

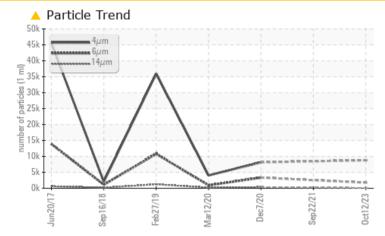
# **PROBLEM SUMMARY**

# KAESER ASD 25T 5740630 (S/N 1087)

Compressor

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

## COMPONENT CONDITION SUMMARY



#### RECOMMENDATION

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

PROBLEMATIC TEST RESULTS							
Sample Status			ATTENTION	ABNORMAL	ABNORMAL		
Particles >6µm	ASTM D7647	>1300	<u> </u>		▲ 3343		
Particles >14µm	ASTM D7647	>80	<b>A</b> 85		<b>A</b> 371		
Oil Cleanliness	ISO 4406 (c)	>17/13	<u> </u>		<b>1</b> 9/16		

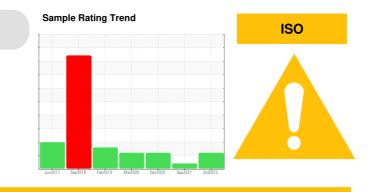
Customer Id: PRENOV Sample No.: KC111932 Lab Number: 06010771 Test Package: IND 2



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 <u>customerservice@wearcheck.com</u>



RECOMMENDED	ACTIONS			
Action	Status	Date	Done By	Description
Change Fluid			?	Oil and filter change at the time of sampling has been noted.
Change Filter			?	Oil and filter change at the time of sampling has been noted.

## HISTORICAL DIAGNOSIS



## 22 Sep 2021 Diag: Don Baldridge

No corrective action is recommended at this time. 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.All component wear rates are normal. Moderate concentration of visible dirt/debris present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.



view report

## 07 Dec 2020 Diag: Jonathan Hester



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

#### 12 Mar 2020 Diag: Jonathan Hester



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.All component wear rates are normal. There is a high amount of particulates present in the oil. The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.







# **OIL ANALYSIS REPORT**

# KAESER ASD 25T 5740630 (S/N 1087)

**Compressor** Fluid

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

## DIAGNOSIS

### Recommendation

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

## Wear

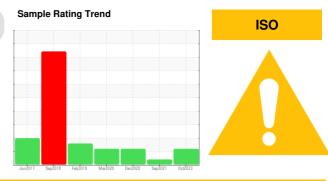
All component wear rates are normal.

## Contamination

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

#### Fluid Condition

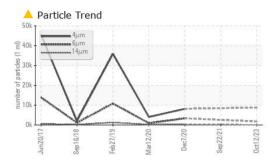
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

