

DMRE PRESENTATION ON DERELICT AND OWNERLESS MINE

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Reuben Masenya

Department of Mineral Resources and Energy



Background

- ❑ Derelict and ownerless mines refer to mines whose owners or mining rights have abandoned, and are not operating nor maintaining to mitigate and manage their associated health and environmental impacts as well as those mines whose owners or operators can no longer be traced.
- ❑ These would comprise of mines sites that were operational during the period when environmental management at the mine was not well regulated.
- ❑ Rehabilitation of Derelict and Ownerless (D&O) mines take cognizance of environmental, air, soil, groundwater, surface water, geohazards, geo-engineering as well as soft issues related to the impact and improvement of the socio-economy and health issues of local communities.



Background

- ❑ This typically involves investigations into dust and air quality, the stability of mined land, water contamination and geochemical processes.
- ❑ Gopane manganese mine applying existing data. Mine plans were georeferenced using aerial photographs, thus providing a reference for future work.
- ❑ High-resolution airborne geophysics was interpreted qualitatively to establish the presence of lineaments representing faults/dykes cutting through the mined area, critical to future land use planning.

DERELICT AND OWNERLESS MINE SITES DISTRIBUTION

PROVINCE	TOTAL NUMBER OF D&O's
EASTERN CAPE	326
FREE STATE	229
GAUTENG	360
KwaZULU NATAL	410
LIMPOPO	886
MPUMALANGA	794
NORTH WEST	1040
NORTHERN CAPE	1065
WESTERN CAPE	866
TOTAL	5976

REHABILITATION PRIORITIZATION

PROVINCE	HIGH PRIORITY	MODERATE PRIORITY	LOW PRIORITY	NO REHAB APPEARS NECESSARY	VISITED BUT NO ACCESS	OPERATIONAL	TOTAL
EASTERN CAPE	0	0	16	248	20	42	326
FREE STATE	1	7	10	113	36	62	229
GAUTENG	39	27	18	193	39	44	360
KwaZULU NATAL	18	19	38	227	66	42	410
LIMPOPO	43	34	78	372	267	92	886
MPUMALANGA	41	48	51	316	161	177	794
NORTH WEST	9	15	67	436	301	212	1040
NORTHERN CAPE	36	18	73	378	342	218	1065
WESTERN CAPE	5	15	27	593	115	111	866
TOTAL	192	183	378	2876	1347	1000	5976

VALUATION OF THE LIABILITY

- ❑ The estimated present value of the closure costs of all the other derelict and ownerless mines is **R48.7 billion** as at 31 March 2019. This estimation is supported by the evidence from operational mines as well as DMR guidelines on closure costs.
- ❑ There are 137 highly prioritized non Asbestos former mining sites. We were only able to estimate closure costs for 104 of these high priority for rehabilitation mines as **R7 515 073 453**.



Holings Pictures

- Kwa-Mhlanga dangerous mine opening



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Holings Pictures

DANGEROUS ABANDONED GOLD MINE SHAFTS IN GAUTENG



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Key environmental challenges due to past coal mining activities at Emalahleni in Mpumalanga



