

BRENT PEYTON
Return to Pineville Store

COMPANY NAME : RITCHEE EQUIPMENT, INC.
 CUSTOMER EQUIP NUM : 3201 D FARLEY
 COMPARTMENT NAME : ENGINE
 SERIAL NUMBER : 7EK00157
 MANUFACTURER : CATERPILLAR
 MODEL : 789B
 JOB SITE :
 EXT WARR NUMBER :
 SHOP JOB NUM :
 COMP SERIAL NUM :
 COMPARTMENT MODEL :
 COMP MANUFACTURER :
 SAMPLE LABEL NUM :
 FLUID BRAND/WEIGHT : 15W-40
 FLUID TYPE :
 EXT WARR EXPIRE DATE :
 FUEL CONSUMED :

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
D100-49210-0641	26-Jul-2019	29-Jul-2019	43981 HR	0	Unknown			
No Action Required NO PROBLEMS PRESENTLY ASSOCIATED WITH THIS SAMPLE. CONTINUE SAMPLING AT THE NORMAL INTERVAL.								
D100-48037-0718	02-Feb-2018	06-Feb-2018	22349 HR	250 HR	Yes			
No Action Required NO PROBLEMS PRESENTLY ASSOCIATED WITH THIS SAMPLE. CONTINUE SAMPLING AT THE NORMAL INTERVAL.								
D470-46301-1001	21-Oct-2016	27-Oct-2016	0	0	Yes			
Action Required INVESTIGATE SOURCE OF FUEL DILUTION. CHANGE OIL AND FILTER IMMEDIATELY AFTERWARDS. BRING ENGINE UP TO OPERATING TEMPERATURE AND TAKE A BASELINE SAMPLE. RESAMPLE AT HALF THE NORMAL SAMPLE INTERVAL AFTER BASELINE TO VERIFY FUEL DILUTION NO LONGER EXISTS.								
D100-46026-0113	21-Dec-2015	26-Jan-2016	66581 HR	53614 HR	Unknown			
Monitor Compartment UNKNOWN/SUSPECT OIL. HOURS, MODERATELY ELEVATED SOOT LEVEL MAY RELATE TO INTAKE RESTRICTION, A/F RATIO, ENG. TEMP, OIL SERVICE. OTHER READINGS APPEAR TO BE NORMAL. CHECK POSSIBLE SOURCES OF CONTAMINATION. RESAMPLE IN 250 HOURS TO MONITOR.								

Wear Metals (ppm)	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	B	Mo	Ni	Ag	Ti	V	Ca	Mg	Zn	P
D100-49210-0641	1	9	0	4	0	0	11	7	0	131	31	0	0	1	1	1645	559	994	853
D100-48037-0718	10	18	1	3	1	1	7	4	1	57	2	0	0	3	2	1774	800	1270	1141
D470-46301-1001	16	57	3	26	3	2	62	4	8	12	0	0	0	0	0	828	175	505	416
D100-46026-0113	13	44	1	5	4	0	11	5	0	5	27	0	0	0	0	1610	500	1203	1014

Oil Condition / Particle Count (cc/ml)	ST	OXI	NIT	SUL	W	A	F	PFC	V100	POI
D100-49210-0641	0	18	9	24	N	N	N		13.1	8
D100-48037-0718	68	12	9	23	N	N	N		13.1	20
D470-46301-1001	46	18	9	22	N	N	P	61.17	3.8	
D100-46026-0113	80	16	9	25	N	N	N		15.8	28

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 = Sulphur, 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, POI = Particle Quantifying Index, New = Salt Water, FL Pt = Flash Point, TAN = Total Acid Number, TBN = Total Base Number, H2O = Karl Fisher result, V100 = Viscosity@100C, VA0 = 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

