

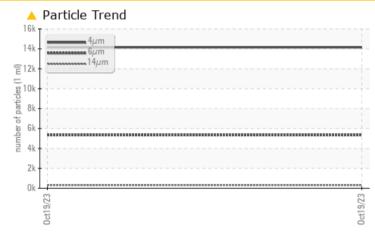
## **PROBLEM SUMMARY**

# KAESER SM 10T 8562141 (S/N 1280)

Compressor

KAESER SIGMA (OEM) M-460 (--- GAL)

#### COMPONENT CONDITION SUMMARY



#### RECOMMENDATION

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

### PROBLEMATIC TEST RESULTS

Sample Status		ABNORMAL	 
Particles >6µm	ASTM D7647 >1300	<b>A</b> 5335	 
Particles >14µm	ASTM D7647 >80	<b>A</b> 316	 
Particles >21µm	ASTM D7647 >20	<b>A</b> 75	 
Oil Cleanliness	ISO 4406 (c) >/17/13	<b>A</b> 21/20/15	 

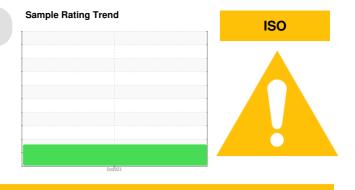
Customer Id: UFPBRO Sample No.: KCPA007723 Lab Number: 06013285 Test Package: IND 2



To manage this report scan the QR code

*To discuss the diagnosis or test data:* Don Baldridge +1 <u>don.b505@comcast.net</u>

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



There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS



### **OIL ANALYSIS REPORT**



ISO

## KAESER SM 10T 8562141 (S/N 1280)

Compressor

KAESER SIGMA (OEM) M-460 (--- GAL)

#### DIAGNOSIS

#### Recommendation

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

There is a high amount of particulates present in the oil.

