

**APPENDIX 4.9(A)**

**SASOL MINING – MIDDELBULT (BLOCK 8)  
SHONDONI PROJECT  
ALTERNATIVES ASSESSMENT FOR  
OVERLAND COAL CONVEYOR**

**FINAL**

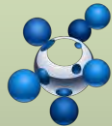
**SASOL MINING  
MIDDELBULT (BLOCK 8)  
SHONDONI PROJECT**

**ALTERNATIVES ASSESSMENT  
OVERLAND CONVEYOR**

**Date: 19 April 2010  
JMA / 10391  
Appendix to EIA**

**COMPILED FOR**

**sasol**  
*reaching new frontiers*



**SASOL MINING (Pty) Ltd**  
*Middelbult Colliery  
Shondoni Shaft*

**COMPILED BY**



**JMA Consulting (Pty) Ltd**  
*Sustainable Environmental Solutions  
through  
Integrated Science and Engineering*

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# 1. INTRODUCTION

Sasol Mining operates a number of underground coal mines in the Secunda Area. Middelbult Colliery represents one of the underground mines and has been in operation since 1981. During its existence Middelbult Colliery has gone through several expansions. Whilst some of the original shafts have already been closed and rehabilitated, new shafts have been developed to access coal within the Middelbult Reserves.

As part of this ongoing development to ensure access to exploitable reserves, Sasol Mining is now investigating options to replace the existing West Shaft with a new shaft (Shondoni) in the Block 8 reserves in order to increase its reserve utilisation of the existing Middelbult operations (original Middelbult Reserves, Block 8 Reserves, Springbokdraai Reserves, Leeuwpan Reserves and Block 8 Northern Reserves).

The proposed expansions require Environmental Authorisations. As part of this, potential environmental impacts must be assessed and the Environmental Management Plan (EMP) must be amended in terms of the Mineral and Petroleum Resources Development Act 28 of 2002 (MPRDA). In order to achieve this, the current Environmental Impact Assessment (EIA) and Environmental Management Programme Report (EMPR) approved under the Minerals Act (Act 50 of 1991) must be amended.

Additionally, an Environmental Authorisation is required in terms of the National Environmental Management Act (NEMA) (Act 107 of 1998) for all listed activities related to the proposed expansion whilst an Integrated Water Use License Application (IWULA) is also required in terms of the National Water Act (NWA) (Act 36 of 1998) to authorize water uses related to the expansion.

The proposed expansion of the Middelbult operations, comprise one additional shaft complex (Shondoni Shaft) with associated infrastructure in the Block 8 Reserves and a **new overland conveyor to convey the coal to the Middelbult Main Shaft and then onto an existing conveyor to the Sasol Mining central coal stockpile area** (Sasol Coal Supply or SCS).

The proposed future mining activities will be conducted by means of underground mining operations, utilising the bord-and-pillar and high extraction methods to extract coal from the No.4 and No.2 Coal Seams. It is anticipated that approximately 8.5 to 9.5 million tons of coal per year will be mined. The increased utilisation of coal reserves will mean that Middelbult (Block 8) will continue mining (current schedule) for an additional 3 to 4 years.

The long-term plan for Middelbult-Shondoni (Block 8) is to maximise its life thereby ensuring optimal coal reserve utilisation. Existing personnel and equipment will be used in the mining of the No 4 and the No 2 Coal Seams by means of bord-and-pillar and high extraction.

**This report represents a subdivision of the EIA report and deals with the selection of a preferred alternative overland conveyor route from three identified alternatives.**

## 2. DESCRIPTION OF THE OVERLAND CONVEYOR

The ROM coal from the Shondoni operations will be transported along a surface coal conveyer from the Shaft Complex to Middelbult Main Shaft and then to the existing Sasol Coal Supply (SCS, the central coal stockpile area). In order to achieve this, a new overland conveyer of some 17 km in distance will be constructed to join up with the existing Middelbult Main Shaft conveyer.

### 2.1 SHONDONI MATERIALS HANDLING SYSTEM

Coal will be mined from both the No.4 seam and the No.2 seam by continuous miners, which will deliver the coal onto shuttle cars. The shuttle cars deliver the coal to feeder breakers and then into an underground crusher which sizes the coal to -150 mm lump size. From the crushers the coal goes onto section conveyers, then to trunk conveyors which deposit the coal into underground bunkers on the No.2 seam and the No.4 seam. On the No.2 seam, luffing chutes feed the coal from the bunker onto the interseam conveyor, which takes to it No.4 seam level.

From the main underground bunker on the No.4 seam, the coal goes onto the incline conveyor which transports the coal to surface and then through diverter chutes to either load onto the tripper conveyor, into the bypass bunker or onto the emergency stockpile conveyor.

The tripper conveyor receives coal from the incline conveyor and discharges via a moving tripper to the surface bunker. From the surface bunker coal is loaded through multiple luffing chutes onto the reclaim conveyor which travels beneath the surface bunker and which then loads the coal onto **Overland Conveyor 1**. After transporting the coal for some 12 km, overland conveyor 1 discharges the coal to **Overland Conveyor 2**, which some 6 km further joins up with the existing Middelbult Conveyor through a surge bin. The existing conveyor transports the coal to the central Sasol Coal Stockyard.



**Figure 2.1(a): Typical Overland Conveyor with Associated Infrastructure**

## 2.2 OVERLAND CONVEYOR 1

Overland Conveyor 1 will receive material from the Reclaim Conveyor, and travel approximately 11.95 km before discharging to Overland Conveyor 2.

The conveyor will incorporate horizontal curves to negotiate the terrain, residential areas and other building / structures. The detailed design of the conveyor including extended wing idlers, banking angle of idlers, and pitch of idlers in the horizontal curve areas will be carried out at the next phase to ensure proper tracking of the belt under all load conditions.

To **prevent carry back spillage** along the conveyor route, belt turnovers will be used, with one at the head end and one at the tail end. Belt turnovers ensure the dirty side of the belt is facing up for both top and bottom strands of the conveyor, such that residual material does not fall off the belt as it passes over idlers. Each belt turnover will be approximately 25m in length, suitable for 1200mm belt width.

The conveyor design rate is 2,000 t/h, with a volumetric capacity of 2,500 t/h for surge loads. This capacity is restricted at this stage by the rate of downstream conveying and stockyard equipment, however consideration should be paid to upgrading the capacity to allow for a higher annual throughput.

Overland Conveyor 1 uses 1200mm ST3150 steel cord belt with nominal 5 + 5mm Grade N covers.

Idlers will be 3 roll, Ø152 mm, 35° carry idlers, and 2 roll Ø152 mm, 5° return. All idlers structure will be ground mounted. Idler pitch will be nominally 3m pitch on the carry strand, and 6m on the return strand. Further optimisation of the idler pitch to ensure the correct balance between capital cost, and conveyor frictional resistances to minimise power consumption will be carried out at the next stage.

Three (3) 1000kW VVVF drives will be installed at the head end drive station. The drive pulley will use ceramic lagging, while non-drive pulleys will use rubber lagging. Two (2) external holdbacks will be provided to prevent run-back of the belt.

A gravity weight take up will be installed at the head end of the conveyor near the drive station.

**Dust suppression sprays** will be used at the transfer chute, and **all scrapings from the discharge pulley directed onto the downstream Overland Conveyor 2.**

## 2.3 OVERLAND CONVEYOR 2

Overland Conveyor 2 will receive material from Overland Conveyor 1, and travel approximately 5.7 km before discharging to the Surge Bin located part way along the existing 2202 Conveyor.

The Conveyor will incorporate horizontal curves to negotiate existing roads. As for Overland Conveyor 1, the final detailed design of the conveyor including extended wing idlers, banking angle of idlers and pitch of idlers in the horizontal curve areas will be carried out at the next.

**Belt turnovers will be used**, of similar design to Overland Conveyor 1, with one at the head end and one at the tail end.

The conveyor design rate is 2,000 t/h, with a volumetric capacity of 2,500 t/h for surge loads. This capacity is restricted at this stage by the rate of downstream conveying and stockyard equipment, however consideration should be paid to upgrading the capacity to allow for a higher annual throughput. This is discussed in more detail in the Dynamic Simulation Report.

Overland Conveyor 2 uses 1200mm ST3150 steel cord belt with nominal 5 + 5mm Grade N covers, identical to Overland Conveyor 1.

Idlers will be 3 roll, Ø152mm, 35° carry idlers, and 2 roll Ø152mm, 5° return. All idler structure will be round mounted. Idler pitch will be nominally 3m pitch on the carry strand, and 6m on the return strand.

Two (2) 1000kW VVVF drives will be installed at the head end drive station on separate pulleys. The drive pulleys will use ceramic lagging, while non-drive pulleys will use rubber lagging. Two (2) external holdbacks will be provided to prevent run-back of the belt.

A gravity weight take up will be installed at the head end of the conveyor near the drive station.

**Dust suppression sprays** will be used at the transfer chute, and **all scrapings from the discharge pulley directed into the Surge Bin.**

## 2.4 CONVEYOR ITEMS OPTIMIZING ENVIRONMENTAL CONTROL

The items listed below are all incorporated into the conveyor designs from *inter alia* an environmental management perspective.

- Belt Turnovers have been specified on Overland Conveyors to prevent carry back spillage along the conveyor route by twisting the belt such that the dirty side of the belt faces upwards on the return strand. Turnovers are required to both ends of the conveyors, and require access platforms, and special idlers and structure. An alternative to belt turnovers is to install belt washing stations on the return strand near the head end of the conveyor. The belt washing station removes residual material remaining on the dirty side of the belt, preventing carry back spillage. Only one (1) belt washing station is required at the head end of each conveyor, and since the washing water is recycled, water consumption is low.

- Conveyor structure can be improved by using idlers supported on or hung from individual posts rather than on load bearing stringers. This will reduce the noise caused by vibration of stringers, and allow for easier adjustment of belt line, as each idler will be independently adjustable. By placing return idlers on the outbye side of the conveyor structure, any carry back dislodged by the idlers will be thrown clear of the cross members, rather than into them accelerating corrosion.
- The Overland Conveyor route passes residential areas where reduction of noise may be required. The installation of plastic idlers in these areas in place of steel shell idlers will reduce noise, and have the added benefit of lower weight for easier installation, improved life and lower rolling resistance which translates into lower energy consumption. The idlers are more expensive than standard steel rolls, and further investigation is required at the next stage into the quality of the sealing arrangement, and relative costs over the idler life.



**Figure 2.4(a): Conveyors will use plastic idlers and will be covered to prevent rain wash, as well as dust and noise propagation**

- Similarly, balanced idlers can be used to reduce noise at areas of the Overland Conveyors that are close to residential areas. Manufacturers have suggested noise can be reduced from 82dBA to 72dBA at 3m distance when using balanced idlers in place of standard idlers.
- The conveyor belts will be covered in order to prevent rain washing from the belts as well as to minimize dust and noise propagation.
- Magnets will be placed at strategic places to ensure metal objects will be removed from the belt thereby reducing the likelihood of blockages and damages the belt and equipment.
- Namur sensors or speed detectors will be installed on strategic non-drive pulleys to detect and calculate belt speed, and also to detect belt slip and tear.



- Along the length of the conveyor belt pull key systems will be installed so the belt can be stopped in case of an emergency at any place along the belt.
- An inter pull key intercom system will also be provided to enable personnel to communicate locally as well as to the pull key control station. This is very invaluable during fault finding and commissioning.
- A complete dust suppression system will be installed and controlled from the PLC in such a way that sprayers will be activated when the belts are running with coal.
- Vibration monitors will be installed on critical pulleys at the head and tail end of each drive to monitor vibration levels and act as an early warning signal to prevent catastrophic failure. When the vibration level exceeds an acceptable band, an alarm will be raised in the control room to trigger a maintenance inspection.
- At each transfer point there will be a High Definition Ethernet camera installed which will be displayed in the control room to facilitate the belts being run with minimum personnel.

## 2.5 ALTERNATIVE CONVEYOR ROUTES

Three alternative overland conveyor routes have been identified by Sasol Mining in collaboration with the project consulting engineers WorleyParsons. The three alternatives (West Route, Central Route and South-East Route) are shown on Figure 2.5(a).

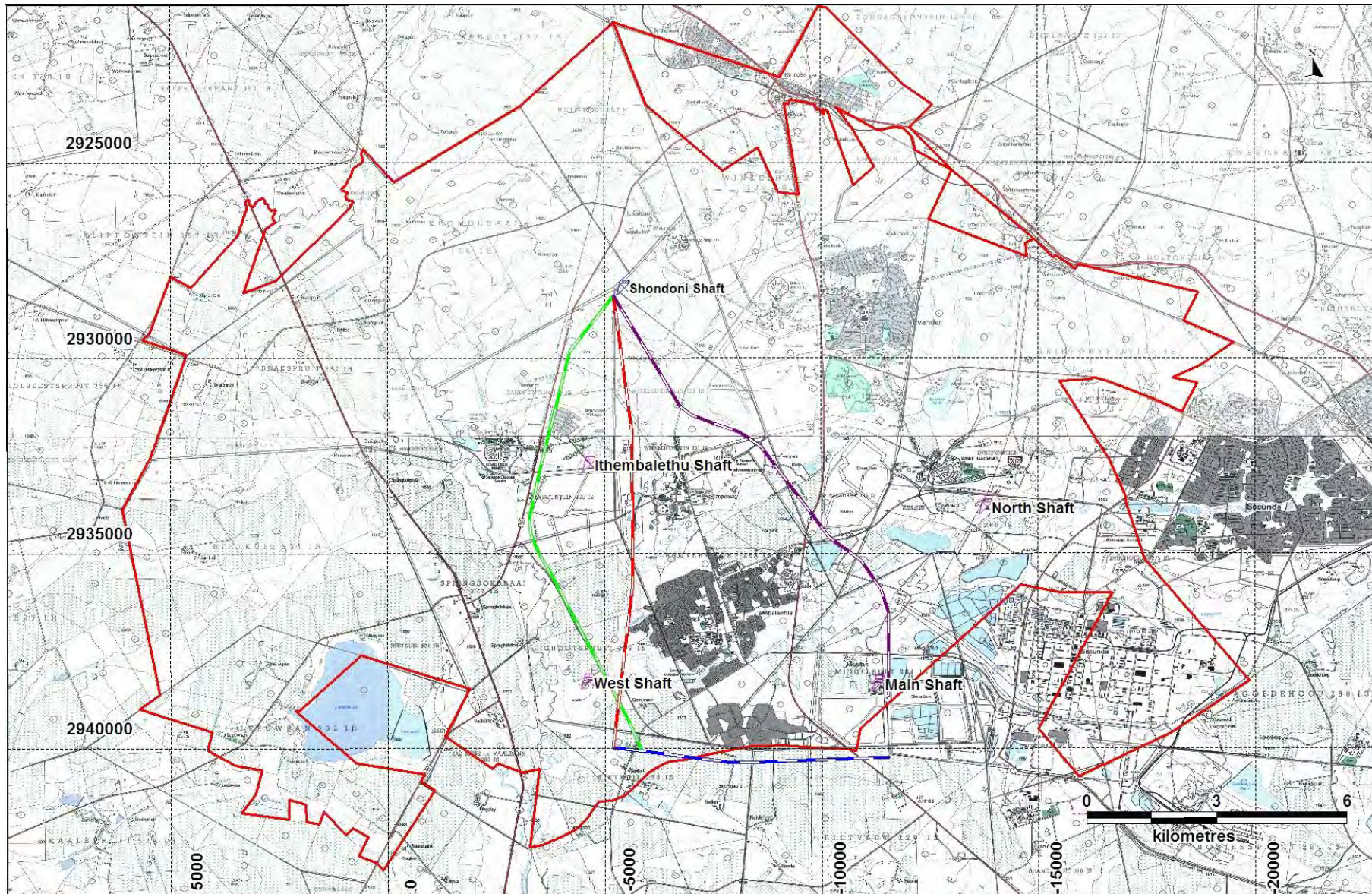
## 2.6 SERVITUDES

Should only a portion of the properties across which the conveyors are to be constructed be purchased, a servitude for the conveyor and associated infrastructure will have to be registered over the remainder of the farm. The alternative conveyor routes are shown superimposed on the property delineation map in Figure 2.6(a)

For the west route alternative (preferred alternative from engineering and cost perspective), a new servitude will have to be registered from the surface bunker to provincial road R547 (point 17) over the farm Zandfontein 130 IS if surface rights for this farm is not obtained.

