

# **OIL ANALYSIS REPORT**

# Area MINING Machine Id ME-100 KOMATSU PC360 A36184

Diesel Engine

Fluid SCHAEFFER SUPREME 7000 (--- GAL)

#### DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor.

#### Wear

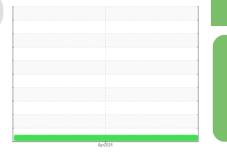
All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

## Fluid Condition

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



Sample Rating Trend



NORMAL

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		WC0920461			
Sample Date		Client Info		06 Apr 2024			
Machine Age	hrs	Client Info		6806			
Oil Age	hrs	Client Info		331			
Oil Changed		Client Info		Changed			
Sample Status				NORMAL			
CONTAMINATION		method	limit/base	current	history1	history2	
Fuel		WC Method	>5	<1.0			
Water		WC Method	>0.2	NEG			
Glycol		WC Method		NEG			
WEAR METALS		method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>100	11			
Chromium	ppm	ASTM D5185m	>20	0			
Nickel	ppm	ASTM D5185m	>4	0			
Titanium	ppm	ASTM D5185m		0			
Silver	ppm	ASTM D5185m	>3	0			
Aluminum	ppm	ASTM D5185m	>20	4			
Lead	ppm	ASTM D5185m	>40	0			
Copper	ppm	ASTM D5185m	>330	0			
Tin	ppm	ASTM D5185m	>15	0			
Vanadium	ppm	ASTM D5185m		0			
Cadmium	ppm	ASTM D5185m		0			
ADDITIVES		method	limit/base	current	history1	history2	
ADDITIVES	maa		limit/base		history1	history2	
ADDITIVES Boron	ppm	ASTM D5185m	limit/base	43			
ADDITIVES Boron Barium	ppm	ASTM D5185m ASTM D5185m		43 0			
ADDITIVES Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	43 0 68			
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		43 0 68 0			
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 1000	43 0 68			
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50	43 0 68 0 55			
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 1000 1400	43 0 68 0 55 2239	  		
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 1000 1400 985	43 0 68 0 55 2239 1037			
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 1000 1400 985 1060	43 0 68 0 55 2239 1037 1222			
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 1000 1400 985 1060 4000	43 0 68 0 55 2239 1037 1222 5016			
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 1000 1400 985 1060 4000	43 0 68 0 55 2239 1037 1222 5016 current	     history1	     history2	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 1000 1400 985 1060 4000 <b>limit/base</b> >25	43 0 68 0 55 2239 1037 1222 5016 current 4	     history1 	     history2	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b> ASTM D5185m	50 1000 1400 985 1060 4000 <b>limit/base</b> >25	43 0 68 0 55 2239 1037 1222 5016 current 4 3	     history1	     history2	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	50 1000 1400 985 1060 4000 <b>limit/base</b> >25 >20	43 0 68 0 55 2239 1037 1222 5016 current 4 3 0	     history1  	     history2	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	50 1000 1400 985 1060 4000 <b>limit/base</b> >25 -20 <b>limit/base</b>	43 0 68 0 55 2239 1037 1222 5016 current 4 3 0 0	     history1   history1	     history2   history2	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Sulfur Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	50 1000 1400 985 1060 4000 limit/base >25 >20 limit/base >3	43 0 68 0 55 2239 1037 1222 5016 current 4 3 0 current 0.4	     history1   history1  history1	     history2   history2	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Sulfur Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	50 50 1400 985 1060 4000 imit/base >25 >20 imit/base >20	43 0 68 0 55 2239 1037 1222 5016 current 4 3 0 current 0.4 11.2	     history1   history1  	history2 history2 history2	
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	50 1000 1400 985 1060 4000 <b>imit/base</b> >25 >20 <b>imit/base</b> >3 >20 >30	43 0 68 0 55 2239 1037 1222 5016 <u>current</u> 4 3 0 <u>current</u> 0.4 11.2 21.7	      history1  history1  history1	    history2  history2  history2	



# **OIL ANALYSIS REPORT**

FT-IR (Direct Trend)	VISUAL	metl	nod limit/base	current	history1	history2
Oxidation	White Metal	scalar *Visua	al NONE	NONE		
sussesses Sulfation	Yellow Metal	scalar *Visua		NONE		
Abnomal	Precipitate	scalar *Visua		NONE		
₹ <sub>20</sub> -	Silt	scalar *Visua		NONE		
15-	Debris	scalar *Visu		NONE		
	Sand/Dirt	scalar *Visua		NONE		
10 + + + 10	Appearance	scalar *Visua		NORML		
Apr6/24	Odor	scalar *Visua		NORML		
	Emulsified Water	scalar *Visua		NEG		
Base Number	Free Water	scalar *Visua		NEG		
	FLUID PROPER			current	history1	history2
(610.0 - Base Hor 8.0	Visc @ 100°C		D445 15	13.9		
Ta 6.0	GRAPHS					
2.0 -	Ferrous Alloys					
24 24 24	12 10					
Apr6/24	10 chromium					
Viscosity @ 100°C	ق <u>_</u> 6					
19	4					
17 - Abnormal						
C 16 - Base 0 15 - Base	2-					
€ 15 + <b>Base</b> ₹ 14 +	0 Li	************************************				
13 Abnormal	Apr6/24		Apr6/24			
12		1-				
	Non-ferrous Meta	llS				
Aphilde Aphilde	copper					
	8 - second tin					
	6 -					
	u dd					
	4					
	2					
	Apr6/24		Apr6/24			
			Apri			
	Viscosity @ 100°C	C	12	Base Number		
	18 Abnormal			Page		
	17- Abnormal		10 Ş	.0 - Base	*****	
	ç 16-		Base Number (mg KOH(g)	.0+		
	C 16 Base 15 3 14		je B	.0-		
	<sup>3</sup> 14		Mun N	0		
	13 Abnormal		as E			
	12		2	.0		
	11		54			
	Арт6/24		Apr6/24	Apr6/24		Apr6/24
Certificate 12367 To discuss this sample report * - Denotes test methods tha	t are outside of the ISO 1	Received Tested Diagnosed Tests: TBN ) vice at 1-800-237 17025 scope of a	: 15 Apr 2024 : 15 Apr 2024 : 15 Apr 2024 - N 7-1369. Accreditation.	Ves Davis	Contac phil.ivanisin@ T: (	NDPIT ROAD MAUK, GA US 31058 t: Phil Ivanisin
Certificate L2367 To discuss this sample report	: WC0920461 : 06148200 : 10978278 : CONST ( Additional T t, contact Customer Serv t are outside of the ISO 1	Received Tested Diagnosed Tests: TBN ) vice at 1-800-237 17025 scope of a	: 15 Apr 2024 : 15 Apr 2024 : 15 Apr 2024 - N 7-1369. Accreditation.	Ves Davis	1333 SA Contac phil.ivanisin@ T: (	NDPIT RO MAUK, US 31 ct: Phil Ivar coviacorp.

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