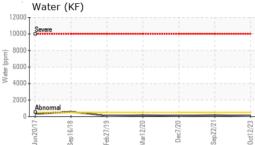


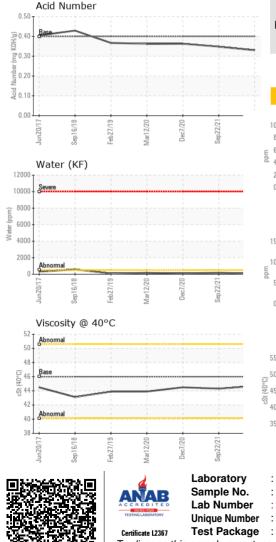
Machine Age         hrs         Client Info         37617         26794         22769           Oil Age         hrs         Client Info         37617         4025         5000           Oil Changed         Client Info         Changed         Changed <th>SAMPLE INFORM</th> <th><b>NATION</b></th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	SAMPLE INFORM	<b>NATION</b>	method	limit/base	current	history1	history2
Machine Age         hrs         Client Info         37617         26794         22769           Oil Age         hrs         Client Info         37617         4025         5000           Oil Ghanged         Client Info         Changed         ShandSite         O         O         Changed         Changed         ShandSite         Changed         Changed         ShandSite         Changed         Changed         ShandSite         ShandSite         Changed         ShandSite         Changed         Changed         ShandSite </td <td>Sample Number</td> <td></td> <td>Client Info</td> <td></td> <th>KC111932</th> <td>KC99831</td> <td>KC93658</td>	Sample Number		Client Info		KC111932	KC99831	KC93658
Oil Age         hrs         Client Info         37617         4025         5000           Oil Changed         Client Info         Changed         Changed         Changed         Changed         Changed         Changed         Changed         Changed         ABNORMAL	Sample Date		Client Info		12 Oct 2023	22 Sep 2021	07 Dec 2020
Oil Changed Sample Status     Client Info     Changed ATTENTION     Changed ABNORMAL     Changed ABNORMAL       WEAR METALS     method     limit/base     current     history1     ABNORMAL       WEAR METALS     method     limit/base     current     history1     history1       Iron     ppm     ASTM D5185m     >50     0     <1	Machine Age	hrs	Client Info		37617	26794	22769
Sample Status         method         Imit/base         current         history1         ABNORMAL         ABNORMAL           WEAR METALS         method         limit/base         current         history1         history1           Iron         ppm         ASTM D5185m         >50         0         <1	Oil Age	hrs	Client Info		37617	4025	5000
WEAR METALS         method         limit/base         current         history1         history1           Iron         ppm         ASTM D5185m         >50         0         <1	Oil Changed		Client Info		Changed	Changed	Changed
Iron         ppm         ASTM D5185m         >50         0         <1         <1           Chromium         ppm         ASTM D5185m         >10         0         0         0           Nickel         ppm         ASTM D5185m         >3         0         0         0           Silver         ppm         ASTM D5185m         >2         0         <1	Sample Status				ATTENTION	ABNORMAL	ABNORMAL
Chromium         ppm         ASTM D5185m         >10         0         0         0           Nickel         ppm         ASTM D5185m         >3         0         0         <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel         ppm         ASTM D5185m         >3         0         0         <1           Titanium         ppm         ASTM D5185m         >3         0         0         0           Silver         ppm         ASTM D5185m         >10         0         2         <1	Iron	ppm	ASTM D5185m	>50	0	<1	<1
Titanium         ppm         ASTM D5185m         >3         0         0         0           Silver         ppm         ASTM D5185m         >2         0         <1	Chromium	ppm	ASTM D5185m	>10	0	0	0
Silver         ppm         ASTM D5185m         >2         0         <1         0           Aluminum         ppm         ASTM D5185m         >10         0         2         <1	Nickel	ppm	ASTM D5185m	>3	0	0	<1
Aluminum         ppm         ASTM D5185m         >10         0         2         <1           Lead         ppm         ASTM D5185m         >10         0         <1	Titanium	ppm	ASTM D5185m	>3	0	0	0
Aluminum         ppm         ASTM D5185m         >10         0         2         <1           Lead         ppm         ASTM D5185m         >10         0         <1	Silver		ASTM D5185m	>2	0	<1	0
Lead         ppm         ASTM D5185m         >10         0         <1         0           Copper         ppm         ASTM D5185m         >50         12         7         7           Tin         ppm         ASTM D5185m         >10         0         0         0           Antimony         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history1           Boron         ppm         ASTM D5185m         0         0         0         1           Molybdenum         ppm         ASTM D5185m         90         0         0         1         1           Marganese         ppm         ASTM D5185m         90         12         29         31         1           Calcium         ppm         ASTM D5185m         90         12         29         31         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1 <td< td=""><td>Aluminum</td><td></td><td>ASTM D5185m</td><td>&gt;10</td><th>0</th><td>2</td><td>&lt;1</td></td<>	Aluminum		ASTM D5185m	>10	0	2	<1