From this point 17 up to point 23 (4 km) on the conveyor route drawing the conveyor is planned within the road servitude. Approval will have to be obtained from the relevant authority, but no additional servitude will be required.

For the remainder of the proposed overland conveyor (a distance of 14 km) new servitudes will have to be registered over various properties. The servitudes will be some 43 m wide but the actual infrastructure will only take up some 10 m to 15 m.



**Figure 2.5(a) Alternative Conveyor Route (West Route, Central Route and South-East Route)**

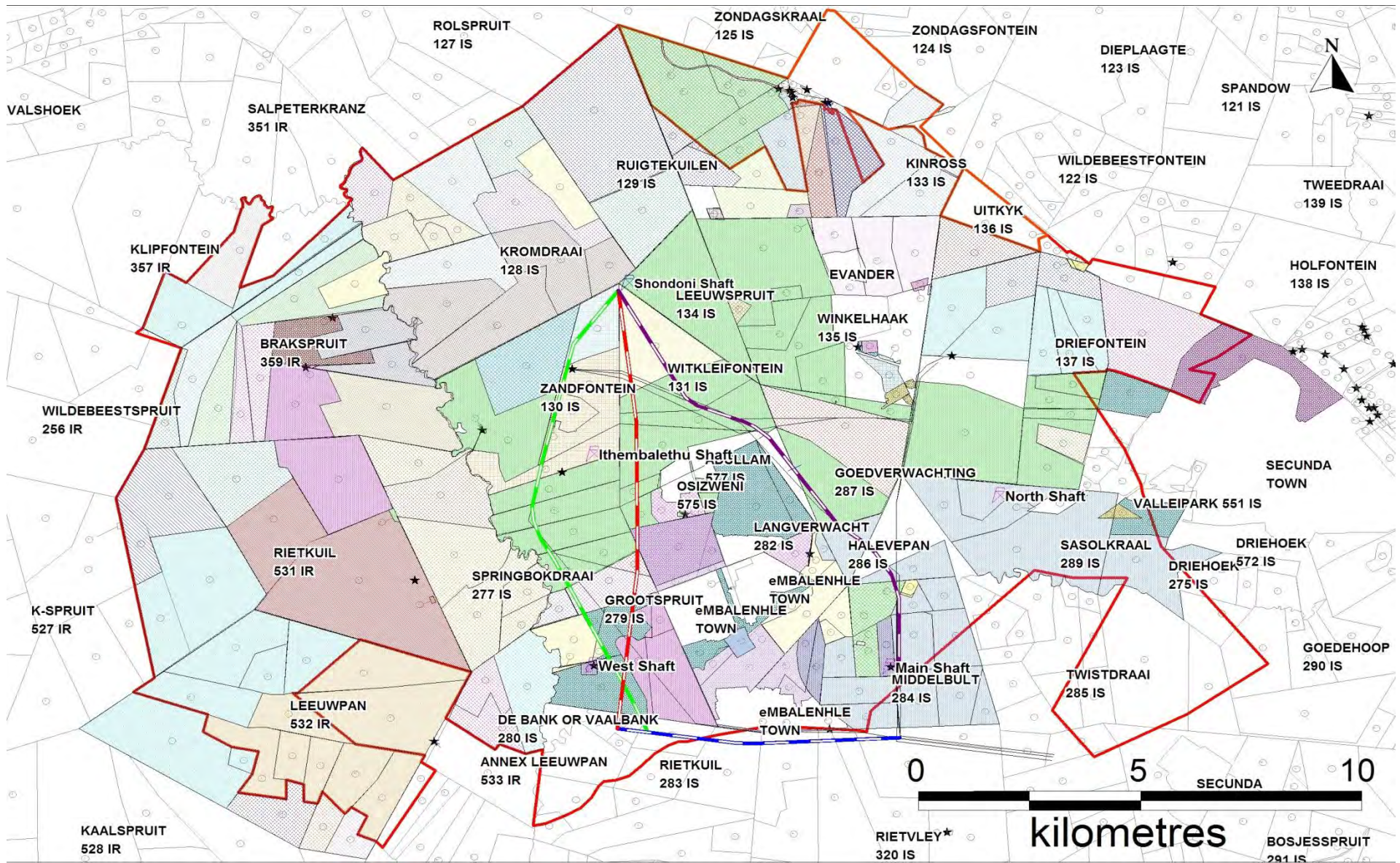


Figure 2.6(a): Alternative Conveyor Routes superimposed on Property Delineations

The proposed servitude will also make provision for other services and utilities as described in the engineering report. A typical required width for the servitude will be 43m. There will however be places where the servitude will have to be wider to allow for cut and fill. Crossing that will give property owners access to both sides of the conveyor will also have to be widened.

A list of properties covering the shaft complex as well as all three conveyor route options, is attached as APPENDIX 1 to this report.

The Table below summarizes the number of properties affected by the shaft and the three conveyor route options.

<b>Development</b>	<b>Number of Affected Properties</b>
<b>Shondoni Shaft</b>	<b>3</b>
<b>West Conveyor Route</b>	<b>13</b>
<b>Central Conveyor Route</b>	<b>14</b>
<b>South-East Conveyor Route</b>	<b>9</b>

### **3. CONVEYOR TRADE OFF STUDY**

As part of the Techno-Economic Study performed by WorleyParsons on behalf of SASOL MINING, for the Shondoni Mine Project, a Conveyor Route Trade Off Study was undertaken (M3230-01-03 SHONDONI MINE PROJECT, Conveyor Route Trade Off Study, WorleyParsons Project Number : 1106, SASOL Mining Project Number M3230, 9 September 2009).

A copy of this report is attached as APPENDIX 2.

#### **3.1 ASSESSMENT METHODOLOGY**

Three potential conveyor route options were identified over a period of time and were evaluated by WorleyParsons from primarily an engineering perspective, although environmental related aspects concerned with river crossings and crossing of flooded land were incorporated, albeit primarily from an engineering, construction, operational and maintenance perspective.

WorleyParsons presented the three routes via a drawing review which was followed by a Qualitative Conveyor Route Trade Off Study. Some eighteen parameters had been selected by WorleyParsons. These were then rated in terms of their impacts on each selected route. Some additional parameters relating to the future expansion of the Harmony Slimes Dam, the Sakisizwe land area and the future Synfuels Ash Disposal area were requested to be included in the matrix.

WorleyParsons then also compiled a Quantitative Analysis based on the same parameters. The information generated was reviewed, assessed and discussed on a project Steering Committee meeting on 11<sup>th</sup> September 2009, which led to selection of the West Route as the preferred alternative from an engineering, operational and cost perspective.

#### **3.2 OUTCOME OF STUDY**

The outcome of the study is best summarized by the outcome of the Quantitative Analyses which used a parameter weighted numerical rating/scoring system to identify the preferred alternative. The following aspects formed part of the rating matrix:

- Conveyor length / cost
- Accessibility for maintenance
- Reliability
- Waterway crossings / seasonal flooding
- Environmental permitting
- Tar road crossings
- No. of conveyor elements / flights
- Coal spillage: Overland tracking
- No. of transfer points / Transfer towers
- Land wayleaves
- Noise pollution

- Security / Town / People proximity
- Power line crossings / Eskom permissions
- Through town proclaimed area
- Tar road crossings through culverts
- Farm road crossings through culverts
- Adjacent slimes dams
- Adjacent Harmony dam
- Adjacent future Synfuels ash disposal
- Adjacent Sakisizwe
- Adjacent explosives store
- Cattle crossings

The scoring, out of a possible 100, was as follows:

<b>West Route</b>	<b>77.7</b>
<b>Central Route</b>	<b>59.1</b>
<b>South East Route</b>	<b>49.6</b>

The **west route** was therefore identified from an engineering, operational and cost perspective as the **preferred alternative** by a significant numerical margin.

The full report is attached as APPENDIX 2.

## 4. ENVIRONMENTAL ASSESSMENT

Although the assessment performed by WorleyParsons and Sasol Mining did contain some environmental elements, JMA Consulting, as part their terms of reference and in support of the application for Environmental Authorizations, performed a route ranking exercise from a pure environmental perspective, neither including public acceptance, nor technical and financial considerations.

### 4.1 ASSESSMENT METHODOLOGY

The way in which the ranking is performed is straight forward. Each of the available alternative routes is ranked in order of preference for a specific aspect. For example the best route from a “Land Use” perspective would be ranked 1, the second best route 2, and so on. Should routes be deemed to be equal for a specific aspect, they will receive the same ranking.

The route with the **smallest score**, will represent the **preferred alternative route** from an environmental perspective.

From an environmental perspective the project is still within its scoping phase. It therefore implies that detailed environmental information has not yet been generated along any of the alternative overland conveyor routes and therefore the current assessment is based on existing available information. Information used were obtained from various sources including:

- Published 1: 50 000 topographical maps for the area.
- The approved EMPR for the Block 8 Reserves.
- The Mpumalanga Biodiversity Conservation Plan Handbook.

### 4.2 SELECTION OF ENVIRONMENTAL CRITERIA

The following criteria were selected with specific reference to the overland conveyor routes for the Shondoni Mine Project:

- Surface Water Quality (number of stream crossings)
- Surface Water Quality (length of stream crossings - floodlines)
- Noise (proximity to residential areas)
- Aquatic Ecology (number of crossing of wetland areas)
- Aquatic Ecology (extent of wetland areas)
- Land Capability (crossing of arable, grazing, compromised)
- Land Use (cultivation, grazing, compromised)
- Vegetation (high, moderate, low) – (hirta, triandra, transformed)
- Biodiversity (highly significant, important & necessary, least concern)
- Presence of heritage and cultural interest features

### 4.3 ENVIRONMENTAL SELECTION MATRIX

The matrix below was compiled specifically for the Middelbult Shondoni Overland Conveyor Route Selection. The weighting factor for each of the criteria is indicated in brackets:

Middelbult Shondoni Conveyor Route Selection	West Route	Central Route	South-East Route
Surface Water Quality (number of stream crossings)	1	2	3
Surface Water Quality (length of stream crossings - floodlines)	1	2	2
Noise (proximity to residential areas)	2	2	1
Aquatic Ecology (number of crossing of wetland areas)	1	3	2
Aquatic Ecology (extent of wetland areas)	1	2	3
Land Capability (crossing of arable, grazing, compromised)	2	3	1
Land Use (cultivation, grazing, compromised)	2	3	1
Vegetation (high, moderate, low) – (hirta, triandra, transformed)	1	2	3
Biodiversity (highly significant, important & necessary, least concern)	1	2	3
Presence of heritage and cultural interest features	2	1	2
<b>Sum</b>	<b>14</b>	<b>22</b>	<b>21</b>
<b>Ranking</b>	<b>1</b>	<b>3</b>	<b>2</b>

### 4.4 THE PREFERRED ENVIRONMENTAL ALTERNATIVE

The environmental ranking assessment confirms the **West Route** as the preferred alternative for the overland conveyor. The few river and wetland crossings most probably carry the most weight in this regard. The fact that this route will run alongside an existing road servitude for quite a significant part of its length, which implies minimal influence on agricultural land use, further benefitted the assessment.

One of the most critical potential impacts related to this west conveyor route probably relates to noise in close proximity to residential areas (Brendan Village and eMbalenhle).



## 5. CONSULTATION WITH LAND OWNERS

### 5.1 LAND OWNER FOCUS GROUP MEETING

A Land Owners focus group meeting was held on 19 March 2010 at 10:00am. The venue for the meeting was Brendan Lodge in Brendan Village. The purpose of the meeting was to inform the potential affected landowners of the selection process followed by Sasol Mining with regards to the selection of a preferred conveyor route, to afford them the opportunity to give inputs into the selection process if they so wish, and finally to facilitate agreement on the preferred alternative. All of the affected landowners were invited per formal letter that was distributed to them beforehand (Please refer Appendix 4 of this document for documentation relating to this meeting).

### 5.2 ISSUES AND CONCERNS

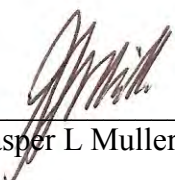
Several issues regarding the proposed location of the overland conveyor route were raised and among these the standout issues pertained to the following:

- Loss of agricultural land
- Access to properties
- Proximity of conveyor to residential areas (Noise, Visual aspects)
- Maintenance on conveyor route
- Cemetery to the south of eMbalenhle
- Safety zone for explosives magazine
- Some of the alternatives falls within the 1:100 year flood line

(Please refer to Appendix 4 of this report for the full register on issues and concerns that were raised)

**The issues and concerns were noted and will be dealt with in the Plan of Study.**

Respectfully submitted



\_\_\_\_\_  
Jasper L Muller (Pr.Sci.Nat.)

## **APPENDIX 1**

### **LIST OF AFFECTED PROPERTIES**

No	PropertyName	Portion	Owner	Zoning Status	21 Digit Surveyor General ID Number	
<b>Shaft Complex Area</b>						
1.	Leeuwspuit 134 IS	Remaining Extent	Name	Evander Gold Mines Ltd	Agricultural	T0IS0000000001340000
			Contact Person	B Conradie		
			Postal Address	Private Bag X1012, Evander, 2280		
			Telephone	(017) 620 1620		
			Facsimile	(017) 632 4046		
			Cellular	072 603 0622		
e-mail	<a href="mailto:boet.conradie@harmonv.co.za">boet.conradie@harmonv.co.za</a>					
2.	Witkleifontein 131 IS	Portion 1	Name	Sakhisiswe CPA	Agricultural	T0IS0000000001310001
			Contact Person	S Ndlovu		
			Postal Address	P.O. Box 818, Evander, 2280		
			Cellular	082 044 2820		
3.	Zandfontein 130 IS	Portion 4	Name	E.L. du Plooy	Agricultural	T0IS0000000001300004
			Contact Person	L du Plooy		
			Postal Address	P.O. Box 655, Evander, 2280		
			Cellular	082 492 7672		
<b>Preferred Western Conveyor Option (Green)</b>						
4.	Zandfontein 130 IS	Portion 4	Name	E.L. du Plooy	Agricultural	T0IS0000000001300004
			Contact Person	L du Plooy		
			Postal Address	P.O. Box 655, Evander, 2280		
			Cellular	082 492 7672		
5.	Zandfontein 130 IS	Portions 2, 5, 12	Name	Brendan Village	Portion 2 – Agricultural Portion 5 – Agricultural Portion 12 – Agricultural	Portion 2 – T0IS0000000001300002 Portion 5 – T0IS0000000001300005 Portion 12 – T0IS0000000001300012
			Contact Person	Carel Dirker		
			Postal Address	P.O. Box 3897, Witbank, 1035		
			Telephone	(013) 656 3816		
			Facsimile	(013) 656 5954		
			Cellular	082 325 6108		
e-mail	<a href="mailto:carel@brendanvillage.com">carel@brendanvillage.com</a>					
6.	Zandfontein 130 IS	Portions 8, 9	Name	Evander Gold Mines Ltd	Portion 8 – Agricultural Portion 9 – Agricultural	Portion 8 – T0IS0000000001300008 Portion 9 – T0IS0000000001300009
			Contact Person	B Conradie		
			Postal Address	Private Bag X1012, Evander		
			Telephone	(017) 620 1620		
			Facsimile	(017) 632 4046		
			Cellular	072 603 0622		
e-mail	<a href="mailto:boet.conradie@harmonv.co.za">boet.conradie@harmonv.co.za</a>					
7.	Grootspruit 279 IS	Portions 3, 5, Remaining Extent	Name	Evander Gold Mines Ltd	Portion 3 – Agricultural Portion 5 – Agricultural Rem Ext – Agricultural	Portion 3 – T0IS0000000002790003 Portion 5 – T0IS0000000002790005 Rem Ext – T0IS0000000002790000
			Contact Person	B Conradie		
			Postal Address	Private Bag X1012, Evander		
			Telephone	(017) 620 1620		
			Facsimile	(017) 632 4046		
			Cellular	072 603 0622		
e-mail	<a href="mailto:boet.conradie@harmonv.co.za">boet.conradie@harmonv.co.za</a>					
8.	Grootspruit 279 IS	Portion 7	Name	J.C. Els	Agricultural	T0IS0000000002790007

No	PropertyName	Portion	Owner		Zoning Status	21 Digit Surveyor General ID Number
			Contact Person	S van Niekerk		
			Postal Address	P.O. Box 35, Standerton,		
			Telephone	(017) 712 5211		
			Facsimile	086 614 1755		
			e-mail	<a href="mailto:svniekerk@ipsojure.co.za">svniekerk@ipsojure.co.za</a>		
9.	Grootspruit 279 IS	Portions 12, 14	Name	Siyalinga Small Scale Farmers Co-Operative	Portion 12 - Agricultural Portion 14 - Agricultural	Portion 12 – T0IS00000000027900012 Portion 14 – T0IS00000000027900014
			Contact Person	Daniel Vilakazi		
			Cellular	076 095 673		
10.	Grootspruit 279 IS	Portions 2, 9, 10	Name	Govan Mbeki Local Municipality	Portion 2 – Agricultural Portion 9 – Agricultural Portion 10 – Agricultural	Portion 2 – T0IS00000000027900002 Portion 9 – T0IS00000000027900009 Portion 10 – T0IS00000000027900010
			Contact Person	Albert Olivier		
			Postal Address	Private Bag X 1017, Secunda, 2302		
			Telephone	(017) 620 6000		
			Facsimile	(017) 631 3599		
			e-mail	<a href="mailto:albert.o@govanmbeki.gov.za">albert.o@govanmbeki.gov.za</a>		
11.	Rietkuil 283 IS	Portion 8	Name	eMbalenhle Community Trust	Agricultural	T0IS00000000028300008
			Contact Person			
			Postal Address			
			Telephone			
			Facsimile			
			Cellular			
			e-mail			
12.	Rietkuil 283 IS	Portion 6	Name	J.F.N.T. Pistorius	Agricultural	T0IS00000000028300006
			Contact Person	Willem Pistorius		
			Postal Address	PO Box 599, Standerton 2280		
			Telephone	(017) 702 3033		
			Cellular	083 282 4132		
13.	Rietkuil 283 IS	Portion 5	Name	Republic of South Africa	Agricultural	T0IS00000000028300005
			Contact Person	Basil Louw		
			Postal Address	Private Bag X3, Braamfontein		
			Telephone	(011) 339 6442		
14.	Rietvley 320 IS	Portion 3, Remaining Extent	Name	Sasol Synfuels (Pty) Ltd	Portion 3 - Agricultural Rem Ext – Agricultural	Portion 3 – T0IS00000000032000003 Rem Ext – T0IS00000000032000000
			Contact Person	AS Potgieter		
			Postal Address	P O Box 699, Trichardt 2300		
			Telephone	(017) 614 8000		
			Facsimile	(011) 522 5882		
			Cellular	082 499 4379		
			e-mail	<a href="mailto:ampie.potgieter@sasol.com">ampie.potgieter@sasol.com</a>		
15.	Rietvley 320 IS	Portion 4	Name	Sasol Mining (Pty) Ltd	Agricultural	T0IS00000000032000004
			Contact Person	AS Potgieter		
			Postal Address	P O Box 699, Trichardt 2300		
			Telephone	(017) 614 8000		
			Facsimile	(011) 522 5882		
			Cellular	082 499 4379		

No	PropertyName	Portion	Owner		Zoning Status	21 Digit Surveyor General ID Number
16.	Rietvley 320 IS	Portion 8	e-mail	<a href="mailto:ampic.potgieter@sasol.com">ampic.potgieter@sasol.com</a>	Agricultural	T0IS0000000032000008
			Name	Amos, Jiyana Buti		
			Contact Person	Amos Buti		
			Postal Address	9 Hulu Str Embalenthle		
			Cellular	072 120 8098		
<b>Centre Conveyor Option (Red)</b>						
17.	Witkleifontein 131 IS	Portion 1	Name	Sakhiswe CPA	Agricultural	T0IS0000000013100001
			Contact Person	S Ndlovu		
			Postal Address	P.O. Box 818, Evander, 2280		
			Cellular	082 044 2820		
18.	Witkleifontein 131 IS	Portion 2, 3, 4, Remaining Extent	Name	Evander Gold Mines Ltd	Portion 2 – Agricultural Portion 3 – Agricultural Portion 4 – Agricultural Rem Ext – Agricultural	Portion 2 – T0IS00000000013100002 Portion 3 – T0IS00000000013100003 Portion 4 – T0IS00000000013100004 Rem Ext – T0IS00000000013100000
			Contact Person	B Conradie		
			Postal Address	Private Bag X1012, Evander		
			Telephone	(017) 620 1620		
			Facsimile	(017) 632 4046		
			Cellular	072 603 0622		
e-mail	<a href="mailto:boet.conradie@harmony.co.za">boet.conradie@harmony.co.za</a>					
19.	Langverwacht 282 IS	Portion 2	Name	Evander Gold Mines Ltd	Agricultural	T0IS00000000028200002
			Contact Person	B Conradie		
			Postal Address	Private Bag X1012, Evander		
			Telephone	(017) 620 1620		
			Facsimile	(017) 632 4046		
			Cellular	072 603 0622		
e-mail	<a href="mailto:boet.conradie@harmony.co.za">boet.conradie@harmony.co.za</a>					
20.	Langverwacht 282 IS	Portion 11	Name	Hoëvelddrif Plaaslike Oorgangs Raad	Agricultural	T0IS00000000028200011
			Contact Person	Albert Olivier		
			Postal Address	Private Bag X 1017, Secunda, 2302		
			Telephone	(017) 620 6000		
			Facsimile	(017) 631 3599		
e-mail	<a href="mailto:albert.o@govanmbeki.gov.za">albert.o@govanmbeki.gov.za</a>					
21.	Grootspuit 279 IS	Portion 4	Name	M.L. Wienand	Agricultural	T0IS00000000027900004
			Contact Person	M Wienand		
			Postal Address	P.O. Box 1911, Manaba Beach, 4276		
			Telephone	(012) 991 1666		
			Cellular	083 441 2733		
e-mail	<a href="mailto:familysmi@telkonsa.net">familysmi@telkonsa.net</a>					
22.	Grootspuit 279 IS	Portion 7	Name	J.C. Els	Agricultural	T0IS00000000027900007
			Contact Person	S van Niekerk		
			Postal Address	P.O. Box 35, Standerton,		
			Telephone	(017) 712 5211		
			Facsimile	086 614 1755		

No	PropertyName	Portion	Owner		Zoning Status	21 Digit Surveyor General ID Number
23.	Grootspruit 279 IS	Portions 9, 10	e-mail	<a href="mailto:svniekerk@ipsojure.co.za">svniekerk@ipsojure.co.za</a>	Portion 9 – Agricultural Portion 10 - Agricultural	Portion 9 – T0IS00000000027900009 Portion 10 – T0IS00000000027900010
			Name	Govan Mbeki Local Municipality		
			Contact Person	Albert Olivier		
			Postal Address	Private Bag X 1017, Secunda, 2302		
			Telephone	(017) 620 6000		
			Facsimile	(017) 631 3599		
24.	Grootspruit 279 IS	Portions 8, 20	e-mail	<a href="mailto:albert.o@govanmbeki.gov.za">albert.o@govanmbeki.gov.za</a>	Portion 8 – Agricultural Portion 20 - Agricultural	Portion 8 – T0IS00000000027900015 Portion 20 – T0IS00000000027900020
			Name	Republic of South Africa		
			Contact Person	Basil Louw		
			Postal Address	Private Bag X3, Braamfontein		
			Telephone	(011) 339 6442		
25.	Rietkuil 283 IS	Portion 8	Name	eMbalenhle Community Trust	Agricultural	T0IS00000000028300008
			Contact Person			
			Postal Address			
			Telephone			
			Facsimile			
			Cellular			
26.	Rietkuil 283 IS	Portion 6	e-mail		Agricultural	T0IS00000000028300006
			Name	J.F.N.T. Pistorius		
			Contact Person	Willem Pistorius		
			Postal Address	PO Box 599, Standerton 2280		
			Telephone	(017) 702 3033		
			Cellular	083 282 4132		
27.	Rietkuil 283 IS	Portion 5	Name	Republic of South Africa	Agricultural	T0IS00000000028300005
			Contact Person	Basil Louw		
			Postal Address	Private Bag X3, Braamfontein		
			Telephone	(011) 339 6442		
28.	Rietvley 320 IS	Portion 3, Remaining Extent	Name	Sasol Synfuels (Pty) Ltd	Agricultural	Portion 3 – T0IS00000000032000003 Rem Ext – T0IS00000000032000000
			Contact Person	AS Potgieter		
			Postal Address	P O Box 699, Trichardt 2300		
			Telephone	(017) 614 8000		
			Facsimile	(011) 522 5882		
			Cellular	082 499 4379		
29.	Rietvley 320 IS	Portion 4	e-mail	<a href="mailto:ampie.potgieter@sasol.com">ampie.potgieter@sasol.com</a>	Agricultural	T0IS00000000032000004
			Name	Sasol Mining (Pty) Ltd		
			Contact Person	AS Potgieter		
			Postal Address	P O Box 699, Trichardt 2300		
			Telephone	(017) 614 8000		
			Facsimile	(011) 522 5882		
30.	Rietvley 320 IS	Portion 8	Cellular	082 499 4379	Agricultural	T0IS00000000032000008
			e-mail	<a href="mailto:ampie.potgieter@sasol.com">ampie.potgieter@sasol.com</a>		
			Name	Amos, Jiyana Buti		
			Contact Person	Amos Buti		

No	PropertyName	Portion	Owner		Zoning Status	21 Digit Surveyor General ID Number
			Postal Address	9 Hulu Str Embalenthle		
			Cellular	072 120 8098		
<b>Eastern Conveyor Option (Purple)</b>						
31.	Witkleifontein 131 IS	Portion 1	Name	Sakhisiswe CPA	Agricultural	T0IS00000000013100001
			Contact Person	S Ndlovu		
			Postal Address	P.O. Box 818, Evander, 2280		
			Cellular	082 044 2820		
32.	Witkleifontein 131 IS	Portion 4, Remaining Extent	Name	Evander Gold Mines Ltd	Portion 4 – Agricultural Rem Ext – Agricultural	Portion 4 – T0IS00000000013100004 Rem Ext – T0IS00000000013100000
			Contact Person	B Conradie		
			Postal Address	Private Bag X1012, Evander		
			Telephone	(017) 620 1620		
			Facsimile	(017) 632 4046		
			Cellular	072 603 0622		
			e-mail	<a href="mailto:boet.conradie@harmony.co.za">boet.conradie@harmony.co.za</a>		
33.	Adullam 577 IS	Remaining Extent	Name	Adullam Trust	Agricultural	T0IS00000000057700000
			Contact Person			
			Postal Address			
			Telephone			
			Facsimile			
			Cellular			
34.	Goedverwachting 287 IS	Remaining Extent	Name	Evander Gold Mines Ltd	Agricultural	T0IS00000000028700000
			Contact Person	B Conradie		
			Postal Address	Private Bag X1012, Evander		
			Telephone	(017) 620 1620		
			Facsimile	(017) 632 4046		
			Cellular	072 603 0622		
35.	Winkelhaak 135 IS	Portion 13	Name	Evander Gold Mines Ltd	Agricultural	T0IS00000000013500013
			Contact Person	B Conradie		
			Postal Address	Private Bag X1012, Evander		
			Telephone	(017) 620 1620		
			Facsimile	(017) 632 4046		
			Cellular	072 603 0622		
36.	Halvepan 286 IS	Remaining Extent	Name	Sasol Synfuels (Pty) Ltd	Agricultural	T0IS00000000028600000
			Contact Person	A Potgieter		
			Postal Address	P.O. Box 699, Trichardt, 2300		
			Telephone	(017) 614 8000		
			Facsimile	(011) 522 5882		
			Cellular	082 499 4379		
e-mail	<a href="mailto:anpie.potgieter@sasol.com">anpie.potgieter@sasol.com</a>					

No	PropertyName	Portion	Owner		Zoning Status	21 Digit Surveyor General ID Number
37.	Sasolkraal 289 IS	Portion 1	Name	Sasol Synfuels (Pty) Ltd	Agricultural	T0IS000000002890001
			Contact Person	A Potgieter		
			Postal Address	P.O. Box 699, Trichardt, 2300		
			Telephone	(017) 614 8000		
			Facsimile	(011) 522 5882		
			Cellular	082 499 4379		
e-mail	<a href="mailto:annie.potgieter@sasol.com">annie.potgieter@sasol.com</a>					
38.	Middelbult 284 IS	Portion 23	Name	Eskom Holdings	Agricultural	T0IS000000002840023
			Contact Person	E. Grunewald		
			Postal Address	P.O. Box 1491, Johannesburg, 2000		
			Telephone	011 800 5732		
			Facsimile	086 655 7036		
			Cellular	083 632 7668		
e-mail	<a href="mailto:ernest.grunewald@eskom.co.za">ernest.grunewald@eskom.co.za</a>					
39.	Middelbult 284 IS	Portions 9, 12, 13	Name	Sasol Synfuels (Pty) Ltd	Portion 9 – Agricultural Portion 12 – Agricultural Portion 13 - Agricultural	Portion 9 – T0IS000000002840009 Portion 12 – T0IS000000002840012 Portion 13 – T0IS000000002840013
			Contact Person	A Potgieter		
			Postal Address	P.O. Box 699, Trichardt, 2300		
			Telephone	(017) 614 8000		
			Facsimile	(011) 522 5882		
			Cellular	082 499 4379		
e-mail	<a href="mailto:annie.potgieter@sasol.com">annie.potgieter@sasol.com</a>					



## **APPENDIX 2**

### **APPENDIX 4 – SPECIALIST REPORT**

#### **4.5 Conveyor Route Trade/Off Study**

**WORLEY PARSONS**

**M3230-01-03 SHONDONI MINE PROJECT**

**Techno Economic Study**



**WorleyParsons**

(ASX:WPL)

CONVEYOR ROUTE TRADE OFF STUDY

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# **M3230-01-03 SHONDONI MINE PROJECT**

## **Conveyor Route Trade Off Study**

**WorleyParsons Project Number : 1106**

**SASOL Mining Project Number: M3230**

Prepared by: D. G. Young Project Engineer, WorleyParsons

09 September 2009



## CONVEYOR ROUTE TRADE OFF STUDY

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### SYNOPSIS

#### Disclaimer

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## CONVEYOR ROUTE TRADE OFF STUDY

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### 1. OVERVIEW

When the Sasol Mining selected Overland Conveyor Route (Central Route) was initially overlaid on the area topographical contour plan it was observed that certain sections of the conveyor transgressed over a number of areas which are subject to annual flooding. Elevating the conveyor above the flood levels drastically reduces maintenance access. Creating a backfill area substantial enough to support the conveyor as well as providing vehicular access alongside the conveyor was seen to be environmentally difficult. In addition the proximity of the Slimes Dam to the conveyor may be detrimental to conveyor reliability in the longer term. As part of an internal Value Engineering exercise WorleyParsons identified a potential alternative conveyor route, hence the West Route materialised.

The concept of an alternative conveyor route was first discussed with the Sasol Mining Project Team on **7th August 2009** and subsequently formed part of the Phase 1 deliverables.

The first formal review of the Overland Conveyor Routes, those being the Client selected Central Route and the WorleyParsons proposed West Route, were tabled at the Sasol Mining / WorleyParsons Risk Review held on **18<sup>th</sup> August 2009**.

Although not shown on the drawing a possible alternative route to the south, for the conveyor to run parallel with the planned Impumelelo overland conveyor was discussed. This had distinct advantages such as:

- Way leave permits in place,
- Better security,
- Improved safety i.e. away from habitation
- Power availability for transfer tower drives.

It was felt that the increase in capital cost due to the increased conveyor length did not justify further investigation of this possibility.

Although the WorleyParsons team had anticipated some pre - selection of a preferred route, a decision was deferred to a meeting held on **20<sup>th</sup> August 2009** when a larger team of mine related engineers could contribute to the decision making process. At this meeting the West and Central routes complete with route cross section contour profiles were reviewed.

Sasol Mining proposed that a further third route to the South East be investigated as this route was seen to be shorter. WorleyParsons stated that due to the adverse terrain of the South East route this would take some three to four working days to create the conveyor route with suitable conveyor curves and contour profiles. Sasol Mining requested that these drawings be finalised by **27<sup>th</sup> August 2009**. The drawings were handed to Sasol Mining on **28th August 2009** for overview by Sasol Mining in preparation for a further review meeting set up for **4<sup>th</sup> September 2009**.

## CONVEYOR ROUTE TRADE OFF STUDY

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The conveyor route review was held on **4<sup>th</sup> September 2009** and attended by the Sasol Mining and WorleyParsons project team members. WorleyParsons presented the three routes via a drawing review which was followed by a Qualitative Conveyor Route Trade Off Study. Some eighteen parameters had been selected by WorleyParsons. These were then rated in terms of their impact on each selected route. Some additional parameters relating to the future expansion of the Harmony Slimes Dam, the Sakisiswe land area and the future Synfuels ash disposal area were requested to be included in the matrix. These should also be indicated on an update of the conveyor route drawing. WorleyParsons would also compile a Quantitative Analysis based on the same parameters. The revised drawing and Trade Off Studies are to be available by **9<sup>th</sup> September 2009** in order that Sasol Mining Project Team can prepare for a presentation to the Steering Committee on **11<sup>th</sup> September 2009**.

Some four weeks of design project time have been expended in investigating the various conveyor routes (**18<sup>th</sup> August - 14<sup>th</sup> September 2009**). It is there for imperative that a final decision is taken at the Steering Committee Meeting such that more detailed conveyor layouts can proceed.

### 2. QUANTITATIVE AND QUALITATIVE ASSESSMENT

Notes are incorporated on the Qualitative Spread Sheet. These should be read in conjunction with the Trade Off.

The notes incorporated on the Quantitative Spread Sheet explain the basis on how the Analysis was compiled. With these types of Analyses the Option with the highest rating is always deemed to be the most favourable.

### 3. APPENDICES

1 off page Qualitative Analysis

1 off page Quantitative Analysis

1 off CD of Drawing No. 1106 000 GE DAL 0002 02 REV A Site Plan (Conveyor Routes)

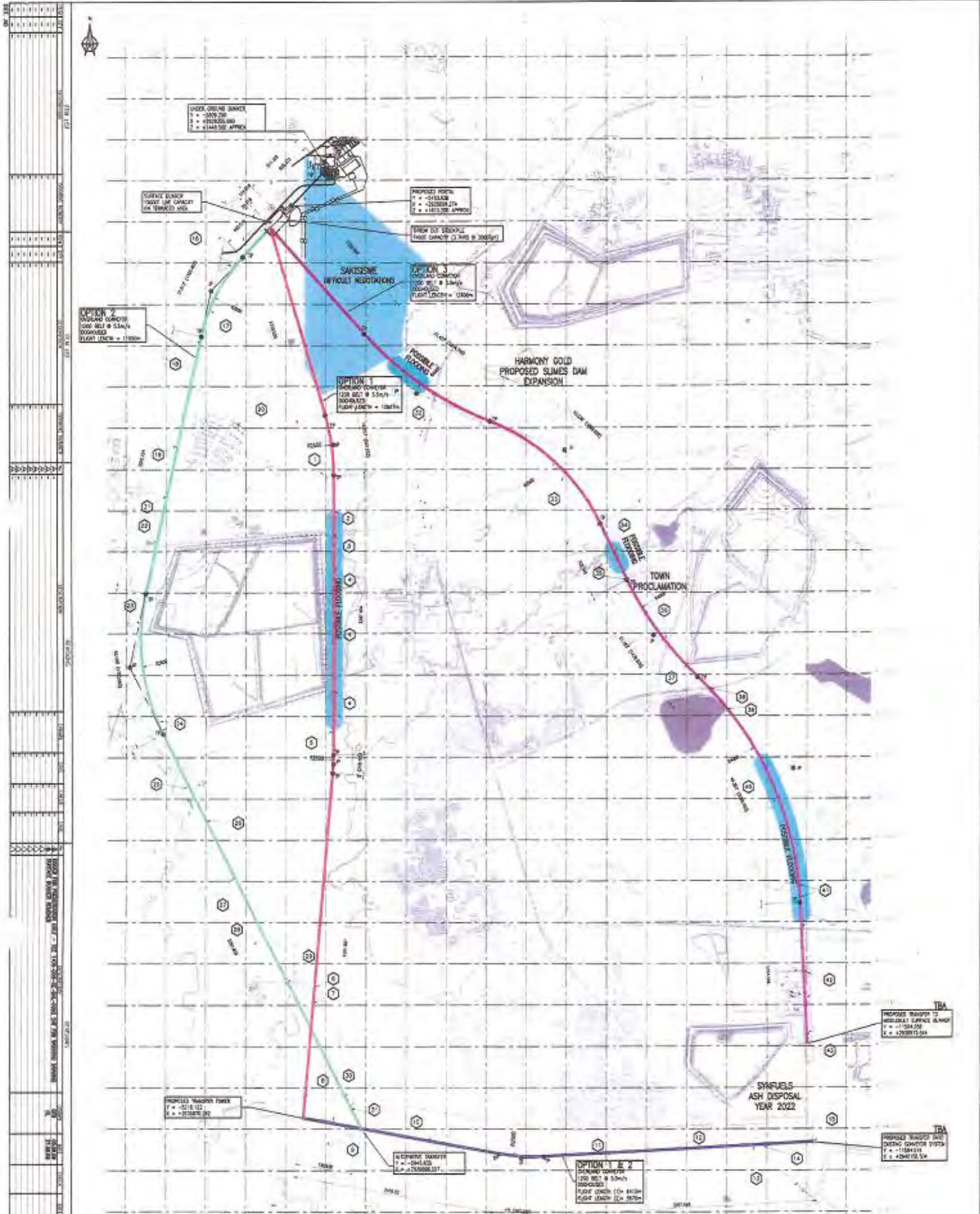
## CONVEYOR ROUTE TRADE OFF STUDY

SHONDONI OVERLAND CONVEYOR ROUTE QUANTITATIVE AND QUALITATIVE ASSESSMENT					
ID	PARAMETERS	Units	OPTION 1 CENTRAL ROUTE	OPTION 2 WEST ROUTE	OPTION 3 SOUTH EAST ROUTE
0	CONVEYOR LENGTH CONVEYOR COST - STRAIGHT LINE Cost per metre	Km ZAR 20000	17.1 485,018,800	17.8 490,245,000	12.8 352,744,000
1	EARTHWORKS TO SUPPORT RAISED CONVEYORS Compacted backfill per m3 Estimated cost including earthworks	ZAR 200 ZAR	38,000,000 (Length = 1800m x 100m2 area) 821,018,800	0 490,245,000	48,000,000 (Length = 2400m x 100m2 area) 400,744,000
1	Alternatively allow for raised conveyors on elevated sections Allow additional cost 1m for stackwork and storage Estimated cost for raised conveyors without earthworks	ZAR 10000 ZAR	18,000,000 Length = 1800m 302,018,800	900,000 Length = 90m 490,845,000	24,000,000 Length = 2400m 376,744,000
1	Conceptual Annual Operating Cost Cost per Tonne per Kilometer Delta vs lowest Annual Operating Cost	ZAR 0.15 ZAR	28,881,300 10,440,180	28,367,040 7,225,820	18,141,120 -
2	NO. OF CONVEYOR ELEMENTS/FLIGHTS		3	3	1
3	ACCESSIBILITY FOR MAINTENANCE		Poor	Good	Very Poor
4	WATERWAY CROSSINGS/ SEASONAL FLOODING GANTRIES OVER MAIN STREAM CROSSINGS AND WETLAND		3 / High	3 / Low	4 / High
5	COAL SPILLAGE/OVERLOADING/TRACKING		Medium	Low	High
6	NO. OF TRANSFER POINTS / TRANSFER TOWERS		3	2	1
7	ENVIRONMENTAL PERMITTING		High	Low	Very High
8	LAND WAYLEAVES		Medium	Medium / High	Very High
9	RELIABILITY		Average	Good	Average
10	NOISE POLLUTION		Poor	Poor	Poor
11	SECURITY / TOWN / PEOPLE PROXIMITY		Poor	Poor	Poor
12	POWER LINE CROSSINGS / Eskom PERMISSIONS		4 / Yes	6 / Yes	8 Plus / Yes
13	TAR ROAD CROSSINGS THROUGH CULVERTS		3	7	4
14	TAN ROAD CROSSINGS ELEVATED		2	0	2
15	FARM ROAD CROSSINGS THROUGH CULVERTS		1	7	0
16	ADJACENT EXISTING SILMES DAMS OR OTHER DAMS		1	1	2
17	ADJACENT PROPOSED HARMONY SILMES DAM EXPANSION		No	No	Yes
18	ADJACENT FUTURE SYNFUELS ASH DISPOSAL		No	No	Yes
19	ADJACENT SAKISISWE (POTENTIALLY DIFFICULT NEGOTIATIONS)		No	No	Yes
20	THROUGH EXISTING TOWN PROCLAMATION		No	No	Yes
21	ADJACENT EXPLOSIVES STORE		Yes	No	No
22	CATTLE CROSSINGS REQUIRED - RAISED CULVERT ROAD		To be determined	To be determined	To be determined
	<p>NOTES</p> <p>Conveyor flights can be repaired as access for each route</p> <p>With earthwork to cover quantity like 075 400 400 estimate all unqualified i.e. they have been estimated</p> <p>Diverted conveyor partly quantity take off for supply and erection costs are unqualified i.e. they have been estimated</p> <p>Always for maintenance of conveyors and emergency events such as floods, belt breaks, belt slips &amp; major spillage should be advised freely with route selection</p> <p>Environmental permitting for river crossings and easements need to be taken cognizance of with West African - controlled by EA Consultant</p>				

## CONVEYOR ROUTE TRADE OFF STUDY

### 4. QUANTITATIVE ANALYSIS

SHONDONI OVERLAND CONVEYOR ROUTE QUANTITATIVE ANALYSIS								
The competing overland conveyor routes are rated on a score of 0 to 10 against the same series of parameters as in the analysis. Low values represent a poor fit with ranking parameters, higher values represent a better fit. Finally to facilitate decision making, the categories are weighted to reflect their perceived relative importance to Sasol Mining.								
ID	RANKING PARAMETERS	WEIGHTING %	OPTION 1 CENTRAL ROUTE		OPTION 2 WEST ROUTE		OPTION 3 SOUTH EAST ROUTE	
			RATING	WEIGHTED	RATING	WEIGHTED	RATING	WEIGHTED
1	CONVEYOR LENGTH / COST	20	8	16	8	16	10	20
3	ACCESSABILITY FOR MAINTENANCE	20	6	10	10	20	2	4
9	RELIABILITY	10	7	7	8	8	6	6
4	WATERWAY CROSSINGS / SEASONAL FLOODINGS	5	2	1	8	4	2	1
7	ENVIRONMENTAL PERMITTING	4	4	1.6	6	2.4	2	0.8
14	TAR ROAD CROSSINGS ELEVATED	4	3	1.2	6	2	3	1.2
2	NO. OF CONVEYOR ELEMENTS / FLIGHTS	3	6	1.8	5	1.5	10	3
5	COAL SPILLAGE: OVERLAND TRACKING	3	5	1.5	6	1.8	2	0.6
6	NO. OF TRANSFER POINTS / TRANSFER TOWERS	3	7	2.1	7	2.1	6	2.4
8	LAND WAYLEAVES	3	6	1.8	5	1.5	2	0.6
10	NOISE POLLUTION	3	4	1.2	7	2.1	7	2.1
11	SECURITY / TOWN / PEOPLE PROXIMITY	3	4	1.2	4	1.2	4	1.2
12	POWER LINE CROSSINGS / ESKOM PERMISSIONS	3	6	1.8	5	1.5	2	0.6
20	THROUGH TOWN PROCLAIMED AREA	3	10	3	10	3	3	0.9
13	TAR ROAD CROSSINGS THROUGH CULVERTS	2	6	1	6	1	6	1
16	FARM ROAD CROSSINGS THROUGH CULVERTS	2	6	1.2	6	1.2	8	1.6
16	ADJACENT SLIMES DAMS	2	2	0.4	7	1.4	2	0.4
17	ADJACENT HARMONY DAM	2	10	2	10	2	2	0.4
18	ADJACENT FUTURE SYN FUELS ASH DISPOSAL	2	10	2	10	2	2	0.4
19	ADJACENT SAKISISWE	2	10	2	10	2	2	0.4
21	ADJACENT EXPLOSIVES STORE	1	2	0.2	10	1	10	1
22	CATTLE CROSSINGS	Ignored						
Total		100	55.1		77.7		49.6	
<b>CONCLUSIONS</b>								
On the basis of the above analysis Option 2, the West route should be selected as the preferred Overland Conveyor route. The conclusion is consistent with the comments, debate and final qualitative selection by the combined Sasol Mining and Worley Parsons Project Teams at the meeting held on 4th September 2009 at the Sasol Mining Offices.								



**SHONDONI MINE LAYOUT**  
SCALE 1:115000

1:150

**Sasol Mining (Pty) Ltd**

**MONEY PARSONS ENGINEERING CONSULTANTS (Pty) Ltd**

**PROPOSED SITE PLAN**

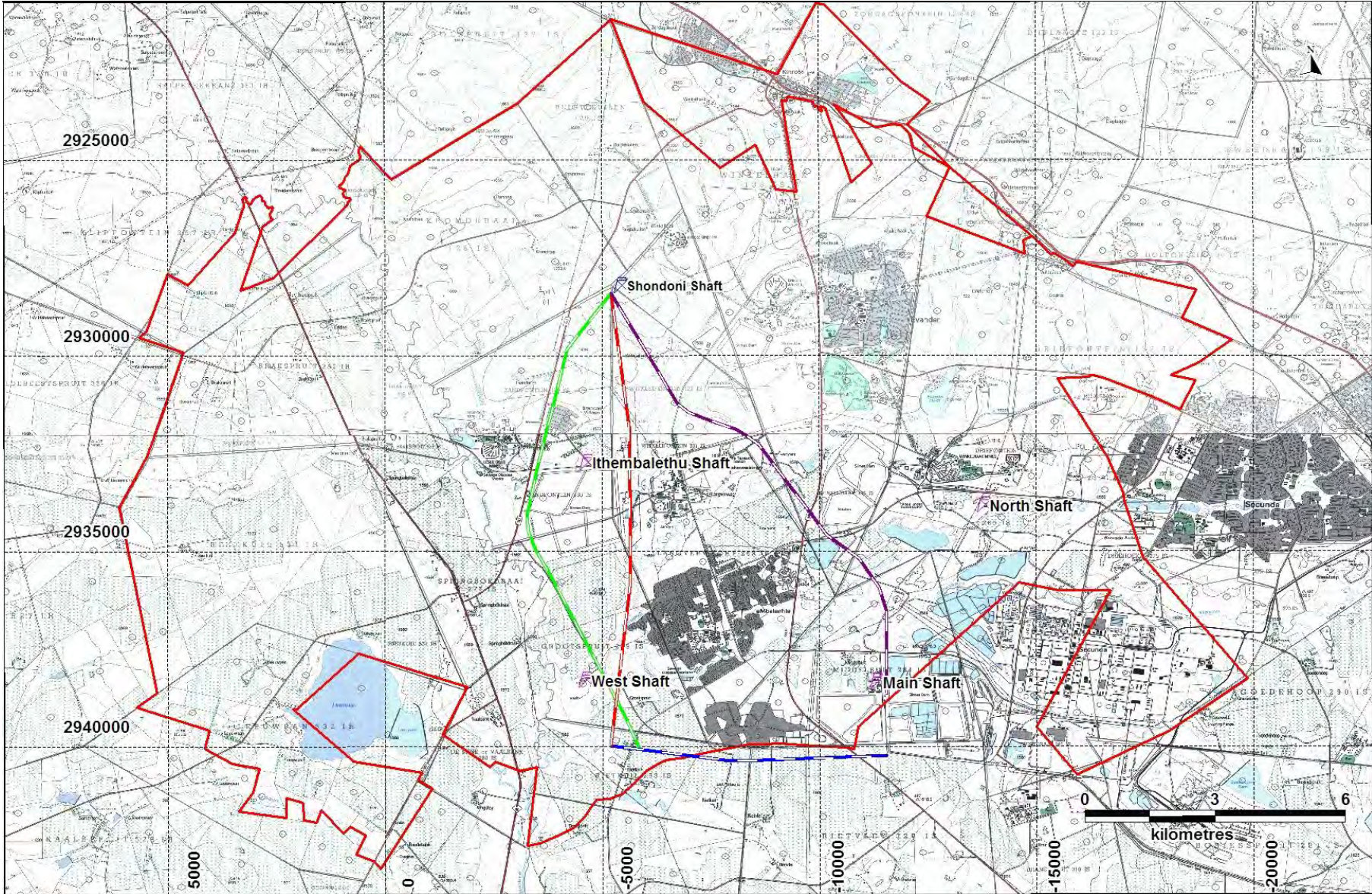
DATE: 11/08/2020  
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CHECKED: [Name]

NO.	DESCRIPTION	DATE	BY	FOR
1	Site Plan	11/08/2020	[Name]	[Name]
2	Site Plan	11/08/2020	[Name]	[Name]
3	Site Plan	11/08/2020	[Name]	[Name]
4	Site Plan	11/08/2020	[Name]	[Name]
5	Site Plan	11/08/2020	[Name]	[Name]
6	Site Plan	11/08/2020	[Name]	[Name]
7	Site Plan	11/08/2020	[Name]	[Name]
8	Site Plan	11/08/2020	[Name]	[Name]
9	Site Plan	11/08/2020	[Name]	[Name]
10	Site Plan	11/08/2020	[Name]	[Name]

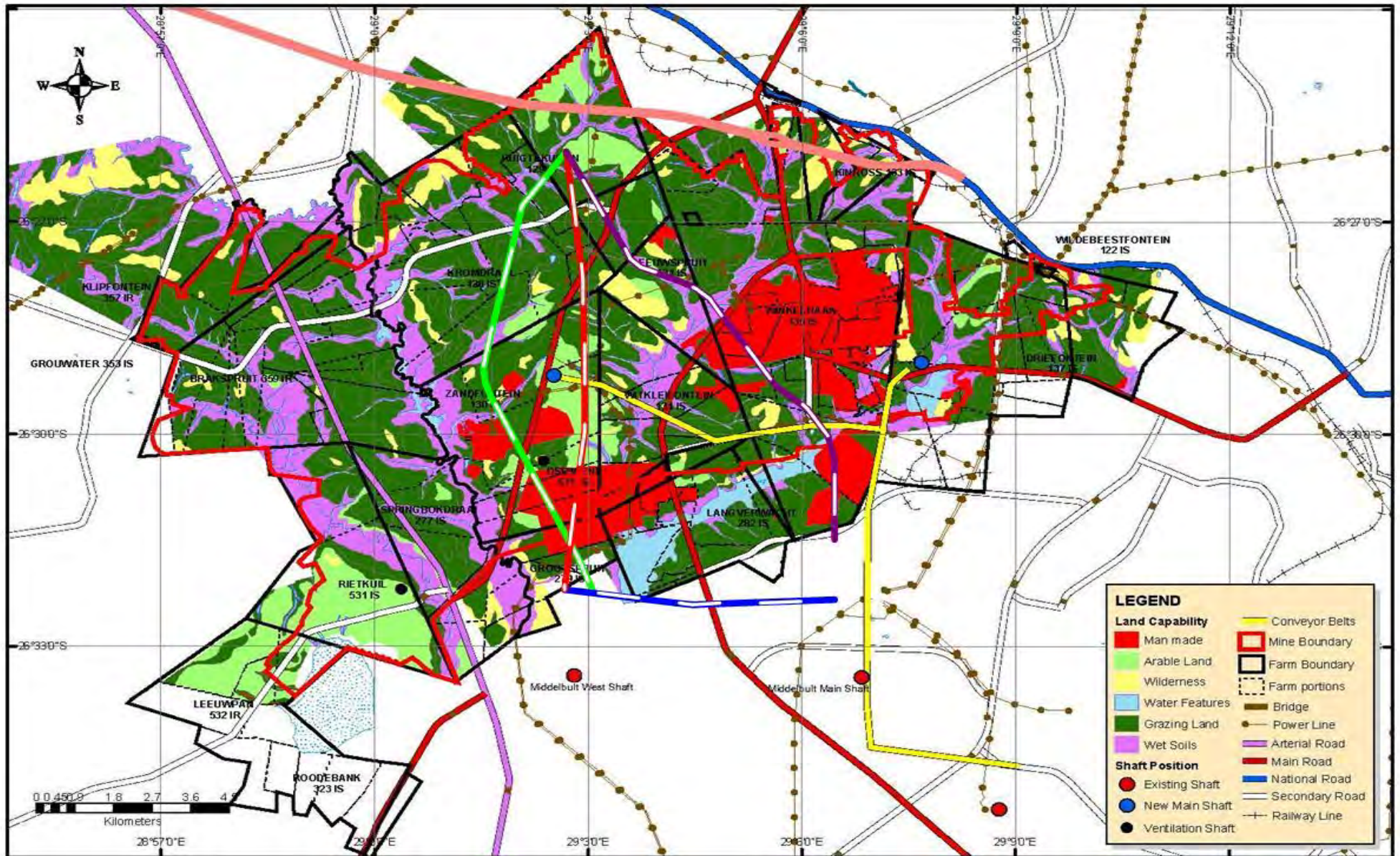


**APPENDIX 3**  
**ENVIRONMENTAL BASE MAPS**

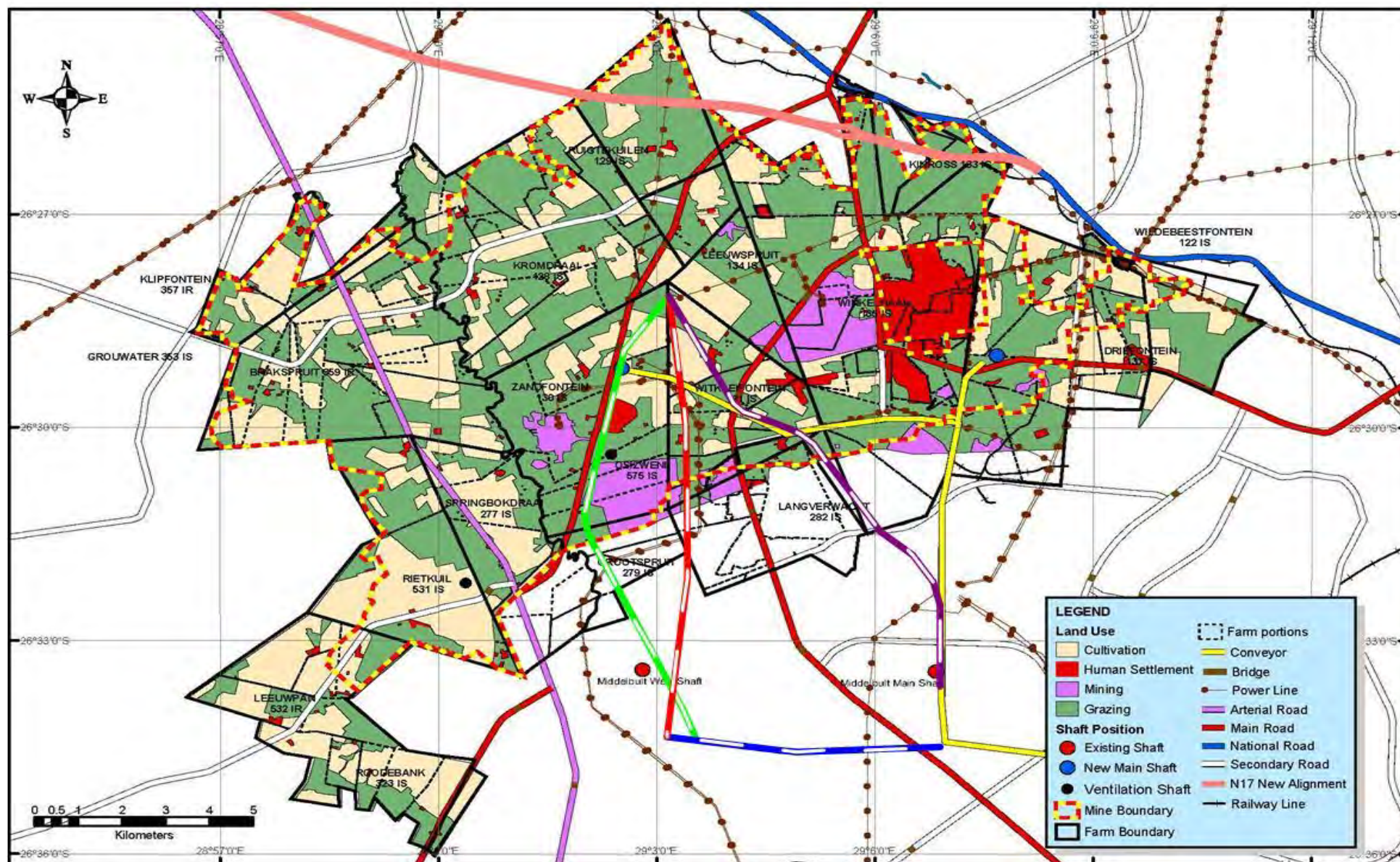
# TOPOGRAPHIC MAP WITH SURFACE STREAMS



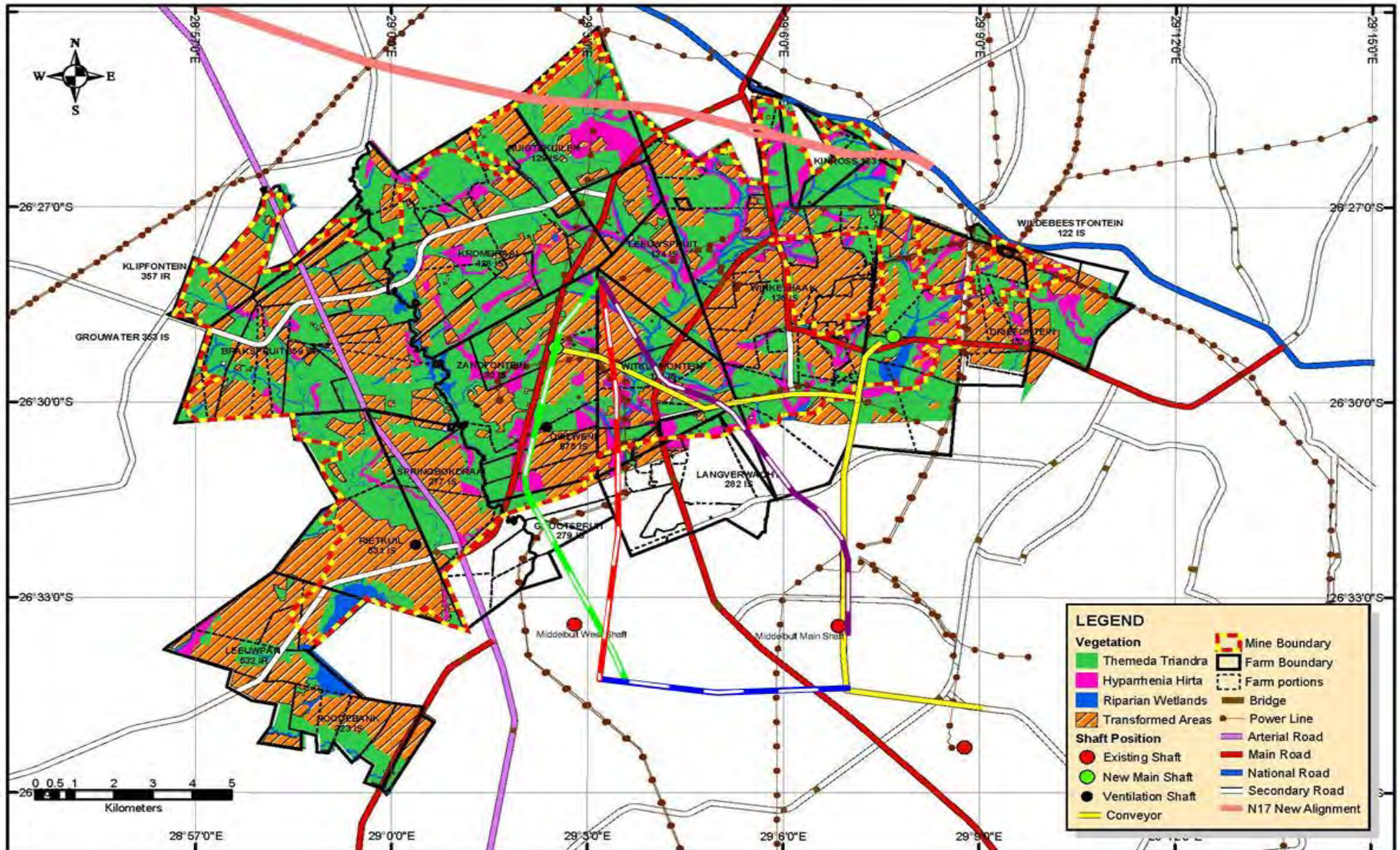
**LAND CAPABILITY MAP (NOTE EXTENT OF WET SOILS WHICH INDICATE WETLAND AREAS)**



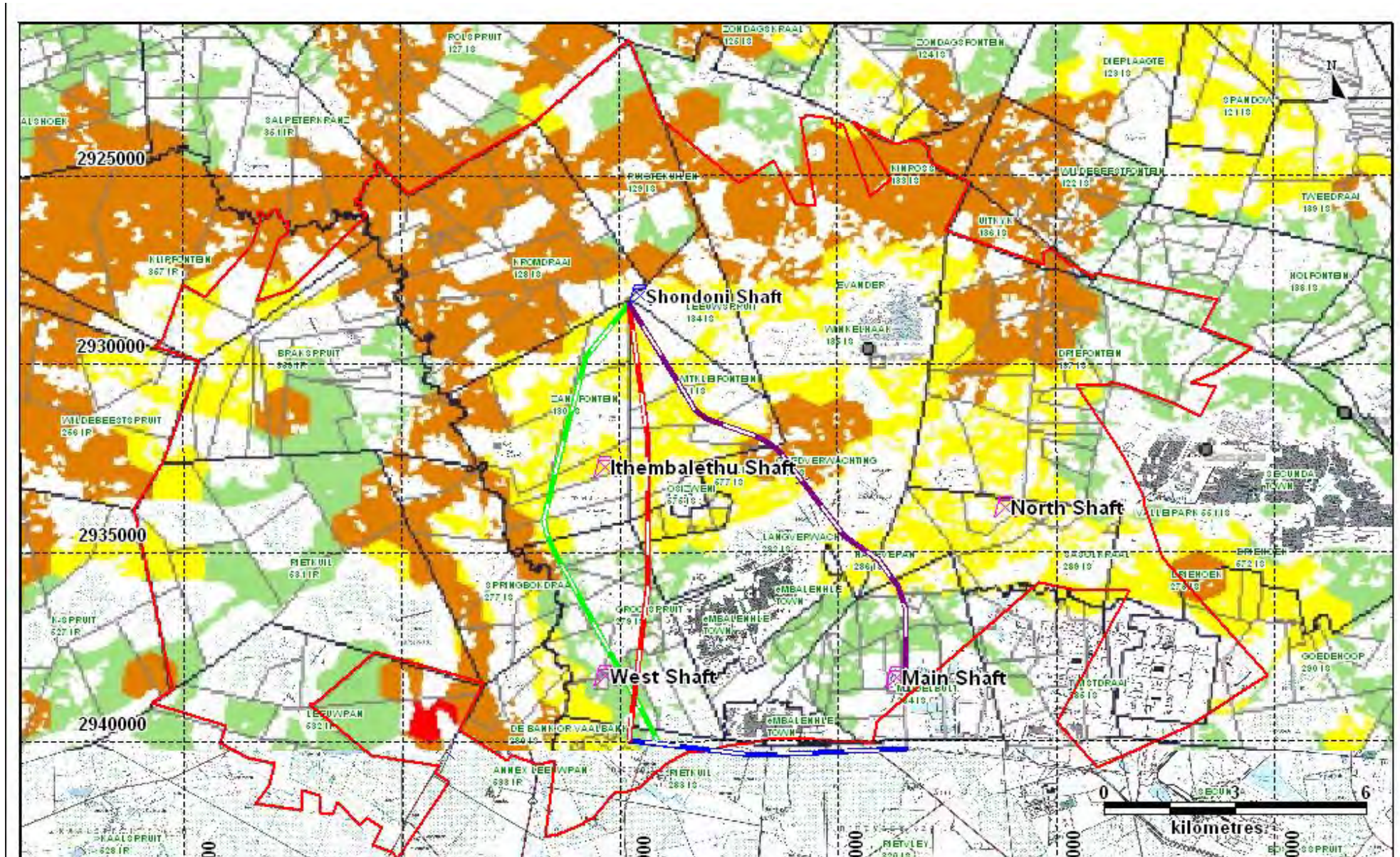
# LAND USE MAP



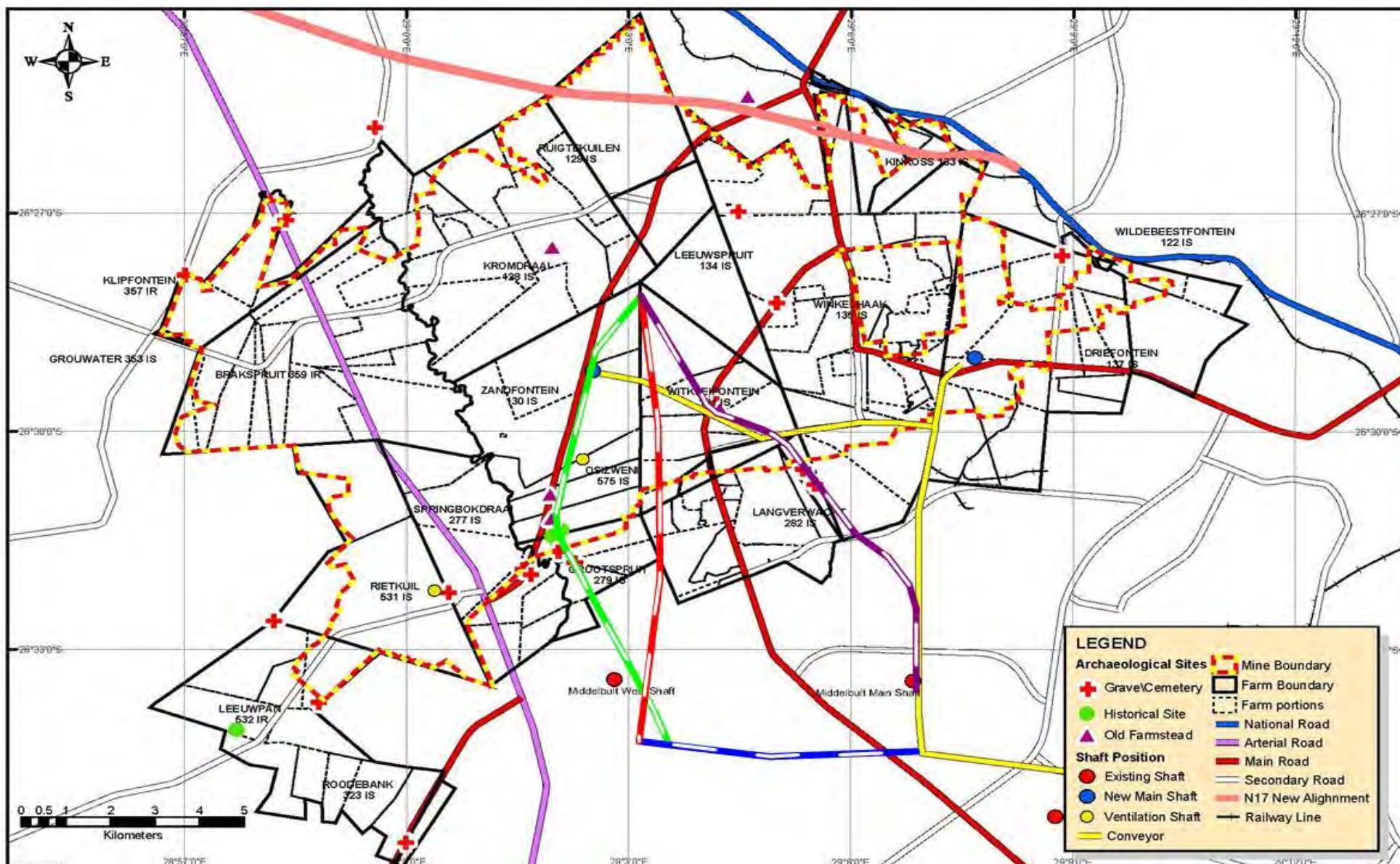
# VEGETATION MAP



# MPUMALANGA BIODIVERSITY CONSERVATION PLAN MAP



# HERITAGE AND CULTURAL INTEREST FEATURES MAP



## **APPENDIX 4**

### **CONSULTATION WITH LAND OWNERS**

**Invitation Letters**  
**Agenda**  
**Attendance Register**  
**Presentation Handout**  
**Minutes of Meeting**  
**Comments Register**  
**Landowner Consent Letter**





## JMA Projek Verwysingsnommer – JMA/10391

11 Maart 2010-03-11

### **VIR AANDAG: Grondeienaar**

Geagte Mnr / Mev

### **SASOL MYNBOU – MIDDELBULT (BLOK 8) SHONDONI SKAG PROJEK – BEPLANDE VERVOERBAND ROETE FOKUS GROEP VERGADERING**

Met verwysing na die bogenoemde projek, word u as „n geïdentifiseerde grondeienaar wat direk geaffekteer gaan word deur die ontwikkeling hiermee formeel uitgenooi om die fokus groep vergadering aangaande die ligging van die skag infrastruktuur en beoogde vervoerband roete en by te woon.

Tydens die genoemde vergadering sal lede van JMA Consulting (Pty) Ltd „n voordrag lewer waarin die motivering en besluitnemingsproses uitgestip sal word aangaande Sasol Mynbou se voorkeur opsie t.o.v. die ligging van die vervoerband roete, vanaf die nuwe skag area na Sasol Sentrale Steenkool Stoor Area. Gedurende die vergadering sal daar aan die geaffekteerde grond eienaars die geleentheid gebied word om enige bekommernis wat hul aangaande die vervoerband roete mag hê, te opper, asook „n geleentheid om vrae te vra i.v.m. enige groottes en/of dimensies van die vervoerband roete.

Die vergadering sal gehou word op Vrydag die 19<sup>de</sup> Maart 2010 om 10uur te Brenden Village. Hierdie vergadering word gesien as „n krities belangrike komponent van die formele publieke deelname proses. Dit dien ook die doel om alle geaffekteerde partye op hoogte te hou van die stand van sake wat betref die projek, deurdat effektiewe kommunikasie tussen die applikant, Sasol Mynbou, en die geaffekteerde partye onnodige misverstande verhoed en aanleiding gee tot „n effektiewe en professionele verhouding tussen alle partye wat betrokke is.

U teenwoordigheid by hierdie vergadering word hoog op prys gestel. Indien u dit moeilik of selfs onmoontlik sou vind om die vergadering by te woon word u vriendelik versoek om die ondergetekende, so gou as moontlik, in kennis te stel daarvan. Kontak besonderhede is beskikbaar in die briefhoof of u kan „n epos stuur aan [R.Fourie@jmaconsult.co.za](mailto:R.Fourie@jmaconsult.co.za).

Vriendelike Groete

Riaan Fourie  
(Cand.Sci.Nat)



JMA Project Reference Number - **JMA / 10391**

09 March 2010

**ATTENTION: Landowner**

Dear Sir/Madam

**SASOL MINING – MIDDELBULT (BLOCK 8) SHONDONI SHAFT PROJECT – PROPOSED CONVEYOR ROUTE FOCUS GROUP MEETING**

With reference to the above mentioned project, as an identified affected landowner you are hereby cordially invited to attend the focus group meeting during which the proposed conveyor route site selection alternatives will be discussed.

During the meeting JMA will present the motivation and decision-making processes followed in choosing the Sasol Mining preferred conveyor route option. An opportunity will be given to affected landowners to raise concerns and/or to ask questions, which they may have regarding any aspect or dimensions of the proposed conveyor route.

This meeting will be held on the 19<sup>th</sup> of March 2010 at 10:00am at the Brendan Lodge in Brendan Village. This meeting presents a key component in the formal Interested & Affected Parties' engagement process. It is also an important informative discussion between Sasol Mining and stakeholders, such as yourself which is viewed as an essential tool to ensure that an effective professional relationship continues to exist between all parties involved.

Your attendance at this meeting will be greatly appreciated. If you, however, find it difficult or impossible to attend the meeting at the specified date, please inform the undersigned in writing as soon as possible. The contact details are appended in the letterhead or you can email [R.Fourie@jmaconsult.co.za](mailto:R.Fourie@jmaconsult.co.za).

Regards

Riaan Fourie  
(Cand.Sci.Nat)

# **SASOL MINING MIDDELBULT (BLOCK 8) SHONDONI PROJECT**

## **OVERLAND CONVEYOR ROUTE – FOCUS GROUP MEETING BRENDAN LODGE BRENDAN VILLAGE**



**10:00  
19 MARCH 2010**

### **A G E N D A**

- |   |                      |
|---|----------------------|
| <b>1. Welcome</b>                         | <b>Gail Nussey</b>   |
| <b>2. Purpose of Meeting</b>              | <b>Jasper Müller</b> |
| <b>3. Background to the Project</b>       | <b>Jasper Müller</b> |
| <b>4. Presentation on Route Selection</b> | <b>Jasper Müller</b> |
| <b>5. Preferred Alternative</b>           | <b>Jasper Müller</b> |
| <b>6. Properties Affected</b>             | <b>Riaan Fourie</b>  |
| <b>7. Landowners Consent</b>              | <b>Riaan Fourie</b>  |
| <b>8. Discussion</b>                      | <b>Jasper Müller</b> |
| <b>9. Way Forward</b>                     | <b>Jasper Müller</b> |
| <b>10. Closure</b>                        | <b>Jasper Müller</b> |



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Sustainable Environmental Solutions through integrated Science and Engineering

## ATTENDANCE REGISTER – SASOL MINING MIDDELBULT (BLOCK 8) SHONDONI CONVEYOR FOCUS GROUP MEETING– 19 MARCH 2010

NAME	COMPANY	CONTACT NO.	E-MAIL ADDRESS
JASPER MÜLLER	JMA CONSULTING (PTY) LTD	(013) 665 1788	jasper@jmaconsult.co.za
RIAN FOURIE	JMA CONSULTING (PTY) LTD	n	r.fourie@jmaconsult.co.za
Gail Nussey	Sasol Mining (Env. Management)	017 614 2207	gail.nussey@sasol.com
Philani Mahaye	Sasol Mining Middelbult	082 417 9418	philani.mahaye@sasol.com
Ignatius Mathelele	Govan Mbeki Municipality	(07) 620 6200	ignatius.m@govanmbeki.gov.za
DRIES VENTER	BRENDAN VILLAGE	082 923 6073	brendanlodge@woc.co.za
Eugene' Du Plooy	Landowner	0829402852	eugenedp@selectppe.co.za
CAREL DIRKSE	BRENDAN VILLAGE	013 - 6563816	carel@brendanvillage.com
MORNE COMBRINK	LANDOWNER	0823882150	MIKE.COMBRINK@HOTMAIL.COM
Hennie Schoeman	SMRD	0824994374	hennie.schoemani@sasol.com

# SASOL MINING MIDDELBULT (BLOCK 8) SHONDONI PROJECT

## OVERLAND CONVEYOR ROUTE – FOCUS GROUP MEETING BRENDAN LODGE BRENDAN VILLAGE



10:00  
19 MARCH 2010

### MINUTES OF THE MEETING

Jasper Müller (JM) opened the meeting by introducing himself and welcoming all of the members present. JM then explained that the purpose of the meeting was to inform the potential affected landowners of the selection process followed by Sasol Mining with regards to the selection of a preferred conveyor route, to afford them the opportunity to give inputs into the selection process if they so wish and finally to facilitate agreement on the preferred alternative.

JM then continued to give an explanation of the background to the project and also explaining the type of authorizations that are required. JM then discussed the process that was followed during route selection by stating that this process was based on a Techno Economic Study that was performed by WorleyParsons on behalf of Sasol Mining (**M3230-01-03 SHONDONI MINE PROJECT, Conveyor Route Trade Off Study, WorleyParsons Project Number : 1106, SASOL Mining Project Number M3230, 9 September 2009**). JM also mentioned that JMA Consulting (Pty) Ltd (JMA) had performed an Environmental Route Ranking Exercise to determine the preferred alternative from an Environmental Perspective and that a report thereupon have been compiled that will be subsequently finalized after the completion of the meeting. This report will then form part of the formal EIA process documentation that will be submitted to the authorities.

JM proceeded to give a more technical explanation of what exactly the proposed conveyor route will look like, all the components that it will comprise of, and, what measures can be undertaken to minimize the impact thereof on the surrounding environment.

JM further went on to discuss the trade off study that was undertaken by WorleyParsons to determine a preferred option with regards to location for the proposed conveyor route. JM explained that some 18 parameters were identified and they were then awarded a numerical rating according the impact thereof on the three different alternative routes. These eighteen parameters included the following:

- Security/Town/People Proximity
- Power line crossings / Eskom permissions
- Through town proclaimed area
- Tar road crossings through culverts
- Farm road crossings through culverts
- Adjacent slimes dams
- Adjacent Harmony dam
- Adjacent future Synfuels ash disposal
- Adjacent Sakisiswe
- Adjacent explosives store
- Cattle crossings
- Conveyor length/cost
- Accessibility for maintenance
- Reliability
- Waterway crossings/seasonal flooding
- Environmental permitting

- Tar road crossing
- No. of conveyor elements flights
- Coal spillage: overland tracking
- No. of transfer points/Transfer towers
- Land wayleave's
- Noise pollution

JM stated that the results of this trade off study was that the proposed western route were the preferred alternative from an engineering, operational and cost perspective by a significant numerical margin.

JM then said that as part of their terms of reference in support of the application for Environmental Authorizations, JMA conducted a route ranking exercise from a pure environmental perspective, neither including public acceptance, nor technical and financial considerations. JM then explained the criteria that were selected for this route ranking exercise, with specific reference to the overland conveyor routes. These included:

- Surface Water Quality (number of stream crossings)
- Surface Water Quality ( length of stream crossings – flood lines)
- Noise (proximity to residential areas)
- Aquatic Ecology (number of crossing of wetland areas)
- Aquatic Ecology (extent of wetland areas)
- Land Capability (crossing of arable, grazing, compromised)
- Land Use (cultivation, grazing, compromised)
- Vegetation (high, moderate, low) – (hirta, triandra, transformed)
- Biodiversity (highly significant, important & necessary, least concern)
- Presence of heritage and cultural interest features

JM discussed each of these criteria and stated that the results of this route ranking exercise confirmed that from an environmental perspective the western route is also the preferred alternative for the proposed overland conveyor route. JM indicated that the few river and wetland crossings most probably carry the most weight in this regard. Another reason this route benefited from the assessment is the fact that this route follows a road servitude for a significant part of its length which implies minimal influence on agricultural land use. JM however also stated that one of the most critical potential impacts of this western route probably relates to its close proximity to residential areas (Brendan Village & eMbalenhle).

Riaan Fourie (RF) then explained where servitudes for this conveyor will have to be negotiated by indicating all of properties that are to be affected by the western and centre conveyor route options. RF gave a description of the size and dimensions of these proposed servitudes. RF also raised the issue and importance of landowners consent to the future of the project and for the registration of servitudes.

JM then proceeded to the discussion phase on the agenda during which the focus group members were awarded the opportunity to ask questions, raise concerns or objections to topic at hand.

Carel Dirker (CD) started of by saying that the farmers in the surrounding area have a big concern regarding the security of their future water supply. CD stated that the proposed mining operations in the area will compromise the boreholes in the area which forms a critical part of farming operations in the area. CD mentioned that perhaps Sasol Mining could construct a reservoir to serve the area to be affected by a loss of ground water. CD also stated that future use will present a cost implication and raised the issue of compensation.

Hennie Schoeman and Gail Nussey explained that should it become evident that any borehole, of which the details was logged prior to the commencement of the mine, is affected detrimentally as a direct result to the mining operations taking place in the area, the owner of that borehole will be fully compensated for his loss based on historical use.

Eugéné du Plooy (EdP) asked a question of exactly where the shaft infrastructure will be constructed. This was explained to her. CD then stated that the preferred western route will induce a loss of agricultural land currently being leased by Mike Combrink (MC) and that MC indicated to him that he is not interested in compensation for a conveyor servitude running through the land but that he rather just wants to continue his using the land in his efforts to produce food. CD also said that after discussion between the affected landowners they came up with a suggestion that the proposed conveyor route should rather follow the servitude just to the west of the Eskom line, more or less on par with the centre conveyor alternative. CD also vehemently stated that he is not in favour of the proposed western route which will run in close proximity to Brendan Village.

Ignatius Mathebula (IM) said that from the town planning division at Govan Mbeki Local Municipality's perspective they have got no problem with the preferred western route, but that the cemetery south of eMbalenhle should be kept in mind. IM also said that with regards to the centre route alternative, members of Extension 44 in eMbalanhle may have issues with dust, noise and visual aspects.

Harmony Gold mine were not present at the meeting but forwarded a list with concerns regarding the three alternatives to members of JMA. These are included in the Issues Register.

JM then concluded proceedings by saying that a final decision on what route to be taken for the overland conveyor will be taken after the ongoing negotiations between Sasol Mining Rights & Properties Department and the affected landowners have been completed. JM mentioned that JMA want to proceed with the formal EIA process in order to conduct specialist studies indicated in the Plan of Study Report, but also indicated that formal written consent will be needed to conduct these further specialist studies regarding the proposed conveyor route, e.g. Visual, Noise, and Heritage studies etc. JM said SMRD with the assistance of JMA will contact them in this regard.

These minutes for the record were compiled by:



Riaan Fourie  
(Cand.Sci.Nat)

## **Register of Concerns – Focus Group – Overland Conveyor**

<b>LANDOWNER</b>	<b>CONCERNS</b>
Carel Dirker (Brendan Village)	<ol style="list-style-type: none"> <li>1. Stated that the preferred western route will induce a loss of agricultural land currently being leased by Mike Combrink (MC) and that MC indicated to him that he is not interested in compensation for a conveyor servitude running through the land but that he rather just wants to continue his using the land in his efforts to produce food.</li> <li>2. After discussion between the affected landowners they came up with a suggestion that the proposed conveyor route should rather follow the servitude just to the west of the Eskom line, more or less on par with the centre conveyor alternative.</li> <li>3. Stated that he is not in favour of the proposed western route which will run in close proximity to Brendan Village.</li> <li>4. From a Brendan Village consideration concerns regarding the conveyor route include, noise, dust, aesthetics, impacts on property value.</li> <li>5. How would maintenance be conducted on the conveyor belt?</li> </ol>
Eugené du Plooy (Landowner)	<ol style="list-style-type: none"> <li>1. Question of exactly where the shaft infrastructure will be constructed.</li> </ol>
Ignatius Mathebula (Govan Mbeki Local Municipality – Town Planning Division)	<ol style="list-style-type: none"> <li>1. From Town Planning division at Govan Mbeki Local Municipality’s perspective they have got no problem with the preferred western route, but that the cemetery south of eMbalenhle should be kept in mind.</li> <li>2. With regards to the centre route alternative, members of Extension 44 in eMbalanhle may have issues with dust, noise and visual aspects.</li> <li>3. Was the eMbalenhle SDF considered when conveyor routes were planned?</li> <li>4. The center conveyor route interferes with the eMbalenhle Evander corridor, has this been considered?</li> <li>5. Wants to know whether eastern most conveyor route will interfere with the roads in the area near the crossroads going to Evander, eMbalenhle, and Secunda, and specifically whether this influences proposed Secunda West Developments?</li> <li>6. The conveyor route (Eastern Most) is not recommended and supported by the Govan Mbeki Local Municipality. The conveyor route 3 is not in line with the Embalenhle and greater Secunda SLDF. The eastern part of Embalenhle is part of mixed use development and the northern part is proposed for urban development</li> </ol>



Boet Conradie  
(Harmony – Evander Gold Mines)

**1. Purple conveyor option (Eastern Most Route)**

- Requested for a description of the impact the conveyor belt will have on EGMs property during and after operation;
- EGM plans to recycle all three the tailings dams. The belt falls in the position of the new planned tailings dam on the farm Witkleifontein 131 IS;
- Entrance to the Winkelhaak tailings dam from the eastern side will be blocked.
- In terms of the Certificate of Registration (COR 46) issued by the National Nuclear Regulator the belt will cross the COR 46 scope next to the Winkelhaak tailings dam and should adhere to requirements;
- The belt will cross a few pipe lines and underground electrical power cables.

