# LIEBHERR

### **CONSTRUCTION EQUIPMENT**

## 116431-1217 - Hydraulic System

Sample No: LH0239240

Oil Type: PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL

<b>5</b>					
SAMP	PLE INFO	DRMATION			
Sample Number		LH0239240	LH0221650	LH	LH0215732
Sample Date		29 Aug 2022	06 Jun 2022	26 Jan 2022	12 Dec 2021
Machine Hours		6053	5561	4903	4729
Oil Hours		0	0	0	0
Oil Changed		Not Changd	Not Changd	Changed	Not Changd
Sample Status		ABNORMAL	ABNORMAL	ABNORMAL	ABNORMAL
OILCO	NDITIO	ON			
Visc @ 40°C	cSt	<b>42.2</b>	O 42.2	O 41.5	O 41.4
<b>1</b>					
CONT	A SAINI	TION			

CONT	AMINATIO	ON			
Particles >4µm		<b>1236</b>	O 15198	○ 3873	<b>4308</b>
Particles >6µm		<b>164</b>	<b>1730</b>	<b>464</b>	382
Particles >14µm		<b>7</b>	O 23	<b>23</b>	<b>14</b>
ISO 4406:1999 (c)		17/15/10	21/18/12	19/16/12	19/16/11
Silicon	ppm	<b>1</b>	O 2	O 2	O 2
Sodium	ppm	<b>2</b>	O 2	○ 3	○ 3
Potassium	ppm	<b>11</b>	O 0	O 1	O 1

(O) WEA		_			
WEA	R METALS	5			
PQ		<b>12</b>	<b>0</b>	<b>5</b>	0 8
Iron	ppm	<b>0</b> 105	<b>O</b> 81	<b>9</b> 7	<b>1</b> 03
Copper	ppm	<b>4</b>	<b>4</b>	<b>5</b>	<b>6</b>
Lead	ppm	<b>1</b>	O <1	<b>1</b>	0 1
Tin	ppm	<b>0</b>	O <1	O <1	O <1
Aluminum	ppm	<b>○</b> <1	O <1	O <1	O <1
Chromium	ppm	<b>1</b>	O 1	<b>1</b>	O 1
Molybdenum	ppm	<b>0</b>	O <1	O 0	0
Nickel	ppm	<1	0	0	<1
Titanium	ppm	0	0	0	0
Silver	ppm	<1	0	0	0
Manganese	ppm	<b>2</b>	O 2	02	0 2
Vanadium	ppm	<1	0	<1	<1

Variadiairi	ppiii	`'	· ·		
ADD	ITIVES				
Calcium	ppm	<b>655</b>	747	O 1083	O 1185
Magnesium	ppm	<b>4</b>	O 5	<b>6</b>	O 7
Zinc	ppm	<b>728</b>	721	<b>7</b> 09	O 781
Phosphorus	ppm	<b>596</b>	O 616	<b>610</b>	O 682
Barium	ppm	<b>0</b>	O 0	O 0	0
Boron	ppm	<b>○</b> <1	O 2	O <1	O 1



#### **American Iron and Metal**

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#### Diagnosis

We recommend that you drain the oil from the component if this has not already been done. We recommend an early resample to monitor this condition. Iron ppm levels are abnormal. The low ferrous density (PQ) index indicates the wear metal levels are due to corrosion. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot:BAKOTTUnique No:5448893Signed:Kevin MarsonReport Date:31 Aug 2022

# CONSTRUCTION EQUIPMENT





#### **GRAPHS**

