



Dŵr Cymru
Welsh Water

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The Vale of Glamorgan Council
Dock Office
Barry Docks
Barry
CF63 4RT

Your ref 11/00115/FUL
Our ref NDC/MDE/VOG/20
Enquiries Maria Evans
Direct Line (01443)331123

For the attention of Mr S J Ball

11 October 2011

Dear Sir

**Re: Unit 1 Llandow Industrial Estate, Cowbridge CF40 1SJ
Drill and test the insitu lower limestone shale and associated strata**

We thank you for your letter dated 5 October 2011, in relation to the above planning application and reply as follows:

We would have some concern if significant volumes of drilling fluid were lost to the formation as this would provide a potential source of pollution to Dwy Cymru groundwater sources. With respect to this, we would like to understand the content of the drilling fluid to be used and assurance that loss of drilling fluid to the formation during the drilling process will be monitored and how this will be minimised.

We wish to reaffirm the comments made within our letter of the 22 March 2011, and would appreciate your advice on the next steps in the process. We also request details on how the applicant can alleviate our concerns mentioned above.

We trust the above is sufficient; should you have further queries, please do not hesitate to contact us.

Yours faithfully


Maria Evans
Developer Services

glas
Glas Cymru Cyfyngedig

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Mae Dŵr Cymru yn eiddo i Glas Cymru - cwmni 'nid-er-ellw'.

We welcome correspondence in
Welsh and English.

Dŵr Cymru Cyf, a limited company registered in
Wales no. 2366777. Registered office: Pentwyn Road,
Nelson, Treharris, Mid Glamorgan CF46 6LY.

Rydym yn croesawu goheblaeth yn y
Gymraeg neu yn Saesneg.

Dŵr Cymru Cyf, cwmni cyfyngedig wedi'i gofrestru yng
Nghymru rhif 2366777. Swyddfa gofrestredig: Heol Pentwyn,
Nelson, Treharris, Morgannwg Ganol CF46 6LY.

Oliver Taylor

From: "Ball, Steve J" <SJBall@valeofglamorgan.gov.uk>
To: "Gerwyn Williams" <[REDACTED]>; "TAYLOR Oliver" <[REDACTED]>
Cc: "Evans Maria" <Maria.Evans@dwrcymru.com>
Sent: 11 October 2011 11:45
Attach: llandow 2_20111011114347.pdf
Subject: 2011/00812/FUL - Llandow Ind Estate

Dear Gerwyn,

As just discussed, please find attached the letter received today from Welsh Water requesting clarification and assurances with respect to drilling fluids and groundwater protection.

I would be pleased to receive your response to their concerns as soon as possible, and certainly by the end of the day, to hopefully enable us to report the matter to the next Planning Committee, the report for which needs to be finalised tomorrow morning.

I have copied this email to Maria Evans at Welsh Water in the hope that you will also send your response to them, and that they may be in a position to provide a further response by return on such matters.

Best Regards

Steve Ball
Principal Planner (Applications)
Planning and Transportation Services
Vale of Glamorgan Council / Cyngor Bro Morgannwg
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Ystyriwch yr amgylchedd. Peidiwch ag argraffu'r neges hon oni bai fod gwir angen.

Fe all fod gwybodaeth freiniol a/neu gyfrinachol a/neu ddeunydd dan amodau hawlfraint y neges e-bost yma. Os nad y chi sydd i fod gael y neges, neu'r un sy'n gyfrifol am ei throsglwyddo, rhaid i chi beidio a'i chopio na'i throsglwyddo i neb un arall na'i defnyddio mewn unrhyw fodd o gwbl. Mae gwaharddiad ar i chi wneud hynny ac efallai y byddech chi'n torri'r gyfraith trwy wneud hynny. Dinistriwch y neges yma acanfonwch neges e-bost at y sawl a'i hanfonodd i roi gwybod iddo fe. Dydy Cyngor Bwrdeistref Sirol Bro Morgannwg ddim yn cymeradwyo unrhyw farn, casgliad na gwybodaeth sy heb fod yn ymwneud a'n materion swyddogol ni.

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To: "Ball, Steve J" <SJBall@valeofglamorgan.gov.uk>; "TAYLOR Oliver" <[REDACTED]>
Cc: "Evans Maria" <Maria.Evans@dwrcymru.com>; "GLWHome" <[REDACTED]>
Sent: 11 October 2011 13:32
Attach: PureBore_180411.pdf
Subject: Re: 2011/00812/FUL - Llandow Ind Estate

Dear Maria / Steve,

In reply to the Dwr Cymru queries please see below.

The drilling of the borehole utilises drilling fluids in a closed loop system that will be closely monitored. The returns from the borehole flow back over the shaker into the tanks. As the borehole increases in depth more fluids are required in the loop, the fluid is constantly monitored for specific gravity and viscosity by the drilling crew.