**2. Red conveyor option (Centre Route)**

- Requested for a description of the impact that the conveyor belt will have on EGMs land during and after operation;
- The red conveyor option falls within the safety zone around explosive magazine. A permit for ± 2000 cases of explosives was issued for that magazine. A safety zone with a radius of approximately 1000 metres is required around the bunker. An exemption for the mine road was issued;
- The current space between Bracken North Return Water dam spillway and the solution trench is 30 metres wide. Servitude maximum width is 40 metres. This will leave no road space next to solution trench, paddocks and pipe line for inspection purposes;
- A portion of the belt construction east of the slime dam will fall within the 1:100 year flood line of the Grootspruit;
- Requested for a discussion to be arranged about the water management plans regarding control of rain water runoff from the conveyor belt area next to the slime dam and the return water dams;
- Raised a concern regarding the entrance to the Bracken Tailings dam from the eastern side that will be blocked due to the presence of the conveyor belt;
- Informed the EIA consultants that plans to recycle the tailings dam is currently in progress. The Tailings dam will be mined from the eastern and western sides. Unrestricted access next to the slime dam will be required for the pumping arrangements;
- There is a grave yard south of the south eastern corner of the slime dam;
- In terms of the Certificate of Registration (COR 46) issued by National Nuclear Regulator the belt

	<p>will cross the COR 46 scope next t to the Winkelhaak tailings dam and should adhere to requirements; and</p> <ul style="list-style-type: none"> <li>• The belt will cross a few pipe lines and underground electrical power cable.</li> </ul> <p><b>3. Green conveyor option (Western Most Route)</b></p> <ul style="list-style-type: none"> <li>• Requested for a description of the impact that the conveyor belt will have on EGMs property during and after operation;</li> <li>• The belt will cross a few underground water pipe lines and electrical power supply cables.</li> </ul>
<p>Mike Combrink (Landowner)</p>	<ol style="list-style-type: none"> <li>1. Asked if there was a more detailed map available showing the conveyor routes?</li> <li>2. Raised concern about the centre conveyor route running through low lying area and the impact on the wetlands and water quality.</li> <li>3. Final decision by Sasol on conveyor routes should be taken after consulting with the landowners.</li> <li>4. Asked whether firebreaks will be done next to conveyor belts because this was important, and also asked whether the conveyor belts will be fenced in?</li> </ol>



29 Maart 2010

## **VIR AANDAG: Grondeienaar**

Geagte Mnr / Mev

### **SASOL MYNBOU – MIDDELBULT (BLOK 8) SHONDONI SKAG PROJEK – GRONDEIENAARS TOESTEMMING BENODIG VIR VERDERE STUDIES OM ONDERNEEM TE WORD TER ONDERSTEUNING VAN BESLUITNEMING WAT BETREF DIE LIGGING VAN DIE PROJEK SE VOORGESTELDE OPPERVLAK INFRASTRUKTUUR**

Met verwysing na die bogenoemde projek was daar „n publieke vergadering gehou op die 10<sup>de</sup> November 2009, wat deel gevorm het van die formele publieke deelname proses. Tydens hierdie vergadering is daar aan al die geïntereeseerde and geaffekteerde partye wat teenwoordig was verduidelik wat die hierdie projek in totaliteit behels. Gedurende hierdie vergadering was daar ook „n versoek gerig deur die grondeienaars, wat direk geaffekteer sou word deur die voorgestelde vervoerband roete, om in „n afsonderlike fokusgroep vergadering gekonsulteer te word, waartydens die metodologie van Sasol Mynbou se seleksie prosedure vir die voorgestelde vervoerband roete dan aan hulle verduidelik moes word.

„n Fokusgroep vergadering in hierdie verband is toe geskeduleer vir die 19<sup>de</sup> Maart 2010, te Brendan Village. Tydens die vergadering is die volgende onderwerpe bespreek:

- Agtergrond tot die Projek
- Roete Seleksie
- Voorkeur Opsie
- Geaffekteerde Eiendomme
- Grondeienaars toestemming tot verdere spesialis en impakstudies om onderneem te word.

Na die aanbieding wat gedoen is deur JMA Consulting, was daar aan die grondeienaars teenwoordig, die geleentheid gegee om enige besware of bekommernisse aangaande die voorgestelde vervoerband roete te opper. Voorstelle is gemaak deur van die grondeienaars vir alternatiewe roetes wat die vervoerband moontlik sou kon volg. Al die besware en voorstelle was genotuleer en was ingesluit in die finale Bestekopname (Scoping) Verslag, en sal tot „n verdere mate ondersoek word.

Vir die bogenoemde ondersoeke om te kan plaasvind, moet daar addisionele spesialis studies onderneem word deur die applikant, Sasol Mynbou. Hierdie studies sluit ondermeer in opnames wat gedoen moet word t.o.v. impakstudies vir Visuele- en Geraas geassosieerde impakte, spesifiek van toepassing op die voorgestelde vervoerband roete. Alvorens Sasol Mynbou die bogenoemde spesialis studies kan onderneem, moet die



Bestekopname Verslag en Beplanning vir verdere Studies tesame met die relevante omgewing impak studie aansoek vorm by die Departement van Ekonomiese Ontwikkeling, Omgewing & Toerisme ingedien word. Na indiening moet die dokumente goedgekeur word deur die departement alvorens daar na die volgende fase van ondersoek beweeg kan word. Tydens hierdie volgende fase word spesialis studies onderneem ter ondersteuning van die optrek van die omgewings impak studie verslag en die omgewings bestuursplan vir die projek.

Hierdie is die proses wat normaalweg gevolg word tydens „n omgewings impakstudie, waar al die bekommernisse en besware i.v.m. voorgestelde projek tydens die bestekopname fase geïdentifiseer word. Hierna word al die besware en bekommernisse in ag geneem, en word daar dan „n Beplanning vir Verdere Studies verslag saamgestel. Hierdie verslag bevat al die spesialis studies, soos reeds vroeër genoem, wat onderneem moet word in die volgende fase van ondersoek. Die spesialis ondersoeke word dan voltooi en die resultate van hierdie ondersoeke word dan aan die Geïntereerde en Geïmpakteerde partye meegedeel tydens die 2<sup>de</sup> fase van publieke deelname.

Tesame met die indiening van die Bestekopname- en Beplanning vir Verdere Studies verslae, benodig die Sasol Mynbou „n toestemmingsbrief van die grondeienaars wat aan hul die nodige toestemming sal verleen om met die Shondoni projek voort te gaan. Hiermee dan die funksie van hierdie brief. Hierdie brief sal aan die departement aandui dat die grondeienaars wel gekonsulteer is in die bestekopname proses en dat die grondeienaars se menings wel ingewin is. Hierdie brief sal Sasol Mynbou dan in staat stel om voort te gaan met verdere ondersoeke op grond van besware en bekommernisse soos geïdentifiseer tydens die bestekopname fase.

Neem asseblief deeglik kennis dat hierdie toestemmingsbrief nie aan Sasol Mynbou die toestemming gee om „n finale besluit te maak t.o.v. watter roete vir die voorgestelde vervoerband gebruik gaan word nie. „n Finale besluit kan slegs gemaak word deur Sasol Mynbou nadat alle studies voltooi is en die nodige onderhandelinge met die geïmpakteerde grondeienaars afgehandel is. Hierdie onderhandelinge met grondeienaars sal deur Sasol Mynregte en Eiendomme Departement gedoen word. Die finale uitkoms van hierdie onderhandelinge sal wees in die vorm van „n serwituut ooreenkoms, wat sal insluit die nodige kondisies van gebruik, asook die nodige kompensasie ooreenkomste. Hierdie serwituut ooreenkoms sal dan deur beide partye onderteken moet word.

**In lig van die bogenoemde, dui hierdie brief aan dat die grondeienaars erkenning gee, en toestemming verleen aan Sasol Mynbou om verdere spesialis studies te onderneem ter ondersteuning van verdere besprekings en onderhandelinge om plaas te vind tussen die betrokke partye.**



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*Sustainable Environmental Solutions through integrated Science and Engineering*

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Indien daar enige verdere onsekerheid bestaan i.v.m. hierdie brief moet asseblief nie huiwer om die ondertekende te kontak nie.

Vriendelike Groete

---

Jasper Müller  
**(Pr.Sci.Nat.)**

LET 6518

2005/039663/07

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*Directors: J.L. Müller M.Sc.(Pr.Sci.Nat.), J.J. van der Berg M.Sc.(Pr.Sci.Nat.), R. Grobelaar M.Sc.(Pr.Sci.Nat.)*



## **TOESTEMMINGSBRIEF: SASOL MYNBOU – MIDDELBULT (BLOK 8) SHONDONI SKAG PROJEK**

Ek \_\_\_\_\_,

Eienaar van die eiendom \_\_\_\_\_ porsie(s) \_\_\_\_\_,

verleen hiermee toestemming aan Sasol Mynbou om die verdere en nodige studies te onderneem, ter ondersteuning van besluitneming in die seleksie van die ligging van oppervlak infrastruktuur vir die Sasol Mynbou Middelbult (Blok 8) Shondoni Skag Projek.

\_\_\_\_\_  
Handtekening

\_\_\_\_\_  
Datum

\_\_\_\_\_  
Place



JMA Project Reference Number - **JMA / 10391**

29 March 2010

**ATTENTION: Landowner**

Dear Sir/Madam

**SASOL MINING – MIDDELBULT (BLOCK 8) SHONDONI SHAFT PROJECT – LANDOWNERS CONSENT REQUIRED FOR FURTHER STUDIES TO BE UNDERTAKEN AS PART OF SURFACE INFRASTRUCTURE SITE SELECTION PROCESS**

With reference to the project mentioned above, a public meeting was held as part of the formal public participation process on 10 November 2009 in Evander, where the entire project was presented and explained to all identified I&APs that attended the meeting. During this meeting a number of the affected landowners requested to be consulted on a individual basis during a focus group meeting, regarding the site selection of the proposed overland conveyor route.

A focus group meeting regarding the site selection of the proposed overland conveyor was subsequently held on 19 March 2010, at the Brendan Lodge in Brendan Village. During this meeting a presentation was given discussing the following topics:

- Background to the Project;
- Route Selection;
- Preferred Alternative;
- Properties Affected; and
- Landowners' Consent to conduct specialist studies and impact assessments.

After the presentation made by JMA Consulting, the opportunity was given to the landowners present at the meeting to raise any issues and concerns they have regarding the proposed site selection of the overland conveyor route. Furthermore, alternative suggestions were made by some of the landowners proposing slight changes to the route to be followed by the overland conveyor. All of these concerns/suggestions were noted and included in the Scoping Report and will be investigated to a further extent.

For the above to transpire, additional specialist studies need to be undertaken. These aforementioned specialist studies include, among others, assessments for Visual and Noise related impacts to be undertaken specifically for the proposed overland conveyor route. In order for the applicant, Sasol Mining, to conduct these studies the Scoping Report and Plan of Study for this project must be submitted, along with the relevant EIA Application Form, to



the relevant authority for approval. In this case, the authority being consulted is the Department of Economic Development, Environment & Tourism (DEDET). Once approval of the Scoping Report & Plan of Study is granted by DEDET, the process moves into the next phase of investigation where all specialist studies are conducted. This next phase is called the EIA/EMP investigative phase

This is the procedure normally followed in the formal EIA process, whereby all issues regarding the project are investigated and discussed with the I&APs during the Scoping Phase of the project. All concerns regarding the project is noted and a Plan of Study is subsequently drawn up which consist of all specialist studies to be undertaken during the next phase of the formal EIA process. This next phase is the EIA/EMP investigation phase. During this phase, all the issues raised during the scoping have to be investigated and feedback on the results of these studies needs to be given to all I&APs during the second round of public participation.

However, before the Scoping Report & Plan of Study can be submitted for approval, Sasol Mining has to obtain a letter stating that the landowners give consent to the proposed Shondoni project to be undertaken. This consent letter will indicate to DEDET that Sasol Mining did indeed engage with the affected landowners and provide Sasol Mining with the necessary authorization to undertake the above mentioned specialist studies and investigations that are needed to address the issues raised by I&APs during the Scoping Phase.

Please take cognizance understood that this letter of consent does not provide Sasol Mining with the authorization to make a final decision on what route to be used for the overland conveyor. A final decision on the site selection can only be made by Sasol Mining, once all studies have been completed and the necessary negotiations with affected landowners have been completed. These negotiations will be conducted by Sasol Mining Rights & Properties Department (SMRD). The outcome of these negotiations will be in the form of a servitude agreement between the parties involved which will include the appropriate conditions of use and compensation incentives.

**In light of the above, this letter shows landowners acknowledgement and consent to Sasol Mining to initiate specialist studies in order for further discussions and negotiations to take place.**

If any uncertainty regarding this letter of consent exists please do not hesitate to contact the undersigned.

Regards

Jasper Müller  
(Pr.Sci.Nat.)

Lead Environmental Assessment Practitioner

LET6517

2005/039663/07





## LETTER OF CONSENT: SASOL MINING – MIDDELBULT (BLOCK 8) SHONDONI SHAFT PROJECT

I \_\_\_\_\_,

owner of the property \_\_\_\_\_ portions \_\_\_\_\_,

hereby give consent to Sasol Mining to undertake the further and necessary studies to assist in the decision making of the site selection process for proposed surface infrastructure for the Sasol Mining Middelbult (Block 8) Shondoni Shaft Project.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Place