

**From:** [Michael Vine](#)  
**To:** [Phil Mason](#)  
**Cc:** [planning.southdowns@environment-agency.gov.uk](mailto:planning.southdowns@environment-agency.gov.uk)  
**Subject:** Re: Environment Agency Response to: WSCC/027/10/BA  
**Date:** 22/07/2010 14:34  
**Attachments:** [PlanningProposal.rtf](#)

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Phil,

On the advice of the Environment Agency, as below, I confirm that condition 16 of WSCC/027/10/BA is hereby discharged.

Regards,

Michael Vine.

<a href="#">Michael Vine</a>   Planner, <a href="#">West Sussex County Council</a>   Location: 2nd Floor Northleigh, County Hall, Chichester PO19 1QT Internal: 56864   External: 01243 756864   E-mail: <a href="mailto:michael.vine@westsussex.gov.uk">michael.vine@westsussex.gov.uk</a>
--



Save the environment - think before you print.

[planning.southdowns@environment-agency.gov.uk](mailto:planning.southdowns@environment-agency.gov.uk)

**planning.southdowns@environment-agency.gov.uk**

To [michael.vine@westsussex.gov.uk](mailto:michael.vine@westsussex.gov.uk)  
cc

22/07/2010 10:46

Subject Environment Agency Response to:  
WSCC/027/10/BA

The proposal has been reviewed and I enclose the Environment Agency's comments on:  
Lower Stumble Hydrocarbon Exploration Site, London Road,  
Balcombe, Haywards Heath, West Sussex, RH17 6JH

LPA ref: WSCC/027/10/BA

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Mr Michael Vine  
West Sussex County Council  
Development Control  
County Hall Tower Street  
Chichester  
West Sussex  
PO19 1RH

**Our ref:** HA/2010/109985/02-L01  
**Your ref:** WSCC/027/10/BA  
**Date:** 22 July 2010

Dear Mr Vine

**TO UPGRADE EXISTING STONED PLATFORM AND DRILL AN EXPLORATORY BOREHOLE FOR OIL AND GAS EXPLORATION**

**LOWER STUMBLE HYDROCARBON EXPLORATION SITE, LONDON ROAD, BALCOMBE, HAYWARDS HEATH, WEST SUSSEX, RH17 6JH**

We can confirm that following a meeting between the Environment Agency and Cuadrilla Resources Limited held on the 9 June 2010 the additional information provided to address planning conditions 16, 17 and 18 of planning consent WSCC/027/10/BA is acceptable.

I trust that the above comments are satisfactory but if you require any further information please contact me.

Yours sincerely

**HELEN TIER**  
**Planning Liaison Officer (South Downs Area)**

Direct dial 01903 703862

Direct e-mail [planning.southdowns@environment-agency.gov.uk](mailto:planning.southdowns@environment-agency.gov.uk)

cc Mr Philip Mason

Environment Agency  
Guildbourne House Chatsworth Road, Worthing, West Sussex, BN11 1LD.  
Customer services line: 08708 506 506  
Email: [enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk)  
[www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)  
End

*Phil Mason, Planning, Wayleave & Land Consultant,  
The Cottage, Glebefields, Woodseaves, Stafford, Staffordshire, ST20 0LA.*

Environment Agency  
Guildbourne House  
Chatsworth Road  
Worthing  
West Sussex  
BN11 1LD.

FAO: Helen Tier.

2<sup>nd</sup> July 2010.

Dear Helen,

**RE: CUADRILLA RESOURCES LIMITED: LOWER STUMBLE HYDROCARBON EXPLORATION SITE, WSCC/027/10/BA CONDITION 16 SURFACE WATER DRAINAGE.**

Further to your letter to James Neave dated the 9<sup>th</sup> June 2010 and my meeting with James Cope and Scot Cole of the Agency. The purpose of the meeting was to agree an appropriate way forward to prevent any contamination without the construction of a full impervious site due to the amount of work involved removing the existing drill platform stoned pad and the relatively short work duration along with the minimal risk of any contamination.

