Company Reg No: 2006/017497/07

### INTERESTED AND AFFECTED PARTY NOTIFICATION

PASA Ref: 12/3/255 ER

#### 1. Introduction

Moonstone Investments 89 (Pty) Ltd has applied for an exploration right to conduct exploration operations for Natural Gas in terms of section 79 of the MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT 28 OF 2002 (MPRDA) over the following property:-

- Farm: R/E Van Block C 2nd Railway Grant Nr 1
- Portions: 19 Gemsdraai; RE20 Aurora; 107 and 108 Rooihakbos
- Vryburg District, North West Province, South Africa

Attached for your information and comment, is a short description of exploration activities to be undertaken in the area, a Locality Plan indicating the location of the proposed exploration area and an Interested and Affected Party Comments form.

If you are aware of any reasons for comment or concern regarding the exploration area, your input and suggestions would be greatly appreciated. Please complete the attached Interested and Affected Party Comments form and return by facsimile, e-mail or post. If you have any queries in this regard please contact Fiona Moir at 087 820 5910.

#### 3. Mining Legislation

The following legislation is pertinent to this Exploration Right application.

- The application for the exploration right was submitted to the **Petroleum Agency SA (PASA)**, in terms of Section 79 of the MPRDA. The application was accepted on 18 March 2013.
- Section 11 of the MPRDA requires applicants to notify and consult any Interested and Affected Parties and;
- Section 39 requires an Environmental Management Plan for the affected area to be submitted.
- The results of the Interested and Affected Consultations and the Environmental Management Plan are submitted to PASA for assessment. If PASA finds the documents acceptable the exploration right will then be granted.
- The exploration right may only commence once it has been granted and signed into effect.

#### 4. Purpose of this document

It is the intention of this notification to bring the exploration right application to the attention of Interested and Affected Parties in order to afforded any parties who may be affected by the proposed undertaking the opportunity to understand and to comment on the application. The notification provides an overview of the application and the work to be carried out under the exploration right application. Further consultations will be conducted as required.



#### PO Box 650555; Benmore; 2010 Tel: 087 820 5910 Fax: 086 511 0696 email: chris@mumby.co.za Director: C C Mumby

#### 2. Location

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#### 5. Project Description

Natural gas is of great importance to the economy of a country and is a cost-effective and cleaner energy source than coal which has the potential to enhance economic growth, strengthen energy security, improve air quality and reduce emissions of greenhouse gases.

Exploration activities for natural gas involves no trenching or bulk sampling and the only disturbance to the surface of the land is the area disturbed for the drill sump. The sump area is rehabilitated after the completion of the drill hole with the replacement of the original top soil which is securely stored for such purpose.

Before drilling operations commence the proposed drill sites are investigated and selected in consultation with the surface owner in order to minimise the impact to the environment and agricultural activities. It is envisaged that a borehole should be completed within a month baring no unforeseen problems.

#### Drilling

Each drill site is inspected and photographed prior to any disturbance to ensure that site specific impacts are kept to a minimum. Any topsoil removed is stored separately for later reuse. The area of the drill footprint is estimated at about 60m<sup>2</sup>.

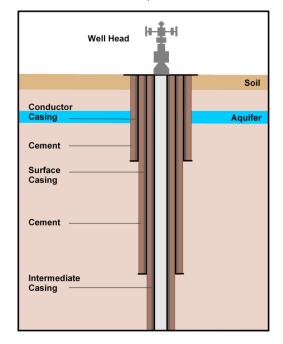
It is envisaged that truck mounted or static rigs will be used to drill wireline commonly PQ or NQ size holes to an estimated depth of 1600m. The hole will be cased to preserve the integrity of the water table. If a percussion rig is used all rock chips generated will be removed from the site. Plastic lining to prevent oil spillage will be used under the rig as well as within any water sumps that are required. The area will be cordoned off, and entry restricted to approved personnel who have the appropriate safety equipment.

Depending on the results obtained detailed geophysical surveys might be undertaken on the borehole.



Drill site with the mobile laboratory.

The borehole will be cased according to industry best practice after the water table has been reached. This is to allow for the hydrological sampling and testing of any aquifers encountered to ensure an accurate water table database for the area is compiled.



#### Sample collection, core logging

A mobile laboratory will be located at the drill site for the sampling of the core. Samples will be identified and taken from the core during the drilling operations and will initially be sampled on site in a mobile laboratory and once stabilised submitted to the laboratory in Midrand for crushing, milling and assay purposes. No environmental disturbance is created by these activities.

Core is placed in core trays for sample selection, logging and storage. The core trays are removed and stored off site once drilling is completed.

#### <u>Sumps</u>

Sumps create the biggest disturbance to the topsoil during exploration activities but are easily rehabilitated provided they are lined and the removed topsoil is stored correctly. If the construction of a brick containment for the sump is required the topsoil and area will be rehabilitated as with a normal sump and all construction material removed from site after drilling operations have been completed.

The diamond drill holes require three sumps to be dug and lined with a thick water proof plastic lining.

The first sump will contain the waste water, rock chips and lubricants from the drill rigs. The rock chips / sludge will be allowed to settle and the water will be

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drained off into the second sump. Once again any residue sludge will be allowed to settle before the water is drained off into the third sump. The water in the third sump will be almost clear of pollutants and can then be recycled for use again by the drill rig. If the first sump becomes too full of sludge to be effective the sludge will be removed and disposed of at an authorised dump site.

The size of each sump will depend on the depth of the drill hole and should not be larger than  $1m \times 1,5m$  at a depth of 1m.

When drilling is complete the sumps will be left to dry out and the sludge / cake will be removed and dumped at an appropriate dump site.

The topsoil removed for the sumps will be kept separate from the overburden and stored separately for later reuse. The topsoil will be protected from being blown away or being eroded. The retained topsoil will be used to refill the sumps. Any spoils and drilling material will be transported off site and disposed of in an approved area. Should the retained topsoil be stored for an extended period of time it will be ameliorated with the correct fertilizer and reseeded.



Sump area during drilling



Borehole and sump area two years after drilling

After the drilling and sampling operations have been completed, each borehole collar will be surveyed and

the site will be rehabilitated and photographed. The retained topsoil will be used to fill any sumps and be reseeded if necessary. Any spoils and drilling material will be transported off site and disposed of in an identified and approved dumping site.

#### 6. Potential Impacts

The Primary impacts of an action are those effects that are caused by the action and that generally occur at the same time and place as the action. They are usually associated with the construction, operation, maintenance of a facility of activity, and are generally obvious and quantifiable. Primary impacts can encompass such effects as alteration of groundwater characteristics due to construction, dewatering activities, or significant withdrawals during operation.

No primary impacts are envisioned.

Secondary impacts are indirect and occur later in time or at a different place. They include additional construction and/or development, traffic increases, increased recreational demand, and other types of off-site impacts generated by onsite activities.

No secondary impacts are envisioned.

Identification of short-term and long-term impacts is important because the significance of any particular impact may be related to its duration in the environment.

Short Term: -	
<u> </u>	

ittle to no impact
negligible impact, very localised to
site of truck,
negligible impact
ittle to no impact

Long Term: - no long term impacts are envisaged at this point in time.

#### 7. Public Participation

Pre-identified Interested & Affected Parties (I&AP) will be informed about the proposed project by consultation, the distribution of Background Information Document (BID) letters, notices in a local newspaper and a Public Participation meeting.

Attached is a Comment Form which stakeholders are encouraged to submit in order to register as I&APs and to provide comment / input and / or raise issues of concern or objections.

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#### INTERESTED AND AFFECTED PARTY COMMENTS

#### FOR AN EXPLORATION RIGHT, NORTH WEST PROVINCE

Our Ref:

IAP/255-\_\_\_\_

Please complete and return by 20<sup>th</sup> May 2013 to: MOONSTONE INVESTMENTS 89 (PTY) LTD; P.O. Box 650555, Benmore, 2010 Tel: 087 820 5910; Fax: 086 604 2190 e-mail: Fiona@evpmc.co.za

#### PASA Ref No: 12/3/255 ER

#### Your Contact Details:

Title (Dr/Prof/Mr/Mrs/Ms)	First Name		Surname	
Organisation				
Capacity				
Postal Address				
Tel No:		Cell No:		
Fax No:		Email:		

#### Comments:

Comments / concerns / suggestions regarding environmental, socio-economic and cultural heritage issues over the proposed prospecting right application area. (Please use additional pages if required)

If you are aware of any other Interested and Affected Party please supply us with their contact details:

Name:	Organisation:	
Address:		
Tel:	Cell:	
Fax:	Email:	

SIGN	ΑΤι	JRE:
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DATE:

PO Box 650555; Benmore; 2010 Tel: 087 820 5910 Fax: 086 511 0696 email: chris@mumby.co.za

Director: C C Mumby

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## **ENVIRONMENTAL QUESTIONNAIRE**

#### Regarding an Exploration Right Application - Ref No: 12/3/255 ER

Affected property: -

<u>1.</u>	Proof of consultation:	Signed:	Not Signed:		
<u>2.</u>	Draft EMPR discusse	d: Yes:	No:		
<u>3.</u>	Work programme discussed:	Yes:	No:		
<u>4.</u>	Impacts:				
	Current stock / crop				
	Current and past envi	ronmental disturbances:			
	Access to the farm:				
	Risks:				
	Use of water:				
	Use of facilities: e.g. a	accommodation			
<u>5.</u>	Historical:				
	Grave sites:				
	Other: e.g. buildings,	battlefields, rock art			
6	Environmental:				
<u>6.</u>					
	Red Data species:				
<u>7.</u>	Socio - economic:				
	Residents on the farm	1::			
<u>8.</u>			vironmental, socio-economic and cultura ease use additional pages if required)	I heritage issues over	
	:				
	IAP: -				
		NAME	SIGNATURE	DATE	
CONSULTANT: SIGNATURE DATE					
		NAME	SIGNATURE	DATE	