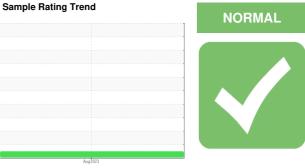
# Sullivan Palatek

## **OIL ANALYSIS REPORT**

# NOT GIVEN Machine Id 23AA00633 OR 23BE003769

Component

Compressor



#### DIAGNOSIS

#### Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

Moderate concentration of visible dirt/debris present in the oil.

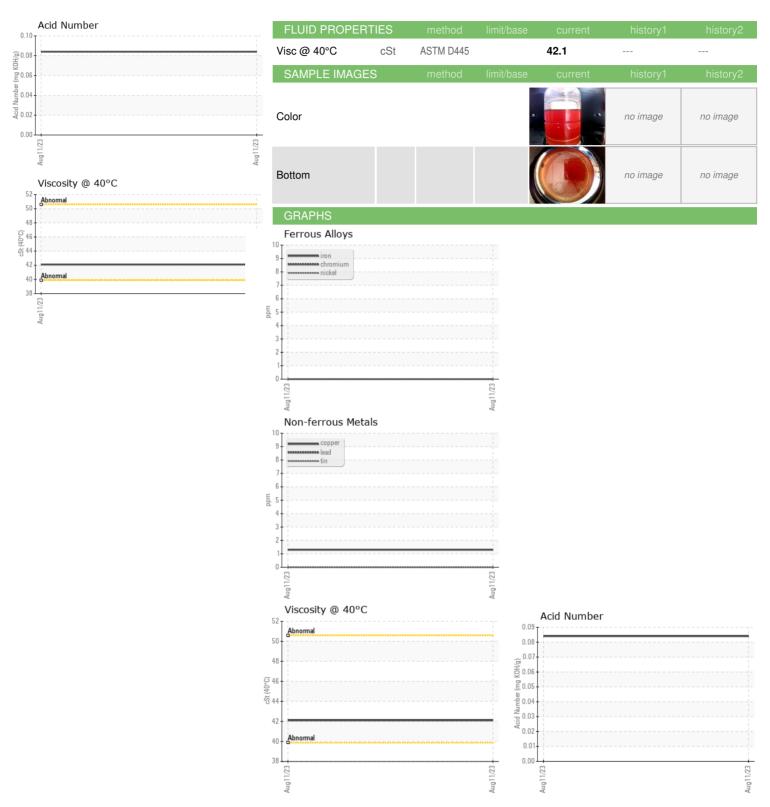
#### **Fluid Condition**

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

SAMPLE INFORMATION   method   limit/base   current   history1   history2					Aug2023		
Sample Number   Client Info   UCS05926186       Sample Date	SAMDLE INFORM	MATION	mothod			hiotory	hiotory?
Sample Date		VIATION		IIIIII/Dase			HISTOTYZ
Machine Age         hrs         Client Info         1000							
Oil Age         hrs         Client Info         1000					•		
Oil Changed Sample Status         Client Info         N/A             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >50         0             Chromium         ppm         ASTM D5185m         >10         0             Nickel         ppm         ASTM D5185m         0              Titanium         ppm         ASTM D5185m         0              Alluminum         ppm         ASTM D5185m         25         0             Lead         ppm         ASTM D5185m         >25         0             Lead         ppm         ASTM D5185m         >50         1             Copper         ppm         ASTM D5185m         >50         1             Vanadium         ppm         ASTM D5185m         0              Cadmium         ppm         ASTM D5185m         0							
NORMAL   Sample Status   Method   Imilibase   Current   history1   history2		hrs					
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >50         0			Client Info				
Iron	Sample Status				NORMAL		
Chromium	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>50	0		
Titanium	Chromium	ppm	ASTM D5185m	>10	0		
Stilver	Nickel	ppm	ASTM D5185m		0		
Aluminum	Titanium	ppm	ASTM D5185m		<1		
Lead	Silver	ppm	ASTM D5185m		0		
Copper         ppm         ASTM D5185m         >50         1             Tin         ppm         ASTM D5185m         >15         0             Vanadium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         0             Mangaesium         ppm         ASTM D5185m         0             Magnesium         ppm         ASTM D5185m         0             Phosphorus         ppm         ASTM D5185m         576             Zinc         ppm         ASTM D5185m         1590             Sulfur         ppm         ASTM D5185m         225	Aluminum	ppm	ASTM D5185m	>25	0		
Tin	Lead	ppm	ASTM D5185m	>25	0		
Tin	Copper	ppm	ASTM D5185m	>50	1		
Vanadium         ppm         ASTM D5185m         <1			ASTM D5185m	>15	0		
Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0             Barium         ppm         ASTM D5185m         0             Molybdenum         ppm         ASTM D5185m         0             Manganese         ppm         ASTM D5185m         0             Magnesium         ppm         ASTM D5185m         0             Calcium         ppm         ASTM D5185m         0             Phosphorus         ppm         ASTM D5185m         0             Silico         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         >25         3             Sodium         ppm         ASTM D5185m         >20         <1             Potassium         ppm         ASTM D5185m         >20 <t< th=""><th>Vanadium</th><th></th><th>ASTM D5185m</th><th></th><th>&lt;1</th><th></th><th></th></t<>	Vanadium		ASTM D5185m		<1		
ADDITIVES	Cadmium	ppm	ASTM D5185m		0		
Boron	ADDITIVEC	•••	and the section	11		la facilità de considera	la la tarre O
Barium	ADDITIVES			ilmit/base		nistory i	nistory2
Molybdenum         ppm         ASTM D5185m         0             Manganese         ppm         ASTM D5185m         1             Magnesium         ppm         ASTM D5185m         1             Calcium         ppm         ASTM D5185m         576             Phosphorus         ppm         ASTM D5185m         576             Zinc         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         1590             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         3             FLUID DEGRADATION         method         limit/base         current         history1         history2           FLUID DEGRADATION         method         limit/base         current         history1         history2           VISUAL         method         limit/base         current         history1         history2           <	Boron		ASTM D5185m				