FAX: 304-325-6525
 PHONE: 304-325-6525
SAMPLE TYPE: COOLANT - RADI_MET
 SAMPLE SHIP TIME (days): 3

COMPANY NAME: RTICHE EQUIPMENT, INC.
 CUSTOMER EQUIP NUM: 3201 D-FARLEY
 COMPARTMENT NAME: RADIATOR
 SERIAL NUMBER: 7EK00157
 MANUFACTURER: CATERPILLAR
 MODEL: 789B
 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: D100-49210-1024 SAMPLE DATE: 26-Jul-2019 PROCESS DATE: 29-Jul-2019 EQUIPMENT METER: 43981 HR METER ON FLUID: 0 FLUID CHANGED: Unknown MAKE UP FLUID: MAKE UP FLUID UNITS: No Action Required

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

Date:	Al	Cu	Fe	Pb	K	Na	Sn	Zn	CaC	MgC	TH	MoO4	SiO3	BO3	PO4	BP	FP	GL	pH	CON
D100-49210-1024	0	0	0	0	74	2829	0	0	8	2	11	565	80	757	151	107	-37	50	8.6	2882

Date:	NO2	Odor	Color	App	Foam	Oil	Paint
D100-49210-1024	855	norm	red	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, GL = Glycolate, NO2 = Nitrite, NO3 = Nitrate, PO4 = Phosphate, SAC = Sulfuric Acid, SO4 = Sulfate, TT = Total Total, 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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COMPANY NAME : RITCHIE EQUIPMENT, INC.
CUSTOMER EQUIP NUM : 3201 D FARLEY
COMPARTMENT NAME : TRANSMISSION POWER SHIFT
SERIAL NUMBER : 7EK00157
MANUFACTURER : CATERPILLAR
MODEL : 789B
JOB SITE :
EXT WARR NUMBER :
FUEL CONSUMED :
SHOP JOB NUM :
COMP SERIAL NUM :
COMPARTMENT MODEL :
COMP MANUFACTURER :
SAMPLE LABEL NUM :
FLUID BRAND/WEIGHT : 30
FLUID TYPE :
EXT WARR EXPIRE DATE :
FUEL CONSUMED :



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PHONE:
FAX:
SAMPLE TYPE: **OIL**
SAMPLE SHIP TIME (days): 3

LAB CONTROL NUMBER	SAMPLE DATE	PROCESS DATE	EQUIPMENT METER	METER ON FLUID	FLUID CHANGED	MAKE UP FLUID	MAKE UP FLUID UNITS	FILTER CHANGED
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D100-48210-0608	26-Jul-2019	29-Jul-2019	43981 HR	0	Unknown			
ISO PARTICLE COUNT READING EXCEEDS RECOMMENDED CLEANLINESS LEVEL. OTHER READINGS APPEAR TO BE NORMAL. CHECK POSSIBLE SOURCES OF CONTAMINATION. RESAMPLE IN 125 HOURS TO MONITOR.								
Monitor Compartment								

D100-45280-0632	04-Oct-2015	07-Oct-2015	14967 HR	2000 HR	Yes			
NORMAL WEAR METAL READINGS. CONTINUE NORMALLY SCHEDULED SAMPLING.								
No Action Required								

D100-45231-0540	02-Sep-2015	08-Sep-2015	80806 HR	500 HR	No			Unknown
NORMAL WEAR METAL READINGS. CONTINUE NORMALLY SCHEDULED SAMPLING.								
No Action Required								

D100-45223-0337	07-Aug-2015	11-Aug-2015	13908 HR	1000 HR	Yes			
NORMAL WEAR METAL READINGS. CONTINUE NORMALLY SCHEDULED SAMPLING.								
No Action Required								

Wear Metals (ppm)	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	B	Mo	Ni	Ag	Ti	V	Ca	Mg	Zn	P
D100-48210-0608	5	13	0	6	0	0	15	8	0	88	1	0	0	3	0	2157	284	1178	1021
D100-45280-0632	3	5	0	3	1	0	8	2	1	4	1	0	0	0	0	3780	47	1123	894
D100-45291-0540	6	2	0	1	4	0	7	2	1	0	9	0	0	0	0	3450	192	1184	853
D100-45223-0337	7	4	0	3	0	4	5	1	3	2	13	0	0	0	0	2888	248	1117	802