As discussed at the meeting this exploration drilling project has temporary planning consent to drill an exploratory borehole for hydrocarbons and any development beyond that will require separate permission from WSCC Planning Authority.

The drilling rig is only expected to be on site drilling for a matter of a few weeks as the proposed target is relatively shallow at approximately 2500 feet. If the exploration is unsuccessful the borehole will be plugged and abandoned and the site restored in a relatively short period of time. If successful the rig will be removed and the site vacated whilst a decision is made and a further application logged with WSCC Planning Authority.

The existing site/drill platform (see attached Photograph) is built of stone to a depth of 300mm and is naturally draining and presently does not cause any flooding issues such as run-off. The site is currently in a relatively clean state and the soil sampling taken by independent consultant shows near normal levels of elements naturally found in top and sub soils. The company will undertake a soil test after the operation is complete to ensure that the site is left in its existing condition following the restoration. A copy of the soil sampling has been forward to James Cope.

Due to the high level of good housekeeping and the modernisation of the drilling equipment and associated attachments such as generators etc these hydrocarbon exploratory drilling sites are kept extremely clean, tidy and free from contamination which includes removing the smallest of any spills and replacing with clean stone. The company and the rig supervisor will ensure that adequate spill equipment and containers are on site and clearly signed and that personnel are aware of their existence and use.

During construction the site will be re-graded with fresh stone being placed beneath the area of the rig footprint around the concrete cellar pad. This is to further encourage good house keeping and to meet with Cuadrilla's expected standard ie the site needs to be left in the manner it was found by the drilling team.

*Telephone No. 01785 284610 email:- [philmason@talktalk.net](mailto:philmason@talktalk.net)  
Mobile Telephone No. 07974 577920*

The areas of concern ie where spills are likely are the main diesel tanks which are built to high standard and will be bunded. There is no transferring of diesel on the site from tank to tank as all tanks are filled by the allotted fuel supplier. Any other lubricants such as oils or grease are stored in an appropriate storage container. The rig, particularly the drilling platform is the main area where lubricants are used and the point that they can come in contact with the ground. To protect this area we are proposing to construct a sealed cellar with a concrete surround (see attached photo). The concrete surround will have a lip around its perimeter and drainage grooves to transfer any fluids back to the cellar. To assist further with the concrete pad protection we are currently looking at the design to increase the concrete pad from the normal size of 7m x 7m. The cellar is periodically emptied and the fluids transferred back into the drilling fluids or taken off site and disposed of at an approved location.

With regard to surface water the remainder of the site outside the area of the concrete pad will be left to free drain. This area is free from contamination associated activities other than bunded storage containers or equipment.

The exploratory well casing programme requested by James Cope is also attached and the drilling fluids used to drill the sections are:-

The first 1100' will be drilled with a Fresh water system viscosified with Pure-Bore (Pure-bore is a natural starch based viscosifier/fluid loss control additive). The 9-5/8" casing is then installed and cemented all the way to surface. The remainder of the hole will then be drilled with a system of water/Pure-Bore/Barite/KCL.

We welcome routine inspections by the Agency throughout the construction and drilling process and I will gladly liaise directly with a designated local inspector to notify him/her of start dates and progress.

If you require any further information regarding this condition please contact me on either 01785284610 or 07974 577920 and [philmason@talktalk.net](mailto:philmason@talktalk.net)

