ti	V	Ca	Mg	Zn	P
D100-50232-0103	5	5	0	4	1	0	8	3	0	138	1	0	2	1	0	2978	18	1285	1014

Oil Condition / Particle Count (ctdm)	ST	OXI	NIT	SUL	W	A	ISO
D100-50232-0103	0	4	4	15	P	N	H2O

Ag = Silver, Al = Aluminum, B = Boron, Ca = Calcium, Cr = Chromium, Cu = Copper, Fe = Iron, P = Phosphorus, K = Potassium, Li = Lithium, Mg = Magnesium, Mo = Molybdenum, Na = Sodium, Ni = Nickel, Pb = Lead, Si = Silicon, Sn = Tin, S = Sulfur, V = Vanadium, Zn = Zinc, A = Antifreeze, F = Fuel, W = Water, P = Positive, N = Negative, T = Trace, E = Excessive, NIT = Nitration, OXI = Oxidation, ST = Soot, SUL = Sulfation, ISO = ISO Rating, PFC = Percent Fuel Content, PCI = Particle Counting Index, NtW = Salt Water, FL Pt = Flash Point, TAN = Total Acid Number, TBN = Total Base Number, H2O = Water, V100 = Viscosity@100C, V40 = Viscosity@40C, PVI = Particle Volume Indicator

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