Manganese         ppm         ASTM D5185m         0             Magnesium         ppm         ASTM D5185m         1             Calcium         ppm         ASTM D5185m         0             Phosphorus         ppm         ASTM D5185m         576             Zinc         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         1590             Sulfur         ppm         ASTM D5185m         25         3             Sodium         ppm         ASTM D5185m         >25         3             Potassium         ppm         ASTM D5185m         >20         <1             Potassium         ppm         ASTM D5185m         >20         <1             Potassium         ppm         ASTM D5185m         >20         <1             FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)		ppm	ASTM D5185m		-		
Magnesium         ppm         ASTM D5185m         1             Calcium         ppm         ASTM D5185m         0             Phosphorus         ppm         ASTM D5185m         576             Zinc         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         1590             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         3             Sodium         ppm         ASTM D5185m         >20         <1             Potassium         ppm         ASTM D5185m         >20         <1             Potassium         ppm         ASTM D5185m         >20         <1             FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOHlg         ASTM D8045         0.084 <td< th=""><th>Molybdenum</th><th>ppm</th><th>ASTM D5185m</th><th></th><th>-</th><th></th><th></th></td<>	Molybdenum	ppm	ASTM D5185m		-		
Calcium         ppm         ASTM D5185m         0             Phosphorus         ppm         ASTM D5185m         576             Zinc         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         1590             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         3             Sodium         ppm         ASTM D5185m         >20         <1             Potassium         ppm         ASTM D5185m         >20         <1             FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOHlg         ASTM D8045         0.084             VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE		ppm			-		
Phosphorus         ppm         ASTM D5185m         576             Zinc         ppm         ASTM D5185m         0             Sulfur         ppm         ASTM D5185m         1590             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         3             Sodium         ppm         ASTM D5185m         >20         <1             Potassium         ppm         ASTM D5185m         >20         <1             FLUID DEGRADATION         method         limit/base         current         history1         history2           FLUID DEGRADATION         method         limit/base         current         history1         history2           VISUAL         method         limit/base         current         history1         history2           VISUAL         method         limit/base         current         history1         history2           VISUAL         NONE         NONE<	-				-		
Zinc		ppm			•		
Sulfur         ppm         ASTM D5185m         1590             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         3             Sodium         ppm         ASTM D5185m         >20         <1             Potassium         ppm         ASTM D5185m         >20         <1             FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         0.084             VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Silt         scalar         *Visual </th <th>· ·</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th>	· ·						
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         3             Sodium         ppm         ASTM D5185m         >20         <1             Potassium         ppm         ASTM D5185m         >20         <1             FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         0.084             VISUAL         method         limit/base         current         history1         history2           White Metal         scalar         *Visual         NONE             Yellow Metal         scalar         *Visual         NONE         NONE             Precipitate         scalar         *Visual         NONE         NONE             Silt         scalar         *Visual         NONE         NONE             Debris         scalar         *Visual <t< th=""><th>-</th><th>ppm</th><th></th><th></th><th>-</th><th></th><th></th></t<>	-	ppm			-		
Silicon         ppm         ASTM D5185m         >25         3             Sodium         ppm         ASTM D5185m         <1             Potassium         ppm         ASTM D5185m         >20         <1             FLUID DEGRADATION         method         limit/base         current         history1         history2           Acid Number (AN)         mg KOH/g         ASTM D8045         0.084             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<	Sulfur	ppm	ASTM D5185m		1590		