Underground coal fires



Acid mine drainage in old workings

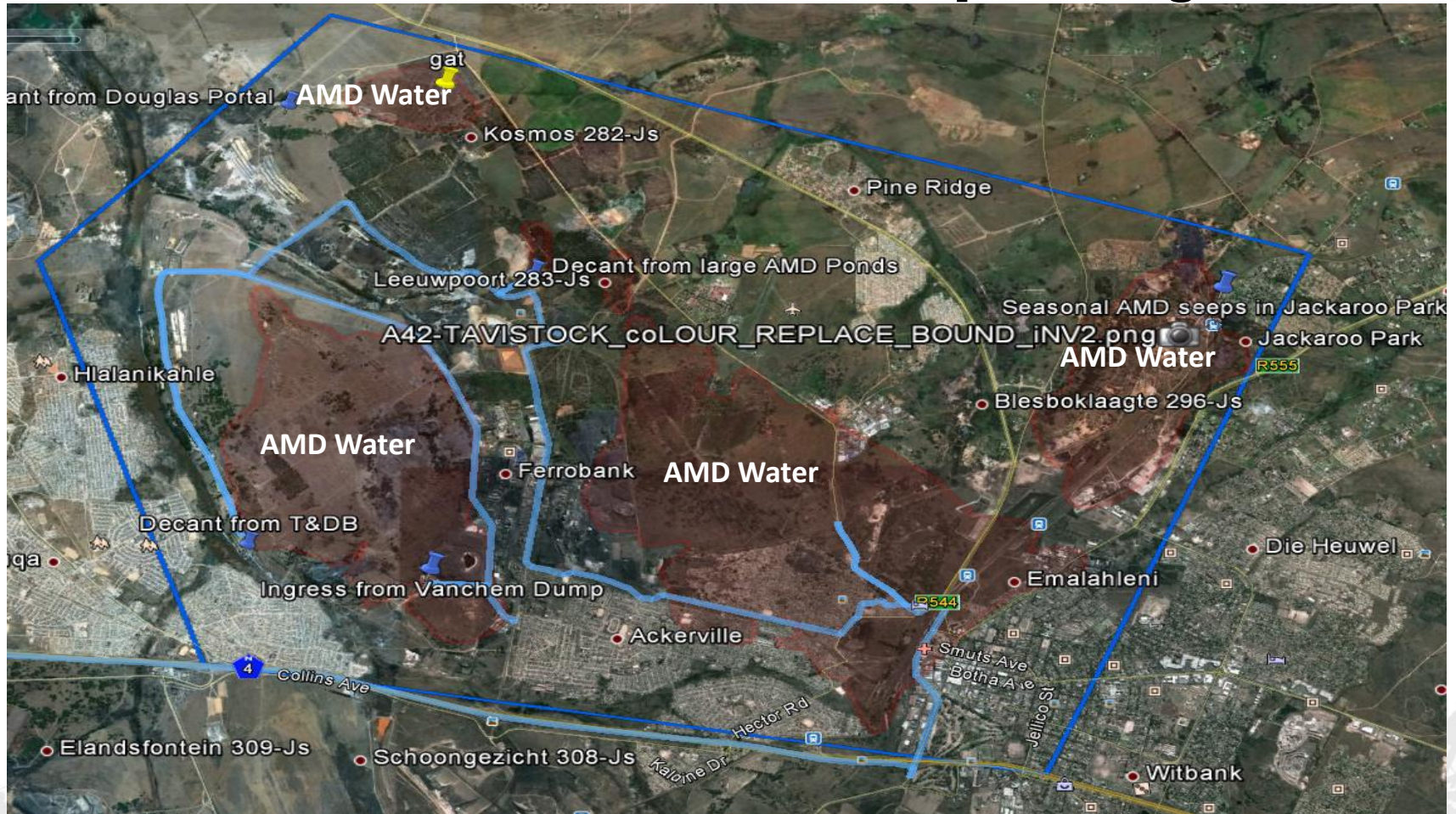


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Key environmental challenges due to past coal mining activities at Emalahleni in Mpumalanga

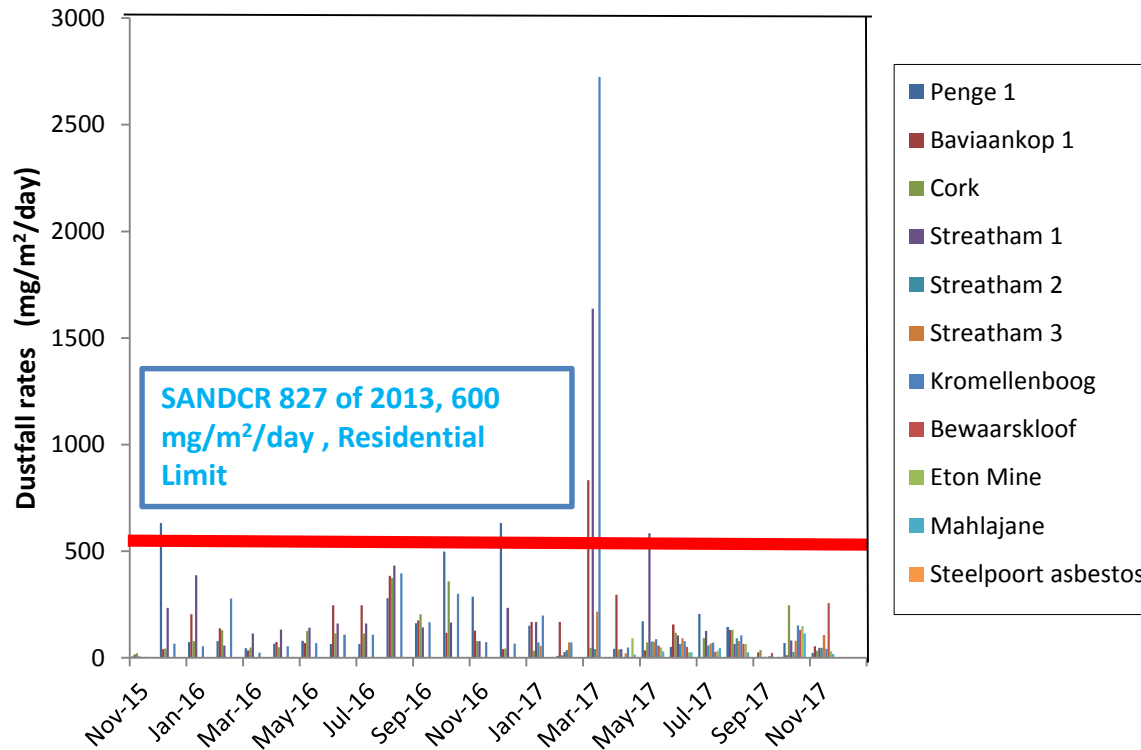


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Air Quality Monitoring



Dust-fall rates at sites in the Limpopo Province.

