

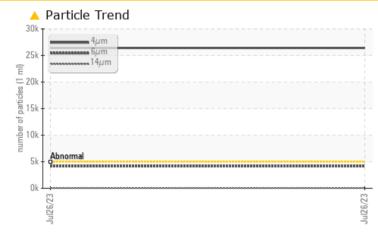
PROBLEM SUMMARY

Sample Rating Trend

TK ELEVATOR 10174

Hydraulic System Fluid NOT GIVEN (3500 GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

PROBLEMATIC TEST RESULTS							
Sample Status			ABNORMAL				
Particles >4µm	ASTM D7647	>5000	<u> </u>				
Particles >6µm	ASTM D7647	>1300	4148				
Oil Cleanliness	ISO 4406 (c)	>19/17/14	<u> </u>				

Customer Id: TKEKIR Sample No.: BB0000166 Lab Number: 05923353 Test Package: PLANT



To manage this report scan the QR code

To discuss the diagnosis or test data: Angela Borella +1 800-237-1369 angela.borella@wearcheckusa.com

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED AC	CTIONS			
Action	Status	Date	Done By	Description
Information Required			?	Please specify the brand, type, and viscosity of the oil on your next sample.

HISTORICAL DIAGNOSIS



OIL ANALYSIS REPORT

Sample Rating Trend

ISO

TK ELEVATOR 10174

Hydraulic System Fluid NOT GIVEN (3500 GAL)

DIAGNOSIS

A Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

Iron ppm ASTM D5185m >20 0 Nickel ppm ASTM D5185m >20 0 Nickel ppm ASTM D5185m >20 0 Silver ppm ASTM D5185m >20 0 Lead ppm ASTM D5185m >20 0 Lead ppm ASTM D5185m >20 0 Copper ppm ASTM D5185m >20 0 Vanadium ppm ASTM D5185m >20 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 Magnaese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 321	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 0 Qil Age hrs Client Info Not Changd Sample Status Image Method Image WEAR METALS method Image current history1 Wear METALS method Image current history1 Chromium ppm ASTM D5185m >20 0 Nickel ppm ASTM D5185m >20 0 Silver ppm ASTM D5185m >20 0 Auminum ppm ASTM D5185m >20 0	Sample Number		Client Info		BB0000166		
Oil Age hrs Client Info 0 QI Changed Client Info Not Changd Sample Status Imit/Dase current history1 history1 WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >20 0 Chromium ppm ASTM D5185m >20 0 Nickel ppm ASTM D5185m >20 0 Sliver ppm ASTM D5185m >20 0 Capper ppm ASTM D5185m >20 0 Cadmium ppm ASTM D5185m >20 0 ADDTTVES method limit/base current history1 history1 Barium ppm ASTM D5185m 0	Sample Date		Client Info		26 Jul 2023		
Oil Changed Client Info Not Changd Sample Status method limit/base current history1 history1 WEAR METALS method limit/base current history1 history1 Nickel ppm ASTM 05185m >20 0 Nickel ppm ASTM 05185m >20 0 Sliver ppm ASTM 05185m >20 0 Lead ppm ASTM 05185m >20 c1 Copper ppm ASTM 05185m >20 c1 Cadmium ppm ASTM 05185m 20 0 ADDITVES method limit/base current history1 history1 Boron ppm ASTM 05185m 0 Magnesium ppm ASTM 05185m 6 <	Machine Age	hrs	Client Info		0		
Sample Status Image ABNORMAL WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >20 0 Chromium ppm ASTM D5185m >20 0 Nickel ppm ASTM D5185m >20 0 Silver ppm ASTM D5185m >20 0 Aluminum ppm ASTM D5185m >20 0 Aluminum ppm ASTM D5185m >20 0 Copper ppm ASTM D5185m >20 0 Adadium ppm ASTM D5185m 20 Adadium ppm ASTM D5185m <1	Oil Age	hrs	Client Info		0		
WEAR METALS method limit/base current history1 history1 Iron ppm ASTM D5185m >20 0 Nickel ppm ASTM D5185m >20 0 Titanium ppm ASTM D5185m >20 0 Silver ppm ASTM D5185m >20 0 Aluminum ppm ASTM D5185m >20 0 Lead ppm ASTM D5185m >20 0 Copper ppm ASTM D5185m >20 0 Cadmium ppm ASTM D5185m >20 0	Oil Changed		Client Info		Not Changd		
Iron ppm ASTM D5185m >20 0 Nickel ppm ASTM D5185m >20 0 Nickel ppm ASTM D5185m >20 0 Silver ppm ASTM D5185m 0 Lead ppm ASTM D5185m >20 <1	Sample Status				ABNORMAL		
Chromium ppm ASTM D5185m >20 0 Nickel ppm ASTM D5185m >20 0 Silver ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m >20 0 Aluminum ppm ASTM D5185m >20 0 Copper ppm ASTM D5185m >20 0 Cadmium ppm ASTM D5185m >20 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 Maganese ppm ASTM D5185m <-1 Maganese ppm ASTM D5185m <1 Calcium ppm ASTM D5185m 30	WEAR METALS		method	limit/base	current	history1	history2
Nickel ppm ASTM D5185m >20 0 Titanium ppm ASTM D5185m <1	Iron	ppm	ASTM D5185m	>20	0		
Titanium ppm ASTM D5185m <1	Chromium	ppm	ASTM D5185m	>20	0		
Silver ppm ASTM D5185m 0 Aluminum ppm ASTM D5185m >20 <1	Nickel	ppm	ASTM D5185m	>20	0		
Aluminum ppm ASTM D5185m >20 <1 Lead ppm ASTM D5185m >20 0 Copper ppm ASTM D5185m >20 0 Vanadium ppm ASTM D5185m >20 0 Adminium ppm ASTM D5185m >20 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 0	Titanium	ppm	ASTM D5185m		<1		
Lead ppm ASTM D5185m >20 0 Copper ppm ASTM D5185m >20 <1	Silver	ppm	ASTM D5185m		0		
Copper ppm ASTM D5185m >20 <1 Tin ppm ASTM D5185m >20 0 Vanadium ppm ASTM D5185m 0 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Maganese ppm ASTM D5185m 0 Maganesium ppm ASTM D5185m 30 Calcium ppm ASTM D5185m 321 Sulfur ppm ASTM D5185m 365 Sulfur ppm ASTM D5185m 1 Sodium ppm ASTM D5185m >10	Aluminum	ppm	ASTM D5185m	>20	<1		
Tin ppm ASTM D5185m >20 0 Vanadium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history1 Boron ppm ASTM D5185m 0 MDybdenum ppm ASTM D5185m 0 Manganese ppm ASTM D5185m 0 Magnesium ppm ASTM D5185m 6 Calcium ppm ASTM D5185m 30 Magnesium ppm ASTM D5185m 321 Calcium ppm ASTM D5185m 321 Sulfur ppm ASTM D5185m 321 Sulfur ppm ASTM D5185m 744 Sodium ppm ASTM D5185m >1 Sodium ppm ASTM D5185m >20 <1 -	Lead	ppm	ASTM D5185m	>20	0		
Vanadium ppm ASTM D5185m <1 Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history Boron ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Manganese ppm ASTM D5185m <1 Magnesium ppm ASTM D5185m 6 Calcium ppm ASTM D5185m 300 Zinc ppm ASTM D5185m 3221 Sulfur ppm ASTM D5185m 3655 Solicon ppm ASTM D5185m >15 <1 Solicon ppm ASTM D5185m >15 <1 Sodium ppm ASTM D5185m	Copper	ppm	ASTM D5185m	>20	<1		
Cadmium ppm ASTM D5185m 0 ADDITIVES method limit/base current history1 history Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m 0 Molybdenum ppm ASTM D5185m 0 Manganese ppm ASTM D5185m 0 Manganese ppm ASTM D5185m 6 Manganese ppm ASTM D5185m 320 Calcium ppm ASTM D5185m 321 Sulfur ppm ASTM D5185m 365 Solicon ppm ASTM D5185m >15 <1 Solicon ppm ASTM D5185m >15 <1 Solicon ppm ASTM D5185m >20	Tin	ppm	ASTM D5185m	>20	0		
