

**PROPOSED EXPLORATION DRILLING
IN THE ORANGE BASIN DEEP WATER
LICENCE AREA OFF THE
WEST COAST OF SOUTH AFRICA**

ISSUES AND RESPONSES TRAIL

Prepared for:
Department of Environmental Affairs

On behalf of:
Shell South Africa Upstream B.V.

Prepared by:
CCA Environmental (Pty) Ltd
and
NMA Effective Social Strategists (Pty) Ltd



TABLE OF CONTENTS

TABLE OF CONTENTS.....	i
SECTION 1: INTRODUCTION AND PUBLIC PARTICIPATION PROCESS	
1.1 INTRODUCTION.....	1-1
1.2 PUBLIC PARTICIPATION PROCESS.....	1-1
1.3 COMMENTS AND ISSUES RAISED.....	1-1
1.3.1 Initial public participation process.....	1-1
1.3.2 Draft Scoping Report review and comment period.....	1-2
SECTION 2: INITIAL PUBLIC PARTICIPATION PROCESS: ISSUES AND RESPONSES TRAIL	
2.1 TECHNICAL ISSUES.....	2-1
2.2 IMPACT ON MARINE FAUNA AND FLORA.....	2-4
2.3 IMPACT ON THE FISHING INDUSTRY.....	2-9
2.4 EMPLOYMENT OPPORTUNITIES AND ECONOMIC IMPACTS / BENEFITS.....	2-11
2.5 HEALTH AND SAFETY ISSUES.....	2-13
2.6 LEGISLATIVE REQUIREMENTS AND POLICY DOCUMENTS.....	2-14
2.7 IMPACT ASSESSMENT PROCESS.....	2-16
SECTION 3: DSR REVIEW AND COMMENT PERIOD: ISSUES AND RESPONSES TRAIL	
3.1 TECHNICAL ISSUES.....	3-1
3.2 IMPACT ON MARINE FAUNA AND FLORA.....	3-1
3.3 EMPLOYMENT OPPORTUNITIES AND ECONOMIC IMPACTS / BENEFITS.....	3-2
3.4 IMPACT ASSESSMENT PROCESS.....	3-2

SECTION 1:

INTRODUCTION AND PUBLIC PARTICIPATION PROCESS

1.1 INTRODUCTION

The purpose of this Issues and Responses Trail is to record comments received from Interested and Affected Parties (I&APs) during the scoping process undertaken for the proposed exploration drilling programme in the Orange Basin Deep Water Licence Area. Where applicable, responses to comments and questions are given or cross-referenced to the relevant section of text in the Final Scoping Report (FSR).

1.2 PUBLIC PARTICIPATION PROCESS

The objective of the public participation process was to ensure that I&APs were notified of the proposed project and given reasonable opportunities to register on the project database and provide comment at various stages during the process. Steps undertaken during the public participation process are summarised in Box 2.1 and 2.2 of the FSR.

1.3 COMMENTS AND ISSUES RAISED

1.3.1 INITIAL PUBLIC PARTICIPATION PROCESS

A total of 26 written submissions were received during the initial public participation process, many of which related to registration on the project database, obtaining additional project information and potential work opportunities. The written submissions can be broken down as follows:

Authorities	Organisations	Private
<ul style="list-style-type: none"> Department of Agriculture, Forestry and Fisheries (Deon Durholtz) Petroleum Agency of South Africa (Phumla Ngesi) Cederberg Local Municipality (Shirlene Fransman) Northern Cape Government: Department of Environment and Nature Conservation (Wilna Opper) 	<p><u>Business</u></p> <ul style="list-style-type: none"> Atlas Copco Group (Cindy Ross) Toprope (Daniel Bottonley) Duferco Steel Processing (Elmien de Bruyn) Leapfrog (Esther Kluge) MEK Drilling (Judith Vermeulen) Umbono Capital (Richard Montjoie) Matrikon Moore (Trevor Nell) MECS (Roland Glass) <p><u>Fishing</u></p> <ul style="list-style-type: none"> Sea Harvest (Greg Marshall) FishSA (Jeremy Marillier) Namibian Hake Association (Matti Amukwa) <p><u>Maritime</u></p> <ul style="list-style-type: none"> Bidfreight Port Operations (Alet Fabicius) Japan Marine Supplies & Services (Gill Maasburg) <p><u>Oil and gas</u></p> <ul style="list-style-type: none"> Sunbird Energy (Anschen Friedrichs) Thombo Petroleum (Trevor Ridley) NOV Rig Solutions SSA (Oliver Römer) South African Oil & Gas Alliance (Mthozami Xiphu) <p><u>Mining</u></p> <ul style="list-style-type: none"> International Mining and Dredging (Bheki Ngcobo) International Mining and Dredging (Paolo Esposito) <p><u>Environmental</u></p> <ul style="list-style-type: none"> WESSA (Suzanne Erasmus) 	<ul style="list-style-type: none"> Francine Dieckmann Steve Meyer

A copy of all written submissions is provided in Appendix 2.8 of the FSR. Minutes to authority and public information-sharing meetings are provided in Appendix 2.5 and 2.6, respectively.

Comments and issues received during the initial public participation process are presented and responded to in Section 2 of this report. No importance should be given to the order in which the categories within each section are presented. As far as possible, comments are presented verbatim from written submissions.

1.3.2 DRAFT SCOPING REPORT REVIEW AND COMMENT PERIOD

A total of 21 written submissions were received during the 40-day Draft Scoping Report (DSR) review and comment period. Written submissions were received from the following organisations / individuals:

Authorities	Organisations	Private
<ul style="list-style-type: none"> Matzikama Local Municipality (Bernette Kriek and Briaan Smit) Namibian Ministry of Works, Transport and Communication (Pinehas Auene) Department of Agriculture, Forestry and Fisheries (Deon Durholtz) South African Maritime Safety Authority (Capt Karl Otto) Saldanha Bay Local Municipality (Nazeema Duarte) West Coast District Municipality (Doretha Kotze) Northern Cape Government: Department of Environment and Nature Conservation (L Tools-Bernardo) Namakwa District Municipality (A Strauss) Western Cape Government: Department of Environmental Affairs and Development Planning (K Adriaanse) 	<p><u>Fishing</u></p> <ul style="list-style-type: none"> South African Deep Sea Trawling Industry Association (Roy Bross) South African Inshore Fishing Industry Association (Dan de Villiers) <p><u>Oil and gas</u></p> <ul style="list-style-type: none"> South African Petroleum Industry Association (Anton Moldan) PetroSA (Siphiwe Msipho) <p><u>Environmental</u></p> <ul style="list-style-type: none"> WESSA Northern Cape (Suzanne Erasmus) Cape West Coast Biosphere (Shayda van Niekerk) 	<ul style="list-style-type: none"> Michaela Woelk Aubrey Meissenheimer Kirsty Robinson




A copy of all written submissions is provided in Appendix 2.12 of the FSR.


Comments and issues received during the initial public participation process are presented and responded to in Section 3 of this report. No importance should be given to the order in which the categories within each section are presented. As far as possible, comments are presented verbatim from written submissions.




