### Sullivan Palatek

# **OIL ANALYSIS REPORT**

## PALASYN 45 PALATEK 1807190008 - NDSU RESEARCH CARRINGTON Component

Compressor

#### Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

### Wear

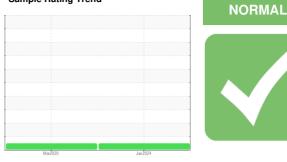
All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

#### Fluid Condition

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



Sample Rating Trend



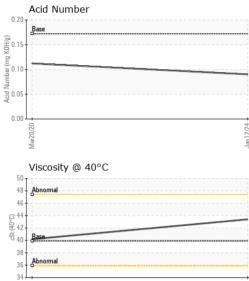
SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		UCS06065720	UCS04951402	
Sample Date		Client Info		12 Jan 2024	20 Mar 2020	
Machine Age	hrs	Client Info		4233	0	
Oil Age	hrs	Client Info		700	2000	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
		and the set	Line it //n none		la balance at	la ta ta mu O
CONTAMINATION	N	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	0	0	
Chromium	ppm	ASTM D5185m	>10	0	0	
Nickel	ppm	ASTM D5185m		0	<1	
Titanium	ppm	ASTM D5185m		0	0	
Silver	ppm	ASTM D5185m		0	0	
Aluminum	ppm	ASTM D5185m	>25	0	0	
Lead	ppm	ASTM D5185m	>25	0	<1	
Copper	ppm	ASTM D5185m	>50	<1	<1	
Tin	ppm	ASTM D5185m	>15	0	0	
Antimony	ppm	ASTM D5185m			0	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		0	<1	
ADDITIVES		method	limit/base	current	history1	history2
Boron	000	ASTM D5185m	0.0	0	0	
Barium	ppm ppm	ASTM D5185m	0.0	0	0	
	ppm	ASTM D5185m	0.0	0	2	
Molybdenum Manganese		ASTM D5185m	•	0	0	
Manganese	ppm	ASTM D5185m	0.0	0	0	
Calcium	ppm ppm	ASTM D5185m	0.0	0	0	
		ASTM D5185m	966	0 545	609	
Phosphorus Zinc	ppm	ASTM D5185m		545 0	609 4	
Sulfur	ppm	ASTM D5185m	1309	1035	4	
	ppm	ASTIVI DOTODIII	1309	1035		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	1	4	
Sodium	ppm	ASTM D5185m		0	0	
Potassium	ppm	ASTM D5185m	>20	0	0	
FLUID DEGRADA		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.172	0.09	0.112	
( )	39		-		- —	



Mar20/20

# **OIL ANALYSIS REPORT**

VISUAL



	White Metal	scalar	*Visual	NONE	LIGHT	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
	Precipitate	scalar	*Visual	NONE	NONE	NONE	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris						
		scalar	*Visual	NONE	NONE	NONE	
4	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
4 C C L ne	Appearance	scalar	*Visual	NORML	NORML	NORML	
1	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	
	Free Water	scalar	*Visual		NEG	NEG	
				11 11 11			
	FLUID PROPER		method	limit/base	current	history1	history2
	Visc @ 40°C	cSt	ASTM D445	39.9	43.4	40.2	
	SAMPLE IMAGE	ES	method	limit/base	current	history1	history2
400 C L me	Color						no image
	Bottom					08	no image
	E 4						
	0 nickel			Jani 2224 1000 Kumber 1000 Kum	Acid Number		
	Non-ferrous Meta Non-ferrous Meta Non-ferrous Meta Copper Uiscosity @ 40°C			Jan 1224 Jan	Base		
	Non-ferrous Meta			12020 12020 100 K0H(a) 12020 100 K0H(a) 12020 1200 1200 12000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 10			
Laboratorv	Non-ferrous Meta Non-ferrous Meta Und Non-ferrous Meta Copper Uiscosity @ 40°C Abnomal Difference Differen		son Ave Ca	Jan 12/24 Acid Mumber (mg 0.00 Acid Mumber (mg 0.00	OZ/02/mW	JE	
Laboratory Sample No.	Non-ferrous Meta Non-ferrous Meta Non-ferrous Meta Copper Uiscosity @ 40°C			Jan 12/24 Acid Mumber (mg 0.00 Acid Mumber (mg 0.00	OZ/02/mW	JE	
	Non-ferrous Meta Non-ferrous Meta UCCCPEW Viscosity @ 40°C Viscosity @ 40°C Viscosity @ 40°C Non-ferrous Meta UCCCPEW Viscosity @ 40°C	501 Madia	dd :19.	47271uer (0.020 HOH0X Build HOX BUIL	OZ/02/mW		МСО-МАХАІ
Sample No.	Non-ferrous Meta Non-ferrous Meta UCC Viscosity @ 40°C Viscosity @ 40°C Solution WearCheck USA - UCS06065720 : 06065720	501 Madia Recieved	d : 19. ed : 22.	(0.22) (0.15 (0.16) (0.00) (0.17) (0.00)	OZ/02/mW		<b>MCO-MAXAI</b> ST FARGO, N
Sample No. Lab Number Unique Numbe	Non-ferrous Meta Non-ferrous Meta Viscosity @ 40°C Viscosity @ 40°C Source WearCheck USA - UCS06065720 : 06065720 : 06065720 : 10837102	501 Madia Recieved Diagnos	d : 19. ed : 22.	(0.22) (0.15 (0.16) (0.17) (0.17) (0.17) (0.17) (0.17) (0.17) (0.10)	OZ/02/mW	WES	MCO-MAXAI ST FARGO, N US 5807
Sample No. Lab Number Unique Numbe Test Package	Non-ferrous Meta Non-ferrous Meta Viscosity @ 40°C Viscosity @ 40°C Source WearCheck USA - UCS06065720 i 06065720 i 10837102 e : IND 2	501 Madia Recieved Diagnost	d : 19 ed : 22 tician : Ang	(1) (1) (1) (1) (1) (1) (1) (1)	OZ/02/mW	WES	MCO-MAXAI ST FARGO, N US 5807 ontact: DALE
Sample No. Lab Number	Non-ferrous Meta Non-ferrous Meta UCC Viscosity @ 40°C Viscosity @ 40°C Solution WearCheck USA - UCS06065720 : 06065720	501 Madia Recieved Diagnos	d : 19. ed : 22.	(0.22) (0.15 (0.16) (0.17) (0.17) (0.17) (0.17) (0.17) (0.17) (0.10)	OZ/02/mW		ST FARGO, N
Sample No. Lab Number Unique Numbe Test Package	Non-ferrous Meta Non-ferrous Meta Viscosity @ 40°C Viscosity @ 40°C Source WearCheck USA - UCS06065720 i 06065720 i 10837102 e : IND 2	501 Madia Recieved Diagnost	d : 19 ed : 22 tician : Ang	(1) (1) (1) (1) (1) (1) (1) (1)	OZ/02/mW	WES	MCO-MAXAII ST FARGO, NI US 5807 ontact: DALE
Sample No. Lab Number Unique Numbe Test Package is sample report	Non-ferrous Meta Non-ferrous Meta Viscosity @ 40°C Viscosity @ 40°C Source WearCheck USA - UCS06065720 : 06065720 : 06065720 : 10837102	501 Madia Recieved Diagnos Diagnost	d : 19 ed : 22 tician : Ang 300-237-1365	(0,0.20 (0,10) (0,10	OZ/02/mW	WES Co dalek@jem	MCO-MAXAI ST FARGO, N US 5807

Contact/Location: DALE K - UCJEMWES