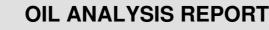
#### Fluid Condition

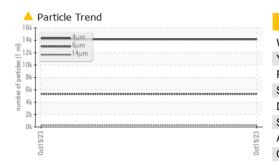
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sample Number Client Info KCPA007723      Sample Date Client Info 19 Oct 202      Machine Age hrs Client Info 26980      Ol Age hrs Client Info VA      Ol Age T Client Info VA      Sample Status T Client Info  ATM 05185       WEAR METALS method Intro        Nickel ppm ASTM 05185         Silver ppm ASTM 05185  0       Silver ppm ASTM 05185  0       Commin ppm ASTM 05185  0      Commin ppm	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age   hrs   Client Info   26980       Oil Aga   hrs   Client Info   N/A       Sample Status   Client Info   N/A       WEAR METALS   method   Imit/base   current   history1   history2     Iron   ppm   ASTM 05165m   >50   0       Nickel   ppm   ASTM 05165m   >30   0       Silver   ppm   ASTM 05165m   >30   0       Capper   ppm   ASTM 05165m   >10   0       ADDITIVES   method   Imit/base   current   history1   history2     Barium   ppm   ASTM 05165m   >10   0       ADDITIVES   method   Imit/base   current   history1   history2     Barium   ppm   ASTM 05165m   0   1	Sample Number		Client Info		KCPA007723		
Oil Age   hrs   Client Info   N/A       Sample Status   Client Info   N/A       WEAR METALS   method   limit/base   current   history1   history2     Iron   ppm   ASTM D5185m   >50   0       Nickel   ppm   ASTM D5185m   >3   0       Silver   ppm   ASTM D5185m   >2   0       Aluminum   ppm   ASTM D5185m   >10   0       Auminum   ppm   ASTM D5185m   >10   0       Auminum   ppm   ASTM D5185m   >10   0       Auminum   ppm   ASTM D5185m   >10   0       Astm D5185m   >0   0        Astm D5185m   0   0       Astm D5185m			Client Info		19 Oct 2023		
Oil Age   hrs   Client Info   N/A       Sample Status   Client Info   N/A       WEAR METALS   method   limit/base   current   history1   history2     Iron   ppm   ASTM D5185m   >50   0       Nickel   ppm   ASTM D5185m   >3   0       Silver   ppm   ASTM D5185m   >2   0       Aluminum   ppm   ASTM D5185m   >10   0       Auminum   ppm   ASTM D5185m   >10   0       Auminum   ppm   ASTM D5185m   >10   0       Auminum   ppm   ASTM D5185m   >10   0       Astm D5185m   >0   0        Astm D5185m   0   0       Astm D5185m	Machine Age	hrs	Client Info		26980		
Oil Changed   Client Info   N/A       Sample Status   Image Status	-	hrs	Client Info		0		
WEAR METALS   method   limit/base   current   history1   history2     Iron   ppm   ASTM 05185m   >50   0       Nickel   ppm   ASTM 05185m   >3   0       Nickel   ppm   ASTM 05185m   >3   0       Silver   ppm   ASTM 05185m   >2   0       Lead   ppm   ASTM 05185m   >10   0       Copper   ppm   ASTM 05185m   >10   0       Vanadium   ppm   ASTM 05185m   >10   0       ADDITIVES   method   limit/base   current   history1   history2     Barium   ppm   ASTM 05185m   0   0       ADDITIVES   method   limit/base   current   history1   history2     Barium   ppm   ASTM 05185m   0	-		Client Info		N/A		
Iron   ppm   ASTM D5185m   >50   0       Chromium   ppm   ASTM D5185m   >3   0       Nickel   ppm   ASTM D5185m   >3   0       Silver   ppm   ASTM D5185m   >3   0       Aluminum   ppm   ASTM D5185m   >10   <1	÷				ABNORMAL		
Chromium   ppm   ASTM D5185m   >10   0       Nickel   ppm   ASTM D5185m   >3   0       Silver   ppm   ASTM D5185m   >2   0       Aluminum   ppm   ASTM D5185m   >10   0       Lead   ppm   ASTM D5185m   >10   0       Vanadium   ppm   ASTM D5185m   0   0       ADDITIVES   method   limit/base   current   history1   history2     Barum   ppm   ASTM D5185m   0   1       Magnesium   ppm   ASTM D5185m   0	WEAR METALS		method	limit/base	current	history1	history2
Chromium   ppm   ASTM D5185m   >10   0       Nickel   ppm   ASTM D5185m   >3   0       Silver   ppm   ASTM D5185m   >2   0       Aluminum   ppm   ASTM D5185m   >10   <1	Iron	ppm	ASTM D5185m	>50	0		
Nickel ppm ASTM D5185m >3 0     Titanium ppm ASTM D5185m >2 0     Aluminum ppm ASTM D5185m >10 <1	Chromium		ASTM D5185m	>10	0		