In the case of excessive fluid losses in the borehole, lost circulation prevention material can be added to the fluids, these swell in the water and block the fractures where water is being lost. The limestone measures will be completely cased with steel to prevent fluid losses or gains from the limestone before drilling into deeper measures.

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To summarise all drilling products used will be approved by both the Environment Agency and the Health and Safety Executive before drilling starts. This drilling operation is nothing to do with fracing or ground stimulation, similar drilling operations are taking place throughout the country for water extraction on a daily basis.

Regards

Gerwyn Williams CEng FIMMM MEI

Director
 Coastal Oil and Gas Limited

From: "Ball, Steve J" <SJBall@valeofglamorgan.gov.uk>
To: Gerwyn Williams <[REDACTED]>; TAYLOR Oliver <[REDACTED]>
Cc: Evans Maria <Maria.Evans@dwrcymru.com>
Sent: Tuesday, 11 October 2011, 12:45
Subject: 2011/00812/FUL - Llandow Ind Estate

Dear Gerwyn,

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I would be pleased to receive your response to their concerns as soon as possible, and certainly by the end of the day, to hopefully enable us to report the matter to the next Planning Committee, the report for which needs to be finalised tomorrow morning.

I have copied this email to Maria Evans at Welsh Water in the hope that you

Oliver Taylor

From: "GERWYN WILLIAMS" <[REDACTED]>
To: "OliverTaylor" <[REDACTED]>
Cc: "GLWHome" <[REDACTED]>
Sent: 12 October 2011 11:00
Subject: Fw: 2011/00812/FUL - Llandow Ind Estate
 Oliver

Will you please deal with this as a matter of urgency today.

Gerwyn suggests you speak to James Mansel at Clear Solutions 01827-283810 and get the specification of Pure Bore.

Regards

Shelagh

----- Forwarded Message -----

From: Evans Maria <Maria.Evans@dwrcymru.com>
To: GERWYN WILLIAMS <[REDACTED]>
Cc: ball j. s <sjball@valeofglamorgan.gov.uk>
Sent: Wednesday, 12 October 2011, 11:37
Subject: 2011/00812/FUL - Llandow Ind Estate

Gerwyn

Unfortunately I am still waiting a definitive response to your email, however I have received the following which is considered stand alone, would you kindly provide a response to the following points raised.

We note the control measures and the assurances that "all drilling products will be approved by both the EA and HSE", but our original question namely, what is the composition of the drilling fluid has not been answered. In a similar manner the nature of the "loss prevention" agent is not stated.

We also note that the viscosifier "Pure Bore" is biodegradable which clearly is an advantage for disposal, but loss of significant quantities of such a material to the underground strata could be problematic.

Kind regards
 Maria

From: GERWYN WILLIAMS [mailto:[REDACTED]]
Sent: 11 October 2011 15:30
To: Evans Maria
Subject: Re: 2011/00812/FUL - Llandow Ind Estate

Thanks Maria

From: Evans Maria <Maria.Evans@dwrcymru.com>
To: GERWYN WILLIAMS <[REDACTED]>
Sent: Tuesday, 11 October 2011, 15:19
Subject: RE: 2011/00812/FUL - Llandow Ind Estate

Dear Gerwyn

Thank you for your email.

It has been forwarded to our Water Resource people for comment, I will respond to Steve Ball in due course.

Kind regards
 Maria

From: GERWYN WILLIAMS [mailto:]
Sent: 11 October 2011 14:32
To: ball j. s; TAYLOR Oliver
Cc: Evans Maria; GLWHome
Subject: Re: 2011/00812/FUL - Llandow Ind Estate

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Best Regards

Steve Ball
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Company Name - DWR CYMRU CYFYNGEDIG. Registered Office: Pentwyn Road, Nelson, Treharris, Mid Glamorgan CF46 6LY Company No. 02366777

Mae Dwr Cymru Welsh Water yn buddsoddi'n hael ac yn gweithio'n galed i sicrhau gwasanaethau o'r ansawdd uchaf i'w holl gymunedau. Mae'r cwmni'n buddsoddi £1.3 biliwn yn ei rydwaiwch dwr a charthffosiaeth rhwng 2010 a 2015.

Mae'n 'gwmni nid-er-elw', sydd wedi bod ym mherchnogaeth Glas Cymru ers 2001. Nid oes gan Dwr Cymru Welsh Water gyfranddalwyr, ac mae unrhyw wargedion ariannol yn cael eu hail-fuddsoddi yn y busnes er budd cwsmeriaid. Manylion pellach ar ein gwefan www.dwrcymru.com

Mae'r neges hon ac unrhyw ffeiliau atodedig at sylw'r bobl y cyfeiriwyd nhw atynt yn unig. Gallant gynnwys deunydd perchnogol, gwybodaeth gyfrinachol a/neu fod yn destun breintiau masnachol. Ni ddylid eu copïo, datgelu i neu ddefnyddio gan unrhyw barti arall. Os derbyniwyd trwy gamgymeriad, dilêwch y neges ac unrhyw atodiadau a hysbyswch yr anfonwr yn syth.

Enw'r cwmni - DWR CYMRU CYFYNGEDIG. Swyddfa gofrestredig: Heol Pentwyn, Nelson, Treharris, Morgannwg Ganol CF46 6LY Rhif y cwmni 02366777

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Steve Ball
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Planning and Transportation Services
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Oliver Taylor

From: "Evans Maria" <Maria.Evans@dwrcymru.com>
To: "GERWYN WILLIAMS" <[REDACTED]>; <[REDACTED]>
Cc: "ball j. s" <sjball@valeofglamorgan.gov.uk>
Sent: 12 October 2011 14:50
Subject: FW: 2011/00812/FUL - Llandow Ind Estate
 Both

I would appreciate receiving your response to the comments below which is in addition to my email of this morning.

We believe that there is a very small risk of any contamination of our reserve groundwater sites in the Vale of Glamorgan from the proposed exploratory drilling. However, if there is an excessive loss of drilling fluid during the drilling procedure due to unforeseen geological features being met, then this level of risk increases. To help us consider the level of risk that might occur, we would like further information regarding the precise nature of the drilling fluid to be used, and detail around the procedure for monitoring loss of drilling fluid to the formation and action that would be taken if it persists.

We expect the Environment Agency to consider the vulnerability of our groundwater sources and wider impact upon the water environment as part of their consenting process.

Kind regards
 Maria

From: Evans Maria
Sent: 12 October 2011 11:38
To: 'GERWYN WILLIAMS'
Cc: ball j. s
Subject: 2011/00812/FUL - Llandow Ind Estate

Gerwyn

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Director

Coastal Oil and Gas Limited

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Mae'r neges hon ac unrhyw ffeiliau atodedig at sylw'r bobl y cyfeiriwyd nhw atynt yn unig. Gallant gynnwys deunydd perchnogol, gwybodaeth gyfrinachol a/neu fod yn destun breintiau masnachol. Ni ddylid eu copïo, datgelu i neu ddefnyddio gan unrhyw barti arall. Os derbyniwyd trwy gamgymeriad, dilêwch y neges ac unrhyw atodiadau a hysbyswch yr anfonwr yn syth.

Enw'r cwmni - DWR CYMRU CYFYNGEDIG. Swyddfa gofrestrredig: Heol Pentwyn, Nelson, Treharris, Morgannwg Ganol CF46 6LY Rhif y cwmni 02366777

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To: "SteveBall" <sjball@valeofglamorgan.gov.uk>
Cc: "CliffPatten" <[REDACTED]>; "OliverTaylor" <[REDACTED]>; "GregSolomon" <[REDACTED]>; "SimonGorringe" <[REDACTED]>
Sent: 21 October 2011 10:30
Subject: Request For Correspondence

Dear Steve

Would you please advise as to whom we should communicate with regarding last nights' decision on our application please?

In the first instance we would like to request copies of all correspondence between Welsh Water and any councillor, official and/or employee of The Vale of Glamorgan Council relating to our planning application.

Thanks and Regards

Gerwyn

Gerwyn Llewellyn Williams C.Eng FIMMM MEI
Director
Coastal Oil and Gas Limited

Oliver Taylor

From: "Ball, Steve J" <SJBall@valeofglamorgan.gov.uk>
To: "GERWYN WILLIAMS" <[REDACTED]>
Cc: "CliffPatten" <[REDACTED]>; "Oliver Taylor" <[REDACTED]>; "GregSolomon" <[REDACTED]>; "SimonGorringe" <[REDACTED]>; "Goldsworthy, Marcus J" <MJGoldsworthy@valeofglamorgan.gov.uk>
Sent: 21 October 2011 10:54
Attach: Letter to EAW, EHO and DCWW - request for further submissions.DOC; DCWW Response 20th October 2012.pdf; DCWW Response 11th October 2012.pdf
Subject: RE: Request For Correspondence
Dear Gerwyn,

Further to your email, I can advise that the planning file is available to view by appointment. Should you wish to do so, please contact Lynn Bouyiouka on 01446 704770 to arrange this. Copies of any correspondence or documentation can be copied subject to appropriate copying charges, which Lynn can best advise you of on request.

