SASOL CHEMICAL INDUSTRIES (PTY) LTD

SASOL SOLVENTS DEMOLITION PROJECT
FINAL BASIC ASSESSMENT REPORT

Report No.: JW060/13/D883 - Rev 02

FOR COMMENT BY INTERESTED AND AFFECTED PARTIES

Comment period: Tuesday, 17 September to Tuesday, 8 October 2013

17 September 2013

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DOCUMENT APPROVAL RECORD

Report No.: JW060/13/D883 - Rev 02

ACTION	FUNCTION	NAME	DATE	SIGNATURE
Prepared	Project Manager	Gerhard Cronje	2013/03/28	
Reviewed	Project Director	Marius van Zyl	2013/04/02	
Approved	Project Director	Marius van Zyl	2013/06/04	
Approved	Client	Adele Meyer	2013/06/19	
Approved	Project Director	Marius van Zyl	2013/08/29	
Approved	Client	Adele Meyer	2013/09/06	

RECORD OF REVISIONS AND ISSUES REGISTER

Date	Revision	Description	Issued to	Issue Format	No. Copies
2013/06/19	A	Draft for client review	Ms Adele Meyer	Electronic	1
2013/07/05	01	Draft for public review	For public comment	Hard copies	6
2013/08/30	B	Final for client review	Ms Adele Meyer	Electronic	1
2013/09/17	02	Final for public review	For public comment	Hard copies	6

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APPENDIXES

List of Tables

the detea
the department of economic development, tourism and environmental affairs
FREE STATE PROVINCE

NATIONAL ENVIRONMENTAL MANAGEMENT ACT – BASIC ASSESSMENT REPORT CHECKLIST

Description	Checklist	Reference in report
FINAL BASIC ASSESSMENT REPORT		
1. A description of the environment that may be affected by the proposed activity and the manner in which the geographical, physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed activity.	√	Section A1, B
2. An identification of all legislation and guidelines that have been considered in the preparation of the basic assessment report.	√	Section A10
3. Details of the public participation process conducted in terms of Regulation 21(2)(a) in connection with the application, including – (i) the steps that were taken to notify potentially interested and affected parties of the proposed application; (ii) proof that notice boards, advertisements and notices notifying potentially interested and affected parties of the proposed application have been displayed, placed or given; (iii) a list of all persons, organisations and organs of state that were registered in terms of regulation **55** as interested and affected parties in relation to the application; and (iv) a summary of the issues raised by interested and affected parties, the date of receipt of and the response of the EAP to those issues.	√	Section C
4. A description of the need and desirability of the proposed activity;	√	Section 9B
5. A description of any identified alternatives to the proposed activity that are feasible and reasonable, including the advantages and disadvantages that the proposed activity or alternatives will have on the environment and on the community that may be affected by the activity.	√	Section D3
6. A description and assessment of the significance of any environmental impacts, including— (i) cumulative impacts, that may occur as a result of the undertaking of the activity or identified alternatives or as a result of any construction, erection or decommissioning associated with the undertaking of the activity; (ii) the nature of the impact; (iii) the extent and duration of the impact; (iv) the probability of the impact occurring; (v) the degree to which the impact can be reversed; (vi) the degree to which the impact may cause irreplaceable loss of resources; and (vii) the degree to which the impact can be mitigated.	√	Section D
7. Any environmental management and mitigation measures proposed by the EAP.	√	Section E, Appendix F
8. Any inputs and recommendations made by specialists to the extent that may be necessary.	√	Appendix D
9. An environmental management programme containing the aspects contemplated in regulation **33**.	√	Appendix F
10. A description of any assumptions, uncertainties and gaps in knowledge.	-	N/A
11. A reasoned opinion as to whether the activity should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be made in respect of that authorisation.	√	Section E

Description	Checklist	Reference in report
FINAL BASIC ASSESSMENT REPORT		
12. Any representations and comments received in connection with the application or the basic assessment report.	√	Section C5, C7, Appendix E
13. The minutes of any meetings held by the EAP with interested and affected parties and other role players which record the views of the participants.	√	Appendix E
14. Any responses by the EAP to those representations, comments and views.	√	Appendix E
15. Any specific information required by the competent authority.	-	N/A
16. Any other matters required in terms of sections 24(4)(a) and (b) of the Act.	-	N/A

the detea
the department of economic development, tourism and environmental affairs
FREE STATE PROVINCE

	(For official use only)
File Reference Number:	
Application Number:	
Date Received:	

Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2010, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2010 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.

2. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.

3. Where applicable **tick** the boxes that are applicable in the report.

4. An incomplete report may be returned to the applicant for revision.

5. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.

6. This report must be handed in at offices of the relevant competent authority as determined by each authority.

7. No faxed or e-mailed reports will be accepted.

8. The report must be compiled by an independent environmental assessment practitioner.

9. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.

10. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section?	[redacted] NO

If YES, please complete the form entitled "Details of specialist and declaration of interest" for appointment of a specialist for each specialist thus appointed:
Any specialist reports must be contained in Appendix D.

1. ACTIVITY DESCRIPTION

Describe the activity, which is being applied for, in detail[1]:

Sasol Solvents, a division of Sasol Chemical Industries (Pty) Ltd, proposes to demolish solvent tanks and some associated infrastructure which are no longer required at the Sasol One industrial complex in Sasolburg, Free State. The structures to be demolished are located on two separate sites within the Sasol One industrial complex namely Minechem and Ethanol Tank Farm (Merisol). Each of the sites has two separate areas with redundant tanks, which need to be demolished (Refer to **Appendix A**).

The study area is situated on the farm Infrachem 465, district Parys. The footprint area associated with the demolition of the solvent tanks and associated infrastructure extends approximately 1 224 square metres (m^2) for the Minechem site and 2 900 m^2 for the Ethanol Tank Farm (Merisol) site respectively. The sizes of the sites within which the demolition footprints are located extend 20 000 m^2 and 10 000 m^2 for the Minechem and Ethanol Tank Farm (Merisol) sites respectively.