Titanium ppm ASTM D5185m >3 0     Silver ppm ASTM D5185m >2 0     Aluminum ppm ASTM D5185m >10 <1	Nickel		ASTM D5185m	>3	0		
Silver   ppm   ASTM D5185m   >2   0       Aluminum   ppm   ASTM D5185m   >10   0       Lead   ppm   ASTM D5185m   >10   0       Copper   ppm   ASTM D5185m   >10   0       Vanadium   ppm   ASTM D5185m   0   0       Vanadium   ppm   ASTM D5185m   0   0       ADDITIVES   method   limit/base   current   history1   history2     Boron   ppm   ASTM D5185m   0   0       Magnesium   ppm   ASTM D5185m   0   0       Magnesium   ppm   ASTM D5185m   0   1       Magnesium   ppm   ASTM D5185m   0   1       Sulfur   ppm   ASTM D5185m   22   1 <td>Titanium</td> <td></td> <td></td> <td>&gt;3</td> <td></td> <td></td> <td></td>	Titanium			>3			
Aluminum ppm ASTM D5185m >10 <1							
Lead   ppm   ASTM D5185m   >10   0       Copper   ppm   ASTM D5185m   >50   12       Vanadium   ppm   ASTM D5185m   >10   0       ADDITIVES   method   limit/base   current   history1   history2     Boron   ppm   ASTM D5185m   0   0       Molybdenum   ppm   ASTM D5185m   0   0       Maganese   ppm   ASTM D5185m   0   0       Magnesium   ppm   ASTM D5185m   0   1       Magnesium   ppm   ASTM D5185m   100   17       Calcium   ppm   ASTM D5185m   0   1       Sulfur   ppm   ASTM D5185m   0   1       Sulfur   ppm   ASTM D5185m							
Copper   ppm   ASTM D5185m   >50   12       Tin   ppm   ASTM D5185m   >10   0       Vanadium   ppm   ASTM D5185m   0        ADDITIVES   method   limit/base   current   history1   history2     Boron   ppm   ASTM D5185m   0   0       Malybdenum   ppm   ASTM D5185m   0   0       Marganese   ppm   ASTM D5185m   0   0       Marganese   ppm   ASTM D5185m   0   1       Marganese   ppm   ASTM D5185m   0   1       Calcium   ppm   ASTM D5185m   0   1       Sulfur   ppm   ASTM D5185m   0   15       Sulfur   ppm   ASTM D5185m   >20   1 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>							
Tin ppm ASTM D5185m >10 0     Vanadium ppm ASTM D5185m 0     ADDITIVES method limit/base current history1 history2   Boron ppm ASTM D5185m 0 0     Barium ppm ASTM D5185m 0 0     Malganese ppm ASTM D5185m 0 0     Manganese ppm ASTM D5185m 0 11     Calcium ppm ASTM D5185m 0 1     Calcium ppm ASTM D5185m 0 1     Sulfur ppm ASTM D5185m 0 1     Sulfur ppm ASTM D5185m 2.5 <1							
Vanadium   ppm   ASTM D5185m   0       Cadmium   ppm   ASTM D5185m   0       ADDITIVES   method   limit/base   current   history1   history2     Boron   ppm   ASTM D5185m   90   0       Barium   ppm   ASTM D5185m   90   0       Marganese   ppm   ASTM D5185m   0   0       Magneseium   ppm   ASTM D5185m   100   17       Calcium   ppm   ASTM D5185m   0   1       Sulfur   ppm   ASTM D5185m   0   1       Sulfur   ppm   ASTM D5185m   0   1       Sulfur   ppm   ASTM D5185m   23500   17684       Sulfur   ppm   ASTM D5185m   >20   1							
Cadmium   ppm   ASTM D5185m   0       ADDITIVES   method   limit/base   current   history1   history2     Boron   ppm   ASTM D5185m   0   0       Barium   ppm   ASTM D5185m   0   0       Manganese   ppm   ASTM D5185m   0   0       Manganese   ppm   ASTM D5185m   0   1       Calcium   ppm   ASTM D5185m   0   1       Calcium   ppm   ASTM D5185m   0   1       Calcium   ppm   ASTM D5185m   0   1       Sulfur   ppm   ASTM D5185m   0   1       Sulfur   ppm   ASTM D5185m   2.25   <1       Soliton   ppm   ASTM D5185m   2.0   1				210			
ADDITIVES   method   limit/base   current   history1   history2     Boron   ppm   ASTM D5185m   0   0       Barium   ppm   ASTM D5185m   90   0       Molybdenum   ppm   ASTM D5185m   0   0       Magnese   ppm   ASTM D5185m   100   17       Magnesium   ppm   ASTM D5185m   100   1       Calcium   ppm   ASTM D5185m   0   1       Zinc   ppm   ASTM D5185m   0   15       Sulfur   ppm   ASTM D5185m   23500   17684       Sodium   ppm   ASTM D5185m   >20   1       Sodium   ppm   ASTM D5185m   >20   1       Potassium   ppm   ASTM D6304					-		
