

## **OIL ANALYSIS REPORT**

### Area **American Demo** SANY SY500H TA891 (S/N SY0507CC00268)

**Diesel Engine** 

Fluid DIESEL ENGINE OIL SAE 15W40 (--- GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

#### Wear

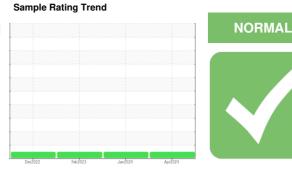
Metal levels are typical for a new component breaking in.

#### Contamination

There is no indication of any contamination in the oil.

#### Fluid Condition

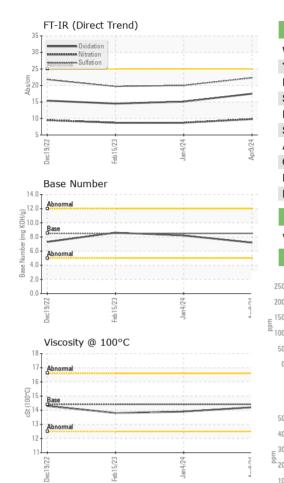
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0115521	LW0008262	LW0006609
Sample Date		Client Info		09 Apr 2024	04 Jan 2024	15 Feb 2023
Machine Age	hrs	Client Info		1564	1016	653
Oil Age	hrs	Client Info		1564	1016	653
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATI	ON	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	15	10	11
Chromium	ppm	ASTM D5185m	>20	1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	<1
Titanium	ppm	ASTM D5185m		1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	1	<1	2
Lead	ppm	ASTM D5185m	>40	2	1	0
Copper	ppm	ASTM D5185m	>330	2	1	2
Tin	ppm	ASTM D5185m	>15	1	1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
Cadmium	ppm	ASTM D5185m		1	0	0
Cadiman	ppm	AO INI DO IOOIII		I	0	0
ADDITIVES	ppin	method	limit/base	current	0 history1	history2
	ppm		limit/base 250		-	-
ADDITIVES		method		current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	250	current 24	history1 21	history2 27
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	250 10	current 24 <1	history1 21 0	history2 27 0
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	250 10	current 24 <1 28	history1 21 0 42	history2 27 0 37
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100	current 24 <1 28 1	history1 21 0 42 <1	history2 27 0 37 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150	current 24 <1 28 1 767	history1 21 0 42 <1 899 1608 1209	history2 27 0 37 <1 604 1548 1021
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000	current           24           <1           28           1           767           1280	history1 21 0 42 <1 899 1608	history2 27 0 37 <1 604 1548
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150	current           24           <1           28           1           767           1280           1065	history1 21 0 42 <1 899 1608 1209	history2 27 0 37 <1 604 1548 1021
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350	current           24           <1           28           1           767           1280           1065           1160	history1 21 0 42 <1 899 1608 1209 1464	history2           27           0           37           <1           604           1548           1021           1228
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250	current           24           <1           28           1           767           1280           1065           1160           3263	history1           21           0           42           <1           899           1608           1209           1464           3794           history1           4	history2 27 0 37 <1 604 1548 1021 1228 3133
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250	24         <1         28         1         767         1280         1065         1160         3263         current	history1           21           0           42           <1           899           1608           1209           1464           3794           history1	history2         27         0         37         <1         604         1548         1021         1228         3133         history2         4         4
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 <b>limit/base</b>	current           24           <1           28           1           767           1280           1065           1160           3263           current           4	history1           21           0           42           <1           899           1608           1209           1464           3794           history1           4	history2           27           0           37           <1           604           1548           1021           1228           3133           history2           4
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	250 10 100 450 3000 1150 1350 4250 <b>limit/base</b> >25 >158	24         <1         28         1         767         1280         1065         1160         3263         current         4         4	history1           21           0           42           <1           899           1608           1209           1464           3794           history1           4           3	history2           27           0           37           <1           604           1548           1021           1228           3133           history2           4           4
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS	method           ASTM D5185m	250 10 100 450 3000 1150 1350 4250 <b>limit/base</b> >25 >158 >20	current         24         <1         28         1         767         1280         1065         1160         3263         current         4         4         4         4         4         4	history1           21           0           42           <1           899           1608           1209           1464           3794           history1           4           3           <1	history2         27         0         37         <1         604         1548         1021         1228         3133         history2         4         4         3
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m	250 10 100 450 3000 1150 1350 4250 25 >25 >158 >20 <b>limit/base</b>	current         24         <1         28         1         767         1280         1065         1160         3263         current         4         4         4         4         4         4         5000         5000         5000         5000         5000         6000         6000         6000         6000         6000         6000         7000         <	history1         21         0         42         <1         899         1608         1209         1464         3794         history1         4         3         <1         history1	history2         27         0         37         <1         604         1548         1021         1228         3133         history2         4         3         history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method           ASTM D5185m	250 10 100 450 3000 1150 1350 4250 <b>limit/base</b> >25 >158 >20 <b>limit/base</b> >3	current         24         <1         28         1         767         1280         1065         1160         3263         current         4         4         4         0.3	history1           21           0           42           <1           899           1608           1209           1464           3794           history1           4           3           <1           history1           0.2	history2         27         0         37         <1         604         1548         1021         1228         3133         history2         4         3         history2         0         0.2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm <b>TS</b> ppm ppm ppm	method           ASTM D5185m           ASTM D5185m	250 10 100 450 3000 1150 1350 4250 <b>imit/base</b> >25 >158 >20 <b>imit/base</b> >3 >20	current         24         <1         28         1         767         1280         1065         1160         3263         current         4         4         4         0.3         9.8	history1           21           0           42           <1           899           1608           1209           1464           3794           history1           4           3           <1           0           43           0.2           8.7	history2         27         0         37         <1         604         1548         1021         1228         3133         history2         4         4         3         history2         0.2         8.7
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm <b>TS</b> ppm ppm ppm	method           ASTM D5185m           ASTM D5185m	250 10 100 450 3000 1150 1350 4250 <b>imit/base</b> >25 >158 >20 <b>imit/base</b> >3 >20 >30	current         24         <1         28         1         767         1280         1065         1160         3263         current         4         4         0.3         9.8         22.3	history1         21         0         42         <1         899         1608         1209         1464         3794         history1         4         3         <1         history1         0.2         8.7         20.0	history2         27         0         37         <1         604         1548         1021         1228         3133         history2         4         3         history2         0.2         8.7         19.7