Oil Contaminant / Particle Count (ppm)	ST	OXI	NIT	SUL	W	A	V100	PQI	IBO	4μ	6μ	10μ	14μ	18μ	21μ	39μ	50μ
D100-48210-0608	0	8	5	17	N	N	13.8	4	23927/9	45740	30285	9769	2848	1714	1333	288	108
D100-45280-0632	0	10	6	17	N	N	10.5	35	23927/8	48752	20277	3854	1388	788	811	243	188
D100-45291-0540	0	11	8	17	N	N	12.5	33	22271/6	38120	13945	2588	374	165	110	22	14
D100-45223-0337	0	10	6	17	N	N	8.3	32	21207/8	18713	8325	3488	1635	877	719	214	129

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, PQI = Particle Quantifying Index, NAV = Sulf Water, FL Pt = Flash Point, TAN = Total Acid Number, TBN = Total Base Number, HZO = Karl Fisher Result, V100 = Viscosity@100C, V40 = Viscosity@40C, PVI = Particle Volume Indicator

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COMPANY NAME: RITCHEE EQUIPMENT, INC.
CUSTOMER EQUIP NUM: 3201 D FARLEY
COMPARTMENT NAME: HYDRAULIC SYSTEM
SERIAL NUMBER: 7EK00157
MANUFACTURER: CATERPILLAR
MODEL: 789B
JOB SITE:
EXT WARR NUMBER:
SHOP JOB NUM:
COMP SERIAL NUM:
COMPARTMENT MODEL:
COMP MANUFACTURER:
SAMPLE LABEL NUM:
FLUID BRAND/HEIGHT: 10W
FLUID TYPE:
EXT WARR EXPIRE DATE:
FUEL CONSUMED:

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Salem, VA 24153-5457
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SAMPLE TYPE: **OIL**
SAMPLE SHIP TIME (days): 3

LAB CONTROL NUMBER	SAMPLE DATE	PROCESS DATE	EQUIPMENT METER	METER ON FLUID	FLUID CHANGED	MAKE UP FLUID	MAKE UP FLUID UNITS	FILTER CHANGED
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D100-49210-0802	26-Jul-2019	29-Jul-2019	43981 HR	0	Unknown			
<div style="border: 1px solid red; padding: 2px;">Action Required</div> SAMPLE CONTAINS A MODERATE AMOUNT OF GRANULAR METAL DEBRIS (B2). PQ IS AT CRITICAL LEVELS. OTHER READINGS APPEAR TO BE NORMAL. CHECK POSSIBLE SOURCES OF CONTAMINATION. RESAMPLE IN 125 HOURS TO MONITOR.								

D100-46026-0107	21-Dec-2015	26-Jan-2016	66581 HR	54673 HR	Unknown			
<div style="border: 1px solid yellow; padding: 2px;">Monitor Compartment</div> VISCOSITY IS HIGH AND DOES NOT TREND PREVIOUS SAMPLE HISTORY. LPD (LARGE PARTICLE DETECTION) READING EXCEEDS RECOMMENDED CLEANLINESS LEVEL. CHECK POSSIBLE SOURCES OF CONTAMINATION. CHANGE OIL/INSTALL NEW FILTER(S). RESAMPLE IN 250 HOURS TO MONITOR.								

D100-45280-0606	04-Oct-2015	07-Oct-2015	14987 HR	2000 HR	No			
<div style="border: 1px solid yellow; padding: 2px;">Monitor Compartment</div> LPD (LARGE PARTICLE DETECTION) READING EXCEEDS RECOMMENDED CLEANLINESS LEVEL. OTHER READINGS APPEAR TO BE NORMAL. CHECK POSSIBLE SOURCES OF CONTAMINATION. CONTINUE NORMALLY SCHEDULED SAMPLING.								

D100-45251-0506	02-Sep-2015	08-Sep-2015	80606 HR	500 HR	No			Unknown
<div style="border: 1px solid yellow; padding: 2px;">Monitor Compartment</div> ELEVATED ISO PARTICLE COUNT MAY BE DUE TO CONTAMINATION DURING SAMPLING PROCESS. OTHER READINGS APPEAR TO BE NORMAL. CHECK POSSIBLE SOURCES OF CONTAMINATION. CONTINUE NORMALLY SCHEDULED SAMPLING.								