Boron   ppm   ASTM D5185m   0   0       Barium   ppm   ASTM D5185m   90   0       Molybdenum   ppm   ASTM D5185m   0   0       Manganese   ppm   ASTM D5185m   100   17       Calcium   ppm   ASTM D5185m   0   1       Calcium   ppm   ASTM D5185m   0   1       Calcium   ppm   ASTM D5185m   0   15       Zinc   ppm   ASTM D5185m   23500   17684       Sulfur   ppm   ASTM D5185m   22        Sodium   ppm   ASTM D5185m   >20   1       Potassium   ppm   ASTM D5185m   >20   1       Water   %   ASTM D6304	ADDITIVES		method	limit/base	current	history1	history2
Barium   ppm   ASTM D5185m   90   0       Molybdenum   ppm   ASTM D5185m   0   0       Manganese   ppm   ASTM D5185m   0   11       Calcium   ppm   ASTM D5185m   0   1       Calcium   ppm   ASTM D5185m   0   1       Calcium   ppm   ASTM D5185m   0   1       Sulfur   ppm   ASTM D5185m   0   15       Sulfur   ppm   ASTM D5185m   23500   17684       Solium   ppm   ASTM D5185m   22   <1		nnm					
Molybdenum ppm ASTM D5165m 0 0     Manganese ppm ASTM D5185m 100 17     Magnesium ppm ASTM D5185m 0 1     Calcium ppm ASTM D5185m 0 1     Calcium ppm ASTM D5185m 0 1     Zinc ppm ASTM D5185m 0 15     Sulfur ppm ASTM D5185m 23500 17684     Sodium ppm ASTM D5185m >25 <1							
Manganese ppm ASTM D5185m <1     Magnesium ppm ASTM D5185m 100 17     Calcium ppm ASTM D5185m 0 1     Phosphorus ppm ASTM D5185m 0 1     Zinc ppm ASTM D5185m 0 15     Sulfur ppm ASTM D5185m 23500 17684     Sulfur ppm ASTM D5185m 225 <1					-		
Magnesium ppm ASTM D5185m 100 17     Calcium ppm ASTM D5185m 0 1     Phosphorus ppm ASTM D5185m 0 1     Zinc ppm ASTM D5185m 0 15     Sulfur ppm ASTM D5185m 23500 17684     CONTAMINANTS method limit/base current history1 history2   Silicon ppm ASTM D5185m >25 <1	-			0	-		
Calcium ppm ASTM D5185m 0 1     Phosphorus ppm ASTM D5185m 0 15     Zinc ppm ASTM D5185m 0 15     Sulfur ppm ASTM D5185m 23500 17684     CONTAMINANTS method limit/base current history1 history2   Silicon ppm ASTM D5185m >25 <1				100			
Phosphorus   ppm   ASTM D5185m   0   1       Zinc   ppm   ASTM D5185m   0   15       Sulfur   ppm   ASTM D5185m   23500   17684       CONTAMINANTS   method   limit/base   current   history1   history2     Silicon   ppm   ASTM D5185m   >25   <1	•						
Zinc   ppm   ASTM D5185m   0   15       Sulfur   ppm   ASTM D5185m   23500   17684       CONTAMINANTS   method   limit/base   current   history1   history2     Silicon   ppm   ASTM D5185m   >25   <1							
SulfurppmASTM D5185m2350017684CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>25<1							
CONTAMINANTSmethodlimit/basecurrenthistory1history2SiliconppmASTM D5185m>25<1	-			÷	-		
Silicon ppm ASTM D5185m >25 <1	Sulfur	ppm	ASTM D5185m	23500	17684		
Sodium   ppm   ASTM D5185m   2       Potassium   ppm   ASTM D5185m   >20   1       Water   %   ASTM D6304   >0.05   0.007       ppm Water   ppm   ASTM D6304   >500   79.2       FLUID CLEANLINESS   method   limit/base   current   history1   history2     Particles >4µm   ASTM D7647   14154       Particles >6µm   ASTM D7647   >1300   5335       Particles >14µm   ASTM D7647   >80   316       Particles >21µm   ASTM D7647   >20   75       Particles >38µm   ASTM D7647   >3   0       Particles >71µm   ASTM D7647   >3   0       Oil Cleanliness   ISO 4406 (c)   >/17/13   21/20/15	CONTAMINANTS	6	method	limit/base	current	history1	history2
Potassium   ppm   ASTM D5185m   >20   1       Water   %   ASTM D6304   >0.05   0.007       ppm Water   ppm   ASTM D6304   >500   79.2       FLUID CLEANLINESS   method   limit/base   current   history1   history2     Particles >4µm   ASTM D7647   14154       Particles >6µm   ASTM D7647   >1300   5335       Particles >14µm   ASTM D7647   >80   316       Particles >21µm   ASTM D7647   >20   75       Particles >38µm   ASTM D7647   >3   0       Particles >71µm   ASTM D7647   >3   0       Oil Cleanliness   ISO 4406 (c)   >/17/13   21/20/15       FLUID DEGRADATION   method   limit/base   current   history1   history2<		ppm		>25			
