

Account Information	Sample Information	Other Sample Information
Lab Customer ID#: 19559 Company Name: Brandeis Machinery And Supply Company Company Worksite: Indianapolis, IN Company Address: 8410 ZIONSVILLE ROAD INDIANAPOLIS, IN, 46268-0555	Lab No.: LOU201310280032 Sample Tracking #: NONE Sample Date Oct 23, 2013 Received Date: Oct 28, 2013 Completed Date: Oct 28, 2013	PO No.: BRANDEIS INDIANAPOLIS IN Work Order No.:
Unit Information	Component Information	Fluid Information
Unit ID: C0919-N Unit Mfg: Komatsu Unit Model: PC138LC-8 Unit Serial #: C0919-N Unit Worksite: B / Jeff	Cpnt. Description: RIGHT FINAL DRIVE Cpnt. Mfg: Komatsu Cpnt. Model: - Cpnt. Serial #: Cpnt. Type: FINAL DRIVE	Fluid Manufacturer: UNKNOWN Fluid Brand/Product: UNKNOWN Fluid Grade:

Maintenance Recommendations for Lab No.: LOU201310280032

Evaluated By: Zufelt, John

ANALYSIS INDICATES CONDITIONS ARE ACCEPTABLE FOR BREAK-IN. RESAMPLE at the next scheduled interval.

SPECTROCHEMICAL ANALYSIS IN PARTS PER MILLION

LAB NO.	SAMPLE DRAWN	Wear Metals										Contaminants			Additives							
		Iron	Chromium	Nickel	Aluminum	Lead	Copper	Tin	Silver	Titanium	Vanadium	Silicon	Sodium	Potassium	Boron	Molybdenum	Phosphorus	Zinc	Calcium	Barium	Magnesium	Antimony
0032	10/23/13	311	6	1	1	1	1	<1	<0.1	<1	<1	22	<1	<10	51	<5	433	73	22	71	2	<30

SAMPLE INFORMATION

LAB NO.	SAMPLE DRAWN	UNIT TIME	FLUID TIME	UOM	FILTER CHG.	LUBE SERVICE
0032	10/23/13	491	491	HR	Yes	C

FLUID PROPERTIES/CONTAMINANTS

Water %	D7279 Vis 100 °C
<0.1	16.9

KEY: UoM - Unit of Measure Y - Yes N - No C - Changed S - Sampled > - Greater Than < - Less Than N/R - Not Reported (M) - Modified /method

Testing performed by Bureau Veritas®, an ISO/IEC 17025:2005 accredited laboratory, L-A-B accredited Certificate Number L2264. †: Not in scope of accreditation. For further details on outsourced testing, contact the laboratory directly. ‡: This test is run based on a trigger test, in this case "<" values indicate that the trigger test was either not positive or the result was below the reportable limit. For a list of trigger tests refer to <http://www.bureauveritas.com/oil-analysis>.
Notice: This analysis is intended as an aid in predicting mechanical wear. Test results, maintenance recommendations and accuracy are affected by customer provided samples, equipment identification, maintenance history and apply only to this sample as provided. No guarantee, expressed or implied, is made against failure of this piece of equipment or a component thereof. The ultimate responsibility for the maintenance of this piece of equipment and all if its components is the responsibility of the equipment owner.

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Lab Customer ID#: 19559 Company Name: Brandeis Machinery And Supply Company Company Worksite: Indianapolis, IN Company Address: 8410 ZIONSVILLE ROAD INDIANAPOLIS, IN, 46268-0555	Lab No.: LOU201310280031 Sample Tracking #: NONE Sample Date: Oct 23, 2013 Received Date: Oct 28, 2013 Completed Date: Oct 28, 2013	PO No.: BRANDEIS INDIANAPOLIS IN Work Order No.:
Unit Information	Component Information	Fluid Information
Unit ID: C0919-N Unit Mfg: Komatsu Unit Model: PC138LC-8 Unit Serial #: C0919-N Unit Worksite: B / Jeff	Cpnt. Description: SWING GEAR Cpnt. Mfg: Komatsu Cpnt. Model: - Cpnt. Serial #: Cpnt. Type: SWING GEAR	Fluid Manufacturer: UNKNOWN Fluid Brand/Product: UNKNOWN Fluid Grade:

Maintenance Recommendations for Lab No.: LOU201310280031

Evaluated By: Zufelt, John

ANALYSIS INDICATES TYPICAL CONDITIONS FOR BREAK-IN. The noted (underlined> wear metals are for monitoring purposes only. RESAMPLE at the next scheduled interval.

