

## **OIL ANALYSIS REPORT**

### Sample Rating Trend

# NORMAL



# SIGNAL CAT 397 29 EST

Component
New (Unused) Oil
Fluid

{not provided} (--- GAL)

#### DIAGNOSIS

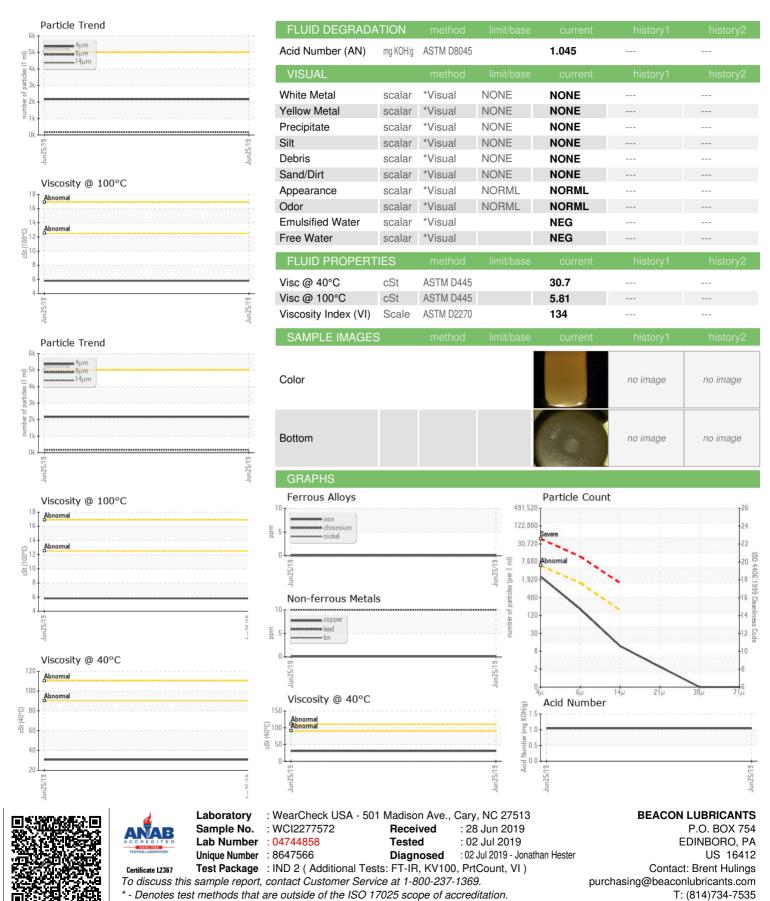
### Recommendation

This is a baseline read-out on the submitted sample.

WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >10         <1             Chromium         ppm         ASTM D5185m         >10         0             Nickel         ppm         ASTM D5185m         >2         0             Silver         ppm         ASTM D5185m         >2         0             Aluminum         ppm         ASTM D5185m         >10         <1             Aluminum         ppm         ASTM D5185m         >10         10             Lead         ppm         ASTM D5185m         >10         0             Copper         ppm         ASTM D5185m         >10         0             Tin         ppm         ASTM D5185m         0              Cadamium         ppm         ASTM D5185m         0              Baraium         ppm         ASTM D5185m         3 <td< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th></td<>							
SAMPLE INFORMATION   method   limit/base   current   history1   history2					lun 2019		
Sample Number   Client Info   WCI2277572   Sample Date   Client Info   25 Jun 2019   Sample Date   Client Info   0   Sample Date   Client Info   0   Sample Status   Client Info   N/A   Sample Status   Client Info   N/A   Sample Status   CONTAMINATION   Method   NORMAL   Sample Status   Sample	SAMPLE INFOR	MATION	method			history1	history2
Company   Comp		VII/ (TTOTA		mmobase			
Machine Age   hrs   Client Info   0							
Dil Age	•	laa					
Contamination   Contaminatio							
CONTAMINATION   method   limit/base   current   history1   history2	-	nrs			-		
CONTAMINATION         method         limit/base         current         history1         history2           Water         WC Method         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >10         <1	-		Client Info				
Water         WC Method         NEG            WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >10         <1             Chromium         ppm         ASTM D5185m         >2         0             Nickel         ppm         ASTM D5185m         >2         0             Silver         ppm         ASTM D5185m         >2         0             Aluminum         ppm         ASTM D5185m         >2         0             Aluminum         ppm         ASTM D5185m         >10         10             Lead         ppm         ASTM D5185m         >10         0             Appear         ASTM D5185m         >10         0             Antimony         ppm         ASTM D5185m         0             Vanadium         ppm         ASTM D5185m         0             Vanadium         ppm	Sample Status				NORMAL		
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >10         <1            Chromium         ppm         ASTM D5185m         >2         0            Nickel         ppm         ASTM D5185m         >2         0            Silver         ppm         ASTM D5185m         >2         0            Aluminum         ppm         ASTM D5185m         >2         0            Aluminum         ppm         ASTM D5185m         >10         <1            Lead         ppm         ASTM D5185m         >10         0            Lead         ppm         ASTM D5185m         >50         <1            Tin         ppm         ASTM D5185m         0             Vanadium         ppm         ASTM D5185m         0             Vanadium         ppm         ASTM D5185m         0             Baron         ppm         ASTM D5185m         3 <t< th=""><th>CONTAMINATIO</th><th>N</th><th>method</th><th>limit/base</th><th>current</th><th>history1</th><th>history2</th></t<>	CONTAMINATIO	N	method	limit/base	current	history1	history2
Chromium   ppm   ASTM D5185m   >10   <1	Water		WC Method		NEG		
Description	WEAR METALS		method	limit/base	current	history1	history2
Nickel	ron	ppm	ASTM D5185m	>10	<1		
Titanium	Chromium	ppm	ASTM D5185m	>10	0		
ASTM D5185m   Post Note	Nickel	ppm	ASTM D5185m	>2	0		
Asim	Titanium	ppm	ASTM D5185m	>2	<1		
Lead	Silver	ppm	ASTM D5185m	>2	0		
Lead	Aluminum	ppm	ASTM D5185m	>10	<1		
Tin	Lead		ASTM D5185m	>10	10		
Antimony	Copper	ppm	ASTM D5185m	>50	<1		
Antimony	Tin	ppm	ASTM D5185m	>10	0		
Vanadium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         2             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0             Barium         ppm         ASTM D5185m         3             Molybdenum         ppm         ASTM D5185m         8             Manganese         ppm         ASTM D5185m         0             Manganesium         ppm         ASTM D5185m         3             Manganesium         ppm         ASTM D5185m         3             Phosphorus         ppm         ASTM D5185m         3             Phosphorus         ppm         ASTM D5185m         78             Sulfur         ppm         ASTM D5185m         25         25193             CONTAMINANTS         method         limit/base         current	Antimony		ASTM D5185m		15		
ADDITIVES	Vanadium	ppm	ASTM D5185m		0		
Seron   ppm   ASTM D5185m   0             Sarium   ppm   ASTM D5185m   3           Molybdenum   ppm   ASTM D5185m   8           Manganese   ppm   ASTM D5185m   0           Magnesium   ppm   ASTM D5185m   0           Calcium   ppm   ASTM D5185m   3           Calcium   ppm   ASTM D5185m   78           Phosphorus   ppm   ASTM D5185m   0           Sulfur   ppm   ASTM D5185m   25193           CONTAMINANTS   method   limit/base   current   history1   history2       Sodium   ppm   ASTM D5185m   >50   <1           Potassium   ppm   ASTM D5185m   >20   31           Particles >4μm   ASTM D7647   >5000   2161           Particles >4μm   ASTM D7647   >1300   175           Particles >21μm   ASTM D7647   >160   10           Particles >21μm   ASTM D7647   >40   2           Particles >38μm   ASTM D7647   >10   0           Particles >71μm   ASTM D7647   >3   0             Particles >71μm   ASTM D7647   >3   0             Particles >71μm   ASTM D7647   >3   0             Particles >71μm   ASTM D7647   >3   0               Particles >71μm   ASTM D7647   >3   0	Cadmium		ASTM D5185m		2		
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         8             Manganese         ppm         ASTM D5185m         0             Magnesium         ppm         ASTM D5185m         <1	Boron	ppm	ASTM D5185m		0		