Water   %   ASTM D6304   >0.05   0.007       ppm Water   ppm   ASTM D6304   >500   79.2       FLUID CLEANLINESS   method   limit/base   current   history1   history2     Particles >4µm   ASTM D7647   14154       Particles >6µm   ASTM D7647   >1300   5335       Particles >6µm   ASTM D7647   >80   316       Particles >14µm   ASTM D7647   >20   75       Particles >38µm   ASTM D7647   >4   2       Particles >71µm   ASTM D7647   >3   0       Oil Cleanliness   ISO 4406 (c)   >/17/13   21/20/15       FLUID DEGRADATION   method   limit/base   current   history1   history2	Sodium		ASTM D5185m		2		
ppm Water   ppm   ASTM D6304   >500   79.2       FLUID CLEANLINESS   method   limit/base   current   history1   history2     Particles >4µm   ASTM D7647   14154       Particles >6µm   ASTM D7647   >1300   5335       Particles >6µm   ASTM D7647   >80   316       Particles >14µm   ASTM D7647   >20   75       Particles >21µm   ASTM D7647   >4   2       Particles >38µm   ASTM D7647   >4   2       Particles >71µm   ASTM D7647   >3   0       Oil Cleanliness   ISO 4406 (c)  /17/13   21/20/15       FLUID DEGRADATION   method   limit/base   current   history1   history2	Potassium	ppm	ASTM D5185m	>20	1		
FLUID CLEANLINESS method limit/base current history1 history2   Particles >4µm ASTM D7647 14154     Particles >6µm ASTM D7647 >1300 5335     Particles >6µm ASTM D7647 >1300 5335     Particles >14µm ASTM D7647 >80 ▲ 316     Particles >21µm ASTM D7647 >20 ▲ 75     Particles >38µm ASTM D7647 >4 2     Particles >71µm ASTM D7647 >3 0     Oil Cleanliness ISO 4406 (c) >/17/13 21/20/15     FLUID DEGRADATION method limit/base current history1 history2	Water	%			0.007		
Particles >4μm ASTM D7647 14154     Particles >6μm ASTM D7647 >1300 5335     Particles >14μm ASTM D7647 >80 316     Particles >14μm ASTM D7647 >20 75     Particles >21μm ASTM D7647 >20 75     Particles >38μm ASTM D7647 >4 2     Particles >71μm ASTM D7647 >3 0     Oil Cleanliness ISO 4406 (c) >/17/13 21/20/15     FLUID DEGRADATION method limit/base current history1 history2	ppm Water	ppm	ASTM D6304	>500	79.2		
Particles >6µm ASTM D7647 >1300 ▲ 5335     Particles >14µm ASTM D7647 >80 ▲ 316     Particles >14µm ASTM D7647 >20 ▲ 75     Particles >21µm ASTM D7647 >20 ▲ 75     Particles >38µm ASTM D7647 >4 2     Particles >71µm ASTM D7647 >3 0     Oil Cleanliness ISO 4406 (c) >/17/13 ▲ 21/20/15     FLUID DEGRADATION method limit/base current history1 history2	FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >14µm ASTM D7647 >80 ▲ 316     Particles >21µm ASTM D7647 >20 ▲ 75     Particles >38µm ASTM D7647 >4 2     Particles >38µm ASTM D7647 >3 0     Particles >71µm ASTM D7647 >3 0     Oil Cleanliness ISO 4406 (c) >/17/13 ▲ 21/20/15     FLUID DEGRADATION method limit/base current history1 history2	Particles >4µm		ASTM D7647		14154		
Particles >21μm   ASTM D7647   >20   ▲ 75       Particles >38μm   ASTM D7647   >4   2       Particles >38μm   ASTM D7647   >4   2       Particles >71μm   ASTM D7647   >3   0       Oil Cleanliness   ISO 4406 (c)   >/17/13   21/20/15       FLUID DEGRADATION   method   limit/base   current   history1   history2	Particles >6µm		ASTM D7647	>1300	<u> </u>		
Particles >38μm   ASTM D7647   >4   2       Particles >71μm   ASTM D7647   >3   0       Oil Cleanliness   ISO 4406 (c)   >/17/13   ▲ 21/20/15       FLUID DEGRADATION   method   limit/base   current   history1   history2	Particles >14µm		ASTM D7647	>80	<b>A</b> 316		
Particles >71μm   ASTM D7647   >3   0       Oil Cleanliness   ISO 4406 (c)   >/17/13   ▲ 21/20/15       FLUID DEGRADATION   method   limit/base   current   history1   history2	Particles >21µm		ASTM D7647	>20	<u> </u>		
Oil Cleanliness   ISO 4406 (c)   >/17/13   21/20/15       FLUID DEGRADATION   method   limit/base   current   history1   history2	Particles >38µm		ASTM D7647	>4	2		
Oil Cleanliness   ISO 4406 (c)   >/17/13 <b>21/20/15</b> FLUID DEGRADATION   method   limit/base   current   history1   history2	Particles >71µm		ASTM D7647	>3	0		
	-		ISO 4406 (c)	>/17/13	<b>A</b> 21/20/15		
Acid Number (AN) mg KOH/g ASTM D8045 1.0 0.33	FLUID DEGRADA	ATION	method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	0.33		