No vegetation or sensitive environmental elements are present on, or in close proximity to either of the two sites located within the Sasol One industrial complex – see **Appendix B**.

Jones and Wagener (Pty) Ltd (J&W) has been appointed by Sasol Solvents as the independent Environmental Assessment Practitioner (EAP) responsible for undertaking the Basic Assessment (BA) process for the proposed demolishing of the solvent tanks. The Free State Department of Economic Development, Tourism and Environmental Affairs (FS–DETEA) is the competent authority, which will grant approval from an environmental perspective for the proposed activity.

The following is proposed with regards to the proposed decommissioning of the solvent tanks and associated infrastructure at each of the sites:

- All the tanks (as described below) have already been emptied and cleaned as follows – the hydrocarbons were removed as part of a re-use strategy some years ago; the tanks were flushed and steamed; the tanks were blanked off to prevent any new liquids entering the tanks and all utilities and product lines were disconnected.

- **Minechem site:**
  - Eleven (11) tanks are to be demolished;

[1] Please note that this description should not be a verbatim repetition of the listed activity as contained in the relevant Government Notice, but should be a brief description of activities to be undertaken as per the project description.

- These tanks used to form part of the old sodium diethyl (DTE) plant that was demolished about 5 years ago;
- The 11 tanks were left behind for re-use but were actually never re-used. However, after a recent inspection it was decided that they should be removed since the specifications of the tanks are no longer compatible with or ideal for future usage purposes;
- Once the tanks are demolished (after authorisation has been granted) it is intended to move the drumming facility into the footprint of the old tanks so as to make way for a larger truck turning circle;
- Currently the area where the tanks are situated is bunded with concrete sidewalls and floor;
- The surface tanks will be removed, including the pumps, but the subsurface tanks will remain;
- It is estimated that the decommissioning process may take about one month to complete;
- Refer to **Appendix G** for a description of the composition of the contents which were previously stored in the solvent tanks at the Minechem site.

Table 1: Contents which were previously stored in solvent tanks at Minechem site

Tank No	Volume	Former Contents
F361A (No 1)	68m^3	Sascol 61
F361B (No 2)	68m^3	Sascol 61
F360 (No 3)	36m^3	Mixing tank (combination of the components)
F363 (No 4)	36m^3	Caustic
F362A (No 5)	36m^3	Sascol 95
F362B (No 6)	36m^3	Sascol 95
F364 (No 7)	36m^3	NaHS (sodium hydrogen sulphide)
F366 (No 8)	36m^3	NaHS
F367 (No 9)	30m^3	Mixing tank (combination of the components)
F3825 (No 10)	323m^3	Solvents Rectisol Naphta
F1227 (No 11)	323m^3	Pitch water
	Total: 1 028m^3	

- **Ethanol Tank Farm (Merisol) site:**
  - Nine (9) tanks to be demolished;
  - The plant was temporarily taken out of operation about 8 years ago and the tanks were kept for re-use, however these were never used again;
  - After the proposed decommissioning the area will be left open for the time being – Sasol has no immediate future plans for the specific area;
  - These tanks are bunded with soil berms covered with interlocking paving bricks. The floors of the bunded areas are not lined and are characterised by sand and grass patches;
  - It is estimated that the decommissioning process may take about three to four months to complete.

Table 2: Contents which were previously stored in solvent tanks at Ethanol Tank Farm (Merisol) site

Tank No	Volume	Contents
F4471D (No 1)	125m^3	Ethanol
F4476 (No 2)	44m^3	Ethanol
F4417B (No 3)	44m^3	Ethanol
F4417A (No 4)	44m^3	Ethanol
F4417C (No 5)	125m^3	Ethanol
F4465 (No 6)	440m^3	N-Propanol
F4478A (No 7)	290m^3	N-Propanol
F4478B (No 8)	290m^3	N-Propanol
F4366 (No 9)	160m^3	Ethanol
	Total: 1 562m^3	

- Should the decommissioning proceed, existing contractors (Jet Demolition) will be used as the demolition requires skilled labour due to the potential risks posed by the process.
- It is proposed that the demolition of the tanks may start as from October 2013, pending authorisation.

Sasol Solvents follows a phased approach to assess contaminated land associated with its operations. The approach is aligned with the framework for the management of contaminated land. A phase 1 study, to identify potential soil and groundwater impacts on the Sasol One site, was conducted by SRK in 2004. A phase 2 study was subsequently undertaken by J&W during 2005 to confirm areas of concern by means of taking soil and groundwater samples. The study has indicated that the Ethanol storage tanks are not an area of concern. Ethanol is also readily biodegradable in soils and groundwater and poses a low hazard.

The area under review (Ethanol Tank Farm and Minechem) with regards to ground water, has a moderate to low impact/levels of hydrocarbons, due to historic contamination. Bi-annual ground water monitoring is conducted every year. The Minechem area is located within a primary containment facility (bunded concrete slab), which then mitigates the risks associated with ground water to a low level.

The collective surface water (storm water) quality from the Ethanol Tank Farm (Merisol) and Minechem area whereby Solvents Ethanol tanks were previously stored is indicative of organics present in low levels. Ethanol has not been a measured variable in receiving storm water due to the decommissioned Ethanol production and therefore the negligible impact on Infrachem's reticulation system. Hydraulic surface water in the vicinity of the Ethanol Tank Farm (Merisol) and Minechem areas drain off into storm water channels and is blended into Infrachem's effluent reticulation network situated in the southern boundary section on the Sasol One site (API system). The reticulated water is contained within effluent holding dams prior to discharge, and only once discharge specifications are met. The effluent system is monitored on a regular basis for variations, trending and management of dams. The stagnant storm surface water in contact with soil is minimal and has not shown to impact adversely on the path receptors of soil and ground water.

2. FEASIBLE AND REASONABLE ALTERNATIVES

"alternatives", in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

(a) the property on which or location where it is proposed to undertake the activity;
(b) the type of activity to be undertaken;
(c) the design or layout of the activity;
(d) the technology to be used in the activity;
(e) the operational aspects of the activity; and
(f) the option of not implementing the activity.

Describe alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. The determination of whether site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Paragraphs 3 – 13 below should be completed for each alternative.

3. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

List alternative sites, if applicable.

Proposal:	**Latitude (S):**		**Longitude (E):**	
<u>Minechem Site Tanks</u> (preferred or only site alternative)				
Tank 1 and 2 (F361A and F361B)	26°	49,415‘	27°	50,609‘
Tank 3 and 4 (F360 and F363)	26°	49,417‘	27°	50,612‘
Tank 5 and 6 (F362A and F362B)	26°	49,417‘	27°	50,608‘
Tank 7 and 8 (F364 and F366)	26°	49,419‘	27°	50,609‘
Tank 9 (F367)	26°	49,422‘	27°	50,610‘
Tank 10 (F3825)	26°	49,458‘	27°	50,666‘
Tank 11 (F1227)	26°	49,466‘	27°	50,650‘

<u>Etahnol Tank Farm/Merisol Site Tanks</u> (preferred or only site alternative)	**Latitude (S):**		**Longitude (E):**	
Tank 1 (F4471D)	26°	49,731‘	27°	50,837‘
Tank 2 (F4476)	26°	49,748‘	27°	50,846‘
Tank 3 (F4417B)	26°	49,753‘	27°	50,849‘

Tank 4 (F4417A)	26°	49,755‘	27°	50,845‘
Tank 5 (F4417C)	26°	49,750‘	27°	50,831‘
Tank 6 (F4465)	26°	49,755‘	27°	50,824‘
Tank 7 (F4478A)	26°	49,761‘	27°	50,827‘
Tank 8 (F4478B)	26°	49,757‘	27°	50,835‘
Tank 9 (F4366)	26°	49,781‘	27°	50,871‘

In the case of linear activities:

Alternative:	**Latitude (S):**		**Longitude (E):**	
Alternative S1 (preferred or only route alternative)				
Starting point of the activity	o	‘	o	‘
Middle/Additional point of the activity	o	‘	o	‘
End point of the activity	o	‘	o	‘
Alternative S2 (if any)				
Starting point of the activity	o	‘	o	‘
Middle/Additional point of the activity	o	‘	o	‘
End point of the activity	o	‘	o	‘
Alternative S3 (if any)				
Starting point of the activity	o	‘	o	‘
Middle/Additional point of the activity	o	‘	o	‘
End point of the activity	o	‘	o	‘

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

Alternative:	**Size of the activity:**
Minechem site (preferred activity alternative)	1 224m^2
Ethanol Tank Farm (Merisol) site (preferred activity alternative)	2 900m^2

or, for linear activities:

Alternative:		**Length of the activity:**
Alternative A1 (preferred activity alternative)	Not applicable	
Alternative A2 (if any)		
Alternative A3 (if any)		

Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

Alternative:	**Size of the site/servitude:**

Minechem site (preferred a ctivity alternative)	20 000m^2
Ethanol Tank Farm (Merisol) site (preferred activity alternative)	10 000m^2

5. SITE ACCESS

Does ready access to the site exist?	YES
If NO, what is the distance over which a new access road will be built	
Describe the type of access road planned:	
N/A	

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

6. SITE OR ROUTE PLAN

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document.

The site or route plans must indicate the following:

6.1 the scale of the plan which must be at least a scale of 1:500;
6.2 the property boundaries and numbers of all the properties within 50 metres of the site;
6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
6.4 the exact position of each element of the application as well as any other structures on the site;
6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
6.6 all trees and shrubs taller than 1.8 metres;
6.7 walls and fencing including details of the height and construction material;
6.8 servitudes indicating the purpose of the servitude;
6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):
- rivers;
- the 1:100 year flood line (where available or where it is required by DWA);
- ridges;
- cultural and historical features;
- areas with indigenous vegetation (even if it is degraded or invested with alien species);

6.10 for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
6.11 the positions from where photographs of the site were taken.

7. SITE PHOTOGRAPHS

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this form. It must be supplemented with additional photographs of relevant features on the site, if applicable.

8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 as Appendix C for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

9. ACTIVITY MOTIVATION

9(a) Socio-economic value of the activity

What is the expected capital value of the activity on completion?	R4.93 million
What is the expected yearly income that will be generated by or as a result of the activity?	N/A
Will the activity contribute to service infrastructure?	NO
Is the activity a public amenity?	NO
How many new employment opportunities will be created in the development phase of the activity?	See explanation under "Benefits" on page 11.
What is the expected value of the employment opportunities during the development phase?	N/A
What percentage of this will accrue to previously disadvantaged individuals?	N/A
How many permanent new employment opportunities will be created during the operational phase of the activity?	None. Existing employees from Jet Demolition will be used.
What is the expected current value of the employment opportunities during the first 10 years?	N/A
What percentage of this will accrue to previously disadvantaged individuals?	None

9(b) Need and desirability of the activity

Motivate and explain the need and desirability of the activity (including demand for the activity):

NEED:

Minechem site:

Once the solvent tanks and associated infrastructure (pumps) at the Minechem site have been demolished, it is intended to move the drumming facility which is currently situated adjacent to the tanks, into the old tank footprint in order to make way for a larger truck turning circle. More space will therefore be created for the trucks collecting the drums.

Ethanol Tank Farm (Merisol) site:

After the solvent tanks and pumps have been demolished, the area will be left open for the time being as no immediate future plans exist for this site.

1.	Was the relevant provincial planning department involved in the	YES

	application?		
2.	Does the proposed land use fall within the relevant provincial planning framework?	YES	
3.	If the answer to questions 1 and / or 2 was NO, please provide further motivation / explanation:		
	N/A		

DESIRABILITY: Same as per the explanation for "Need" above.			
1.	Does the proposed land use / development fit the surrounding area?	YES	
2.	Does the proposed land use / development conform to the relevant structure plans, SDF and planning visions for the area?	YES	
3.	Will the benefits of the proposed land use / development outweigh the negative impacts of it?	YES	
4.	If the answer to any of the questions 1-3 was NO, please provide further motivation / explanation:		
	N/A		
5.	Will the proposed land use / development impact on the sense of place?		NO
6.	Will the proposed land use / development set a precedent?		NO
7.	Will any person's rights be affected by the proposed land use / development?		NO
8.	Will the proposed land use / development compromise the "urban edge"?		NO
9.	If the answer to any of the question 5-8 was YES, please provide further motivation / explanation.		
	N/A		

BENEFITS: No benefits other than the space which will be created for the drumming facility are foreseen to emanate from the proposed project. The employment opportunities which will be created for demolishing the tank farm will be of skilled and/or high risk nature, and therefore existing employees from Jet Demolition will be used.			
1.	Will the land use / development have any benefits for society in general?		NO
2.	Explain:		
	The proposed project entails the decommissioning (demolishing and removing) of redundant solvent tanks located within the existing Sasol One industrial complex. The decommissioning will be undertaken by Jet Demolition.		
3.	Will the land use / development have any benefits for the local communities where it will be located?		NO
4.	Explain:		
	The proposed project entails the decommissioning of redundant solvent tanks located within the existing Sasol One industrial complex. The employment opportunities during decommissioning, which will be created, will be of skilled and/or high risk nature, and therefore existing contractors (Jet Demolition) will be used.		

10. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations, if applicable:

Title of legislation, policy or guideline:	Administering authority:	Date:
National Environmental Management Act, 1998 (Act No 107 of 1998) (NEMA), Section 24.	Free State Department of Economic Development, Tourism and Environmental Affairs (FS-DETEA)	1998 as amended.
Environmental Impact Assessment Regulations: GNR 544 of 18 June 2010, Activity 27 - The decommissioning / demolition of existing solvent storage tanks which are no longer required with an overall capacity of more than 80 cubic metres.	FS-DETEA	18 June 2010 as amended
National Water Act (Act 36 of 1998)	Department of Water Affairs	1998
The Constitution of the Republic of South Africa (No. 108 of 1996)	-	1996
Occupational Health and Safety Act (No. 85 of 1993)	Department of Labour	1993

11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

11(a) Solid waste management

Will the activity produce solid waste during the construction/initiation/demolition phase?	YES
If yes, what estimated quantity will be produced per month?	145 m^3

How will the demolition solid waste be disposed of (describe)?

It should be noted that the nature of the proposed project entails the demolition of redundant solvent storage tanks as well as some associated infrastructure. There is thus no construction or operational phases to the proposed project.

The appointed contractor (Jet Demolition) will be responsible for the selling of all scrap metal to a scrap metal dealer. Approximately 100 m^3 of scrap metal will be sold during the demolition project.

All other solid waste material (soil, concrete and bricks) will be disposed of at Venco Park (in the process of being licensed) waste disposal facility.

Where will the demolition solid waste be disposed of (describe)?

Soil and concrete will be disposed at the Venco Park waste facility and scrap metal will be sold to a scrap metal dealer.

Will the activity produce solid waste during its operational phase?	NO
If yes, what estimated quantity will be produced per month?	N/A

How will the solid waste be disposed of (describe)?

N/A

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

N/A

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation?	NO
If yes, inform the competent authority and request a change to an application for scoping and EIA.	
Is the activity that is being applied for a solid waste handling or treatment facility?	NO

If yes, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

11(b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?	NO
If yes, what estimated quantity will be produced per month?	N/A
Will the activity produce any effluent that will be treated and/or disposed of on site?	NO

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Will the activity produce effluent that will be treated and/or disposed of at another facility?	NO

If yes, provide the particulars of the facility:

Facility name:	N/A		
Contact person:	N/A		
Postal address:	N/A		
Postal code:	N/A		
Telephone:	N/A	Cell:	N/A
E-mail:	N/A	Fax:	N/A

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

N/A

11(c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere?	NO
If yes, is it controlled by any legislation of any sphere of government?	
If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.	

If no, describe the emissions in terms of type and concentration:

No emissions will be released as a result of the proposed demolition project.

11(d) Generation of noise

Will the activity generate noise?	YES
If yes, is it controlled by any legislation of any sphere of government?	NO

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the noise in terms of type and level:

The noise, which will be generated during the decommissioning of the storage tanks and associated infrastructure, is related to the machinery which will be utilised. It is envisaged that the following machinery will be required:

- Two (2) cranes for lifting the tanks from their current positions to be laid down and to be cut into smaller manageable pieces;
- One (1) bulldozer for levelling the surface areas after the tanks have been removed;
- One (1) excavator to remove subsurface utilities and product lines should the need arise;
- Two (2) loaders to load all solid waste material (non-hazardous) onto the trucks;
- Two (2) trucks for transporting all solid waste material (non-hazardous) to Venco Park waste facility.

Important to note is the fact that the proposed demolition of the storage tanks and associated infrastructure will take place within the existing Sasol One industrial complex. It is therefore not anticipated that any significant noise generating activities other than what is associated with an industrial complex, will be emanating from the proposed decommissioning of the storage tanks and associated infrastructure.

12. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es)

Municipal	water board	groundwater	river, stream, dam or lake	other	the activity will not use water
√					

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate

the volume that will be extracted per month:	N/A
Does the activity require a water use permit from the Department of Water Affairs?	NO

If yes, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this application if it has been submitted.

13. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

No design measures have been taken due to the nature of the project – the demolition of redundant equipment.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

No alternative energy sources have been taken into account due to the nature of the proposed project – the demolition of redundant equipment.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

1. For linear activities (pipelines, etc.) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section C and indicate the area, which is covered by each copy No. on the Site Plan.

Section B Copy No. (e.g. A):	**A**

2. Paragraphs 1 - 6 below must be completed for each alternative.

3. Has a specialist been consulted to assist with the completion of this section? YES

If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed:

All specialist reports must be contained in Appendix D.

Property description/physical address:	Farm: Infrachem 465 – District Parys
	(Farm name, portion etc.) Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application.
	N/A
	In instances where there is more than one town or district involved, please attach a list of towns or districts to this application.
Current land-use zoning:	Industrial
	In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to , to this application.

Is a change of land-use or a consent use application required?	NO
Must a building plan be submitted to the local authority?	NO

Locality map:

An A3 locality map must be attached to the back of this document, as Appendix A. The scale of the locality map must be relevant to the size of the development (at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map.) The map must indicate the following:

- an indication of the project site position as well as the positions of the alternative sites, if any;
- road access from all major roads in the area;
- road names or numbers of all major roads as well as the roads that provide access to the site(s);
- all roads within a 1km radius of the site or alternative sites; and
- a north arrow;
- a legend; and
- locality GPS co-ordinates (Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection)

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Minechem site:

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
√						

Ethanol Tank Farm (Merisol) site:

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
√						

2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site:

2.1 Ridgeline
2.2 Plateau
2.3 Side slope of hill/mountain
2.4 Closed valley
2.5 Open valley
2.6 Plain (Within the existing Sasol One industrial complex) √
2.7 Undulating plain / low hills
2.8 Dune
2.9 Seafront

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site(s) located on any of the following (tick the appropriate boxes)?

	Minechem Site:		Ethanol Tank Farm (Merisol) Site:	
Shallow water table (less than 1.5m deep)		NO		NO
Dolomite, sinkhole or doline areas		NO		NO
Seasonally wet soils (often close to water bodies)		NO		NO
Unstable rocky slopes or steep slopes with loose soil		NO		NO
Dispersive soils (soils that dissolve in water)		NO		NO
Soils with high clay content (clay fraction more than 40%)		NO		NO
Any other unstable soil or geological feature		NO		NO
An area sensitive to erosion		NO		NO

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. (Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted).

4. GROUNDCOVER

Indicate the types of groundcover present on the site:

The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Natural veld - good condition[E]	Natural veld with scattered aliens[E]	Natural veld with heavy alien infestation[E]	Veld dominated by alien species[E]	Gardens
Sport field	Cultivated land	Paved surface √	Building or other structure √	Bare soil

If any of the boxes marked with an "[E] "is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn't have the necessary expertise.

5. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that does currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

5.1 Natural area
5.2 Low density residential
5.3 Medium density residential
5.4 High density residential
5.5 Informal residential[A]
5.6 Retail commercial & warehousing
5.7 Light industrial
5.8 Medium industrial [AN]
5.9 Heavy industrial [AN]
5.10 Power station
5.11 Office/consulting room
5.12 Military or police base/station/compound
5.13 Spoil heap or slimes dam[A]
5.14 Quarry, sand or borrow pit
5.15 Dam or reservoir
5.16 Hospital/medical centre
5.17 School
5.18 Tertiary education facility
5.19 Church
5.20 Old age home
5.21 Sewage treatment plant[A]
5.22 Train station or shunting yard [N]
5.23 Railway line [N]
5.24 Major road (4 lanes or more) [N]
5.25 Airport [N]
5.26 Harbour
5.27 Sport facilities
5.28 Golf course
5.29 Polo fields
5.30 Filling station [H]
5.31 Landfill or waste treatment site
5.32 Plantation
5.33 Agriculture
5.34 River, stream or wetland
5.35 Nature conservation area
5.36 Mountain, koppie or ridge
5.37 Museum
5.38 Historical building
5.39 Protected Area
5.40 Graveyard
5.41 Archaeological site

If any of the boxes marked with an "[N] "are ticked, how will this impact / be impacted upon by the proposed activity?

N/A

If any of the boxes marked with an "[AN]" are ticked, how will this impact / be impacted upon by the proposed activity?

Both the Minechem and Ethanol Tank Farm (Merisol) sites are located within the existing Sasol One industrial complex. The land uses within a 500m radius surrounding these two sites all fall within the

Sasol One industrial complex, and is therefore not foreseen to have an impact on the proposed demolition activities, and the surrounding land uses will also not be impacted upon by the proposed demolition activities.

If any of the boxes marked with an "H" are ticked, how will this impact / be impacted upon by the proposed activity.

N/A

6. CULTURAL/HISTORICAL FEATURES

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including Archaeological or palaeontological sites, on or close (within 20m) to the site?		NO
If YES, explain:	There are no cultural and/or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) present near or on the two sites of the proposed demolition project.	

If uncertain, conduct a specialist investigation by a recognised specialist in the field to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist:	N/A	
Will any building or structure older than 60 years be affected in any way?		NO
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?		NO

If yes, please submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.

SECTION C: PUBLIC PARTICIPATION

Please refer to **Appendix E8** for a detailed description of the public participation process that was followed to date for the proposed Solvents Demolition project.

1. ADVERTISEMENT

The person conducting a public participation process must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by—

(a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the competent authority) at a place conspicuous to the public at the boundary or on the fence of—
  (i) the site where the activity to which the application relates is or is to be undertaken; and
  (ii) any alternative site mentioned in the application;

(b) giving written notice to—
  (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;
  (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
  (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
  (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;
  (v) the municipality which has jurisdiction in the area;
  (vi) any organ of state having jurisdiction in respect of any aspect of the activity; and
  (vii) any other party as required by the competent authority;

(c) placing an advertisement in—
  (i) one local newspaper; or
  (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;

(d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or local municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and

(e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desiring of but unable to participate in the process due to—
  (i) illiteracy;
  (ii) disability; or
  (iii) any other disadvantage.

2. CONTENT OF ADVERTISEMENTS AND NOTICES

A notice board, advertisement or notices must:

(a) indicate the details of the application which is subjected to public participation; and

(b) state—

(i) that the application has been submitted to the competent authority in terms of these Regulations, as the case may be;
(ii) whether basic assessment or scoping procedures are beingapplied to the application, in the case of an application for environmental authorisation;
(iii) the nature and location of the activity to which the application relates;
(iv) where further information on the application or activity can be obtained; and
(iv) the manner in which and the person to whom representations in respect of the application may be made.

3. PLACEMENT OF ADVERTISEMENTS AND NOTICES

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the competent authority in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of the EIA regulations. Advertisements and notices must make provision for all alternatives.

The opportunity to participate in the BA process was announced from 15 to 21 March 2012 as follows:

- Distribution of a letter of invitation to become involved, addressed to individuals and organisations, accompanied by a Background Information Document (BID) containing details of the proposed project, including a map of the project area, and a registration sheet (**Appendix E1 and E2**). The mentioned documents were made available via postal service and email in English, Sesotho and Afrikaans. Neighbouring businesses were also visited to provide them with copies of the BID;
- Advertisements (**Appendix E3)** were placed in the following newspapers:

NEWSPAPER	LANGUAGE	DATE
Sasolburg Ster	English, Afrikaans and Sesotho	20 March 2013
Sedibeng Ster	English and Sesotho	21 March 2013
The Star	English	18 March 2013

- Site notice boards (**Appendix E4**) were positioned at prominent localities on 15 March 2013 – the notices were placed at the official Sasol notice boards where stakeholders often visit for information with regards to developments at Sasol. The notice boards were available in English, Sesotho and Afrikaans. Site notices were placed prominently to invite stakeholder participation.

Draft Basic Assessment Report (BAR)
A period of forty (40) days was allowed for the public review of the Draft BAR (from 8 July to 19 August 2013). The availability of the Draft BAR was announced as follows:

- Media advertisements (adverts placed in the week of 2 July 2013 in the Sasolburg Ster, Sedibeng Ster and The Star – copies included in **Appendix E3**);
- Site notices; forty
- In the BID; and
- In a letter (post and email) sent on 2 July 2013 and addressed personally to all individuals and

organisations on the stakeholder database.

The Draft BAR, including the Comments and Response Report Version 1, was distributed for comment as follows:

- Left in public venues within the vicinity of the project area (These are listed in the Table below);
- Published on the Jones and Wagener website;
- Mailed to all stakeholders; and
- Mailed to I&APs who requested the report.

I&APs were provided with an opportunity to comment on the Draft BAR in various ways, such as completing the comment sheet accompanying the report, and submitting individual comments in writing or by email. All I&APs were invited to attend the open house/stakeholder meeting held on Tuesday, 30 July 2013 at the Boiketlong Hall in Zamdela (Refer to **Appendix E9** for the stakeholder meeting presentation).

Person	Location	Contact
Printed Copies		
Oupa Mokoena	Zamdela Public Library	016 974 2163
Gerda Schutte	Sasolburg Public Library	016 973 8463
Adele Meyer	Sasol Reception	016 960 4707
Electronic Copies		
Anelle Lötter	www.jaws.co.za	012 667-4860
	Phone and request a CD copy	

Final Basic Assessment Report (BAR)

The Final BAR is now available for public review for a period of twenty-one (21) days (from 17 September to 8 October 2013). I&APs were notified of the availability of the Final BAR and that they may ask that a copy of the report be sent to them. The notifications were sent to Interested and Affected Parties (I&AP's) on 4 September 2013. The Final BAR is available at the same public places which were used for the Draft BAR (as mentioned in the Table above) and is published on the Jones & Wagener website.

4. DETERMINATION OF APPROPRIATE MEASURES

The practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees, ratepayers associations and traditional authorities where appropriate. Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

5. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments and respond to each comment of the public before the application is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to this application. The comments and response report must be attached under Appendix E.

6. AUTHORITY PARTICIPATION

Please note that a complete list of all organs of state and or any other applicable authority with their contact details must be appended to the basic assessment report or scoping report, whichever is applicable. Authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input.

List of authorities informed:

The announcement of the Basic Assessment process and the availability of the Draft BAR was distributed to Metsimaholo Local Municipality and Fezile Dabi District Municipality. The Department of Water Affairs as well as Various departments within the Free State Provincial Government were notified of the proposed project. A notification that the Final BAR is available was also distributed to the authorities. The competent authority (FS-DETEA) was invited to a site visit which took place on 28 August 2013. Please refer to the database in **Appendix E5** for a complete list of Authorities which were notified of the proposed project.

Notification was sent via post and email (**Appendix E6**) to confirm specific individuals at the various municipalities, and the local Ward Councillor was personally called to ensure that he is aware of the proposed decommissioning project.

List of authorities from whom comments have been received:

- Free State Department of Economic Development, Tourism and Environmental Affairs (FS-DETEA)

7. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for linear activities, or where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that subregulation to the extent and in the manner as may be agreed to by the competent authority.

Proof of any such agreement must be provided, where applicable.

Has any comment been received from stakeholders? YES

If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

- Ms Tshegofatso Lekgari from the FS-DETEA confirmed receipt of the BID as part of the public participation process for the proposed project. A request was also made that FS-DETEA be invited to the stakeholder meeting, which was held on 30 July 2013.
- Mr. James William Gilpin sent his CV for consideration should any employment opportunities become available as a result of the proposed Solvents Demolition project.
- Mr Abraham Rampitsana indicated that he would like to attend the open house and stakeholder meeting. He also indicated that if any painting or sandblasting has to be done, he will be able to assist.
- Mr Koos Grobbelaar wanted to know if ground, air and water pollution would be eliminated during the demolition project, and also whether the environment would be taken into consideration.
- Mr Koos Grobbelaar commented that due to the knowledge and experience of the Sasol workforce, the reports being produced are always of very good quality.

SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2010, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties.

The comments received was that from Mr. Gilpin, Mr Rampitsana and Mr Grobbelaar. Mr. Gilpin sent his CV for consideration should any employment opportunities become available as a result of the proposed Solvents Demolition project. Mr Rampitsana indicated that he would like to attend the open house, and offered his sandblasting/painting services should it be needed. Mr Grobbelaar enquired whether ground, air and water pollution would be eliminated during the demolition project, and also if the environment would be taken into consideration.

Response from the practitioner to the issues raised by the interested and affected parties – I&AP's (A full response must be given in the Comments and Response Report that must be attached to this report as **Annexure E7**):

Mr. James William Gilpin

- The request by Mr. James William Gilpin for considering his CV should any employment opportunities become available was noted.

Mr Abraham Rampitsana

- The services offered by Mr. Rampitsana was noted.

Mr Koos Grobbelaar

- The Environmental Management Programme (EMPr) which forms part of the Basic Assessment Report describes what can be done to avoid any pollution during the demolition process. Sasol will take all precautionary measures to avoid any pollution.
- The Basic Assessment Study was initiated with the main purpose to determine the potential impact that the demolition project may have on the environment. The environment has therefore been considered throughout the whole process. (Refer to **Appendix E7** for a list of full responses to the comments from I&AP's).

2. IMPACTS THAT MAY RESULT FROM THE DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

List the potential direct, indirect and cumulative property/activity/design/technology/operational alternative related impacts (as appropriate) that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed.

Due to the nature of the project, impacts that may result from the DECOMMISSIONING phase only are assessed below.

The methodology utilised in rating the significance of possible impacts were as follows:

To ensure uniformity, the assessment of impacts is addressed in a standard manner so that a wide range of impacts can be compared with each other. For this reason a clearly defined significance rating scale is provided to assess the significance (importance) of the associated impacts. The scale embraces the notion of extent and magnitude, but does not always clearly define these since their importance in the rating scale is very relative. For example, the magnitude (i.e. the size) of air affected by atmospheric pollution may be extremely large (1000 km²) but the significance of this effect is dependent on the concentration or level of pollution. If the concentration were great, the significance of the impact would be HIGH or VERY HIGH, but if it were dilute it would be LOW or VERY LOW. Similarly, if 60 ha of a grassland type are destroyed the impact would be VERY HIGH if only 100 ha of that grassland type was known. The impact would be VERY LOW if the grassland type were common.

The potential significance of every environmental impact identified is determined by using a ranking scale, based on the following (the terminology is extracted from the DEAT guideline document on EIA Regulations, April 1998):

Occurrence
Probability of occurrence (how likely is it that the impact may occur?), and Duration of occurrence (how long may it last?)

Severity
Magnitude (severity) of impact (will the impact be of high, moderate or of low severity?), and Scale/extent of impact (will the impact affect the national, regional or local environment, or only that of the site?)

In order to assess each of these factors for each impact, the following ranking scales were used:

Probability:
5 – Definite/don't know
4 – Highly probable
3 – Medium probability
2 – Low probability
1 – Improbable
0 – None

Duration:
5 – Permanent
4- Long-term (ceases with the operational life)
3 - Medium-term (5-15 years)
2 - Short-term (0-5 years)
1 – Immediate

Scale:
5 – International
4 – National
3 – Regional (>5km)
2 – Local (<5km)
1 – Site only
0 – None

Magnitude:
10 - Very high/don't know
8 – High
6 – Moderate
4 – Low
2 – Minor

Once the above factors had been ranked for each impact, the environmental significance of each was assessed using the following formula:

SP = (magnitude + duration + scale) x probability

The maximum value is 100 significance points (SP). Environmental effects were rated as either of high, moderate or low significance on the following basis:

More than 60 significance points indicated high environmental significance.
Between 30 and 60 significance points indicated moderate environmental significance.
Less than 30 significance points indicated low environmental significance.

High	Moderate	Low

Please note that only negative impacts will be ranked.

The degree of certainty of the assessment was judged on the following criteria:

Definite: More than 90% sure of a particular fact.
Probable: Between 70 and 90% sure of a particular fact, or of the likelihood of that impact occurring.
Possible: Between 40 and 70% sure of a particular fact, or of the likelihood of an impact occurring.
Unsure: Less than 40% sure of a particular fact or the likelihood of an impact occurring.

Proposal

Potential impacts:	***Significance rating of impacts:***	***Proposed mitigation:***	***Significance rating of impacts after mitigation:***
Air Quality			
• The operation of machinery on-site required for the demolition may lead to the creation of dust which may affect the surrounding areas within the Sasol One industrial complex, depending on the climatic conditions.	***Moderate***	• Limit vehicle movement on exposed surfaces to the absolute minimum; • Minimise the amount of dust created by moving machinery by dust suppression techniques as/when required.	***Low***
Groundwater			
• The operation of vehicles/machinery on site and their associated impacts in terms of hydrocarbon spillages may impact on groundwater sources. • In terms of groundwater, the Etahnol Tank Farm (Merisol) and Minechem sites contain low levels of hydrocarbons due to historic contamination and also has a seasonal variation.	***Low***	• Maintain all vehicles and machinery required for the demolition process; • Prevent and address all spillages immediately; • No servicing of vehicles/machinery to take place on site; • Conduct groundwater monitoring on a bi-annual basis in order to detect any changes in the current levels of hydrocarbons (due to historic contamination) as well as any contamination associated with the demolition process, as per current procedure;	***Low***

		• The Minechem area is located within a primary containment facility (concrete bunded area), which mitigates the risks associated with future ground water pollution to a low level.	
Surface Water			
• The operation of vehicles/machinery on site and their associated impacts in terms of hydrocarbon spillages may impact on surface water sources. • Contaminated storm water runoff	***Low***	• Maintain all vehicles and machinery required for the demolition; • Prevent and address all spillages immediately; • No servicing of vehicles/machinery to take place on site. • Ensure that all storm water from the Ethanlol Tank Farm (Merisol) and Minechem areas drain into storm water channels and is blended into Infrachem's effluent reticulation network, as per current procedure. • Contain reticulated storm water within existing effluent holding dams, as per current procedure. • Storm water to be discharged only when correct discharge specifications/standards are met, as per current procedure; • Monitor the effluent system on a regular basis, as per current procedure.	***Low***
Soils and Hazardous spills			
• Increased runoff and soil erosion at the Ethanol Tank Farm (Merisol) site due to the removal of grass and levelling of the earth berms which	***Low***	• Adequate storm water management and erosion control measures should be implemented at the Ethanol Tank Farm (Merisol) site;	***Low***

currently exist; • The operation of vehicles/machinery on site and their associated impacts in terms of hydrocarbon spillages may impact on soils		• Maintain all vehicles and machinery required for the demolition; • Prevent and address all spillages immediately; • No servicing of vehicles/machinery to take place on site.	
Heritage			
• Activities resulting in the disturbance of sub-surfaces containing artefacts resulting in the destruction, damage, excavation, alteration, removal or collection from its original position, of any archaeological material or object.	***Low***	• Should a heritage object be found, work in that area must be stopped immediately and the appropriate specialist brought in to assess the finding; • Notify the administering authority of the item/site, and undertake due/required processes; • If a newly discovered heritage resource is found within the demolition footprint and it is found to be archaeologically significant then a phase 2 rescue operation might be necessary at the cost of Sasol Solvents.	***Low***
Social (Negative)			
• Based on the information provided by Sasol, only high risk and/or skilled employment opportunities will be created due to the nature of the proposed project. Existing contractors (Jet Demolition) will therefore be used.	***Low***	• The movement of workers on site should be closely managed and monitored by the contractor. In this regard the contractor should be responsible for making the necessary arrangements for transporting workers to and from site on a daily basis.	***Low***
Noise			
• The movement of heavy vehicles/machinery during decommissioning;	***Low***	• Restrict demolition activities to daylight hours (06:00 to 18:00) from	***Low***

• Noise from machinery used to cut up the solvent tanks into smaller manageable pieces.		Monday to Saturday in order to negate or reduce the noise impacts associated with the demolition process; • Ensure that all vehicles/machinery are equipped with suitable silencers (where possible) to reduce audible noise.	
Waste creation			
• Approximately 100 m^3 of scrap metal will be created during the demolition project; • Solid waste in the form of soil, concrete and bricks will be generated from the demolition process.	***Moderate***	• Ensure that all solid waste/rubble and litter are managed properly during the demolition process and delivered to Venco Park waste facility regularly; • A waste classification on soils and concrete solid waste from the demolition process must be undertaken in order to ensure wastes are disposed of on the correct class of landfill.	***Low***

3. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Alternative A (Proposal)

Based on the findings of the specialist opinions that were obtained for the sites under investigation and in terms of environmental constraints identified through the Basic Assessment process, no impacts of high significance or environmental fatal flaws were identified as a result of the proposed demolition project. The main issues which have been identified as having an impact of moderate significance relates to air quality (dust creation), as well as the creation of solid waste during the decommissioning. These impacts have a high likelihood of occurring but will be characterised by a short duration, due to the time frame associated with the demolition

activities. However, after the appropriate mitigation measures have been implemented the significance rating can be successfully minimised to a low level.

The remainder of the identified impacts are all characterised as having a low significance, moderate likelihood of occurring, and a short duration due to the time frame associated with the demolition activities as well as the locality of the sites where the demolition is proposed to take place being within the existing Sasol One industrial complex.

All the potential impacts identified can be minimised through the implementation of practical and appropriate mitigation measures as recommended in the EMPr contained in **Appendix F**.

No-go alternative (compulsory)

The no-go alternative would include not undertaking the demolition of the redundant solvent tanks and associated infrastructure at the Minechem and Merisol sites within the Sasol One industrial complex.

The solvent tanks at the Minechem sites were left behind for re-use but were never re-used, and after a recent inspection it was decided that they should be demolished due to the old tank specifications no longer being compatible or ideal. Once the tanks are demolished it is intended to move the drumming facility (located next to the tanks) into the old tank footprint in order to make way for a larger truck turning circle. Should the proposed demolition project not go ahead, less space would therefore be available for trucks coming to the Minechem site to collect steel drums making the task more time consuming and costly.

At the moment no alternative end use for the Ethanol Tank Farm (Merisol) site has been established post decommissioning and the area will be left open for the time being.

SECTION E: RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?	YES

If "NO", indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment):

N/A

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

In order to mitigate and manage for potential impacts the following mitigations measures are recommended to form part of the Environmental Authorisation:

- The areas where the demolition will take place should be clearly defined and demarcated as per Sasol's safety requirements;
- All vehicles/machinery should be serviced regularly to prevent any hydrocarbon spillages. Drip trays to be used in areas where vehicles/machinery is parked at night;
- If significant hydrocarbon spills do occur, clean-up procedures are to be activated immediately. Hydrocarbon contaminated soils must be removed and disposed of at a licenced hazardous waste disposal facility;
- Limit vehicle/machinery movement on exposed soil surfaces to a minimum;
- If a heritage object is found, work in that area must be stopped immediately, and appropriate specialists brought in to assess the site, notify the administering authority of the item/site, and undertake due/required processes;
- Reduce and control dust through the use of approved dust suppression techniques at the Minechem and Ethanol Tank Farm/Merisol sites;
- Ensure that all solid waste/rubble and litter are managed and removed regularly to a licensed waste facility;
- A waste classification on soils and concrete waste, such as the paver blocks, from the demolition process must be undertaken to ensure that the waste is disposed of on the correct landfill class;
- Restrict demolition activities to daylight hours (06:00 to 18:00) in order to negate or reduce the noise impacts associated with the demolition activities.
- Conduct groundwater monitoring at the Ethanol Tank Farm (Merisol) on a bi-annual basis in order to detect any groundwater contamination.
- Storm water can only be discharged when discharge specifications are met; and
- Monitor the effluent system on a regular basis.

Please refer to the EMPr attached in **Appendix F** for a complete list of relevant mitigation measures.

Is an EMPr attached?	YES

The EMPr must be attached as Appendix F.

SECTION F: APPENDIXES

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports

Appendix E: Public Participation

Appendix F: Environmental Management Programme (EMPr)

Appendix G: Other information

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29 August 2013

Document source: C:\Alljobs\D883_Sasol_Demolition\Report\Final BAR\D883-00_Rep_Rev01_FinalBAR_gc_20130821.doc
Document template: repGen_13r0

APPENDIX A

SITE PLAN/S AND LOCALITY MAP

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APPENDIX B

PHOTOGRAPHS

APPENDIX C

FACILITY ILLUSTRATION(S)

Please note that due to the size and the nature of the project, no facility illustrations on a scale of 1:200 have been compiled. A representative view of the proposed activity is illustrated in the Site Plans under Appendix A.

APPENDIX D

SPECIALIST REPORTS

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APPENDIX E

PUBLIC PARTICIPATION

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APPENDIX F

EMPR

APPENDIX G

OTHER INFORMATION

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