



TRAAP

Texas Refinery Advanced Analysis Program

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
KAWASKI 70C5-5056

Component
Hydraulic System

Fluid
TRC HYDRAULIC OIL ISO 32- SAE10W (24 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		TR03127474	---	---
Sample Date		Client Info		07 Aug 2012	---	---
Machine Age	hrs	Client Info		4232	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---

WEAR

Moderate concentration of visible metal present. All component wear rates are normal.

Iron	ppm	ASTM D5185m		12	---	---
Chromium	ppm	ASTM D5185m		<1	---	---
Nickel	ppm	ASTM D5185m		<1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m		<1	---	---
Aluminum	ppm	ASTM D5185m		2	---	---
Lead	ppm	ASTM D5185m		5	---	---
Copper	ppm	ASTM D5185m		19	---	---
Tin	ppm	ASTM D5185m		0	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	▲ MODER	---	---

CONTAMINATION

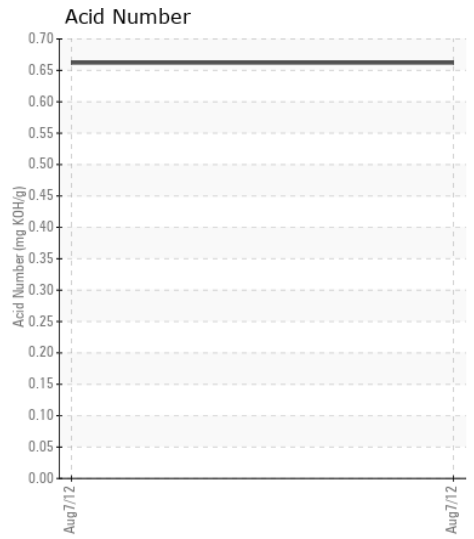
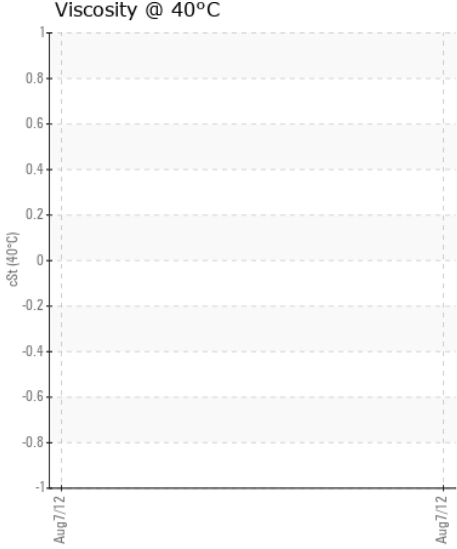
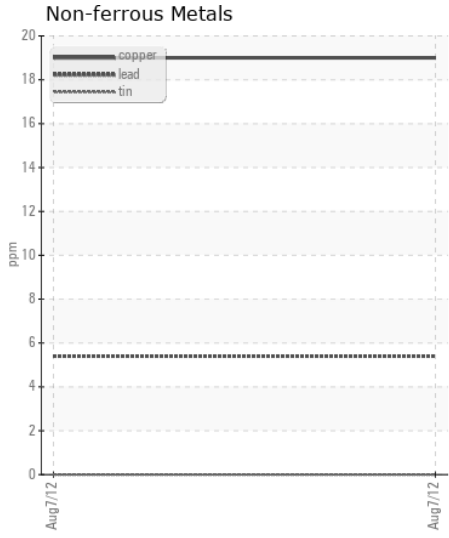
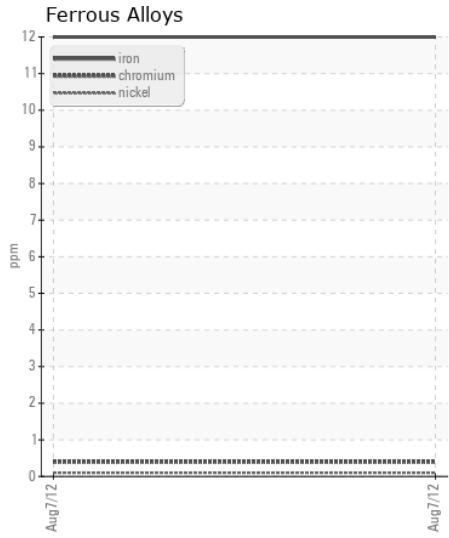
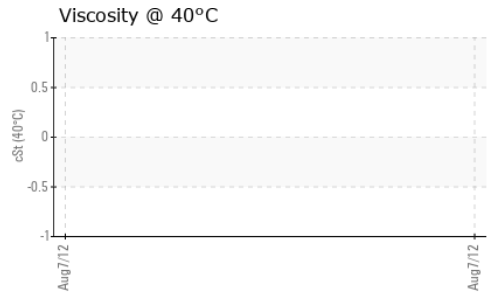
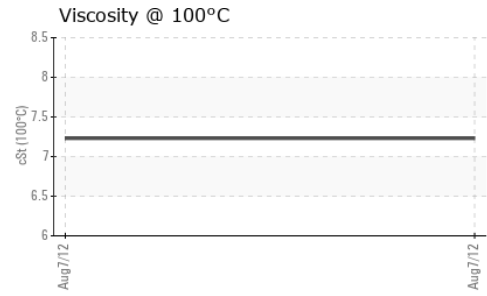
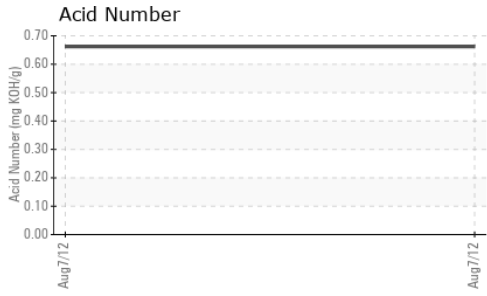
Light concentration of visible dirt/debris present in the oil.

Silicon	ppm	ASTM D5185m		11	---	---
Potassium	ppm	ASTM D5185m		3	---	---
Water		WC Method		NEG	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	▲ LIGHT	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual		NEG	---	---

FLUID CONDITION

The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		10	---	---
Boron	ppm	ASTM D5185m		25	---	---
Barium	ppm	ASTM D5185m		0	---	---
Molybdenum	ppm	ASTM D5185m		<1	---	---
Manganese	ppm	ASTM D5185m		<1	---	---
Magnesium	ppm	ASTM D5185m		0	---	---
Calcium	ppm	ASTM D5185m		935	---	---
Phosphorus	ppm	ASTM D5185m		570	---	---
Zinc	ppm	ASTM D5185m		697	---	---
Sulfur	ppm	ASTM D5185m		1871	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.662	---	---
Visc @ 100°C	cSt	ASTM D445		7.23	---	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : TR03127474 **Received** : 22 Aug 2012
Lab Number : 03127474 **Tested** : 25 Aug 2012
Unique Number : 6004653 **Diagnosed** : 25 Aug 2012 - Jonathan Hester
Test Package : MOB 2 (Additional Tests: Bottom, KV100)

AMARILLO MACHINERY
 AMARILLO, TX
 US
 Contact: MIKE LEWIS

To discuss this sample report, contact Customer Service at 1-800-827-0711.

* - 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)

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F: