

## **OIL ANALYSIS REPORT**

Sample Rating Trend

ISO

#### Area Skydrol Room/RIG 19 Machine Id DEC 2643

Component Hydraulic System Fluid SKYDROL LD-4 (--- GAL)

#### DIAGNOSIS

#### Recommendation

We recommend you service the filters on this component. Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

### Wear

All component wear rates are normal.

#### Contamination

There is a light amount of silt (particulates < 14 microns in size) present in the oil. The water content is negligible.

### Fluid Condition

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

				Mar2024			
SAMPLE INFORM	ATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		WC0920422			
Sample Date		Client Info		12 Mar 2024			
Machine Age	hrs	Client Info		0			
Oil Age	hrs	Client Info		0			
Oil Changed		Client Info		N/A			
Sample Status				ATTENTION			
WEAR METALS		method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185(m)	>20	<1			
Chromium	ppm	ASTM D5185(m)	>20	0			
Nickel	ppm	ASTM D5185(m)	>20	<1			
Titanium	ppm	ASTM D5185(m)		0			
Silver	ppm	ASTM D5185(m)		0			
Aluminum	ppm	ASTM D5185(m)	>20	<1			
Lead	ppm	ASTM D5185(m)	>20	0			
Copper	ppm	ASTM D5185(m)	>20	0			
Tin	ppm	ASTM D5185(m)	>20	0			
Antimony	ppm	ASTM D5185(m)		0			
Vanadium	ppm	ASTM D5185(m)		0			
Beryllium	ppm	ASTM D5185(m)		0			
Cadmium	ppm	ASTM D5185(m)		0			
ADDITIVES		method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185(m)	0	<1			
Barium	ppm	ASTM D5185(m)	0	0			
Molybdenum	ppm	ASTM D5185(m)	0	0			
Manganese	ppm	ASTM D5185(m)		0			
Magnesium	ppm	ASTM D5185(m)	0	<1			
Calcium	ppm	ASTM D5185(m)	0	1			
Phosphorus	ppm	ASTM D5185(m)	20000	38982			
Zinc	ppm	ASTM D5185(m)	0	<1			
Sulfur	ppm	ASTM D5185(m)	1900	1679			
Lithium	ppm	ASTM D5185(m)		<1			
CONTAMINANTS		method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185(m)	>15	0			
Sodium	ppm	ASTM D5185(m)		2			
Potassium	ppm	ASTM D5185(m)	>20	21			
Water	%	ASTM D6304*	>0.6	0.129			
ppm Water	ppm	ASTM D6304*	>6000	1291			
FLUID CLEANLIN	ESS	method	limit/base	current	history1	history2	
Particles >4µm		ASTM D7647	>5000	8188			
Particles >6µm		ASTM D7647	>1300	967			
Particles >14µm		ASTM D7647	>160	18			
Particles >21µm		ASTM D7647		8			
Particles >38µm		ASTM D7647	>10	3			
Particles >71µm		ASTM D7647		2			
Oil Cleanliness		ISO 4406 (c)	>19/17/14	20/17/11			
Un Ultarini 1655		100 4400 (C)	213/11/14	- 20/11/11			



# **OIL ANALYSIS REPORT**

10k -	Particle Trend	FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Ē 8k-	4μm 6μm	Acid Number (AN)	mg KOH/g	ASTM D974*	0.10	0.01		
- [] saj 6k -	14μm	VISUAL		method	limit/base	current	history1	history2
number of particles (1 8 8 7 8	Abnormal	White Metal	scalar	Visual*	NONE	NONE		
Jaquinu 2k -		Yellow Metal	scalar	Visual*	NONE	NONE		
		Precipitate	scalar	Visual*	NONE	NONE		
0k -	2/24 -	Silt	scalar	Visual*	NONE	NONE		
	Mar12/24	Debris	scalar	Visual*	NONE	NONE		
-	Water (KF)	Sand/Dirt	scalar	Visual*	NONE	NONE		
14000		Appearance	scalar	Visual*	NORML	NORML		
12000 · 10000 ·	Severe	Odor Emulsified Water	scalar scalar	Visual* Visual*	NORML >0.6	NORML NEG		
r (ppm)	Abramal	Free Water	scalar	Visual*	>0.0	NEG		
ate 6000 ·	Abnormal	FLUID PROPERT	IES	method	limit/base	current	history1	history2
2000 -		Visc @ 40°C	cSt	ASTM D7279(m)	11.42	9.5		
0-	Mar12/24 + Mar12/24 +	SAMPLE IMAGES	6	method	limit/base	current	history1	history2
1.60 1.40 ( <sup>B</sup> )/ 1.20	≊ ≊ Acid Number Severe	Color					no image	no image
4cid Wrumper (mg KOH/g) 0.8.0 mg KOH/g) 0.8.0 mg KOH/g)	Abnormal	Bottom					no image	no image
≪ 0.20 0.00	Base	GRAPHS						
0.00	Mar12/24	Ferrous Alloys				Particle Count		
	Mar	10 iron 1			491,520			1 <sup>26</sup>
	Water (KF)	E 5-			122,880 -	Severe		-24
14000 - 12000 -	Severe				30,720	· · · · ·		-22
10000					5 E 7,680	Abnormal		-20 180 4406:1999 CleanIness -16 -14 -14
(mg 8000 -	A	Mar12/24			Mar12/24 s {per 1 m]]		s	-18 406:11
4000 - 4000 - 4000 -	Abnormal	 Non-ferrous Metal	S		Mar12/24 1.950 1000'	1.		-16 Cle
2000		10 copper			uper of p		•	-14 10
0-		E 5-			\	-12 Code		
	Mar12/24				= 30-			+10
		0			4			
14-	Viscosity @ 40°C	flar12//			Mar12/24			-0 -
12-	Severe Ponorma	Z Viscosity @ 40°C			< 0. 4	Acid Number	14µ 21µ	38µ 71µ
	Base	14 Severemal			음 운 2.00	[ ]		
cSt (40°C)		12 - <b>Base</b>			() () () () () () () () () () () () () (	Severe Abnormal		
8 8-	Abnormal	(0,010 (0,010 73 8 Abnormal Severe			1.00 	Q		
6 -	Severe e	6 4				Base		
4	24	Mar12/24			Mar12/24	12/24		12/24
	Marl 2	Mai			Mai	Marl		Mari
	Laboratory Sample No. Lab Number Test Package To discuss this sample report, Test denoted (*) outside scope Validity of results and interpre	: 5746990 : IND 2 ( Additional Tes contact Customer Servi e of accreditation, (m) m	Recei Teste Diagn ts: KF, T ce at 1-8 ethod mo	ved : 13 d : 14 losed : 14 AN Man ) 00-268-213 bodified, (e) te	Mar 2024 Mar 2024 Mar 2024 - We sted at extern	es Davis sal lab.	574 Contac stuart.potter@sa	ding Systems 4 Monarch Ave Ajax, ON CA L1S 2G8 t: Stuart Potter frangroup.com T: (905)683-6983

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