Wear Metals (ppm)	Wear Metals (ppm)																		
	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	B	Mo	Ni	Ag	Ti	V	Ca	Mg	Zn	P
D100-49210-0802	3	9	0	5	0	0	15	8	0	41	4	0	1	1	2107	287	1188	1024	
D100-46026-0107	0	2	0	1	0	0	7	3	0	4	0	0	0		2286	10	1167	1028	
D100-45280-0606	1	2	0	0	0	0	7	1	0	4	1	0	0		3682	45	1083	857	
D100-45251-0506	4	3	0	0	2	0	9	2	0	0	8	0	0		3357	121	1108	879	

Oil Condition / Particle Count (ct/ml)	Oil Condition / Particle Count (ct/ml)																
	ST	OXI	NIT	SUL	W	A	V100	PQI	ISO	4µ	6µ	10µ	14µ	18µ	21µ	38µ	50µ
D100-48210-0802	0	7	5	16	N	N	8.4	214	M B2 NPC								
D100-46026-0107	0	12	5	20	N	N	16.2	40	2220/15	8556	1288	311	203	184	44	20	
D100-45280-0606	0	10	5	17	N	N	10.3	33	2321/18	44165	3726	1539	921	683	230	133	
D100-45251-0506	0	11	8	17	N	N	8.9	35	2221/18	39530	18252	2735	328	115	74	5	

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 = Polishing, N = Negative, T = Trace, E = Excessive, NIT = Nitration, OXI = Oxidation, ST = Soot, SUL = Sulfation, ISO = ISO Rating, PFC = Percent Fuel Content, PQI = Particle Quantifying Index, New = Sulf Water, FL = 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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COMPANY NAME : RITCHEE EQUIPMENT, INC. SHOP JOB NUM :
 CUSTOMER EQUIP NUM : 3201 D FARLEY COMP SERIAL NUM :
 COMPARTMENT NAME : STEERING SYSTEM COMPARTMENT MODEL :
 SERIAL NUMBER : 7EK00157 COMP MANUFACTURER :
 MANUFACTURER : CATERPILLAR SAMPLE LABEL NUM :
 MODEL : 789B FLUID BRAND/WEIGHT : 10
 JOB SITE : FLUID TYPE :
 EXT WARR NUMBER : EXT WARR EXPIRE DATE :
 SAMPLE SHIP TIME (day) : 3 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
D100-49210-0603	26-Jul-2019	29-Jul-2019	43981 HR	0	Unknown			

Monitor Compartment

ISO PARTICLE COUNT READING EXCEEDS RECOMMENDED CLEANLINESS LEVEL. OTHER READINGS APPEAR TO BE NORMAL. CHECK POSSIBLE SOURCES OF CONTAMINATION. RESAMPLE IN 125 HOURS TO MONITOR.

D100-45280-0501	04-Oct-2015	07-Oct-2015	14967 HR	1000 HR	Yes			
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Monitor Compartment

LPD (LARGE PARTICLE DETECTION) READING EXCEEDS RECOMMENDED CLEANLINESS LEVEL. OTHER READINGS APPEAR TO BE NORMAL. EXAMINE HOUSING SEALS, BREATHERS, PLUGS FOR INDICATIONS OF LEAKAGE OR DIRTY WATER ENTRY. ELEVATED ISO PARTICLE COUNT MAY BE DUE TO CONTAMINATION DURING SAMPLING PROCESS. RESAMPLE IN 250 HOURS TO MONITOR.

D100-45251-0509	02-Sep-2015	06-Sep-2015	80606 HR	500 HR	No			
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Monitor Compartment

ELEVATED ISO PARTICLE COUNT MAY BE DUE TO CONTAMINATION DURING SAMPLING PROCESS. OTHER READINGS APPEAR TO BE NORMAL. CHECK POSSIBLE SOURCES OF CONTAMINATION. CONTINUE NORMALLY SCHEDULED SAMPLING.

