



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
320934

Machine Id
KAESER 1002-6850063 - PARAMOUNT PETROLEUM/WOLD ENERGY

Component
Air Compressor

Fluid
KAESER SIGMA (OEM) S-460 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		APC0000373	APC05870988	APC05832063
Sample Date		Client Info		05 Dec 2023	07 Jun 2023	18 Apr 2023
Machine Age	hrs	Client Info		28212	23987	22787
Oil Age	hrs	Client Info		5422	1200	8011
Filter Age	hrs	Client Info		2000	1200	4298
Oil Changed		Client Info		Not Chngd	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	ATTENTION	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	0	0	0
Chromium	ppm	ASTM D5185m	>4	0	0	0
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m	>3	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	1	0
Lead	ppm	ASTM D5185m	>20	0	0	0
Copper	ppm	ASTM D5185m	>40	13	4	11
Tin	ppm	ASTM D5185m	>5	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

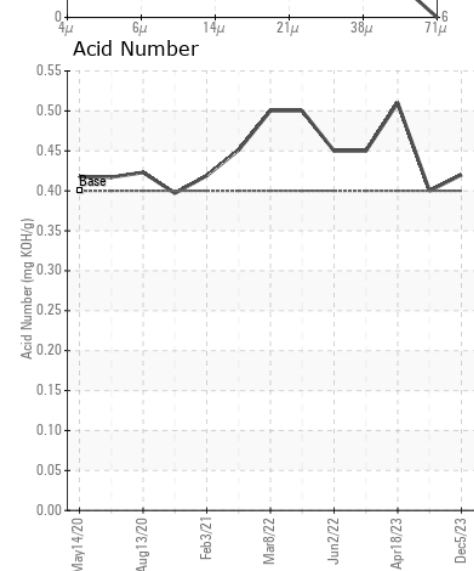
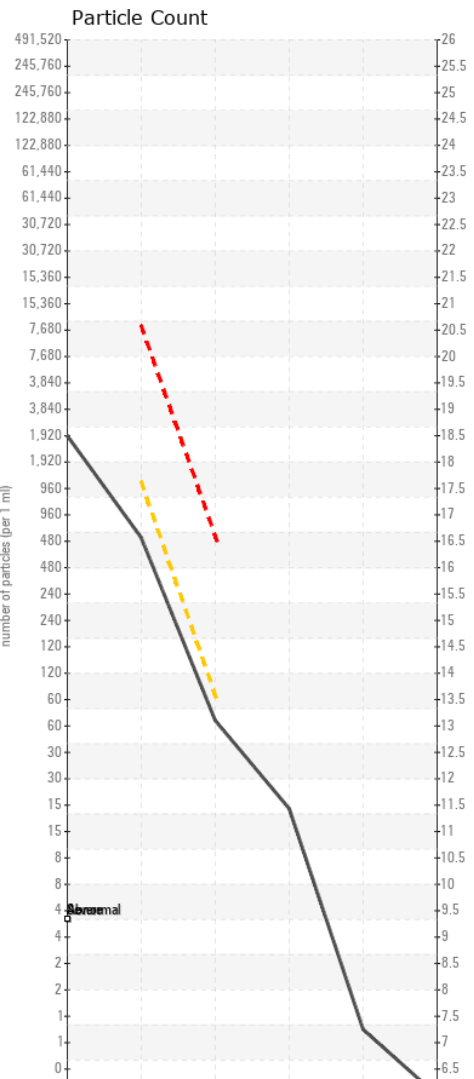
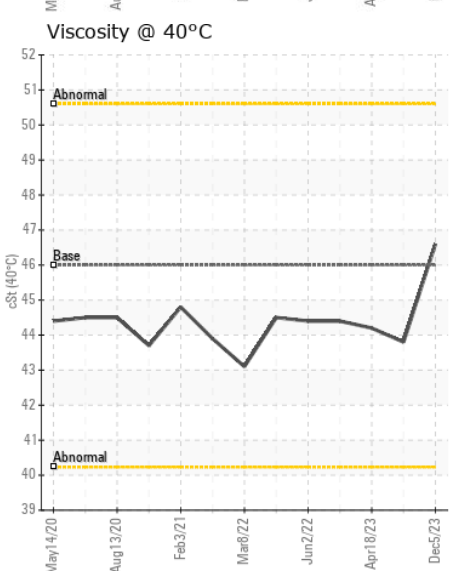
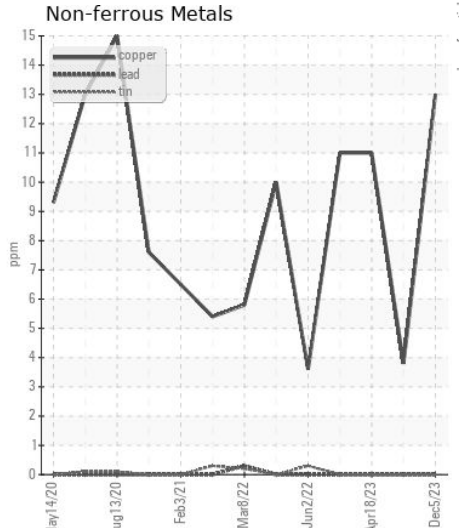
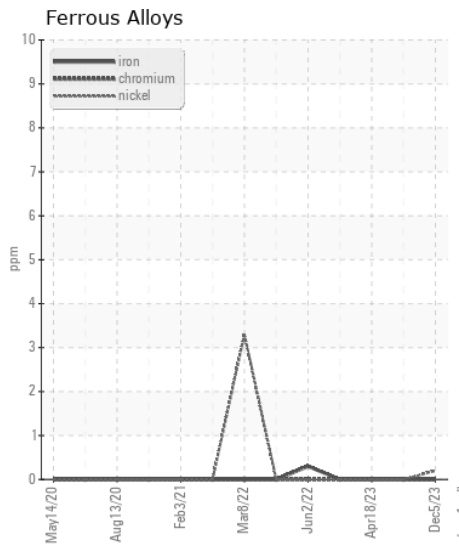
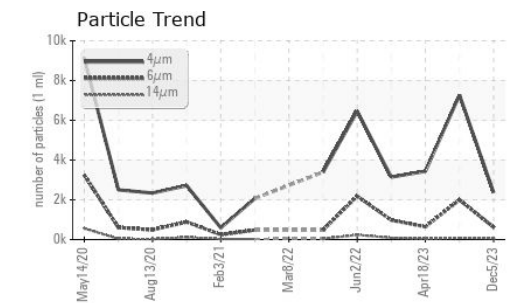
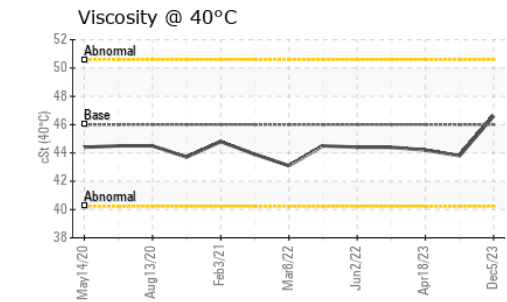
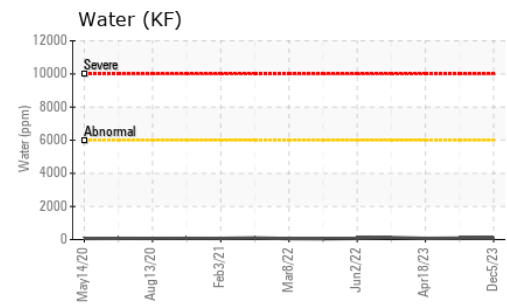
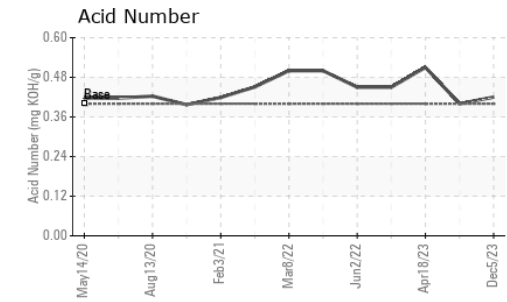
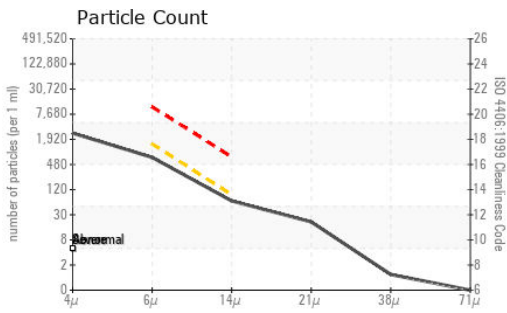
There is no indication of any contamination in the oil. The amount and size of particulates present in the system are acceptable.

