



Continuous Miner Hydraulic Systems : Springvale Colliery

Springvale were experiencing problems with moisture ingress into the hydraulic systems of their continuous miners.

Filter Technology was invited to provide an onsite demonstration of the effectiveness of our filtration in removing moisture.

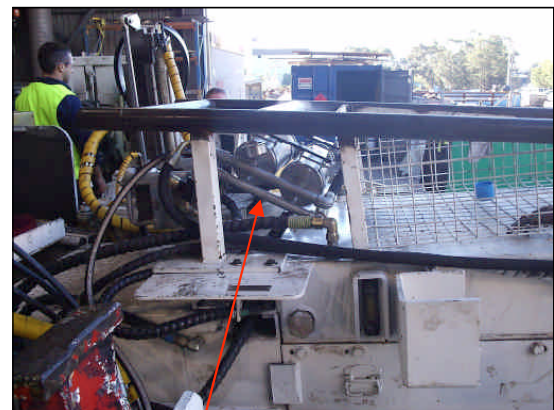
The FM50470 (air driven) system was used and achieved immediate results in reducing moisture from 0.08% to less than 0.01% and particulate contamination from ISO 21\19 \14 down to 18\16\12.

Springvale have since installed onboard systems to three continuous miners and a hydraulically driven roof bolter.

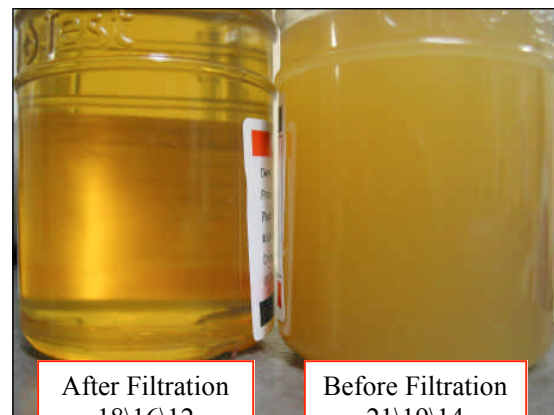


Typical FM50470

Oil+Test		Filter Technology Australia Pty Ltd				OKAY		
Site		Filter Technology Australia Pty Ltd						
Attention To		SPRV - Springvale Colliery						
Machine		Continuous Miner Hydraulics						
Sample Location		HYDRAULIC OIL 68						
Oil Type								
Sample Date		01 Jan 01	01 Jan 01	01 Jan 01	01 Jan 01	20 Apr 06	21 Apr 06	
Report No.						280,004	280,005	
Meter Reading						0	0	
Oil Hrs						0	0	
Top Up						0	0	
Oil Changed?						No	No	
Wear Metals	limit	ppm	ppm	ppm	ppm	ppm	ppm	
lead	20					0	0	
iron	60					1	0	
aluminium	20					1	0	
copper	60					0	0	
chromium	15					0	0	
tin						0	0	
nickel	15					0	0	
silver						0	0	
titanium						0	0	
Contaminants								
silicon	20					1	0	
sodium	60					1	0	
vanadium						0	0	
Oil Additives								
magnesium						2	0	
zinc						435	370	
molybdenum						0	0	
calcium						45	28	
phosphorus						267	254	
boron						0	0	
barium						0	0	
Physical Tests								
TBN						0.00	0.00	
TAN						0.00	0.00	
water k1 ppm	500					820	198	
water %	0.05					0.08	<0.01	
viscosity index	100					0	118	
visc @ 100 deg C - Cst	8.40					0.00	9.25	
visc @ 40 deg C - Cst	68.00					66.20	66.00	
FTIR Analysis								
soot - abs						0	0	
glycol %						0	0	
fuel dilution %						0	0	
oxidation - abs						0	0	
nitration - abs						0	0	
sulphation - abs						0	0	
Particle Analysis								
particle count						145	24	
ISO-4406	16\13					21\19\14	18\16\12	
PQ90	20					3	2	
Comments	Water content has improved. Results within acceptable limits. Continue with regular maintenance and monitoring.						Feedback?	



Two x FM3202 housings mounted on-board



After Filtration
18\16\12

Before Filtration
21\19\14

Oil Samples Results