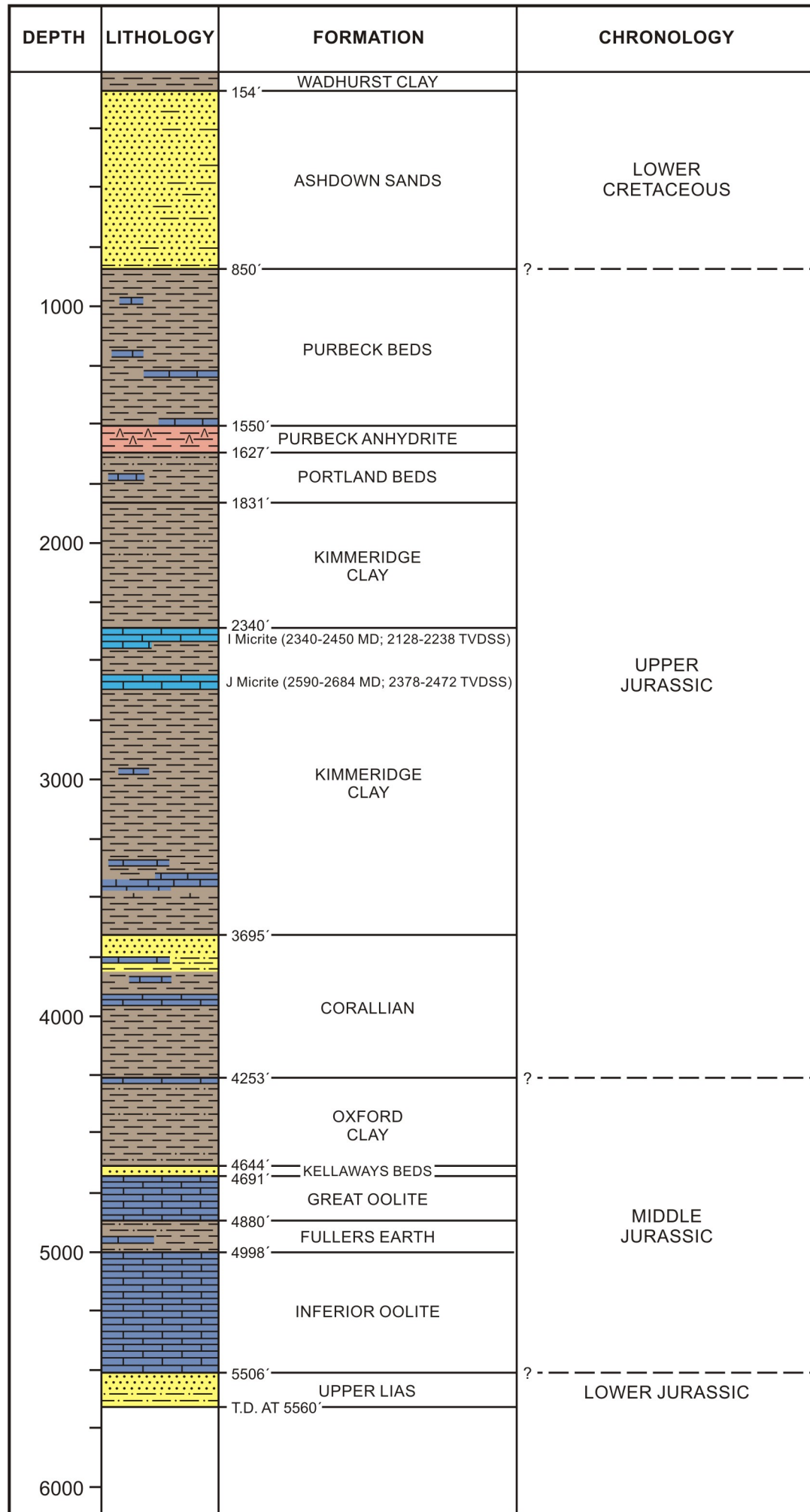
Yours sincerely  
on behalf of Cuadrilla Resources Limited



Phil Mason.  
Planning Consultant.

**cc James Cope, Scot Coles & Michael Vine WSCC.**

# BALCOMBE - 1 GEOLOGICAL COLUMN



Casing 13-3/8" to 100 ft  
(Wadhurst Clay)

9-5/8" casing to 1100ft  
(Purbeck Beds)

7" casing to 2600ft  
4 1/2" liner 2600ft

7" casing to TD  
(5200ft Inferior Oolite)





**From:** [Phil Mason](#)  
**To:** [Helen Tier](#); [James Cope](#)  
**Cc:** [Michael Vine](#); [James.Neave@westsussex.gov.uk](mailto:James.Neave@westsussex.gov.uk)  
**Subject:** Fw: Environment Agency Response to: WSCC/027/10/BA  
**Date:** 15/06/2010 16:03  
**Attachments:** [PlanningProposal.rtf](#)

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Helen,

Thank you for your attached letter regarding drainage at our Lower Stumble - planning consent WSCC/027/10/BA.