D100-45223-0312	07-Aug-2015	11-Aug-2015	13908 HR	1000 HR	Yes			
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Monitor Compartment

LPD (LARGE PARTICLE DETECTION) READING EXCEEDS RECOMMENDED CLEANLINESS LEVEL. OTHER READINGS APPEAR TO BE NORMAL. CHECK POSSIBLE SOURCES OF CONTAMINATION. CONTINUE NORMALLY SCHEDULED SAMPLING.

Wear Metals (ppm)	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	B	Mo	Ni	Ag	Ti	V	Ca	Mg	Zn	P
D100-49210-0603	1	3	0	6	8	0	14	7	0	17	30	0	0	1	1	1252	740	1280	1111
D100-45280-0501	0	1	0	2	1	0	8	2	0	2	2	0	2			3700	42	1053	833
D100-45251-0509	4	4	0	2	1	0	6	2	1	0	8	1	0			3044	162	1081	885
D100-45223-0312	1	4	0	3	16	5	7	0	2	2	14	1	0			3030	289	1190	831

Oil Condition / Particle Count (count)	ST	OXI	NT	SUL	W	A	V100	PQI	ISO	4µ	6µ	10µ	14µ	19µ	21µ	38µ	50µ
D100-49210-0603	0	11	5	18	N	N	8.8	1	23/21/14	45238	16116	548	97	78	89	33	24
D100-45280-0501	0	11	5	17	N	N	10.4	19	23/22/18	54228	25316	5483	1734	837	656	125	66
D100-45251-0509	0	11	6	17	N	N	10.1	36	21/20/18	16583	6739	2646	1343	937	772	399	238
D100-45223-0312	0	11	5	17	N	N	9.6	35	22/21/18	32836	13785	4083	1420	658	412	61	28

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 = Antineaza, F = Fuel, W = Water, P = Positive, N = Negative, T = Trace, E = Excavator, NIT = Nitration, OXI = Oxidation, ST = Soot, SUL = Sulfation, ISO = ISO Rating, PFC = Percent Fuel Content, PQI = Particle Quantifying Index, NEW = S&W 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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BRENT PEYTON
Return to Pineville Store

FAX:

PHONE:

SAMPLE TYPE: **OIL**

SAMPLE SHIP TIME (days): 3

COMPANY NAME: **RITCHIE EQUIPMENT, INC.**
CUSTOMER EQUIP NUM: **3201 D-FARLEY**
COMPARTMENT NAME: **WHEEL BEARINGS FRONT RIGHT**

SERIAL NUMBER: **7EK00157**
MANUFACTURER: **CATERPILLAR**

MODEL: **789B**
JOB SITE:
EXT WAHR NUMBER:

SHOP JOB NUM:

COMP SERIAL NUM:
COMPARTMENT MODEL:
COMP MANUFACTURER:

SAMPLE LABEL NUM:
FLUID BRAND/WEIGHT: **50**

FLUID TYPE:
EXT WAHR 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	FILTER CHANGED
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D100-49210-0654	26-Jul-2019	29-Jul-2019	43981 HR	0	No			
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Monitor Compartment
SILICON (TYPICALLY DIRTY) LEVEL APPEARS HIGH. OTHER READINGS APPEAR TO BE NORMAL. INSPECT FOR SOURCE OF DIRT ENTRY INTO THE SYSTEM. CHECK POSSIBLE SOURCES OF CONTAMINATION. CHANGE OIL IN COMPARTMENT. RESAMPLE IN 125 HOURS TO MONITOR

D100-45280-0552	04-Oct-2015	07-Oct-2015	14967 HR	2000 HR	Yes			
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Monitor Compartment
IRON APPEARS ELEVATED. OTHER READINGS APPEAR TO BE NORMAL. CHECK POSSIBLE SOURCES OF CONTAMINATION. SCREEN OIL FOR CUTTINGS. CHANGE OIL. CONTINUE NORMALLY SCHEDULED SAMPLING.