Copper         ppm         ASTM D5185m         >50         12         7         7           Tin         ppm         ASTM D5185m         >10         0         0         0           Antimony         ppm         ASTM D5185m         0         0         0         0           Vanadium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history1           Boron         ppm         ASTM D5185m         0         0         0         <1	Lead						0
Tin         ppm         ASTM D5185m         >10         0         0         0           Antimony         ppm         ASTM D5185m         0          0         0           Vanadium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history1           Boron         ppm         ASTM D5185m         90         0         0         0         <11         0           Barium         ppm         ASTM D5185m         90         0         0         0         <11         0           Marganese         ppm         ASTM D5185m         90         12         29         31           Calcium         ppm         ASTM D5185m         0         3         3         3           Zinc         ppm         ASTM D5185m         20         1         <1         1           Sodium         ppm         ASTM D5185m         >20         1         <1         1           Sodium         ppm         ASTM D5185m <td></td> <td></td> <td></td> <td>&gt;50</td> <th></th> <td></td> <td></td>				>50			
Antimony         ppm         ASTM D5185m          0         0           Vanadium         ppm         ASTM D5185m         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         0         <1							
Vanadium         ppm         ASTM D5185m         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         <1							
Cadmium         ppm         ASTM D5185m         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         <1         0           Barium         ppm         ASTM D5185m         90         0         0         <1         0           Molybdenum         ppm         ASTM D5185m         90         12         29         31           Manganese         ppm         ASTM D5185m         90         12         29         31           Calcium         ppm         ASTM D5185m         90         12         29         31           Calcium         ppm         ASTM D5185m         90         12         29         31           Contradium         ppm         ASTM D5185m         20         0         3         3           Silicon         ppm         ASTM D5185m         >25         <1         <1         1           Sodium         ppm         ASTM D5185m         >20         1         <1         0           Vater         %         ASTM D5185m         20         0         0.017         0.	•				0		
ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         <1							
Boron         ppm         ASTM D5185m         0         <1         0           Barium         ppm         ASTM D5185m         90         0         0         <1		ppm		11		-	-
Barium         ppm         ASTM D5185m         90         0         0         <1           Molybdenum         ppm         ASTM D5185m         0         0         <1				limit/base			
Molybdenum         ppm         ASTM D5185m         0         0         <1           Manganese         ppm         ASTM D5185m         90         12         29         31           Calcium         ppm         ASTM D5185m         90         12         29         31           Calcium         ppm         ASTM D5185m         2         0         0         0           Phosphorus         ppm         ASTM D5185m         0         3         3           Zinc         ppm         ASTM D5185m         0         3         3           CONTAMINANTS         method         limit/base         current         history1         history1           Silicon         ppm         ASTM D5185m         >25         <1							
Maganese         ppm         ASTM D5185m         0         0         0         0           Magnesium         ppm         ASTM D5185m         90         12         29         31           Calcium         ppm         ASTM D5185m         2         0         0         0           Phosphorus         ppm         ASTM D5185m         0         3         3           Zinc         ppm         ASTM D5185m         0         3         3           CONTAMINANTS         method         limit/base         current         history1         history1           Silicon         ppm         ASTM D5185m         >25         <1				90	-		