# **OIL ANALYSIS REPORT**



 VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
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	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPE		method	limit/base	current 14.2	history1	history2
Visc @ 100°C GRAPHS	cSt	ASTM D445	14.4	14.2	13.9	13.8
Iron (ppm)				Lead (ppm)		
250 Severe			10			
200 - 4			8	U + G		
Abnormal			6 Ed 4	Abnormal		
50			2			1
		+	+	0		
Dec19/22 Feb15/23		Jan4/24	Apr9/24	Dec19/22	-eb15/23	Apr9/24
Aluminum (ppm)				□ Chromium (µ	ш.	
50 Severe			5		- F · · · <b>/</b>	
			4			
a 30 20 Abnormal			E 2	Abnormal		
10			1			
		+	4	0	33	4
Dec19/22 Feb15/23		Jan4/24	Apr9/24	Dec19/22	Feb15/23	Apr9/24
Copper (ppm)				Silicon (ppm	)	
400 Severe			8			
300			6			
툡 200 -			E 4	Abnormal		
100-			2	0-		
		24			23	5
Dec19/22 Feb15/23		Jan4/24	Apr9/24	Dec19/22	Feb15/23	Apr9/24
Viscosity @ 100°	C			Base Numbe	LL	
Abnormal				0 T		
16			HOX B10	Abnormal		
Base 114 45 Abnormal			u jer	Base		
경 12- Abnormal			1.0.1 Base Number (mg KOH(g)	0 - Abnormal		
				0		
10		Jan 4/24	Apr9/24	Dec19/22	Feb15/23	Apr9/24

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)

Report Id: THOLYN [WUSCAR] 06146869 (Generated: 04/15/2024 09:59:30) Rev: 1

Certificate L2367

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