D100-45251-0557	02-Sep-2015	08-Sep-2015	80806 HR	2000 HR	Yes			Unknown
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No Action Required
NORMAL WEAR METAL READINGS. CONTINUE NORMALLY SCHEDULED SAMPLING.

D100-45223-0343	07-Aug-2015	11-Aug-2015	13908 HR	2000 HR	Yes			
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No Action Required
NORMAL WEAR METAL READINGS. CONTINUE NORMALLY SCHEDULED SAMPLING.

Wear (ppm)	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	B	Mn	Ni	Ag	Ti	V	Ca	Mg	Zn	P
D100-49210-0654	1	236	1	12	1	0	117	8	0	4	1	1	0	2	0	2467	12	1085	888
D100-45280-0552	1	356	2	2	0	1	19	5	1	37	1	1	0			1350	13	547	558
D100-45251-0557	2	309	2	1	2	2	18	5	1	29	1	2	0			1296	13	549	540
D100-45223-0343	1	211	1	1	0	5	12	2	2	28	1	1	0			883	9	361	363

Oil Condition / Particle Count (cfm)	Oil Condition / Particle Count (cfm)											
	W	V100	PQI	I80	4µ	6µ	10µ	14µ	18µ	21µ	39µ	50µ
D100-49210-0654	N	10.9	56	NORMAL								
D100-45280-0552	N	18.7	173	2323/21	74033	54610	23612	10538	6158	4436	989	439
D100-45251-0557	N	20.1	158	2322/16	42517	28604	4517	355	94	59	17	14
D100-45223-0343	N	18.5	172	2322/18	42830	28951	8457	1739	532	306	80	41

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, SIL = Sulfation, ISO = ISO Rating, PFC = Percent Fuel Content, PQI = 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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BRENT PEYTON
Return to Pineville Store

COMPANY NAME : RITCHEE EQUIPMENT, INC. SHOP JOB NUM: 3201 D FARLEY
 CUSTOMER EQUIP NUM: 3201 D FARLEY
 COMPARTMENT NAME: WHEEL BEARINGS FRONT LEFT
 SERIAL NUMBER: 7EK00157
 MANUFACTURER: CATERPILLAR
 MODEL: 789B
 SAMPLE LABEL NUM: 50
 FLUID BRAND/WEIGHT: 50
 FLUID TYPE:
 EXT WARR NUMBER:
 EXT WARR EXPIRE DATE:
 FUEL CONSUMED:



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 Salem, VA 24153-5457
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LAB CONTROL NUMBER: D100-49210-0653 SAMPLE DATE: 26-Jul-2019 PROCESS DATE: 29-Jul-2019 EQUIPMENT METER: 43987 HR METER ON FLUID: 0 FLUID CHANGED: No MAKE UP FLUID: MAKE UP FLUID UNITS: FILTER CHANGED:

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

D100-45280-0551 04-Oct-2015 07-Oct-2015 14967 HR 1000 HR Yes
 IRON APPEARS ELEVATED. OTHER READINGS APPEAR TO BE NORMAL. CHECK POSSIBLE SOURCES OF CONTAMINATION. SCREEN OIL FOR CUTTINGS. CHANGE OIL. CONTINUE NORMALLY SCHEDULED SAMPLING.
 Monitor Compartment

D100-45251-0558 02-Sep-2015 08-Sep-2015 80606 HR 66698 HR Yes
 IRON LEVEL APPEARS HIGH. OTHER READINGS APPEAR TO BE NORMAL. CHECK POSSIBLE SOURCES OF CONTAMINATION. RESAMPLE IN 250 HOURS TO MONITOR.
 Monitor Compartment

D100-45223-0342 07-Aug-2015 11-Aug-2015 13908 HR 2000 HR Yes
 NORMAL WEAR METAL READINGS. CONTINUE NORMALLY SCHEDULED SAMPLING.
 No Action Required