Magnesium         ppm         ASTM D5185m         90         12         29         31           Calcium         ppm         ASTM D5185m         2         0         0         0           Phosphorus         ppm         ASTM D5185m         0         3         3           Zinc         ppm         ASTM D5185m         0         3         3           CONTAMINANTS         method         limit/base         current         history1         history1           Silicon         ppm         ASTM D5185m         >25         <1	-						
Calcium       ppm       ASTM D5185m       2       0       0       0         Phosphorus       ppm       ASTM D5185m       0       3       3         Zinc       ppm       ASTM D5185m       0       3       3         CONTAMINANTS       method       limit/base       current       history1       history1         Silicon       ppm       ASTM D5185m<>25       <1       <1       1         Sodium       ppm       ASTM D5185m<>25       <1       <1       1         Sodium       ppm       ASTM D5185m<>25       <1       <1       1         Sodium       ppm       ASTM D5185m<>20       10       6       11         Potassium       ppm       ASTM D5185m       >20       1       <1       0         Water       %       ASTM D5185m       >20       1       <1       0         Water       %       ASTM D5185m       >20       1       <1       0         PuttliD CLEANLINESS       method       limit/base       current       history1       history2         Particles >4µm       ASTM D7647       8783        8154         Particles >5µm       ASTM D7647       80	-	ppm			-		÷
Phosphorus         ppm         ASTM D5185m         0         3         3           Zinc         ppm         ASTM D5185m         41         47         51           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         <1	U	ppm					
Zinc       ppm       ASTM D5185m       41       47       51         CONTAMINANTS       method       limit/base       current       history1       history1         Silicon       ppm       ASTM D5185m       >25       <1       <1       1         Sodium       ppm       ASTM D5185m       >25       <1       <1       1         Potassium       ppm       ASTM D5185m       >20       1       <1       0         Water       %       ASTM D504       >0.05       0.008       0.017       0.011         ppm Water       ppm       ASTM D6304       >500       89.3       172.6       115.4         FLUID CLEANLINESS       method       limit/base       current       history1       history2         Particles >4µm       ASTM D7647       >1300       1760        8154         Particles >6µm       ASTM D7647       >80       85        371         Particles >1µm       ASTM D7647       >20       19        395         Particles >21µm       ASTM D7647       >3       0        30         Oil Cleanliness       ISO 4406 (c)       >17/13       18/14        <		ppm	ASTM D5185m	2			
CONTAMINANTS         method         limit/base         current         history1         history1           Silicon         ppm         ASTM D5185m         >25         <1	Phosphorus	ppm	ASTM D5185m		0		
Silicon       ppm       ASTM D5185m       >25       <1	Zinc	ppm	ASTM D5185m		41	47	51
Sodium         ppm         ASTM D5185m         10         6         11           Potassium         ppm         ASTM D5185m         >20         1         <1	CONTAMINANTS	;	method	limit/base	current	history1	history2
Potassium       ppm       ASTM D5185m       >20       1       <1       0         Water       %       ASTM D6304       >0.05       0.008       0.017       0.011         ppm Water       ppm       ASTM D6304       >500       89.3       172.6       115.4         FLUID CLEANLINESS       method       limit/base       current       history1       history2         Particles >4µm       ASTM D7647       8783        8154         Particles >6µm       ASTM D7647       >1300       1760        3343         Particles >6µm       ASTM D7647       >80       85        371         Particles >14µm       ASTM D7647       >20       19        4       95         Particles >38µm       ASTM D7647       >4       1        3       95         Particles >71µm       ASTM D7647       >3       0        19/16         FLUID DEGRADATION       method       limit/base       current       history1       history2	Silicon	ppm	ASTM D5185m	>25	<1	<1	1
Water       %       ASTM D6304       >0.05       0.008       0.017       0.011         ppm Water       ppm       ASTM D6304       >500       89.3       172.6       115.4         FLUID CLEANLINESS       method       limit/base       current       history1       history1         Particles >4µm       ASTM D7647       8783        8154         Particles >6µm       ASTM D7647       >1300       1760        3343         Particles >6µm       ASTM D7647       >80       85        371         Particles >14µm       ASTM D7647       >20       19        4 95         Particles >21µm       ASTM D7647       >4       1        3 0         Particles >38µm       ASTM D7647       >3       0        4 95         Particles >71µm       ASTM D7647       >3       0        0         Oil Cleanliness       ISO 4406 (c)       >17/13       18/14        19/16         FLUID DEGRADATION       method       limit/base       current       history1       history1	Sodium	ppm	ASTM D5185m		10	6	11