Silicon	ppm	ASTM D5185m	>25	<1	0	0
Potassium	ppm	ASTM D5185m	>20	<1	<1	<1
Water	%	ASTM D6304	>0.6	0.007	0.008	0.006
ppm Water	ppm	ASTM D6304	>6000	74	87.3	69.9
Particles >4µm		ASTM D7647		2367	7270	3436
Particles >6µm		ASTM D7647	>1300	623	1997	642
Particles >14µm		ASTM D7647	>80	57	83	31
Particles >21µm		ASTM D7647	>20	18	12	11
Particles >38µm		ASTM D7647	>4	1	0	2
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	---/17/13	18/16/13	20/18/14	19/17/12
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	>0.6	NEG	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		0	<1	0
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m	90	6	0	0
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m	90	0	0	<1
Calcium	ppm	ASTM D5185m	2	0	0	0
Phosphorus	ppm	ASTM D5185m		27	2	1
Zinc	ppm	ASTM D5185m		0	14	0
Sulfur	ppm	ASTM D5185m		15838	21288	14750
Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	0.42	0.40	0.51
Visc @ 40°C	cSt	ASTM D445	46	46.6	43.8	44.2



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : APC0000373 **Received** : 20 Dec 2023
Lab Number : 06040605 **Tested** : 21 Dec 2023
Unique Number : 10795834 **Diagnosed** : 21 Dec 2023 - Doug Bogart
Test Package : IND 2 (Additional Tests: KF, PrtCount)

AIR PRODUCTS AND CHEMICALS INC - ALLENTOWN
 7201 HAMILTON BLVD
 ALLENTOWN, PA
 US 18195
 Contact: MICHAEL PROTZEK
 protzema@airproducts.com

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)