

Report Examples

Wind Turbine Oil Analysis



WIND TURBINE ANALYSIS

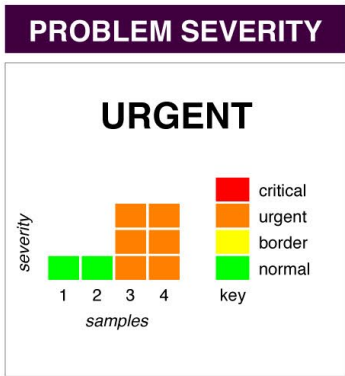
Mr AB Citizen
PO Box 284
Isando
1600

Nacelle Id : 10-4413
Serial No : MPI02
Description : Nordex 2.5MW
Component : Gearbox
Model : Eickhoff

KWAZULU-NATAL:
P.O. BOX 15108
WESTMEAD 3608
TEL: (031) 700 5460
FAX: (031) 700 5471

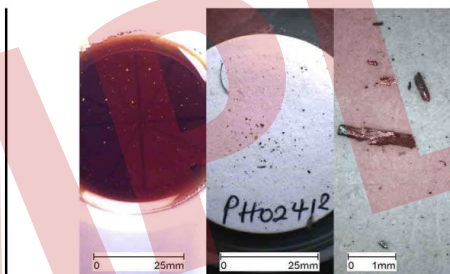
GAUTENG:
P.O. BOX 284
ISANDO 1600
TEL: (011) 392 6322
FAX: (011) 392 6340

Code : 1WITUR
Job No. :
Location : Eastern Cape
Oil : Castrol X320 Synthetic
Queries :



DIAGNOSIS

4.) Sample Number PH02412 on 02.09.2016 smr 12779 HRS
Although spectrometric analysis is normal microscopic analysis of debris filtered from the oil sample revealed a light concentration of ferrous & brass/bronze wear particles.
Check correct oil level is being maintained. Check for abnormal noise and vibration. Check oil filter for abnormal wear particles. Check for evidence of bearing distress. Please return feedback.
Particle count is greater than the limit specified, recommend filtering/purifying the oil. Please return feedback. REPEAT PROBLEM particle-countx2.



PREVIOUS HISTORY

- #### DIAGNOSES
- 1.) Sample Number PH01048 on 07.02.2015 smr 5491 HRS
Wear rates are normal and the sample provided appears free from unacceptable contamination or degradation. A microscopic particle examination of particles filtered from the oil revealed no abnormal contamination.
 - 2.) Sample Number PH00466 on 07.08.2015 smr 7169 HRS
Wear rates are normal and the sample provided appears free from unacceptable contamination or degradation. A microscopic particle examination of particles filtered from the oil revealed no abnormal contamination.
 - 3.) Sample Number PH01711 on 03.03.2016 smr 9025 HRS
Wear rates are normal. A microscopic particle examination of particles filtered from the oil revealed no abnormal contamination.
Particle count exceeds recommended limits, check seals and breather for damage, check sampling technique and change the filter - continue sampling at recommended intervals.
Moisture content = 1135ppm. Recommend purifying or centrifuging. Please return feedback.

FEEDBACK

PTO

WEARCHECK IS AN ISO 9001 AND ISO 14001 REGISTERED COMPANY

SABS | ISO 9001 | ISO 14001 | SANS 17025
Quality Form ds78 | Revision Date: March 2017



Report Examples

Wind Turbine Oil Analysis

Nacelle ID : 11-4413 - GEARBOX - Serial No. MPI02

SAMPLE NUMBER	DATE SAMPLED	LAB DATE	OIL CONSUMPTION	SMR	UNITS	OIL IN SERVICE	FILTER CHANGE	OIL DRAIN	
1	PH01048	07.02.15	21.01.16	-	5491	HRS	5021	Yes	No
2	PH00466	07.08.15	21.01.16	-	7169	HRS	7498000	Yes	No
3	PH01711	03.03.16	12.08.16	-	9025	HRS	10493000	Yes	No
4	PH02412	02.09.16	29.11.16	-	12779	HRS	15092000	Yes	No

WEAR METALS

Sample	Iron	Chromium	Nickel	Molybdenum	Aluminium	Copper	Tin	Lead	Bismuth	PQ Index
1	4	0	0	1127	5	2	0	0	2	16
2	4	0	0	993	5	2	0	0	0	11
3	4	0	0	890	5	2	0	0	0	15
4	2	0	1	896	6	3	0	0	0	44

Special Tests

Sample 1

30 spectrometric analyses are carried out on all samples but only relevant results are reported in parts per million.

CONTAMINANTS

Sample	Silicon	Sodium	Oxidation	Sulphate	Nitrates	Water By Karl Fisher
1	10	3	2	9	2	347
2	17	2	2	9	2	268
3	11	5	0	0	0	1135
4	5	7	0	0	0	394

PARTICLE COUNT /ML

4 micron	6 micron	14 micron	20 micron	25 micron	50 micron	75 micron	100 micron	Cleanliness
11213	1621	42	5	7	1	0	1	21/18/13
24010	2932	59	12	17	2	2	5	22/19/14
19651	3860	57	6	3	6	0	0	22/19/13
19143	14352	1145	243	104	53	0	0	22/21/18

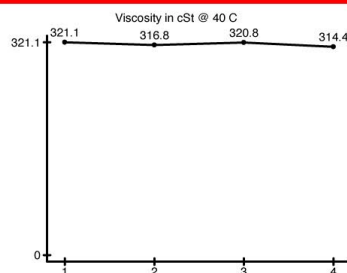
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ADDITIVES & LUBRICANT CONDITION

Sample	Magnesium	Calcium	Zinc	Phosphorous	Barium	Boron	Sulphur	TAN
1	8	1848	4	376	1	0	2118	1.20
2	7	1954	2	354	1	0	2052	1.10
3	5	1717	2	313	0	0	1702	1.00
4	7	1574	2	327	0	0	1848	0.70

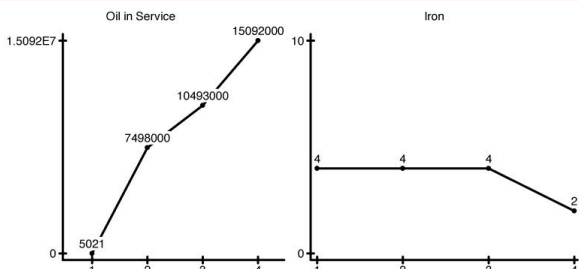
VISCOSITY

Viscosity in cSt @ 40 C	Viscosity in cSt @ 100 C	Viscosity Index
321.1	33.1	145
316.8	32.5	143
320.8	32.8	143
314.4	33.6	150



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GRAPHICAL REPRESENTATION OF KEY DATA



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Requested by stevenl

SABS | ISO 9001 | ISO 14001 | SANS 17025
Quality Form ds78 | Revision Date: March 2017