ppm Water         ppm         ASTM D6304         >500         89.3         172.6         115.4           FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4µm         ASTM D7647         8783          8154           Particles >6µm         ASTM D7647         >1300         1760          3343           Particles >14µm         ASTM D7647         >80         85          371           Particles >21µm         ASTM D7647         >20         19          495           Particles >38µm         ASTM D7647         >4         1          3           Particles >71µm         ASTM D7647         >3         0          4         19/16           FLUID DEGRADATION         method         limit/base         current         history1         history2	Potassium	ppm	ASTM D5185m	>20	1	<1	0
FLUID CLEANLINESSmethodlimit/basecurrenthistory1history1Particles >4µmASTM D764787838154Particles >6µmASTM D7647>13001760 $\land$ 3343Particles >14µmASTM D7647>8085 $\land$ 371Particles >21µmASTM D7647>2019 $\land$ 95Particles >38µmASTM D7647>413Particles >71µmASTM D7647>300Oil CleanlinessISO 4406 (c)>17/1318/1419/16FLUID DEGRADATIONmethodlimit/basecurrenthistory1history2	Water	%	ASTM D6304	>0.05	0.008	0.017	0.011
Particles >4µm       ASTM D7647       8783        8154         Particles >6µm       ASTM D7647       >1300       1760        3343         Particles >14µm       ASTM D7647       >80       85        371         Particles >21µm       ASTM D7647       >20       19        495         Particles >28µm       ASTM D7647       >4       1        3         Particles >38µm       ASTM D7647       >3       0        0         Oil Cleanliness       ISO 4406 (c)       >17/13       18/14        19/16	ppm Water	ppm	ASTM D6304	>500	89.3	172.6	115.4
Particles >6µm       ASTM D7647       >1300       ▲ 1760        ▲ 3343         Particles >14µm       ASTM D7647       >80       ▲ 85        ▲ 371         Particles >21µm       ASTM D7647       >20       19        ▲ 95         Particles >38µm       ASTM D7647       >4       1        3         Particles >38µm       ASTM D7647       >4       1        3         Particles >71µm       ASTM D7647       >3       0        0         Oil Cleanliness       ISO 4406 (c)       >17/13       ▲ 18/14        ▲ 19/16         FLUID DEGRADATION       method       limit/base       current       history1       history2	FLUID CLEANLIN	IESS	method	limit/base	current	history1	history2
Particles >14μm       ASTM D7647       >80       ▲ 85        ▲ 371         Particles >21μm       ASTM D7647       >20       19        ▲ 95         Particles >38μm       ASTM D7647       >4       1        3         Particles >71μm       ASTM D7647       >3       0        0         Oil Cleanliness       ISO 4406 (c)       >17/13       ▲ 18/14        ▲ 19/16         FLUID DEGRADATION       method       limit/base       current       history1       history2	Particles >4µm		ASTM D7647		8783		8154
Particles >21μm         ASTM D7647         >20         19          ● 95           Particles >38μm         ASTM D7647         >4         1          3           Particles >71μm         ASTM D7647         >3         0          0           Oil Cleanliness         ISO 4406 (c)         >17/13         ▲ 18/14          ▲ 19/16           FLUID DEGRADATION         method         limit/base         current         history1         history2	Particles >6µm		ASTM D7647	>1300	<u> </u>		▲ 3343
Particles >38μm         ASTM D7647         >4         1          3           Particles >71μm         ASTM D7647         >3         0          0           Oil Cleanliness         ISO 4406 (c)         >17/13         ▲ 18/14          ▲ 19/16           FLUID DEGRADATION         method         limit/base         current         history1         history2	Particles >14µm		ASTM D7647	>80	<u> </u>		<b>A</b> 371
Particles >71μm         ASTM D7647         >3         0          0           Oil Cleanliness         ISO 4406 (c)         >17/13         ▲ 18/14          ▲ 19/16           FLUID DEGRADATION         method         limit/base         current         history1         history2	Particles >21µm		ASTM D7647	>20	19		<b>9</b> 5
Oil Cleanliness       ISO 4406 (c) >17/13 ▲ 18/14        ▲ 19/16         FLUID DEGRADATION       method       limit/base       current       history1       history2	Particles >38µm		ASTM D7647	>4	1		3
Oil Cleanliness       ISO 4406 (c) >17/13 ▲ 18/14        ▲ 19/16         FLUID DEGRADATION       method       limit/base       current       history1       history2			ASTM D7647	>3	0		0
			ISO 4406 (c)	>17/13	<b>18/14</b>		▲ 19/16
Acid Number (AN) mg KOH/g ASTM D8045 0.4 0.33 0.348 0.363	FLUID DEGRADA	TION	method	limit/base	current	history1	history2
	Acid Number (AN)	mg KOH/g	ASTM D8045	0.4	0.33	0.348	0.363