ADDITIVESmethodlimit/basecurrenthistory1history1BoronppmASTM D5185m0BariumppmASTM D5185m0MolybdenumppmASTM D5185m0ManganeseppmASTM D5185m6MagnesiumppmASTM D5185m6MagnesiumppmASTM D5185m300CalciumppmASTM D5185m321PhosphorusppmASTM D5185m365SulfurppmASTM D5185m365CONTAMINANTSmethodlimit/basecurrenthistory1historySiliconppmASTM D5185m>15<1	Vanadium	ppm	ASTM D5185m		<1		
Boron ppm ASTM D5185m 0 Barium ppm ASTM D5185m <1	Cadmium	ppm	ASTM D5185m		0		
Barium ppm ASTM D5185m <1	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 0 Manganese ppm ASTM D5185m <1	Boron	ppm	ASTM D5185m		0		
Manganese ppm ASTM D5185m <1	Barium	ppm	ASTM D5185m		<1		
Magnesium ppm ASTM D5185m 6 Calcium ppm ASTM D5185m 30 Phosphorus ppm ASTM D5185m 321 Zinc ppm ASTM D5185m 365 Sulfur ppm ASTM D5185m 744 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >15 <1	Molybdenum	ppm	ASTM D5185m		0		
Calcium ppm ASTM D5185m 30 Phosphorus ppm ASTM D5185m 321 Zinc ppm ASTM D5185m 365 Sulfur ppm ASTM D5185m 744 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >15 <1	Manganese	ppm	ASTM D5185m		<1		
Phosphorus ppm ASTM D5185m 321 Zinc ppm ASTM D5185m 365 Sulfur ppm ASTM D5185m 744 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >15 <1	Magnesium	ppm	ASTM D5185m		-		
Zinc ppm ASTM D5185m 365 Sulfur ppm ASTM D5185m 744 CONTAMINANTS method limit/base current history1 history Silicon ppm ASTM D5185m >15 <1	Calcium	ppm	ASTM D5185m		30		
SulfurppmASTM D5185m744CONTAMINANTSmethodlimit/basecurrenthistory1historySiliconppmASTM D5185m>15<1	Phosphorus	ppm	ASTM D5185m		321		
CONTAMINANTSmethodlimit/basecurrenthistory1historySiliconppmASTM D5185m>15<1	Zinc	ppm	ASTM D5185m		365		
Silicon ppm ASTM D5185m >15 <1 Sodium ppm ASTM D5185m >1 Potassium ppm ASTM D5185m >20 <1 FLUID CLEANLINESS method limit/base current history1 history1 Particles >4µm ASTM D7647 >5000 ▲ 26423 Particles >6µm ASTM D7647 >1300 ▲ 4148 Particles >6µm ASTM D7647 >160 56 Particles >14µm ASTM D7647 >10 0 Particles >21µm ASTM D7647 >10 0 Particles >38µm ASTM D7647 >3 0 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) 19/17/14 22/19/13 FLUID DEGRADATION method limit/base current history1	Sulfur	ppm	ASTM D5185m		744		
Sodium ppm ASTM D5185m 1 Potassium ppm ASTM D5185m >20 <1	CONTAMINANTS	6	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 <1 FLUID CLEANLINESS method limit/base current history1 history Particles >4µm ASTM D7647 >5000 ▲ 26423 Particles >6µm ASTM D7647 >1300 ▲ 4148 Particles >6µm ASTM D7647 >160 56 Particles >14µm ASTM D7647 >40 5 Particles >21µm ASTM D7647 >40 5 Particles >38µm ASTM D7647 >10 0 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 22/19/13 FLUID DEGRADATION method limit/base current history1 history	Silicon	ppm	ASTM D5185m	>15	<1		
FLUID CLEANLINESS method limit/base current history1 history Particles >4µm ASTM D7647 >5000 ▲ 26423 Particles >6µm ASTM D7647 >1300 ▲ 4148 Particles >6µm ASTM D7647 >160 56 Particles >14µm ASTM D7647 >40 5 Particles >21µm ASTM D7647 >40 5 Particles >38µm ASTM D7647 >10 0 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 22/19/13 FLUID DEGRADATION method limit/base current history1 history1	Sodium	ppm	ASTM D5185m		1		
Particles >4μm ASTM D7647 >5000 ▲ 26423 Particles >6μm ASTM D7647 >1300 ▲ 4148 Particles >14μm ASTM D7647 >160 56 Particles >14μm ASTM D7647 >40 5 Particles >21μm ASTM D7647 >40 5 Particles >21μm ASTM D7647 >10 0 Particles >38μm ASTM D7647 >10 0 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 22/19/13 FLUID DEGRADATION method limit/base current history1 history1	Potassium	ppm	ASTM D5185m	>20	<1		
Particles >6µm ASTM D7647 >1300 ▲ 4148 Particles >14µm ASTM D7647 >160 56 Particles >21µm ASTM D7647 >40 5 Particles >21µm ASTM D7647 >40 5 Particles >38µm ASTM D7647 >10 0 Particles >38µm ASTM D7647 >3 0 Particles >71µm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 22/19/13 FLUID DEGRADATION method limit/base current history1 history1	FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >14μm ASTM D7647 >160 56 Particles >21μm ASTM D7647 >40 5 Particles >21μm ASTM D7647 >10 0 Particles >38μm ASTM D7647 >10 0 Particles >38μm ASTM D7647 >3 0 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 ▲ 22/19/13 FLUID DEGRADATION method limit/base current history1 history1	Particles >4µm		ASTM D7647	>5000	A 26423		
Particles >21μm ASTM D7647 >40 5 Particles >38μm ASTM D7647 >10 0 Particles >38μm ASTM D7647 >10 0 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 ▲ 22/19/13 FLUID DEGRADATION method limit/base current history1 history1	Particles >6µm		ASTM D7647	>1300	<u> </u>		
Particles >38μm ASTM D7647 >10 0 Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 22/19/13 FLUID DEGRADATION method limit/base current history1 history	Particles >14µm		ASTM D7647	>160	56		
Particles >71μm ASTM D7647 >3 0 Oil Cleanliness ISO 4406 (c) >19/17/14 ▲ 22/19/13 FLUID DEGRADATION method limit/base current history1 history1	Particles >21µm		ASTM D7647	>40	5		
Oil Cleanliness ISO 4406 (c) >19/17/14 ▲ 22/19/13 FLUID DEGRADATION method limit/base current history1 history1	Particles >38µm		ASTM D7647	>10	0		
FLUID DEGRADATION method limit/base current history1 history	Particles >71µm		ASTM D7647	>3	0		
	Oil Cleanliness		ISO 4406 (c)	>19/17/14	A 22/19/13		
Acid Number (AN) mg KOH/g ASTM D8045 0.29	FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045		0.29		