Pre to submitting the planning application I spoke to James Cope about the difficulties of placing an impervious layer below the stone due to the fact that it is an existing built site that was constructed for an early drilling operation. As this is temporary permission for a three - four week drilling operation James and I discussed a way forward that would suffice for this exploration stage. That was to ensure that all appropriate equipment is bunded and that the rig operations are placed on a concrete pad graded towards the cellar which is imperviously sealed. We also discussed that if a discovery is made then appropriate hardsurfacing and bunded walls would be included in any design put forward for a production application.

I would be grateful if you could set up a site meeting to see if we can find a way forward that limits the amount of work/cost for this short temporary operation. I would be grateful for an early meeting although I know James is on holiday until Monday when he will probably have a lot to address but perhaps we could get a date pencilled in.

If you need to discuss this with me then my contact numbers are 01785 284610 or 07974 577920.

Thank you for anticipated assistance dealing with this matter.

Best regards  
Phil Mason.

I am fairly flexible over the coming weeks so if you could let me have some dates of those from the Agency that have had some input into your response.

----- Original Message -----

**From:** [Michael.Vine@westsussex.gov.uk](mailto:Michael.Vine@westsussex.gov.uk)  
**To:** [Phil Mason](#)  
**Sent:** Tuesday, June 15, 2010 3:08 PM  
**Subject:** Fw: Environment Agency Response to: WSCC/027/10/BA

Phil,

Please see below, the EA's response. You may wish to contact them direct to resolve this and keep me informed.

Regards,

Michael Vine.

<a href="#">Michael Vine</a>   Planner, <a href="#">West Sussex County Council</a>   Location: 2nd Floor Northleigh, County Hall, Chichester PO19 1QT Internal: 56864   External: 01243 756864   E-mail: <a href="mailto:michael.vine@westsussex.gov.uk">michael.vine@westsussex.gov.uk</a>
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----- Forwarded by Michael Vine/PL/WSCC on 15/06/2010 15:04 -----

James Neave/PL/WSCC

To Michael Vine/PL/WSCC@WSCC

cc

14/06/2010 10:48

Subject Fw: Environment Agency Response to: WSCC/027/10/BA

please get to applicant and action accordingly.

Thanks,

James

<a href="#">James Neave</a>   Consultant Planner, County Development, <a href="#">West Sussex County Council</a>   Location: 2nd Floor, Northleigh, County Hall, Chichester Internal: 77258   External: 01243 777258   E-mail: <a href="mailto:james.neave@westsussex.gov.uk">james.neave@westsussex.gov.uk</a>
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----- Forwarded by James Neave/PL/WSCC on 14/06/2010 10:47 -----

**planning.southdowns@environment-agency.gov.uk**

To James.Neave@westsussex.gov.uk

cc

09/06/2010 10:37

Subject Environment Agency Response to: WSCC/027/10/BA

The proposal has been reviewed and I enclose the Environment Agency's comments on:  
Lower Stumble Hydrocarbon Exploration Site, London Road, Balcombe, Haywards Heath, West Sussex, RH17 6JH

LPA ref: WSCC/027/10/BA

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Mr James Neave  
West Sussex County Council  
Development Control  
County Hall Tower Street  
Chichester  
West Sussex  
PO19 1RH

**Our ref:** HA/2010/109985/01-L01  
**Your ref:** WSCC/027/10/BA  
**Date:** 09 June 2010

Dear Mr Neave

**TO UPGRADE EXISTING STONED PLATFORM AND DRILL AN EXPLORATORY BOREHOLE FOR OIL AND GAS EXPLORATION**

**LOWER STUMBLE HYDROCARBON EXPLORATION SITE, LONDON ROAD, BALCOMBE, HAYWARDS HEATH, WEST SUSSEX**

Thank you for submitting details of the drainage scheme in relation to planning condition 16 attached to the planning permission for the above proposal.