# **OIL ANALYSIS REPORT**



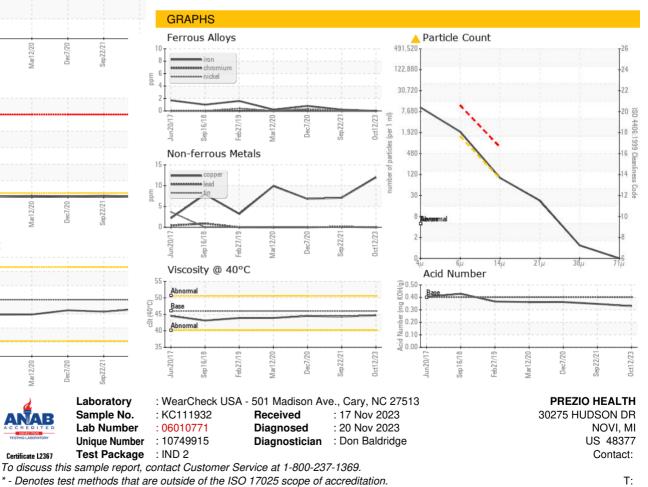




```
VISUAL
                            method
                                       limit/base
                                                                 history1
                                                                               history2
                                                    current
                                                  NONE
White Metal
                          *Visual
                                     NONE
                                                                NONE
                                                                              NONE
                   scalar
Yellow Metal
                                     NONE
                                                  NONE
                                                                NONE
                                                                              NONE
                   scalar
                          *Visual
Precipitate
                   scalar
                          *Visual
                                     NONE
                                                  NONE
                                                                NONE
                                                                              NONE
Silt
                   scalar *Visual
                                     NONE
                                                  NONE
                                                                NONE
                                                                              NONE
                                                  NONE
Debris
                          *Visual
                                     NONE
                                                                MODER
                                                                              LIGHT
                   scalar
                                                  NONE
Sand/Dirt
                   scalar
                          *Visual
                                     NONE
                                                                NONE
                                                                              NONE
                                     NORML
Appearance
                                                  NORML
                                                                NORML
                                                                              NORML
                   scalar
                          *Visua
Odor
                          *Visual
                                     NORML
                                                  NORML
                                                                              NORML
                   scalar
                                                                NORML
                          *Visual
Emulsified Water
                   scalar
                                     >0.05
                                                  NEG
                                                                NEG
                                                                              NEG
Free Water
                   scalar *Visual
                                                  NEG
                                                                NEG
                                                                              NEG
 FLUID PROPERTIES
                            method
                                       limit/base
                                                    current
                                                                  history
                                                                               history2
Visc @ 40°C
                   cSt
                          ASTM D445
                                     46
                                                  44.7
                                                                44.3
                                                                              44.5
 SAMPLE IMAGES
                            method
                                       limit/base
                                                                               history2
                                                    current
                                                                  history1
Color
```



Bottom



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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