SECTION 2:






**INITIAL PUBLIC PARTICIPATION PROCESS:
ISSUES AND RESPONSES TRAIL**




Method of correspondence:






 = Letter/Fax/Response Form  = E-mail  = Information-sharing Meeting


NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
2.1 TECHNICAL ISSUES					
2.1.1	Purpose of the Blow-Out Preventer (BOP)	Andre Theart (Arcelormittal)	 2013.11.12	Asked why the BOP is needed during drilling operations.	<p>Although the probability of a well blow-out is extremely low, it nonetheless provides the greatest environmental concern during drilling operations. The primary safeguard against a blow-out is the drilling fluid. The likelihood of a blow-out is further minimised by employing a BOP, which is a secondary control system. The BOP is installed on the wellhead and is designed to close in the well to prevent uncontrolled flow of drilling fluids and brine / hydrocarbons from the reservoir in case the pressure of the reservoir exceeds the pressure of the drilling fluid resulting in reservoir fluids (brine or hydrocarbons) entering the wellbore.</p> <p>According to the Schlumberger Oil Field Glossary a BOP is a large valve at the top of a well that may be closed if the drilling crew loses control of formation fluids. By closing this valve (usually operated remotely via hydraulic actuators), the drilling crew usually regains control of the reservoir, and procedures can then be initiated to increase the mud density until it is possible to open the BOP and retain pressure control of the formation. BOPs come in a variety of styles, sizes and pressure ratings. Some can effectively close over an open wellbore, some are designed to seal around tubular components in the well (drill pipe, casing or tubing) and others are fitted with hardened steel shearing surfaces that can actually cut through drillpipe. Since BOPs are critically important to the safety of the crew, the rig and the wellbore itself, BOPs are inspected, tested and refurbished at regular intervals determined by a combination of risk assessment, local practice, well type and legal requirements. BOP tests vary from daily function testing on critical wells to monthly or less frequent testing on wells thought to have low probability of well control problems (http://www.glossary.oilfield.slb.com/en/Terms.aspx?LookIn=term%20name&filter=blowout%20preventer).</p>




NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
2.1.2	Data gathered from drill cuttings	Mthozami Xiphu (South African Oil & Gas Alliance, SAOGA)	 2013.11.11	Enquired whether Shell would analyse the drill cuttings for information purposes.	The drill cuttings from the riserless drilling stage would not be analysed. However, during the riserless drilling stage drill cuttings brought to the surface by the drilling fluid would be analysed (called mud logging).
2.1.3	Well abandonment	Wilna Oppel (Department of Environment and Nature Conservation)	 2013.11.28	If the first well was not viable then it would need to be covered. She asked how this would be done.	<p>If a well is unsuccessful, it would be decommissioned in a safe and stable condition. This would entail the following:</p> <ul style="list-style-type: none"> • Cement plugs would be set inside the wellbore and tested for integrity; • The BOP would be removed before the drilling unit is moved off location; and • The wellhead (total 3 to 4 m high) would either remain on or be removed from the seafloor. The preferred option would be to leave the wellhead on the seafloor. <p>Decommissioning would conform to international standards and local requirements where applicable. Over 300 wells have been drilled off the Southern African coast and have been similarly decommissioned.</p>
2.1.4	Conventional drilling versus hydraulic fracturing (fracking)	Wilna Oppel (Department of Environment and Nature Conservation)	 2013.11.28	What is the difference between the proposed extraction process and fracking?	<p>Conventional oil and gas are those resources that originate from a "source rock" and are easier to produce. As oil and gas are expelled from the source rock they migrate until they are caught in a geological "trap", where they accumulated. They are explored and developed mostly through vertical wells.</p> <p>Unconventional oil and gas refers to those resources that are found in low permeability rock formations that cannot flow economically without the use of technologies to stimulate flow (e.g. hydraulic fracturing). Hydraulic fracturing provides the means to achieve commercial rates of recovery.</p> <p>For this project Shell would make use of conventional drilling as it is anticipated that there is a reservoir of trapped hydrocarbons that would be relatively easy to extract.</p>






NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
2.1.5	Cuttings volume	John Peter (Department of Environmental Affairs: Oceans and Coasts)	 2013.11.28	Does Shell have an estimate of the volume of seabed that would be extracted?	The wellbore is drilled through the seabed. During the riserless drilling stage, it is estimated that 350 to 400 m ³ of cuttings would be discharged onto the seafloor for the initial 1 000 m of drilling. During the risered drilling stage it is estimated in the order of 150 to 200 m ³ of cuttings per well would be released at the surface (see Section 3.3.9.2 of the main report for further details of cuttings discharge).
2.1.6	Cuttings dispersal	Deon Durholtz (DAFF)	 2013.11.11	What is the extent of the area impacted by drill cuttings that are deposited on the ocean floor?	The dispersion of cuttings (in terms of area and thickness) will be modelled in a specialist study undertaken by Stephen Luger from Prestedge Retief Dresner Wijnberg (PRDW). The terms of reference for the drill cuttings and oil spill modelling study are presented in Section 6.2.2 of the main report. The specialist findings will be integrated into a Draft Environmental Impact Report (EIR) and draft Environmental Management Programme (EMPr) Addendum.
2.1.7	Ownership of the seismic survey data	Karl Otto (SAMSA - Captain)	 2013.11.11	He wanted to know if the data from the seismic survey is available to the public. He noted that the seismic survey was undertaken in the South African 200 mile Exclusive Economic Zone (EEZ) so technically the data belongs to the state.	The seismic data belongs to Shell, with a copy of the information provided to the Petroleum Agency SA (PASA). Mthozami Xiphu of SAOGA indicated that after four years the data will become the property of the state and, therefore, available to the public.
2.1.8	Waste management	Richard Byrnes (International Environmental & Marine Services - CEO)	 2013.11.11	Shell should develop a drilling waste management plan addressing requirement for waste segregation to facilitate appropriate onshore treatment and/or disposal. As far as reasonably practicable, all material brought ashore should be sent for recycle, re-use or properly disposed of.	Shell would be required to prepare a waste management plan, which will include waste separating as suggested. The requirement will be included as part of the Environmental Management Programme (EMP) and EMPr.
2.1.9	Onshore support base	Richard Byrnes (International Environmental & Marine Services - CEO)	 2013.11.11	Increased strain on service provisions. Onshore support base will require electricity, water and waste disposal services. Inform authorities at Saldanha Bay and or Cape Town in advance of the nature of services that will be required for service provision.	Sea- and land-based support is addressed in Section 3.3.8 of the main report. In summary, a logistics shore base would be located in either Cape Town or Saldanha Bay. Transportation of personnel to and from the drilling unit would be provided by helicopter operations from the Kleinsee airport. The service infrastructure required is currently in place at Cape Town, Saldanha and Kleinsee to provide the necessary onshore support.






NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
2.2. IMPACT ON MARINE FAUNA AND FLORA					
2.2.1	Impacts on marine fauna	Francine Dieckmann (Private)	 2013.11.01	Impacts on marine fauna.	<p>The potential impacts on marine fauna will be assessed in the Marine Faunal Assessment to be conducted by Dr Andrea Pulfrich of Pisces Environmental Services. The terms of reference for this study are presented in Section 6.2.3.</p> <p>The specialist findings will be integrated into a Draft EIR and draft EMP Addendum.</p>
2.2.2	Impacts of helicopter operations on marine fauna	Richard Byrnes (International Environmental & Marine Services - CEO)	 2013.11.11	<p>Helicopters flying over Important Bird Areas (IBAs) could disturb coastal bird population. Helicopters flying from Kleinsee should avoid flying over the wetlands and IBAs. If avoidance is not possible a minimum agreed altitude should be maintained when flying over this area to minimize disturbance.</p> <p>There is also a potential for support vessel striking a marine mammal or sea turtle and minor behavioural disturbance of marine mammals, turtles and birds could be expected.</p>	<p>The potential impact of aircraft / helicopter operations will be assessed as part of the Marine Faunal Assessment to be conducted by Dr Andrea Pulfrich of Pisces Environmental Services (see Response 2.2.1).</p> <p>The risks of support vessels striking marine mammals or turtles is no different to the numerous vessels that pass through South Africa waters on a daily basis. Aircrafts or vessels may not, without a permit or an exemption, approach to within 300 m of whales in terms of the Marine Living Resources Act, 1998. As this may be both impractical and more or less impossible, it is recommended that an exemption permit is applied for through the Department of Environmental Affairs (DEA).</p>
2.2.3	Impact on marine benthic environment	Richard Byrnes (International Environmental & Marine Services - CEO)	 2013.11.11	Physical damage to benthic communities due to placement of drilling unit. Any mitigation required shall depend on type of drilling unit.	<p>Due to the water depth in the area of interest the drilling unit (semi-submersible or drill ship) would be held in position by dynamic positioning thrusters. Thus there would be no anchoring and resulting effect on the benthic communities during placement of drilling unit.</p> <p>The ecological consequences of drilling and discharging drill cuttings depend on the quantity of material discharged, the physical and chemical nature of the discharge, the depth of water and the prevailing hydrographic conditions. Impacts also depend on the vulnerability of the benthic communities themselves. Cuttings from drilling operations would bury and smother benthic communities immediately below the discharge point. Rapid recovery of the seabed may occur if the cuttings are widely dispersed or buried by fresh marine sediments. Scientific studies undertaken to date suggests that the effects of offshore oil and gas production on benthic communities are both localised and minor. This issue will be further addressed in the Marine Faunal Assessment.</p>





NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
2.2.4	Recovery of benthic communities	Wilna Oppel (Department of Environment and Nature Conservation)	 2013.11.28	What guarantee is there that the marine life would return to the area once the drilling operations have taken place?	The disturbance of benthic communities is considered negligible in relation to the available area of similar habitat on and off the edge of the continental shelf in the Atlantic Offshore Bioregion, which is classified as Least Threatened. In addition, this localised impact is short-term with recovery expected within two to five years, assuming the avoidance of rock outcrops / reefs.
2.2.5	Marine Protected Areas (MPAs)	Richard Byrnes (International Environmental & Marine Services - CEO)	 2013.11.11	The location of the MODU, the activities of the support vessels and shore side logistics shall need to consider MPAs.	A number of conservation areas and marine protected areas (MPAs) exist along the West Coast, none of which are located within the licence area (see Section 4.2.3.4 of the main report). Logistical support activities would not directly affect any MPAs.
2.2.6	MPAs	Chris Fortuin (Namakwa District Municipality - Director)	 2013.11.27	He reported on the intention to proclaim a MPA, which would include the areas of Thombo and Ibhuesi. He noted that it would not include Shell's area of interest. The extent of the MPA has not yet been determined.	The proposed Namakwa MPA would be located over 250 km to the east of the proposed area of interest (see Figure 4.16 in the main report). The offshore extent of the MPA has been considered in some detail by DEA and the South African National Biodiversity Institute (SANBI).
2.2.7	Water quality	Richard Byrnes (International Environmental & Marine Services - CEO)	 2013.11.11	<ul style="list-style-type: none"> All discharges from the MODUs and supporting vessels should be treated and discharged in accordance with the MARPOL convention. Compliance with project effluent guidelines including oil and grease. 	The drilling unit and all support vessels would comply with MARPOL 73/78 standards. This will be included as a recommendation in the Draft EIR and draft EMPr.
2.2.8	Air emissions	Richard Byrnes (International Environmental & Marine Services - CEO)	 2013.11.11	<ul style="list-style-type: none"> Rig and vessels must comply with MARPOL Annex VI, which sets limits on sulphur dioxide and nitrogen oxide emissions from exhausts and prohibits deliberate emissions of ozone depleting substances. Routine inspection and maintenance of engines, generators and other equipment to minimize air emission. Use of low-sulphur diesel if available locally. 	See Response 2.2.7. The impact related to emissions will be addressed in the Draft EIR and draft EMPr. The volumes of solid waste incinerated on board and hence the volumes of atmospheric emissions would be minimal. Incineration would comply with the relevant MARPOL 73/78 standards. It will be recommended that all diesel motors and generators receive adequate maintenance and that a high-efficiency burner is used for flaring.






NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
2.2.9	Oil spills	Francine Dieckmann (Private)	 2013.11.01	<p>Raised the issue of possible oil spills during drilling operations and concerns regarding the safety and re-occurrence of incidents like the BP Gulf of Mexico oil spill.</p>	<p>A study will be undertaken to model the following two scenarios:</p> <ol style="list-style-type: none"> 1. Small instantaneous spills of hydraulic fluid (1 ton) or diesel (10 tons); and 2. Large blow-out of crude oil at the seabed under 5-day and 20-day blow-out scenarios. <p>The terms of reference for the drill cuttings and oil spill modelling study are presented in Section 6.2.2 of the main report.</p> <p>The findings of the oil spill modelling study will be used by the marine fauna specialist to assess the potential impacts related to these upset conditions. The likelihood of a large scale oil spill event is considered very small with no incidents being recorded in the over 300 wells drilled in South Africa waters.</p> <p>Shell would be required to prepare an oil spill contingency plan, which would or address, but not limited to, the following:</p> <ul style="list-style-type: none"> • Movement of oil spill based on oil spill modelling; • Roles and responsibilities; • Training; • Notifications; • Initial actions to be taken; • Clean-up techniques and procedures; • Priorities for protection; and • Termination of clean-up operation. <p>It should also be noted that advanced well intervention and capping equipment is available in Saldanha Bay for deployment in the event of a subsea well control incident. This would further reduce the likelihood of oil reaching the shore in the event of a blow-out.</p>




NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
2.2.10	Oil spill	Richard Byrnes (International Environmental & Marine Services - CEO)	 2013.11.11	<p>Shell must prepare an Oil Spill Contingency Plan in line with the South African National oil spill contingency plan. Response equipment such as vessels, skimmers and booms are to be checked, listed and maintained.</p> <p>The MODU and support vessels must have Shipboard Oil Pollution Emergency Plans (SOPEP) as required under the MARPOL Convention and materials to handle spills onboard (e.g. adsorbents, approved containers for storage and shipment of spill wasters, disposable bags, gloves/goggles etc).</p> <p>The International Association of Oil and Gas Producers (OGP) developed recommendations following the Macondo (Gulf of Mexico) and Montara (Australia) and other similar incidents. The recommendations are available either publicly via the OGP website, or to members of the association. Elements of these recommendations should be referenced and utilized in the development of the operations specific EMPr and or EIA. http://www.ogp.org.uk/pubs/465.pdf.</p>	The drilling unit and all support vessels would have their own specific Shipboard Oil Pollution Emergency Plans (SOPEP). Also see Response 2.2.9.
2.2.11	Oil spill	Chris Fortuin (Namakwa District Municipality - Director)	 2013.11.27	Asked how far the oil spills would travel if there was an incident. He noted that whilst disaster management is currently housed in the Namakwa District Municipality, if there was an incident the district would not respond but would be dependent on the Western Cape Provincial department.	See Responses 2.2.9 and 2.2.10. The Oil Spill Modelling Study to be commissioned in the next phase of the EIA will predict the oil spill trajectory and what conditions need to exist for a spill to reach the coast. Shell will engage with the relevant national, provincial and local municipalities in the finalisation of the oil spill contingency plan.
2.2.12	Oil spill	Russel Hartley (Nama Khoi Municipality)	 2013.11.27	Apart from the Namakwa District Municipality, it is crucial for all three municipalities to be involved in the oil spill contingency plan as they also carry out disaster management locally. He said that the local municipality has a disaster management plan and would need to adapt this to Shell's oil spill contingency plan so that they are involved in any interventions to minimise damage to their coastal towns.	See Response 2.2.11.




NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
2.2.13	Oil spill	Jannie Loubser (Namakwa District Municipality)	 2013.11.27	Disaster management is located in the district and there are designated officials dealing with disaster management. He noted, however, that the district does not have expertise in oil spill containment.	See Response 2.2.11.
2.2.14	Oil spill	Karl Otto (SAMSA - Captain)	 2013.11.11	Is there a pollution plan for the project?	See Responses 2.2.9, 2.2.10 and 2.2.11.
2.2.15	Oil spill	Eddie Julius (Northern Cape Department of Economic Development and Tourism)	 2013.11.27	In terms of the Integrated Coastal Management Act an oil spill contingency plan must be submitted to the relevant stakeholders. He went on to identify the Namakwa District Municipality, the Nama Khoi Municipality (if Kleinsee is to be used as a base) and the Department of Health (the department is to take transfer of the hospital and will need to provide doctors) as key stakeholders that would need to be involved.	See Responses 2.2.9, 2.2.10 and 2.2.11.
2.2.16	Municipal IDP	Russel Hartley (Nama Khoi Municipality)	 2013.11.27	No mention was made of the project during their recent IDP process. He raised a concern about how the province would respond to an oil spill if it was not identified in their IDPs.	See Responses 2.2.9, 2.2.10 and 2.2.11.
2.2.17	Research opportunities	Deon Durholtz (DAFF)	 2013.11.11	Would there could be research opportunities on the drill rig during implementation?	Shell is supportive of research proposals that enhance our scientific understanding of the marine environment, as it benefits all marine resource users. Space is at a premium on drilling units and it may not be possible to have research staff on the drill unit during operations. Shell would be willing to interact with researchers to explore opportunities for research.




NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
2.3 IMPACT ON THE FISHING INDUSTRY					
2.3.1	Impacts on local fishing industry	Francine Dieckmann (Private)	 2013.11.01	Impacts on local fishing industry.	Due to the location of the proposed area of interest, approximately 230 km offshore in water depths ranging between 1 500 m and 2 100 m, the only fishing sector which could potentially be impacted by the proposed exploration drilling programme is the large pelagic long-line fishery (see figures in Section 4.1.4.1 of the main report). There is no expected impact from normal operations on the demersal trawl, demersal long-line (hake- and shark-directed), small pelagic purse-seine, demersal long-line (hake and shark), tuna pole, traditional line-fish and West Coast rock lobster fishing sectors. The potential impacts on the various fishing sectors operating off the West Coast will be confirmed and assessed in the Fisheries Study to be conducted by Dave Japp and Sarah Wilkinson of CapFish. The terms of reference for this study are presented in Section 6.2.4.
2.3.2	Impact on the pelagic long-line sector	Deon Durholtz (DAFF)	 2013.11.11	Drilling operations could have an impact on pelagic long-lines as these lines can be moved by currents.	The impact on the pelagic long-line sector will be assessed in the Fisheries Study (see Response 2.3.1).
2.3.3	Impact on local fishing industry	Eddie Julius (Northern Cape Department of Economic Development and Tourism)	 2013.11.27	Raised a concern regarding the potential impact on the local fishing industry.	The impact on the various fishing sectors operating off the West Coast will be assessed in the Fisheries Study (see Response 2.3.1).
2.3.4	Fishing Industry in Kleinsee	Russel Hartley (Nama Khoi Municipality)	 2013.11.27	Raised a concern regarding the potential impact on the local fishing industry (including crayfish).	The impact on the various fishing sectors operating off the West Coast will be assessed in the Fisheries Study (see Response 2.3.1).
2.3.5	Impact on swordfish long-line	Wendy West (DAFF Fisheries - Scientist)	 2013.11.11	The proposed exploration well falls on the continental shelf edge region where the swordfish long-line vessels operate. Is their proposed region not Child's Bank? Swordfish are known to head to feeding grounds such as seamounts and banks and that may be an issue.	The proposed area of interest is located approximately 75 km west of Child's Bank. The impact on the pelagic long-line sector will be assessed in the Fisheries Study (see Response 2.3.1).






NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
2.3.6	Impact on swordfish long-line	Wendy West (DAFF Fisheries - Scientist)	 2013.11.11	<p>Most of the tuna pole operators are closer inshore and south at the Cape Canyon, though a few vessels operate in Namibia's waters at Vema Seamount and are encouraged to fish up the West Coast. If exploration occurs over the tuna pole season (Oct – May) there may be an impact.</p> <p>Tuna pole may argue that the oil exploration will affect the migration patterns of albacore as they travel up the West coast on their way to Namibia.</p>	<p>There is no expected impact from normal operations on the tuna pole sector (see Response 2.3.1).</p> <p>The proposed drilling operation is unlikely to have an impact on tuna migration since the drilling unit is stationary and noise levels are not considered to be of sufficient amplitude to cause direct harm to marine life. The impact of drilling noise will be assessed as part of the Marine Faunal Assessment (also see Response 2.2.1).</p>
2.3.7	Sea Harvest's fishing area	Greg Marshall (Sea Harvest – Risk Control Manager)	 2013.11.12	Drilling operations will take place outside Sea Harvest's fishing area.	This comment is noted.
2.3.8	Mitigation to minimise disruption of fishing activities	Richard Byrnes (International Environmental & Marine Services - CEO)	 2013.11.11	<ul style="list-style-type: none"> Establish clear communication channels with commercial deep-sea fishers and artisanal fishing villages. Inform port authorities and commercial fishing operations in advance of location and schedule of project activities. 	<p>These points are noted. The notification of key stakeholders prior to the commencement of drilling activities is considered to be a key mitigation measure. A communications protocol will be developed as part of the Draft EIR and draft EMPr.</p> <p>No artisanal fishing village would be affected by normal operations.</p>
2.3.9	Operational discharges may affect fishing activities	Richard Byrnes (International Environmental & Marine Services - CEO)	 2013.11.11	Treat all effluents according to MARPOL standards prior to discharge.	<p>The drilling unit and all support vessels would comply with MARPOL 73/78 standards. This will be included as a recommendation in the Draft EIR and draft EMPr.</p> <p>The impact on fishing will be assessed in the Fisheries Study (see Response 2.3.1).</p>




NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
2.3.10	Impact on hake spawning	Deon Durholtz (DAFF)	 2013.11.11	"Child's Bank", approximately 70 km east from Shell's area of interest, is believed to be a spawning node for hake but there is very little data to support this. He noted a study was undertaken by a Norwegian research vessel for the Benguela Current Commission in this regard. He undertook to find reports that speak to this matter. Such reports could be looked at by the specialist doing the fishing industry assessment. Hake spawn all year round with a peak time in summer and in late summer.	Hake spawn on the continental shelf off St Helena Bay and the western Agulhas Bank. This area overlaps slightly with the proposed area of interest (see Figure 4.13 in the main report). Thus, smothering and sediment plumes have the potential to affect benthic spawning species. However, due to the offshore location of the area of interest, plankton abundance is expected to be low, with the major fish spawning and migration routes occurring further inshore on the shelf. This impact will be assessed in Marine Faunal Assessment (also see Response 2.2.1).
2.3.11	Impact of seismic surveys on hake surveys	Deon Durholtz (DAFF)	 2013.11.11	His primary concern was the impact seismic surveys could have on demersal trawl and pelagic research surveys undertaken annually by DAFF.	The project proposal for which this EIA is being undertaken does not include seismic activities. The proposed exploration drilling is unlikely to have an impact on DAFF's demersal or pelagic research surveys as both occur inshore of the proposed area of interest (see Figure 4.50 in the main report). This will be confirmed and assessed in the Fisheries Study.
2.4 EMPLOYMENT OPPORTUNITIES AND ECONOMIC IMPACTS / BENEFITS					
2.4.1	Service provider	Trevor Nell (Martikon Moore – Europe and Middle East)	 2013.11.20	Is it still possible to bid on this project?	The detailed project scope and timing has not been decided yet. The Orange Basin project is part of a larger drilling programme in Shell and while there may be local opportunities in the longer term, much of the offshore services are likely to be provided via existing international contracts. A detailed contracting strategy and options would be developed closer to the time of operations.
2.4.2	Service provider	Oliver Römer (NOV Rig Solutions SSA - Director)	 2013.11.11	Please can I get the necessary contact person and/or forms to register as supplier for Shell. As we are now part of National Oilwell Varco, we wish to ensure we are registered correctly.	See Response 2.4.1. The Shell contact person is: Marika Bos Contracting and Procurement Shell South Africa Upstream BV 12th Floor Media City, 10 Rua Vasco Da Gama, Cape Town, 8001 Telephone: +27 (0)21 408 4441 Email: marika.bos@shell.com
2.4.3	Service provider	Jake Laubscher (6 Sigma Naval Architects)	 2013.11.11	Asked if there would be service delivery opportunities to support the drilling operations.	See Response 2.4.1.





NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
2.4.4	Benefits for the Northern Cape	Bronwen Cornelissen (Department of Environment and Nature Conservation)	 2013.11.28	What benefits would the project have for the Northern Cape? The oil would most likely be transported to the Western Cape, either Cape Town or Saldanha Bay, and the crew would be flown in from Cape Town to Kleinsee.	<p>Exploration drilling is highly technical and requires specialised drilling units and crews, none of which are based in South Africa. There would, however, be opportunities for local companies to provide support services in Cape Town / Saldanha and Kleinsee, e.g. vessel supplies, support vessels, helicopter operations, catering, cleaning, security, etc. Therefore, employment and business opportunities would be limited and very short-term (also see Response 2.4.1).</p> <p>In terms of direct benefits to the Northern Cape, an onshore flight support base would be established in Kleinsee. Transportation of personnel to and from the drilling unit would be provided by helicopter operations from the Kleinsee airport. On occasions local accommodation may be required. Thus there would only be limited opportunities and benefits for the Northern Cape during this early stage of exploration.</p>
2.4.5	Economic impact	Elmien de Bruyn (Duferco Steel - Environmental Co-ordinator)	 2013.11.12	Noted that some of their products get exported but the project will have no impact on their industry.	This comment is noted.
2.4.6	Impact on other rights holders	Mervyn Carstens (Alexkor)	 2013.11.28	He referred to the deep water licence area where Shell proposes to drill its exploratory well and asked if there would be an overlap with any existing mining rights.	<p>Diamond mining concessions are located much closer inshore than the area of interest (see Figure 4.54 of the main report). Thus there would be no impact on diamond mining.</p> <p>The proposed area of interest does, however, overlap with a recently approved phosphate prospecting area. It is, however, unlikely that prospecting activities will overlap in time and space. This issue will be addressed in the EIA Phase (see Section 5.3 of the main report).</p>








NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
2.5 HEALTH AND SAFETY ISSUES					
2.5.1	Impact on marine transport routes	Paolo Esposito (IMD SA)	 2013.11.01	<p>We operate, directly and through other companies of our Group survey, exploration and mining vessels in a contiguous area. Therefore, we kindly ask you to keep us informed of any development of your activities in terms e.g. of identification of the marine location and timing so that we will be able to coordinate our reciprocal transit on overlapping areas in order to ensure the highest level of safety and avoidance of any adverse impact whatsoever on our reciprocal operations.</p>	<p>These comments are noted. The impact on marine transport routes will be assessed in the EIA Phase (see Section 5.4 of the main report). Mitigation would include the following:</p> <ul style="list-style-type: none"> • Prior to the commencement of drilling activities key stakeholders would be consulted and informed of the proposed drilling programme (including navigational co-ordinates of well location, timing and duration of proposed activities) and the likely implications thereof (specifically the 500 m exclusion zone and the movements of support vessels). • Shell would request, in writing, the South African Navy Hydrographic office to release Radio Navigation Warnings and Notices to Mariners throughout the drilling period.
2.5.2	SAMSA notification	Karl Otto (SAMSA - Captain)	 2013.11.11	<p>Noted that the maritime coordination centre needs to be informed of the transport of workers to and from the drilling vessel during operation.</p>	<p>See Response 2.5.1. SAMSA would be one of the stakeholders notified prior to the drilling operation commencing.</p>
2.5.3	Impact of exclusion zone on marine traffic	Karl Otto (SAMSA - Captain)	 2013.11.11	<p>The 500 metre exclusion zone that will be in place around the drilling vessel will need to be promulgated in conjunction with the South African Navy Hydrographic Office. Traffic numbers and notices to mariners need to be communicated to SAMSA.</p> <p>SAMSA need to know what vessels are operating where because they are responsible for notifying marine traffic. SAMSA has a good idea of the number and direction of vessel traffic in the project area should this be required for the assessment.</p>	<p>See Response 2.5.1.</p>






NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
2.6 LEGISLATIVE REQUIREMENTS AND POLICY DOCUMENTS					
2.6.1	Authorisation requirements	John Peter (Department of Environmental Affairs: Oceans and Coasts)	 2013.11.28	Will environmental authorisation be required in terms of the MPRDA or NEMA?	The proposed exploration drilling programme requires authorisation in terms of both the Mineral and Petroleum Resources Development Act, 2002 (No. 28 of 2002) (MPRDA) and the National Environmental Management Act, 1998 (No. 107 of 1998) (NEMA), as amended. These two regulatory processes are summarised in Section 2.1 of the main report.
2.6.2	Authorisation requirements	Russel Hartley (Nama Khoi Municipality)	 2013.11.27	What type of application had been made with the Department of Mineral Resources, i.e. a prospecting or mining licence?	See Response 2.6.1.
2.6.3	Scoping and Environmental Impact Assessment (EIA) process	Adriaan le Roux (Department of Environment and Nature Conservation)	 2013.11.28	If a licence is required in terms of any national or provincial legislation that governs the release of emissions or pollution, a full EIA is required. Therefore if a licence is required in terms of the Integrated Coastal Management Act then a full EIA would need to be undertaken.	<p>Initially CCA commenced with a Basic Assessment. However, in March 2014 a decision was taken in conjunction with DEA that a full EIA process should be undertaken (see DEA correspondence in Appendix 1 of the main report).</p> <p>DEA has also indicated that the National Environmental Management: Waste Act, 2008 is not applicable to offshore operations (see correspondence in Appendix 1 of the main report).</p> <p>In terms of the National Environmental Management: Integrated Coastal Management Act, 2008 (No. 24 of 2008) (NEM:ICMA) dumping permits are not required for the dumping of operational waste from a vessel, platform or other man-made structure at sea (see definition below). <i>"Dumping at sea"</i> means any deliberate disposal into the sea of any waste or material other than operational waste from a vessel, aircraft, platform or other man-made structure at sea.</p> <p>Waste from the drilling unit (including cuttings) is considered to be operational waste. Thus it is CCA's understanding that no permit / licence is required in terms of the NEM:ICMA. Similarly, not permit / licence is required in terms of the Dumping at Sea Control Act, 1980 (No. 73 of 1980).</p>







NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
2.6.4	Integrated Coastal Management Act	John Peter (Department of Environmental Affairs: Oceans and Coasts)	 2013.11.28	He noted that with regards to the Integrated Coastal Management Act a permit would be required and asked the team to give consideration to Sections 70 and 71 of the Act.	See Response 2.6.3.
2.6.5	Integrated Coastal Management Act	John Peter (Department of Environmental Affairs: Oceans and Coasts)	 2013.11.28	He noted that the Integrated Coastal Management Amendment Bill covers the Exclusive Economic Zone and therefore includes all the natural resources up to and including the point of extraction.	See Response 2.6.3.
2.6.6	Integrated Coastal Management Act	Abe Koopman (SANBI)	 2013.11.28	He asked if the project team had considered the Integrated Coastal Management Act and whether it was applicable to this project.	See Response 2.6.3.
2.6.7	Integrated Coastal Management Act	John Peter (Department of Environmental Affairs: Oceans and Coasts)	 2013.11.28	He noted that the requirements for a permit (for waste discharge / dumping) would apply to vessels from outside of South Africa.	See Response 2.6.3.
2.6.8	NEM: Protected Areas Act	John Peter (Department of Environmental Affairs: Oceans and Coasts)	 2013.11.28	Has the team taken into account the Protected Areas Act?	<p>The EIA project team has considered the MPAs.</p> <p>In terms of the National Environmental Management: Protected Areas Act, 2003, no person may, without the written permission of the management authority of a nature reserve or world heritage site, enter or reside in the reserve or site.</p> <p>A number of conservation areas and MPAs exist along the West Coast (see Section 4.2.3.4 of the main report). The licence area is located a substantial distance offshore of these protected areas.</p>

NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
2.6.9	Legislative requirements	Richard Byrnes (International Environmental & Marine Services - CEO)	 2013.11.11	The background document relates to authorizations required when in fact there are certain international conventions and national laws that must be complied with, obtaining authorization should include adherence to the international conventions and the context of national laws. <ul style="list-style-type: none"> • International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC); • National and regional systems for preparedness and response (OPRC Requirement); • Oil Spill Contingency Plans; and • International co-operation in pollution response. 	OPRC is included in the list of legislative requirements that Shell must comply with (see Section 2.1.3 of the main report). An Oil Spill Contingency Plan will be compiled for the proposed project (see Response 2.2.9)
2.6.10	Coastal Spatial Development Framework	Jannie Loubser (Namakwa District Municipality)	 2013.11.27	The Department of Economic Affairs has applied for funding for a Regional Coastal Spatial Development Framework (RCSDF). This will cover the entire Northern Cape coastal area and includes the three local municipalities and is likely to commence sometime in 2014. He confirmed that the RCSDF will include a public participation process.	This comment is noted.
2.7 IMPACT ASSESSMENT PROCESS					
2.7.1	Impact assessment and historical data	Richard Byrnes (International Environmental & Marine Services - CEO)	 2013.11.11	To put the proposed drilling program into historical context and identify potential pre-existing impacts from oil industry activity, it is important to examine previous oil and gas operations in this area or other neighbouring countries within the African Continent.	A large amount of information exists on the potential impacts of well drilling on the southern African West Coast. Specialists will base the identification and assessment of potential impacts related to the proposed exploration drilling programme on a review and collation of existing information and data from the international scientific literature, the Generic EMPr prepared for well drilling in South Africa, information sourced from the internet, as well as previous drilling campaigns off the coast of South Africa.

NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
2.7.2	Data period for fisheries specialist study	Titiana Stefanus-Zincke (Oceana Group)	 2013.11.12	She noted that the 6 year period CapFish will look at during their fishing specialist study may need to be extended. Future trends can be identified when looking at historical fisheries data.	The Fishing Industry Assessment will consider both recent and historical catch and effort data. The terms of reference for this study are presented in Section 6.2.4.
2.7.3	Information-sharing meetings	Chris Fortuin (Namakwa District Municipality - Director)	 2013.11.27	<p>Concerned that the public meetings were only held in Cape Town and Saldanha. He asked for it to be noted that, from a socio-economic perspective, the project is located within the Namakwa District Municipality's area of jurisdiction.</p> <p>He agreed that both Cape Town and Saldanha are currently better positioned to respond to the needs of the sector in terms of support services and supplies. However, the Northern cape Province and District want to develop their area so that they are positioned for the future but they need to be well informed in order to do this.</p>	<p>The proposed area of interest is located within South Africa's Exclusive Economic Zone (EEZ). The authorisation of activities within the EEZ is the mandate of national government.</p> <p>Due to the location of the project (approximately 250 km offshore) and the location of the onshore logistics base in Cape Town or Saldanha, it was decided to only hold the public meetings in Cape Town and Saldanha in order not to raise any unnecessary expectations in the coastal towns of the Northern Cape. However, to ensure that there has been consultation with the Northern Cape meetings have been held with:</p> <ul style="list-style-type: none"> Namakwa District Municipality, Nama-Khoi Municipality and Richtersveld Municipality in Springbok on 27 November 2013. Northern Cape Provincial Coastal Committee in Kamieskroon on 28 November 2013. <p>The municipal managers of the affected local municipalities are registered on the project database and will continue to receive information throughout the study process. In addition, further authority meetings will be held in the Northern Cape as part of the ongoing public participation process.</p>
2.7.4	Advertising	Abe Koopman (SANBI)	 2013.11.28	The local newspapers targeted for the project, namely Ons Kontrei and Weslander, are not distributed to the Northern Cape coastal towns. The project team should make use of the local newspapers including Die Plattelander and Die Namakwalander which have a wide readership in the local Northern Cape areas.	These points are noted. Future adverts will also be placed in the Die Plattelander and Die Namakwalander.
2.7.5	I&AP registration	Alet Fabricius (Bidfreight Port Operations - SHEQ Manager)	 2013.10.31	Please add me to your list of I&APs for this project. My details are in my e-mail signature.	Noted. See Appendix 2.1 of the main report for the list of I&APs registered on the project database.

NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
2.7.6		Noleen Green (Namibian Hake Association – Secretary)	 2013.11.05	Thank you for your email and my apology for the late response!	
2.7.7		Jeremy Marillier (FishSA – Executive Director)	 2013.11.04	We would like to register as an affected party and attend the Cape Town meeting.	
2.7.8		Daniel Bottomly (Toprope – Managing Director)	 2013.11.04	Our Managing Director, Mr Daniel Bottomley, would like to register as an Interested Party for the project.	
2.7.9		Richard Montjoie (Umbono Capital - Geologist)	 2013.11.01	Please could you register myself as an I&AP for this project, I am assisting Sunbird with the EIA process on the Ibhubesi Gas Project.	
2.7.10		Francine Dieckmann (Private)	 2013.11.01	I wish to register as an interested and affected party and participate in the process.	
2.7.11		Judith Vermeulen (MEK Drilling - Secretary)	 2013.11.01	Please, register our company as an interested party in this project. Attached is our business profile which indicates that we are a successful drilling company and would be grateful if you register us in your database.	
2.7.12		Phumla Ngesi (PASA - Manager: Environmental Compliance)	 2013.11.01	Please register the following people as I&APs: Phumla Ngesi, Dovahani Mahumele and Stet Mushwana.	




NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
2.7.13		Elmien de Bruyn (Duferco Steel Processing - Environmental Co-ordinator)	 2013.10.31	I would hereby like to register Duferco Steel Processing (Pty) Ltd as an I&AP.	
2.7.14		Trevor Ridley (Thombo Petroleum Ltd – Managing Director)	 2013.10.31	I would indeed like to remain informed of developments concerning this project.	
2.7.15		Deon Durholtz (DAFF)	 2013.11.11	Deon Durholtz will be the contact person at DAFF for this project.	
2.7.16		Suzanne Erasmus (WESSA Northern Cape - Chairperson)	 2013.10.31	Unlike most other Regions, the Northern Cape Region of WESSA has no staff and is run by a group of volunteers. We currently have nobody on our Committee to handle the Conservation portfolio, and pressure of work means that we are not able to attend meetings or participate in EIAs at this time. Please note that a lack of response does not mean that we condone this project; it simply means that we do not have the capacity to deal with these matters. This project also falls outside the Northern Cape Province. Kindly contact the Western Cape Region of WESSA.	Noted. WESSA Western Cape is included on the project database.
2.7.17		Steve Meyer (Private)	 2013.10.30	Please remove me from the list of interested parties. I do not wish to receive any further correspondence.	Mr Meyer was removed from the project database.




NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
2.7.18		John Peter (Department of Environmental Affairs: Oceans and Coasts)	 2013.11.28	The project team needs to consult with the Department of Environmental Affairs: Oceans and Coasts and the department needs to be intensely involved in the impact assessment.	Noted. DEA: Branch Oceans and Coasts is registered on the project database (see Appendix 2.1 of the main report).
2.7.19		Anschen Friedrichs (Sunbird Energy – Public Officer)	 2013.11.01	Please note that Sunbird Energy has been confirmed as the Operator of Block 2A. My “Forest” address will remain active for a while but could you please amend your records to reflect my Sunbird details for future communications.	Ms Friedrichs’ contact details have been updated as requested.
2.7.20	Request for information	Cindy Ross (Atlas Copco Group - External Sales Consultant)	 2013.11.04	Are you able to provide me with more information on this project, and in particular who would be the best contact person to speak to, to get involved in the project?	The Background Information Document (BID) was sent to these I&APs in the language requested. The BID contained the contact information for the proposed project.
2.7.21		Shirlene Fransman (Lamberts Bay Municipality – Senior Clerk)	 2013.11.05	Kan u dit in Afrikaans ook epos.	
2.7.22		Wilna Ooppel (DENC – Deputy Director)	 2013.11.01	Please send this to me in Afrikaans if you don't mind.	
2.7.23		Roland Glass (SAOGA)	 2013.11.11	I am unable to attend the event at short notice. May I please have a copy of the presentations for my reference?	




SECTION 3:






**DSR REVIEW AND COMMENT PERIOD:
ISSUES AND RESPONSES TRAIL**






Method of correspondence:






 = Letter/Fax/Response Form
  = E-mail
  = Information-sharing Meeting






NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
3.1 TECHNICAL ISSUES					
3.1.1	Cuttings disposal alternatives	K Adriaanse (Western Cape Government: Department Environmental Affairs and Development Planning)	 2014.09.08	Given that the drill cuttings generally remain on the sea bed, alternative methods of disposing the drill cuttings must be reported on in the Environmental Impact Assessment Report.	The drilling method is outlined in Section 3.3.3.3 of the main report. The estimated volumes of drill cuttings for disposal are provided in Section 3.3.3.6 and Table 3.2. Alternative methods of cuttings disposal, and the viability thereof, will be presented and assessed in the Draft EIR.
3.1.2	Onshore logistics base	K Adriaanse (Western Cape Government: Department Environmental Affairs and Development Planning)	 2014.09.08	A detailed description (including the location) of the proposed 'onshore logistics base' must be provided.	Detailed information on sea- and land-based logistics support is provided in Section 3.3.8 of the main report. In summary, a logistics shore base would be located in either the Cape Town or Saldanha Bay harbour precincts. Transportation of personnel to and from the drilling unit would be provided by helicopter operations from the Kleinsee airport. The service infrastructure required to provide the necessary onshore support is currently in place at Cape Town, Saldanha and Kleinsee. No additional onshore infrastructure is necessary for this project.
3.2 IMPACT ON MARINE FAUNA AND FLORA					
3.2.1	Introduction of alien species	Michaela Woelk (Private)	 2014.09.07	What measures might be taken to avoid the introduction of alien species into the Orange Deep Water Licence Area. It is very important especially in South Africa to preserve our natural ecosystems.	The introduction of non-indigenous invasive marine species through vessels and equipment transfer and ballast water discharge has been identified as a key project issue (see Section 5.1 of the main report). This potential impact will be assessed as part of the Marine Faunal Assessment to be conducted by Dr Andrea Pulfrich of Pisces Environmental Services. Specialists will also recommend appropriate mitigation measures to minimise potential impacts. The terms of reference for the marine faunal assessment are presented in Section 6.2.3 of the main report. The specialist findings will be integrated into a Draft EIR and draft EMP Addendum.

NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
					The proposed project would adhere to the International Convention for the Control and Management of Ships' Ballast Water. In this regard all vessels would have a specific ballast water management plan. All vessels would also be required to carry a ballast water record book and an international ballast water management certificate. These measures would be put in place to prevent the spread of aquatic organisms from one region to another.
3.2.2	Biochemical effects	K Adriaanse (Western Cape Government: Department Environmental Affairs and Development Planning)	 2014.09.08	The potential impacts of the dissolving cement must be identified, assessed and reported on in the Environmental Impact Assessment Report.	The biochemical effects (e.g. direct toxicity and bioaccumulation) related to the discharge of cuttings, drilling fluid and cement during well drilling has been identified as a key project issue (see Section 5.1 of the main report). This potential impact will be assessed as part of the Marine Faunal Assessment to be conducted by Dr Andrea Pulfrich of Pisces Environmental Services. The specialist findings will be integrated into a Draft EIR and draft EMP Addendum.
3.3 EMPLOYMENT OPPORTUNITIES AND ECONOMIC IMPACTS / BENEFITS					
3.3.1	Alternative onshore support base	Briaan Smit (Matzikama Municipality)	 2014.08.07	Has an alternative town been identified to transport workers to and from land? Vredendal, in the Western Cape, also has a local airport and supporting facilities and infrastructure to cater for that need.	At this stage only the Kleinzee airport is being considered for the transportation of personnel to and from the drilling unit. This decision is based on the proximity of the airport to the proposed area of interest for well drilling. Kleinzee is located approximately 250 km from the proposed area of interest, whereas Vredendal is located approximately 370 km away.
3.4 IMPACT ASSESSMENT PROCESS					
3.4.1	Listed activities	K Adriaanse (Western Cape Government: Department of Environmental Affairs and Development Planning)	 2014.09.08	Please note that when the activity description of the proposed development is refined and finalised, only the applicable listed activities must be indicated in the Environmental Impact Assessment Report.	This comment is noted. The listed activities applicable to the proposed project will be reviewed during the next stage of the EIA and, if necessary, an updated list will be provided in the Draft EIR and an amended Application Form will be submitted to DEA to ensure that all applicable activities are included in the "Application for Environmental Authorisation".

NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
3.4.2	Air Emissions Licence	K Adriaanse (Western Cape Government: Department of Environmental Affairs and Development Planning)	 2014.09.08	Should the proposed activity require an Air Emissions Licence in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004), the applicable listed activity must be applied for. The relevant specialist terms of reference must be included in the Plan of Study for Environmental Impact Assessment prior to the submission of the final SR should an Air Emissions Licence be required.	CCA is currently in the process of confirming with DEA (Air Quality Management Services) whether the National Environmental Management: Air Quality Act, 2004 (No. 39 of 2004) (NEM:AQA) is applicable to offshore operations and if an Air Emissions Licence is required for the offshore incineration of waste (see Section 2.1.5 of the main report). Confirmation of these issues will be presented in the Draft EIR. It should be noted that if a licence is considered necessary, Shell will more than likely decide not to incinerate any waste offshore, but rather bring the waste to shore for disposal. Thus, there will be no need for an Air Emissions Licence.
3.4.3	Request for information	Pinehas Auene (Namibian Ministry of Works, Transport & Comm.)	 2014.07.28	Kindly send us the DSR for our perusal and further action, as appropriate.	Mr Auene was referred to the CCA website (www.ccaenvironmental.co.za) in order to access an electronic copy of the DSR.
3.4.4		Aubrey Meissenheimer (Private)	 2014.07.28	Please forward the DSR. Your website is not functioning properly.	An electronic copy of the report was emailed to Mr Meissenheimer on 28 July 2014.
3.4.5		Roy Bross (South African Deep Sea Trawling Industry Association)	 2014.08.04	The original message contained a form and a letter attached but I was unable to source an Executive Summary.	A copy of the DSR Executive Summary was sent to Mr Bross on 5 August 2014.
3.4.6		Capt Karl Otto (South African Maritime Safety Authority)	 2014.08.04	We seem to be having problems opening the DSR Comment Form. Could please check the document and re-send.	An electronic copy of the Comment Form was resent to Capt Karl Otto on 5 August 2014.

NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
3.4.7	No comment	Anton Moldan (South African Petroleum Industry Association)	 2014.07.29	SAPIA cannot comment on this DSR as Shell is one of our member companies and that would present a conflict of interest.	This comment is noted.
3.4.8		Nazeema Duarte (Saldanha Bay Municipality)	 2014.09.08	The Environment and Heritage Section of the Saldanha Bay Municipality has no additional comments or recommendations.	This comment is noted.
3.4.9		Doretha Kotze (West Coast District Municipality)	 2014.09.08	The West Coast District Municipality has no comment at this stage, but would like to be kept informed regarding progress during the assessment process.	This comment is noted.
3.4.10		Suzanne Erasmus (WESSA Northern Cape)	 2014.08.04	WESSA in the Northern Cape is not able to deal with these matters. Please do not send faxes or hard copies of documents to us. They will be destroyed. Registered mail will NOT be collected. Kindly do not use this e-mail address or the fax number 053 842 1433, for correspondence directed to WESSA Northern Cape. Consult the website www.wessa.org.za for the appropriate contact details or direct your enquiries to info@wessa.co.za or info@wessanorth.co.za	This comment is noted. Suzanne Erasmus of WESSA has been removed from the I&AP database.
3.4.11		I&AP database	Deon Durholtz (Department of Agriculture, Forestry and Fisheries)	 2014.07.28	I have passed the DSR on to Pheobius Mullins (the Deputy Director in the Marine Resource Management Chief Directorate responsible for Large Pelagics) - considering that the proposed drilling will not impact on any of the demersal resources, but rather on the tuna longline fishery, he is the most appropriate person to provide comment.

NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
3.4.12	Acknowledgement of receipt and reference number	Ms L Tools-Bernardo (Northern Cape Government: Department of Environment and Nature Conservation)	 2014.08.22	The Department confirms having received the Scoping and Environmental Impact Assessment for environmental authorisation of the above mentioned project on 31 July 2014 as required in terms of the Environmental Impact Assessment Regulations, 2010. The application has been assigned the reference number NC/NAT/NAM/ORAN/2014. Kindly quote this reference number in any future correspondence in respect of the application. Please note the responsible officer is going to be Ms O Ndzumo and can be contacted at (027) 718 8800.	These comments are noted.
3.4.13		A Strauss (Namakwa District Municipality)	 2014.07.28	We hereby wish to confirm receipt of your letter/fax/e-mail dated 25 July 2014. It has been forwarded to the Office of the Municipal Manager for further consideration.	
3.4.14	I&AP registration	Briaan Smit (Matzikama Municipality)	 2014.08.07	Please register the municipality as an interested and affected party.	All these I&APs have been registered on the project database (see Appendix 2.1 of the main report).
3.4.15		Kirsty Robinson (Private)	 2014.07.29	Please register me as an interested and affected party for the DSR titled "Drilling in the Orange Basin Deep Water Licence Area". I would like to be kept informed of each of the project phases.	
3.4.16		Michaela Woelk (Private)	 2014.08.12	I would like to register as an I&AP for the proposed Exploration Drilling in the Orange Basin Water Licence Area in the west coast, reference number 14/12/16/3/3/2/704. I have read through the draft scoping report and would like to be able to make comments during this commenting period.	

NO.	ISSUE	NAME	METHOD & DATE	COMMENT	RESPONSE
3.4.17		Bernette Kriek (Matzikama Municipality)	 2014.08.11	Please register the municipality as an I&AP.	
3.4.18		Roy Bross (South African Deep Sea Trawling Industry Association)	 2014.08.04	Please be aware that the SA Deep-Sea Trawling Industry Association wishes to be registered as an I&AP regarding the above named project.	
3.4.19		Shayda van Niekerk (Cape West Coast Biosphere)	 2014.07.30	Please register the Cape West Coast Biosphere (NPC) as an I&AP. Kindly provide us with all the necessary documentation, and keep us up to date with the progress of the application. Kindly acknowledge receipt of this email.	
3.4.20		Siphiwe Msipho (PetroSA)	 2014.07.28	Please add my name to your oil and gas public participation.	
3.4.21		Dan de Villiers (South African Inshore Fishing Industry Association)	 2014.07.28	We wish to be registered as an interested party.	