Unfortunately, the information provided is insufficient for us to give full consideration to the proposed surface water drainage scheme for the following reasons:

**Flood Risk**

We require appropriate calculations to be submitted to demonstrate that the system can attenuate flows up to the 1 in 100 year storm event, including appropriate allowance for climate change.

**Pollution Prevention**

The letter states that there will be re-grading and addition of clean stone to create a hardstanding area. It also indicates that surface water is allowed to freely drain through the hardstanding, with a V-trench acting as a cut-off for surface water escaping the site. This does not allow suitable pollution prevention for potentially contaminated surface water runoff.

The proposed ringed cellar and surround does not incorporate sufficient surface water containment measures. There is no surrounding bund or channel drainage which is capable of directing flows back into the cellar.

Environment Agency  
Guildbourne House Chatsworth Road, Worthing, West Sussex, BN11 1LD.  
Customer services line: 08708 506 506  
Email: [enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk)  
[www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)

Cont/d..

It is preferred that the site surfacing is impermeable to ensure that all potentially contaminated surface water is contained and attenuated prior to discharge. It will be necessary for details to be provided.

I trust that the above comments are satisfactory but if you require any further information please contact me.

Yours sincerely

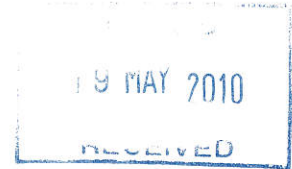
**HELEN TIER**  
**Planning Liaison Officer (South Downs Area)**

Direct dial 01903 703862

Direct e-mail [planning.southdowns@environment-agency.gov.uk](mailto:planning.southdowns@environment-agency.gov.uk)

*Phil Mason, Planning, Wayleave & Land Consultant,  
The Cottage, Glebefields, Woodseaves, Stafford, Staffordshire, ST20 0LA.*

West Sussex County Council  
County Development  
County Hall  
Chichester  
West Sussex, PO19 1RG.



FAO: Michael Vine.

17<sup>th</sup> May 2010.

Dear Sir,

**RE: CUADRILLA RESOURCES LIMITED: LOWER STUMBLE HYDROCARBON EXPLORATION SITE,  
WSSC/027/10/BA CONDITION 16 SURFACE WATER DRAINAGE.**

To satisfy condition 16:- As detailed in the application, the site construction will involve some re-grading of the existing hard-standing with clean stone and the adding of a typical concrete ringed cellar and surround. The concrete surround will be cast with a slight fall (see attached photograph) to ensure that any fluids will be directed towards the cellar where it can be removed and disposed of off site at a suitably licensed establishment. The cellar will be completely sealed to ensure that all fluids drained to the cellar will not seep out into the underlying sub-soils. This type of cellar/concrete pad construction has been widely used throughout the United Kingdom and has a proven track record. To ensure that the remainder of the site is kept free from contamination the company will ensure that all equipment such as generators, pumps, diesel tanks, stored oils and chemicals etc are either double bunded in manufacture or temporarily bunded during the drilling operation. Any testing facilities or tanks will be housed in a purpose built bunded area (see photograph 11 and 12).

The site currently consists of a large stoned area (see attached photograph) which drains naturally through the stone. To improve this further the company are proposing to insert a French drain (see attached drawing CRL – 001a). The drain is placed on the south and west boundaries to prevent surface water run off. It will be constructed by excavating a V-trench, placing a perforated pipe in the trench and back filled with stone.

The company are currently having the site stone and sub-soil layers tested to ensure that when the site operations are complete and the site restored there is no contamination as result of the drilling and testing operation. A copy of the sampling will be sent to West Sussex County Council to be kept on file.

In addition to that detailed above the company will ensure that there is sufficient spill equipment held on site and that the site operatives are aware of this equipment and its use.

If you require any further information regarding this condition please contact me on either 01785284610 or 07974 577920 and [philmason@talktalk.net](mailto:philmason@talktalk.net)

Yours sincerely  
on behalf of Cuadrilla Resources Limited

Phil Mason.  
Planning Consultant.

*Telephone No. 01785 284610 email:- [philmason@talktalk.net](mailto:philmason@talktalk.net)  
Mobile Telephone No. 07974 577920*



# HYDROCARBON TEST EQUIPMENT



PHOTO (11)



PHOTO (12)



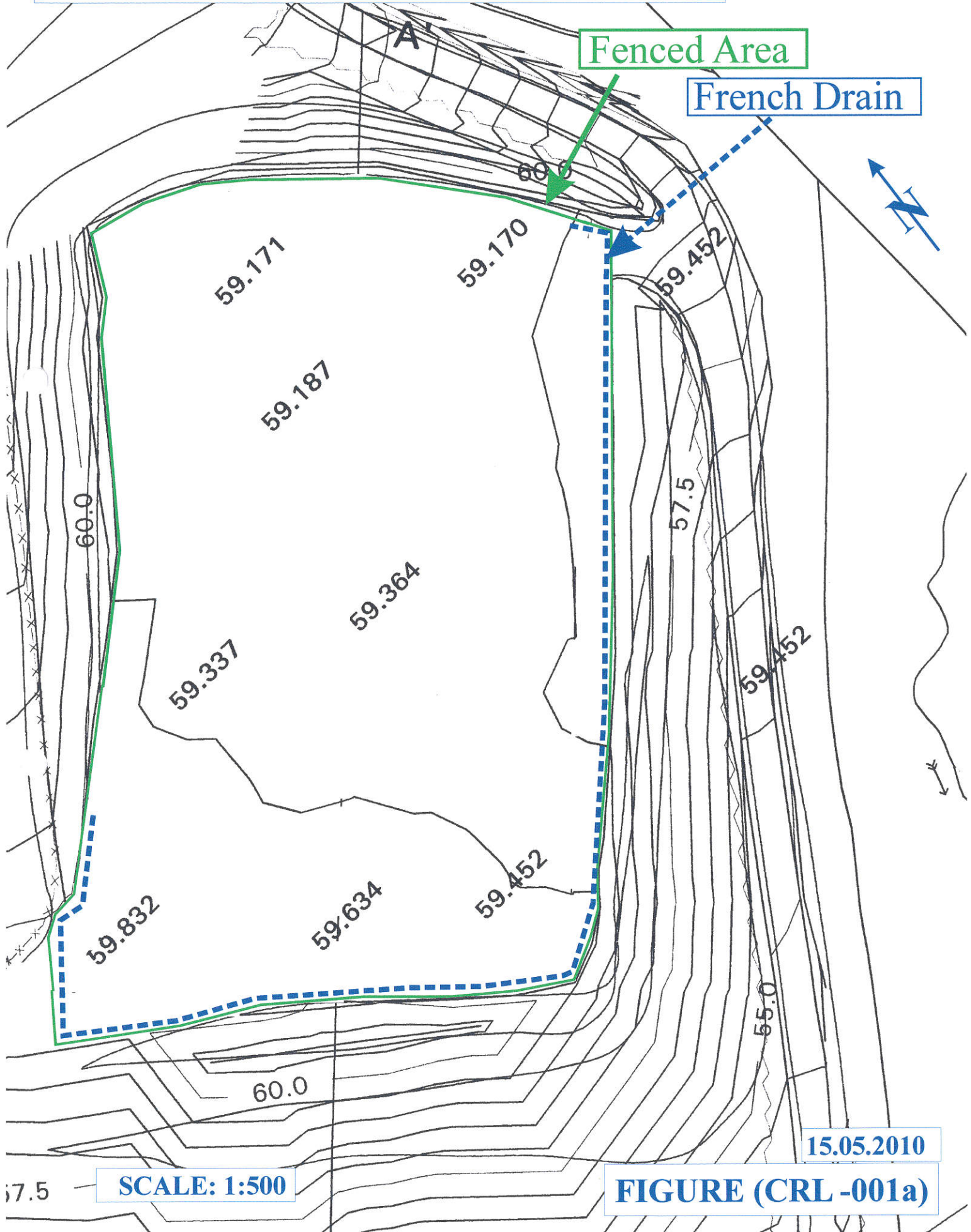