SPECTROCHEMICAL ANALYSIS IN PARTS PER MILLION

LAB NO.	SAMPLE DRAWN	Wear Metals										Contaminants			Additives							
		Iron	Chromium	Nickel	Aluminum	Lead	Copper	Tin	Silver	Titanium	Vanadium	Silicon	Sodium	Potassium	Boron	Molybdenum	Phosphorus	Zinc	Calcium	Barium	Magnesium	Antimony
0031	10/23/13	42	1	1	3	2	<u>104</u> *	<1	0.1	<1	<1	82	5	<10	1	<5	759	898	3771	11	13	<30

SAMPLE INFORMATION

LAB NO.	SAMPLE DRAWN	UNIT TIME	FLUID TIME	UOM	FILTER CHG.	LUBE SERVICE
0031	10/23/13	491	491	HR	Yes	C

FLUID PROPERTIES/CONTAMINANTS

Water %	D7279 Vis 100 °C
<0.1	11.4

KEY: UoM - Unit of Measure Y - Yes N - No C - Changed S - Sampled > - Greater Than < - Less Than N/R - Not Reported (M) - Modified /method

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Lab Customer ID#: 19559 Company Name: Brandeis Machinery And Supply Company Company Worksite: Indianapolis, IN Company Address: 8410 ZIONSVILLE ROAD INDIANAPOLIS, IN, 46268-0555	Lab No.: LOU201310280029 Sample Tracking #: NONE Sample Date: Oct 23, 2013 Received Date: Oct 28, 2013 Completed Date: Oct 28, 2013	PO No.: BRANDEIS INDIANAPOLIS IN Work Order No.:
Unit Information	Component Information	Fluid Information
Unit ID: C0919-N Unit Mfg: Komatsu Unit Model: PC138LC-8 Unit Serial #: C0919-N Unit Worksite: B / Jeff	Cpnt. Description: HYDRAULIC Cpnt. Mfg: Komatsu Cpnt. Model: - Cpnt. Serial #: Cpnt. Type: HYDRAULIC	Fluid Manufacturer: KOMATSU Fluid Brand/Product: Fluid Grade:

Maintenance Recommendations for Lab No.: LOU201310280029

Evaluated By: Zufelt, John

ANALYSIS INDICATES CONDITIONS ARE ACCEPTABLE FOR BREAK-IN. RESAMPLE at the next scheduled interval.

SPECTROCHEMICAL ANALYSIS IN PARTS PER MILLION

LAB NO.	SAMPLE DRAWN	Wear Metals										Contaminants			Additives							
		Iron	Chromium	Nickel	Aluminum	Lead	Copper	Tin	Silver	Titanium	Vanadium	Silicon	Sodium	Potassium	Boron	Molybdenum	Phosphorus	Zinc	Calcium	Barium	Magnesium	Antimony
0029	10/23/13	6	<1	<1	3	4	9	<1	<0.1	<1	<1	12	3	<10	2	<5	734	937	3662	<10	11	<30

SAMPLE INFORMATION

LAB NO.	SAMPLE DRAWN	UNIT TIME	FLUID TIME	UOM	FILTER CHG.	LUBE SERVICE
0029	10/23/13	491	491	HR	Yes	C

FLUID PROPERTIES/CONTAMINANTS

Water %	D7279 Vis 100 °C
<0.1	6.1

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Lab Customer ID#: 19559 Company Name: Brandeis Machinery And Supply Company Company Worksite: Indianapolis, IN Company Address: 8410 ZIONSVILLE ROAD INDIANAPOLIS, IN, 46268-0555	Lab No.: LOU201310280030 Sample Tracking #: NONE Sample Date Oct 23, 2013 Received Date: Oct 28, 2013 Completed Date: Oct 28, 2013	PO No.: BRANDEIS INDIANAPOLIS IN Work Order No.:
Unit Information	Component Information	Fluid Information
Unit ID: C0919-N Unit Mfg: Komatsu Unit Model: PC138LC-8 Unit Serial #: C0919-N Unit Worksite: B / Jeff	Cpnt. Description: LEFT FINAL DRIVE Cpnt. Mfg: Komatsu Cpnt. Model: - Cpnt. Serial #: Cpnt. Type: FINAL DRIVE	Fluid Manufacturer: UNKNOWN Fluid Brand/Product: UNKNOWN Fluid Grade:

Maintenance Recommendations for Lab No.: LOU201310280030

Evaluated By: Zufelt, John

ANALYSIS INDICATES CONDITIONS ARE ACCEPTABLE FOR BREAK-IN. RESAMPLE at the next scheduled interval.

SPECTROCHEMICAL ANALYSIS IN PARTS PER MILLION

LAB NO.	SAMPLE DRAWN	Wear Metals										Contaminants			Additives							
		Iron	Chromium	Nickel	Aluminum	Lead	Copper	Tin	Silver	Titanium	Vanadium	Silicon	Sodium	Potassium	Boron	Molybdenum	Phosphorus	Zinc	Calcium	Barium	Magnesium	Antimony
0030	10/23/13	239	5	1	1	<1	1	<1	<0.1	<1	<1	20	<1	<10	49	<5	436	72	21	66	2	<30

SAMPLE INFORMATION

LAB NO.	SAMPLE DRAWN	UNIT TIME	FLUID TIME	UOM	FILTER CHG.	LUBE SERVICE
0030	10/23/13	491	491	HR	Yes	C

FLUID PROPERTIES/CONTAMINANTS

Water %	D7279 Vis 100 °C
<0.1	16.9

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Lab Customer ID#: 19559 Company Name: Brandeis Machinery And Supply Company Company Worksite: Indianapolis, IN Company Address: 8410 ZIONSVILLE ROAD INDIANAPOLIS, IN, 46268-0555	Lab No.: LOU201310280053 Sample Tracking #: NONE Sample Date: Oct 23, 2013 Received Date: Oct 28, 2013 Completed Date: Oct 28, 2013	PO No.: BRANDEIS INDIANAPOLIS IN Work Order No.:
Unit Information	Component Information	Fluid Information
Unit ID: C0919-N Unit Mfg: Komatsu Unit Model: PC138LC-8 Unit Serial #: C0919-N Unit Worksite: B / Jeff	Cpnt. Description: ENGINE Cpnt. Mfg: Komatsu Cpnt. Model: SAA6D107E-2 Cpnt. Serial #: Cpnt. Type: ENGINE	Fluid Manufacturer: UNKNOWN Fluid Brand/Product: UNKNOWN Fluid Grade: 15W40

Maintenance Recommendations for Lab No.: LOU201310280053

Evaluated By: Zufelt, John

ANALYSIS INDICATES CONDITIONS ARE ACCEPTABLE FOR BREAK-IN. RESAMPLE at the next scheduled interval.

SPECTROCHEMICAL ANALYSIS IN PARTS PER MILLION

LAB NO.	SAMPLE DRAWN	Wear Metals										Contaminants			Additives							
		Iron	Chromium	Nickel	Aluminum	Lead	Copper	Tin	Silver	Titanium	Vanadium	Silicon	Sodium	Potassium	Boron	Molybdenum	Phosphorus	Zinc	Calcium	Barium	Magnesium	Antimony
0053	10/23/13	43	2	1	6	11	22	<1	<0.1	<1	<1	32	3	18	51	102	913	1113	2533	<10	15	<30

SAMPLE INFORMATION

LAB NO.	SAMPLE DRAWN	UNIT TIME	FLUID TIME	UOM	FILTER CHG.	LUBE SERVICE
0053	10/23/13	491	500	HR	Yes	C

FLUID PROPERTIES/CONTAMINANTS

D7279 Vis 100 °C	Visc Grade	E2412 SOOT	E2412 OX	E2412 NTR	E2412 GLY	Water %	Fuel %
13.3	40	<0.1	19	10	NEG	<0.1	<0.50

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