Wear Metals (ppm)	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	B	Mn	Ni	Ag	Ti	V	Ca	Mg	Zn	P
D100-49210-0653	0	124	1	4	0	0	18	8	0	2	0	0	0	0	0	2835	10	1114	927
D100-45280-0551	2	431	3	1	0	2	22	8	0	54	1	1	0	0	868	8	333	425	
D100-45251-0558	1	370	2	1	0	5	20	8	0	45	1	1	0	0	720	7	289	386	
D100-45223-0342	1	311	2	2	0	5	16	4	2	55	0	1	0	0	620	5	246	383	

Oil Condition / Particle Count (c/ml)	W	V100	POI	IBO	4μ	6μ	10μ	14μ	18μ	21μ	39μ	50μ
D100-49210-0653	N	15.5	28	NORMAL								
D100-45280-0551	N	20.8	180	24/23/20	80273	63762	28363	5457	1516	923	173	83
D100-45251-0558	N	21.0	176	23/22/19	45723	37549	18807	4110	424	139	13	6
D100-45223-0342	N	20.5	183	23/22/20	43808	36937	21672	6465	1182	514	65	33

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 = Sulphur, V = Vanadium, Zn = Zinc, A = Antifreeze, F = Fuel, W = Water, P = Positive, N = Negative, T = Trace, E = Excessive, NIT = Nitration, OXI = Oxidation, ISO = ISO Rating, PFC = Percent Fuel Content, POI = Particle Quantifying Index, NAW = Salt Water, FL = Flash Point, TAN = Total Acid Number, TBN = Total Base Number, HZO = Karl Fisher result, V100 = Viscosity@100C, V40 = Viscosity@40C, PVI = Particle Volume Indicator

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COMPANY NAME: RITCHIE EQUIPMENT, INC. SHOP JOB NUM: 3201 D FARLEY
 CUSTOMER EQUIP NUM: 3201 D FARLEY
 COMPARTMENT NAME: DIFFERENTIAL REAR
 SERIAL NUMBER: TEK00157
 MANUFACTURER: CATERPILLAR
 MODEL: 789B
 FLUID BRAND/WEIGHT: 50
 FLUID TYPE:
 EXT WARR EXP: 0000
 EXT WARR NUMBER:
 FUEL CONSUMED:



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PHONE: OIL
 SAMPLE TYPE: OIL
 SAMPLE SHIP TIME (days): 3

LAB CONTROL NUMBER: D100-49210-0656 SAMPLE DATE: 26-Jul-2019 PROCESS DATE: 29-Jul-2019 EQUIPMENT METER: 43981 HR METER ON FLUID: 0 FLUID CHANGED: No MAKE UP FLUID: MAKE UP FLUID UNITS: FILTER CHANGED:

D100-49210-0656
 No Action Required
 NO PROBLEMS PRESENTLY ASSOCIATED WITH THIS SAMPLE. CONTINUE SAMPLING AT THE NORMAL INTERVAL.

D100-45280-0553
 No Action Required
 NORMAL WEAR METAL READINGS. CONTINUE NORMALLY SCHEDULED SAMPLING.

D100-45291-0559
 No Action Required
 NORMAL WEAR METAL READINGS. CONTINUE NORMALLY SCHEDULED SAMPLING.

D100-45223-0344
 No Action Required
 NORMAL WEAR METAL READINGS. CONTINUE NORMALLY SCHEDULED SAMPLING.

Wear Metals (ppm)	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	B	Mo	Ni	Ag	Ti	V	Ca	Mg	Zn	P
D100-49210-0656	28	92	1	9	3	1	27	9	0	15	3	1	0	1	0	2360	44	1038	901
D100-45280-0553	5	64	1	3	1	2	11	4	2	12	3	1	0	0	0	2297	42	951	822
D100-45291-0559	5	68	1	3	2	0	13	5	1	10	3	1	0	0	0	2189	43	991	828
D100-45223-0344	4	45	1	2	1	8	9	2	3	13	2	0	0	0	0	1856	38	851	712