Sodium         ppm         ASTM D5185m         <1	CONTAMINANTS	5	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 <1 FLUID DEGRADATION method limit/base current history1 history2  Acid Number (AN) mg KOH/g ASTM D8045 0.084  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 NONE NONE  Appearance scalar *Visual NORML NORML  Emulsified Water scalar *Visual >0.1 NEG	Silicon	ppm	ASTM D5185m	>25	3		
FLUID DEGRADATION method limit/base current history1 history2  Acid Number (AN) mg KOH/g ASTM D8045 0.084  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  Silt scalar *Visual NONE NONE  Sand/Dirt scalar *Visual NONE NONE  Sand/Dirt scalar *Visual NONE NONE  Appearance scalar *Visual NORML NORML  Codor scalar *Visual NORML NORML  Emulsified Water scalar *Visual >0.1 NEG	Sodium	ppm	ASTM D5185m		<1		
Acid Number (AN)         mg KOH/g         ASTM D8045         0.084             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         MODER             Debris         scalar         *Visual         NONE         NONE             Sand/Dirt         scalar         *Visual         NORML         NORML             Appearance         scalar         *Visual         NORML         NORML             Codor         scalar         *Visual         NORML         NORML             Emulsified Water         scalar         *Visual         >0.1         NEG	Potassium	ppm	ASTM D5185m	>20	<1		
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 MODER  Sand/Dirt scalar *Visual NONE NONE  Appearance scalar *Visual NORML NORML  Appearance scalar *Visual NORML NORML  Emulsified Water scalar *Visual >0.1 NEG	FLUID DEGRAD	NOITA	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         MODER             Sand/Dirt         scalar         *Visual         NONE         NORML             Appearance         scalar         *Visual         NORML         NORML             Odor         scalar         *Visual         NORML         NORML             Emulsified Water         scalar         *Visual         >0.1         NEG	Acid Number (AN)	mg KOH/g	ASTM D8045		0.084		
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         MODER             Sand/Dirt         scalar         *Visual         NONE         NORML             Appearance         scalar         *Visual         NORML         NORML             Odor         scalar         *Visual         NORML         NORML             Emulsified Water         scalar         *Visual         >0.1         NEG	VISUAL		method_	limit/base	current	history1	history2
Yellow Metal         scalar         *Visual         NONE         NONE             Precipitate         scalar         *Visual         NONE         NONE             Silt         scalar         *Visual         NONE         NONE             Debris         scalar         *Visual         NONE         MODER             Sand/Dirt         scalar         *Visual         NONE         NONE             Appearance         scalar         *Visual         NORML         NORML             Odor         scalar         *Visual         NORML         NORML             Emulsified Water         scalar         *Visual         >0.1         NEG	White Metal	scalar	*Visual	NONE	NONE		
Precipitate         scalar         *Visual         NONE         NONE             Silt         scalar         *Visual         NONE         NONE             Debris         scalar         *Visual         NONE         MODER             Sand/Dirt         scalar         *Visual         NONE         NONE             Appearance         scalar         *Visual         NORML         NORML             Odor         scalar         *Visual         NORML         NORML             Emulsified Water         scalar         *Visual         >0.1         NEG					NONE		
Silt scalar *Visual NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE Sand/Dirt Scalar *Visual NORML NORML Scalar *Visual							
Debris         scalar         *Visual         NONE         MODER             Sand/Dirt         scalar         *Visual         NONE         NONE             Appearance         scalar         *Visual         NORML         NORML             Odor         scalar         *Visual         NORML         NORML             Emulsified Water         scalar         *Visual         >0.1         NEG	·						
Sand/Dirtscalar*VisualNONENONEAppearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEG							
Appearancescalar*VisualNORMLNORMLOdorscalar*VisualNORMLNORMLEmulsified Waterscalar*Visual>0.1NEG							
Odor scalar *Visual NORML NORML Emulsified Water scalar *Visual >0.1 NEG							
Emulsified Water scalar *Visual >0.1 NEG							



### **OIL ANALYSIS REPORT**







Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10606133

Test Package : IND 2

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : UCS05926186

: 05926186

Received Diagnosed

: 16 Aug 2023 : 17 Aug 2023 Diagnostician : Don Baldridge

PADEN CITY, WV US 26159

Contact: DAN LYNCH

**PAUL WISSMACH GLASS** 

DAN@WISSMACHGLASS.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)

F: (304)337-8800