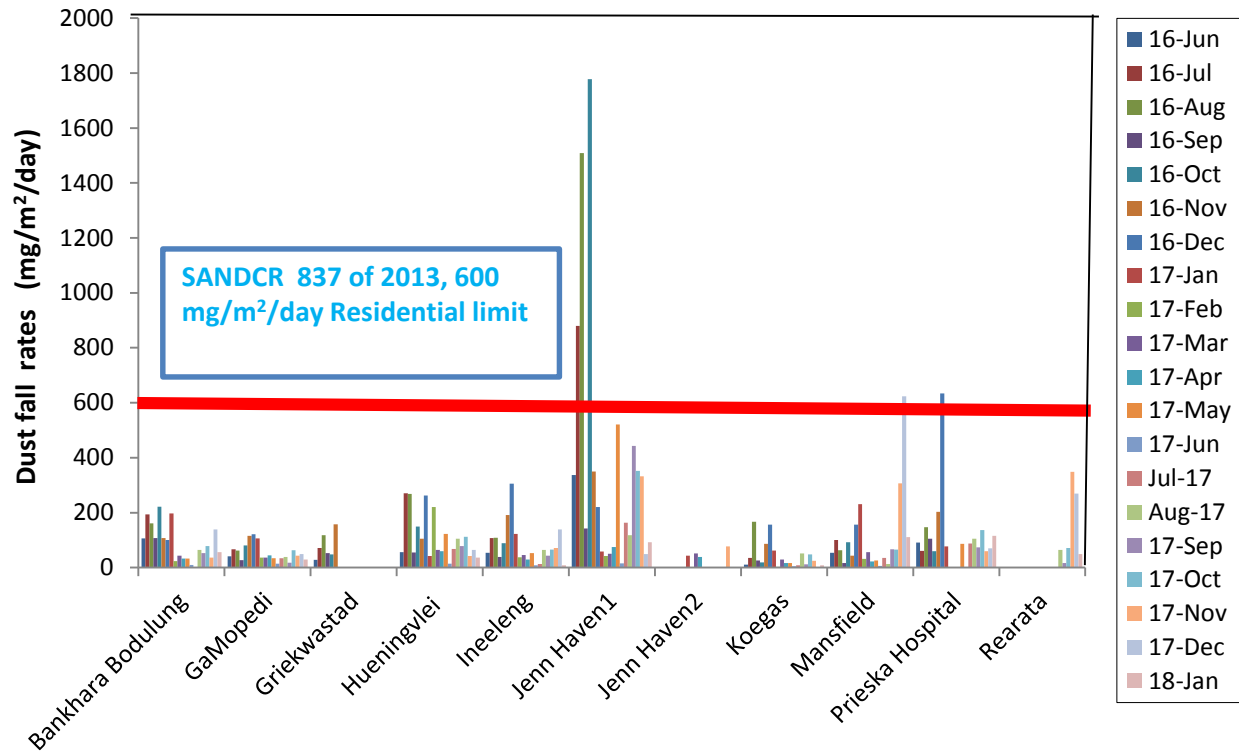


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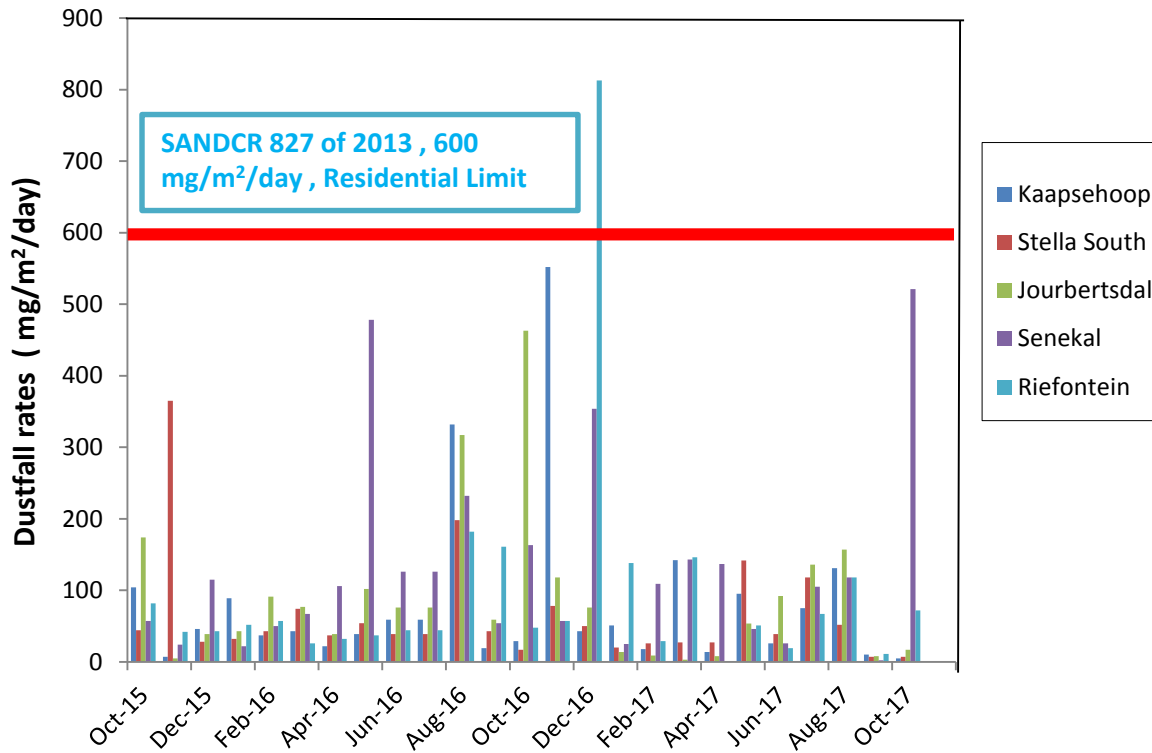
Air Quality Monitoring



Dust-fall rates in the Northern Cape Province.



Air Quality Monitoring



Dustfall rates in the Mpumalanga Province.



CONCLUSION

□ The Department will continue to:

- Update the State Contingent Liability to reflect current developments.
- Continue to look for scientific remedial solution for Emalahleni Coalfields
- Devise solution on land subsidence areas
- Continue assessing and improving remedial rehabilitation methods
- Seal Dangerous Holings



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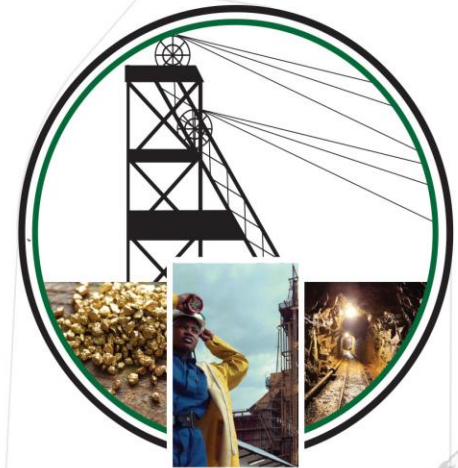
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Thank You



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