Acid Number

0.30

OIL ANALYSIS REPORT

scalar

scalar

scalar

method

*Visual

*Visual

*Visua

limit/base

NONE

NONE

NONE

current

NONE

NONE

NONE

history1

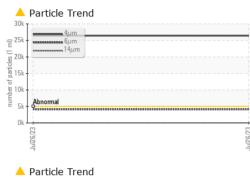
history2

VISUAL

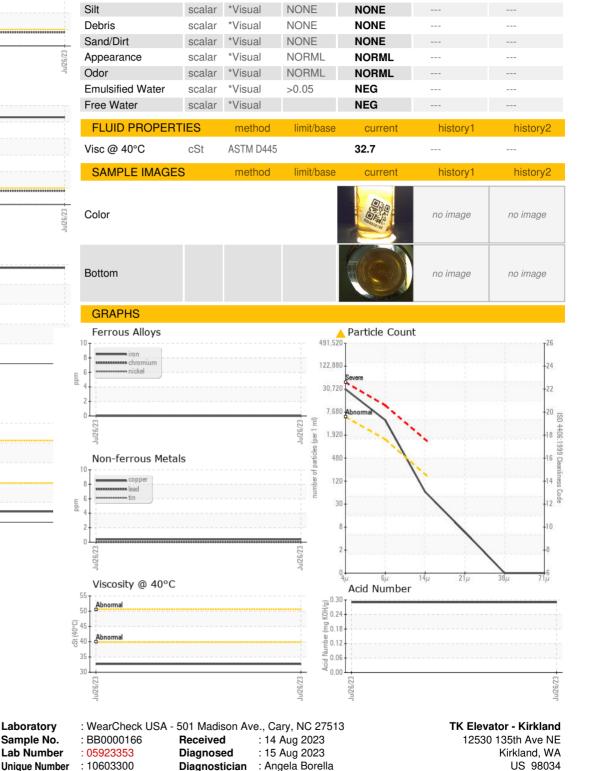
White Metal

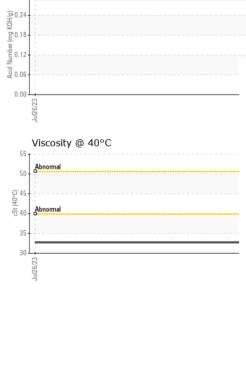
Yellow Metal

Precipitate









Laboratory

Sample No.

US 98034 Contact: JAMES SHANK james.shank@tkelevator.com T: F:



Test Package : PLANT To discuss this sample report, contact Customer Service at 1-800-237-1369. * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact/Location: JAMES SHANK - TKEKIR