Manganese         ppm         ASTM D5185m         0             Magnesium         ppm         ASTM D5185m         <1	Barium	ppm	ASTM D5185m		3		
Magnesium         ppm         ASTM D5185m         <1             Phosphorus         ppm         ASTM D5185m         78             Zinc         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         25193             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >50         <1	Molybdenum	ppm	ASTM D5185m		8		
Calcium         ppm         ASTM D5185m         3             Phosphorus         ppm         ASTM D5185m         78             Zinc         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         25193             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >50         <1	Manganese	ppm	ASTM D5185m		0		
Phosphorus         ppm         ASTM D5185m         78             Zinc         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         25193             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >50         <1             Sodium         ppm         ASTM D5185m         >20         31             Potassium         ppm         ASTM D5185m         >20         31             FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4μm         ASTM D7647         >5000         2161             Particles >6μm         ASTM D7647         >1300         175             Particles >21μm         ASTM D7647         >40         2             Particles >71μm         ASTM D7647         >10         0	Magnesium	ppm	ASTM D5185m		<1		
Sulfur   ppm   ASTM D5185m   25193       Sulfur   ppm   ASTM D5185m   25193         Sulfur   ppm   ASTM D5185m   25193         Sulfur   ppm   ASTM D5185m   >50   <1           Sodium   ppm   ASTM D5185m   <1                     Sodium   ppm   ASTM D5185m   >20   31               Sulfur   Particles >4μm   ASTM D7647   >5000   2161             Particles >6μm   ASTM D7647   >1300   175         Particles >21μm   ASTM D7647   >160   10         Particles >21μm   ASTM D7647   >40   2         Particles >38μm   ASTM D7647   >10   0         Particles >71μm   ASTM D7647   >3   0	Calcium	ppm	ASTM D5185m		3		
Sulfur   ppm   ASTM D5185m   25193       Sulfur   ppm   ASTM D5185m   25193         Sulfur   ppm   ASTM D5185m   25193         Sulfur   ppm   ASTM D5185m   >50   <1           Sodium   ppm   ASTM D5185m   <1                     Sodium   ppm   ASTM D5185m   >20   31               Sulfur   Particles >4μm   ASTM D7647   >5000   2161             Particles >6μm   ASTM D7647   >1300   175         Particles >21μm   ASTM D7647   >160   10         Particles >21μm   ASTM D7647   >40   2         Particles >38μm   ASTM D7647   >10   0         Particles >71μm   ASTM D7647   >3   0	Phosphorus	ppm	ASTM D5185m		78		
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >50         <1	Zinc	ppm	ASTM D5185m		0		
Silicon   ppm   ASTM D5185m   >50   <1	Sulfur	ppm	ASTM D5185m		25193		
Sodium   ppm   ASTM D5185m   <1         Potassium   ppm   ASTM D5185m   >20   31       FLUID CLEANLINESS   method   limit/base   current   history1   history2     Particles >4μm   ASTM D7647   >5000   2161         Particles >6μm   ASTM D7647   >1300   175         Particles >14μm   ASTM D7647   >160   10         Particles >21μm   ASTM D7647   >40   2         Particles >38μm   ASTM D7647   >10   0         Particles >71μm   ASTM D7647   >3   0	CONTAMINANTS	3	method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185m         >20         31             FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4μm         ASTM D7647         >5000         2161             Particles >6μm         ASTM D7647         >1300         175             Particles >14μm         ASTM D7647         >160         10             Particles >21μm         ASTM D7647         >40         2             Particles >38μm         ASTM D7647         >10         0             Particles >71μm         ASTM D7647         >3         0	Silicon	ppm	ASTM D5185m	>50	<1		
FLUID CLEANLINESS         method         limit/base         current         history1         history2           Particles >4μm         ASTM D7647         >5000         2161             Particles >6μm         ASTM D7647         >1300         175             Particles >14μm         ASTM D7647         >160         10             Particles >21μm         ASTM D7647         >40         2             Particles >38μm         ASTM D7647         >10         0             Particles >71μm         ASTM D7647         >3         0	Sodium	ppm	ASTM D5185m		<1		
Particles >4μm       ASTM D7647       >5000       2161           Particles >6μm       ASTM D7647       >1300       175           Particles >14μm       ASTM D7647       >160       10           Particles >21μm       ASTM D7647       >40       2           Particles >38μm       ASTM D7647       >10       0           Particles >71μm       ASTM D7647       >3       0	Potassium	ppm	ASTM D5185m	>20	31		
Particles >6μm       ASTM D7647       >1300       175           Particles >14μm       ASTM D7647       >160       10           Particles >21μm       ASTM D7647       >40       2           Particles >38μm       ASTM D7647       >10       0           Particles >71μm       ASTM D7647       >3       0	FLUID CLEANLIN	NESS	method	limit/base	current	history1	history2
Particles >14μm       ASTM D7647       >160       10           Particles >21μm       ASTM D7647       >40       2           Particles >38μm       ASTM D7647       >10       0           Particles >71μm       ASTM D7647       >3       0	Particles >4μm		ASTM D7647	>5000	2161		
Particles >21μm       ASTM D7647       >40       2           Particles >38μm       ASTM D7647       >10       0           Particles >71μm       ASTM D7647       >3       0	Particles >6µm		ASTM D7647	>1300	175		
Particles >38μm       ASTM D7647       >10       0            Particles >71μm       ASTM D7647       >3       0	Particles >14µm		ASTM D7647	>160	10		
Particles >71μm ASTM D7647 >3 <b>0</b>	Particles >21µm		ASTM D7647	>40	2		
Particles >71μm ASTM D7647 >3 <b>0</b>	Particles >38µm		ASTM D7647	>10	0		
	Particles >71μm		ASTM D7647	>3	0		
	Oil Cleanliness				18/15/10		



## **OIL ANALYSIS REPORT**



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

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