Oil Condition / Particle Count (c/ml)	W	V100	PQI	180	4μ	6μ	10μ	14μ	18μ	21μ	38μ	50μ
D100-49210-0658	N	13.2	14	NORMAL								
D100-45280-0553		13.7	40	232320	73828	49490	16810	5904	2941	1999	394	189
D100-45291-0559		13.7	44	232221	46089	38162	24194	12862	6947	4799	942	504
D100-45223-0344		12.8	52	232219	43214	28348	8878	2598	1157	782	156	87

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, Ar = Arsenic, F = Fuel, W = Water, P = Positive, N = Negative, T = Trace, E = Excavator, NIT = Nitration, OXI = Oxidation, ST = Soot, SUL = Sulfation, ISO = ISO Rating, PFC = Percent Fuel Content, PQI = Particle Quantifying Index, NAW = Sulf Water, FL Ph = 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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COMPANY NAME : RITCHEE EQUIPMENT, INC.
 CUSTOMER EQUIP NUM : 3201 D-FARLEY
 COMPARTMENT NAME : FINAL DRIVE REAR RIGHT
 SERIAL NUMBER : 7EK00157
 MANUFACTURER : CATERPILLAR
 MODEL : 789B
 SHOP JOB NUM :
 COMP SERIAL NUM :
 COMPARTMENT MODEL :
 COMP MANUFACTURER :
 SAMPLE LABEL NUM :
 FLUID BRAND/WEIGHT : 50
 FLUID TYPE :
 EXT WARR EXPIRE DATE :
 FUEL CONSUMED :



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PHONE: **OIL**
 SAMPLE TYPE: **OIL**
 SAMPLE SHIP TIME (days) : 3
 EXT WARR NUMBER:
 LAB CONTROL NUMBER : D100-49210-0652
 SAMPLE DATE : 26-Jul-2019
 PROCESS DATE : 29-Jul-2019
 EQUIPMENT METER : 43981 HR
 METER ON FLUID : 0
 FLUID CHANGED : NO
 MAKE UP FLUID :
 MAKE UP FLUID UNITS :
 FILTER CHANGED :
 NO PROBLEMS PRESENTLY ASSOCIATED WITH THIS SAMPLE. CONTINUE SAMPLING AT THE NORMAL INTERVAL.

No Action Required

West Metals (ppm)	Cu	Fe	Cr	Al	Pb	Sn	Si	Na	K	B	Mo	Ni	Ag	Ti	V	Ca	Mg	Zn	P
D100-49210-0652	24	88	1	8	2	1	25	9	0	10	3	1	0	1	0	2190	41	958	825

Oil Condition / Particle Count (cfm)	W	V100	PQI	ISO
D100-49210-0652	N	13.3	15	NORMAL

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, PQI = Particle Quantifying Index, NAW = Seal 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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COMPANY NAME : RITCHEE EQUIPMENT, INC.
 CUSTOMER EQUIP NUM : 3201 D FARLEY
 COMPARTMENT NAME : FINAL DRIVE REARLEFT
 SERIAL NUMBER : 7EK00157
 MANUFACTURER : CATERPILLAR
 MODEL : 7898
 PHONE: _____
 SAMPLE TYPE: **OIL**
 SAMPLE SHIP TIME (days) : 3
 EXT WARR NUMBER : _____
 JOB SITE : _____
 EXT WARR EXPRE DATE : _____
 FUEL CONSUMED : _____

SHOP JOB NUM : _____
 COMP SERIAL NUM : _____
 COMPARTMENT MODEL : _____
 COMP MANUFACTURER : _____
 SAMPLE LABEL NUM : _____
 FLUID BRAND/WEIGHT : 50
 FLUID TYPE : _____
 EXT WARR EXPRE 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
D100-49210-0655	26-Jul-2019	29-Jul-2019	43981 HR	0	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	Ca	Mg	Zn	P
D100-49210-0655	26	89	1	9	3	3	29	9	0	10	3	2	0	1	0	2319	45	1016	879

Oil Condition / Particle Count (c/ft ³)	W	V100	PQI	ISO
D100-49210-0655	N	12.8	13	NORMAL

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 = Sulphur, V = Vanadium, Zn = Zinc, A = Antineaza, 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, PQI = 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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