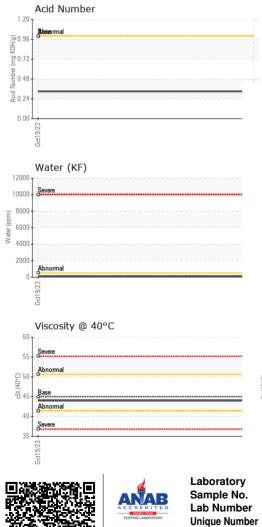


#### Built for a lifetime.



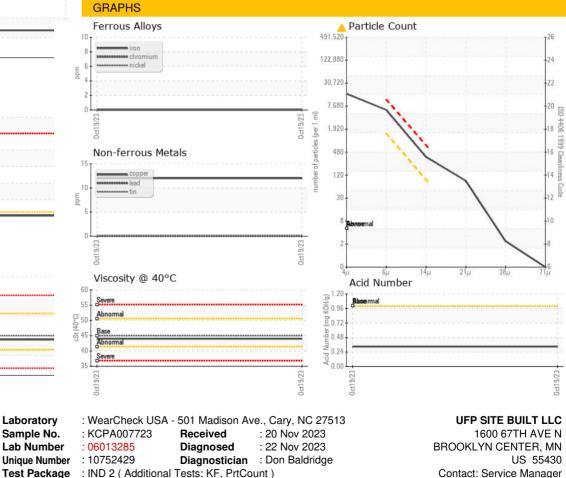






VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water	scalar	*Visual	>0.05	NEG		
Free Water	scalar	*Visual		NEG		
FLUID PROPER	TIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	45	44.0		
SAMPLE IMAGE	S	method	limit/base	current	history1	history2
Color				A.	no image	no image
Bottom					no image	no image
GRAPHS						
Ferrous Alloys				Particle Count		
o iron			491,520	I		T <sup>26</sup>
6 - nickel			122,880			-24
4			30,720			
2			30,720			-22
oL			7,680			-20
0ct19/23			0ct19/23 (per 1 ml)	1		-18
Oct			1,920	· / ·		-10





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)

Certificate L2367

Contact/Location: Service Manager - UFPBRO