# LOWER STUMBLE EXPLORATION SITE DRAINAGE SCHEME

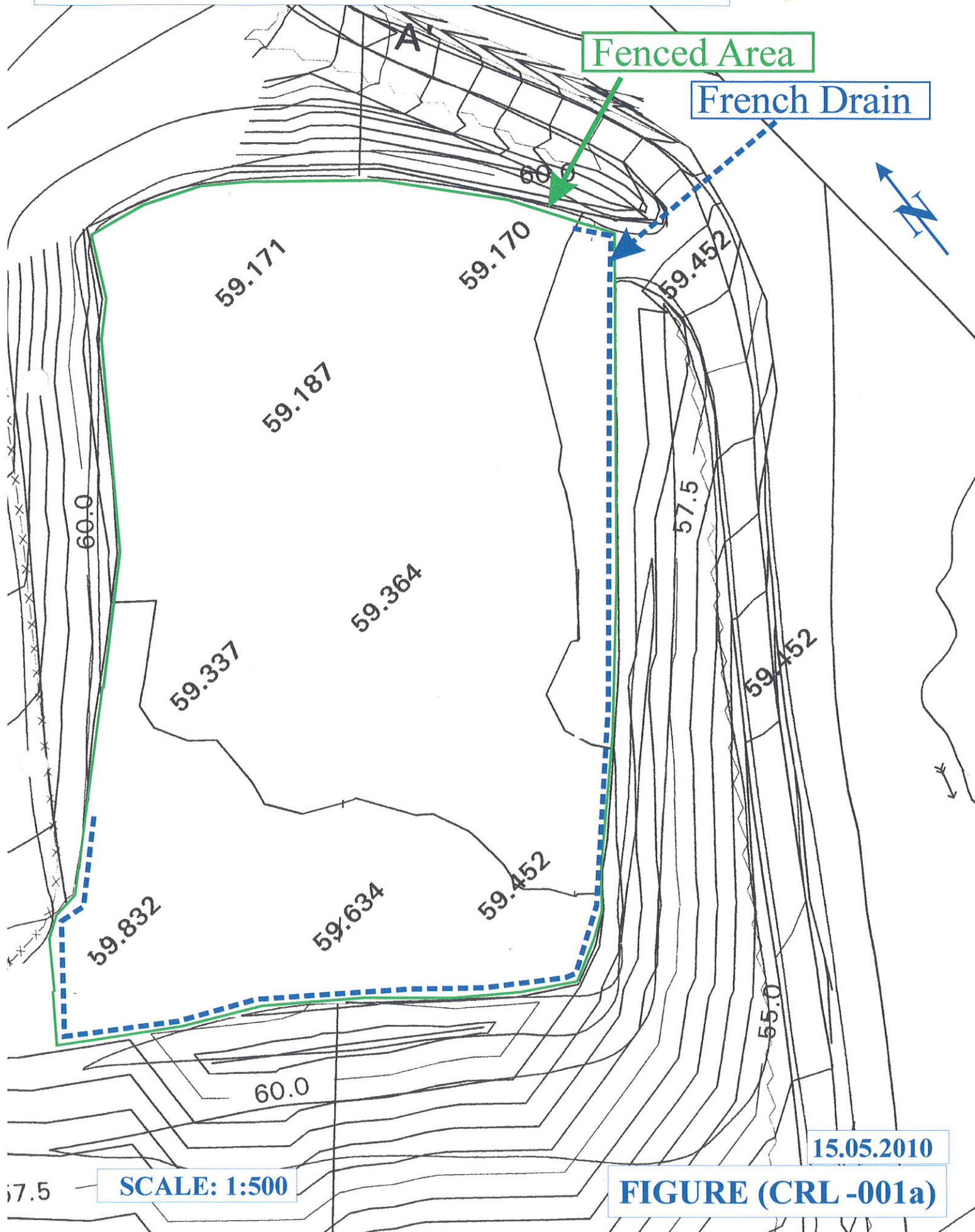


SCALE: 1:500

15.05.2010

FIGURE (CRL-001a)

# LOWER STUMBLE EXPLORATION SITE DRAINAGE SCHEME



SCALE: 1:500

15.05.2010

FIGURE (CRL-001a)