



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
PCS - PORTABLE CRUSHING SERVICES

Machine Id
KOMATSU LD17 - PCS

Component
Diesel Engine

Fluid
CHEVRON DELO 400 SDE SAE 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		KL0014753	KL0013801	KL0014083
Sample Date		Client Info		09 Jul 2024	10 Apr 2024	10 Jan 2024
Machine Age	hrs	Client Info		21351	21115	20982
Oil Age	hrs	Client Info		419	183	50
Filter Age	hrs	Client Info		419	183	50
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Filter Changed		Client Info		Not Changd	Not Changd	Changed
Sample Status				NORMAL	ATTENTION	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	3	6	0
Chromium	ppm	ASTM D5185m	>20	0	<1	0
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	1	3	2
Lead	ppm	ASTM D5185m	>40	0	<1	0
Copper	ppm	ASTM D5185m	>330	1	<1	1
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	LIGHT	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>25	6	6	6
Potassium	ppm	ASTM D5185m	>20	1	2	0
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	4.4	5.6	3.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.4	20.3	19.0
Particles >4µm		ASTM D7647		835	9996	600
Particles >6µm		ASTM D7647	>5000	455	5445	327
Particles >14µm		ASTM D7647	>640	77	927	56
Particles >21µm		ASTM D7647	>160	26	312	19
Particles >38µm		ASTM D7647	>40	4	48	3
Particles >71µm		ASTM D7647	>10	0	5	0
Oil Cleanliness		ISO 4406 (c)	>19/16	16/13	20/17	16/13
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		1	2	0
Boron	ppm	ASTM D5185m		436	478	428
Barium	ppm	ASTM D5185m		0	1	0
Molybdenum	ppm	ASTM D5185m		90	95	84
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		392	383	359
Calcium	ppm	ASTM D5185m		1565	1522	1371
Phosphorus	ppm	ASTM D5185m	760	1125	1146	997
Zinc	ppm	ASTM D5185m	800	1356	1287	1203
Sulfur	ppm	ASTM D5185m	3000	4250	4180	3554
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.4	15.0	13.4
Base Number (BN)	mg KOH/g	ASTM D2896	10	8.07	6.88	8.94
Visc @ 100°C	cSt	ASTM D445	14.6	14.5	13.7	14.4