With regard to your specific request, I would advise that you should already be aware of all correspondence between us (Officers) and DCWW, insofar as you have been either copied into emails (which you have provided direct responses to DCWW on) or provided copies of their responses, direct or through the committee reports.

For ease of info, however, I attach the following: -

- My letter to EAW, DCWW and our EHO following the initial deferral
- DCWW response dated 11th October 2012
- DCWW response dated 20th October 2012

As far as I am aware, there has been no direct contact between Councillors and DCWW, nor would I expect this to be the case.

The decision will, of course be issued to you (by email) later today as per the committee recommendation.

FYI I shall be out of the office after this afternoon until 31st October 2011, so will be unable to assist further until my return from leave.

Regards

Steve

Steve Ball
Principal Planner (Applications)
Planning and Transportation Services
Vale of Glamorgan Council / Cyngor Bro Morgannwg
tel / ffôn: 01446 704602
e-mail / e-bost: SJBall@valeofglamorgan.gov.uk

Visit our Website at www.valeofglamorgan.gov.uk
Ewch i'n gwefan yn www.bromorgannwg.gov.uk

[Find us on Facebook / Cewch ddod o hyd i ni ar Facebook](#)
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*Consider the environment. Please don't print this e-mail unless you really need to.
Ystyriwch yr amgylchedd. Peidiwch ag argraffu'r neges hon oni bai fod gwir angen.*

From: GERWYN WILLIAMS [mailto:[REDACTED]]
Sent: 21 October 2011 11:30
To: Ball, Steve J
Cc: CliffPatten; OliverTaylor; GregSolomon; SimonGorringe

Subject: Request For Correspondence

Dear Steve

Would you please advise as to whom we should communicate with regarding last nights' decision on our application please?

In the first instance we would like to request copies of all correspondence between Welsh Water and any councillor, official and/or employee of The Vale of Glamorgan Council relating to our planning application.

Thanks and Regards

Gerwyn

Gerwyn Llewellyn Williams C.Eng FIMMM MEI
Director
Coastal Oil and Gas Limited

Fe all fod gwybodaeth freiniol a/neu gyfrinachol a/neu ddeunydd dan amodau hawlfraint y neges e-bost yma. Os nad y chi sydd i fod gael y neges, neu'r un sy'n gyfrifol am ei throsglwyddo, rhaid i chi beidio a'i chopio na'i throsglwyddo i neb un arall na'i defnyddio mewn unrhyw fodd o gwbl. Mae gwaharddiad ar i chi wneud hynny ac efallai y byddech chi'n torri'r gyfraith trwy wneud hynny. Dinistriwch y neges yma acanfonwch neges e-bost at y sawl a'i hanfonodd i roi gwybod iddo fe. Dydy Cyngor Bwrdeistref Sirol Bro Morgannwg ddim yn cymeradwyo unrhyw farn, casgliad na gwybodaeth sy heb fod yn ymwneud a'n materion swyddogol ni.

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Dŵr Cymru
Welsh Water

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CF30 0EH

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Fax: +44 (0)2920 740472

E.mail: developer.services@dwrcymru.com

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Caerdydd
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Ffôn: +44 (0)800 917 2652
Ffacs: +44 (0)2920 740472

E.bost: developer.services@dwrcymru.com

The Vale of Glamorgan Council
Dock Office
Barry Docks
Barry
CF63 4RT

Your ref 11/00115/FUL
Our ref NDC/MDE/VOG/20
Enquiries Maria Evans
Direct Line (01443)331123

For the attention of Mr S J Ball

19 October 2011

Dear Sir

**Re: Unit 1 Llandow Industrial Estate, Cowbridge CF40 1SJ
Drill and test the insitu lower limestone shale and associated strata**

We write further to our letter dated 11 October 2011 and following the receipt of additional information provided by the developer Coastal Oil and Gas Limited we reply as follows:

We note that it is intended to use only approved drilling fluids and that drilling fluid losses will be monitored during the drilling process. However, we believe that there is a very small risk of contamination of our reserve groundwater sites in the Vale of Glamorgan from the proposed exploratory drilling. If there is an excessive loss of drilling fluid to the aquifer during the drilling procedure due to unforeseen geological features being met, then this level of risk increases.

We expect the Environment Agency to consider the vulnerability of our groundwater sources and wider impact upon the water environment as part of their permitting process

We hope the above is satisfactory, however should you require further assistance please do not hesitate to contact us.

Yours faithfully

**Maria Evans
Developer Services**

glas
Glas Cymru Cyfyngedig

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Mae Dŵr Cymru yn eiddo i Glas Cymru - cwmni 'nid-er-elw'.

We welcome correspondence in
Welsh and English.

Dŵr Cymru Cyf, a limited company registered in
Wales no. 2366777. Registered office: Pentwyn Road,
Nelson, Treharris, Mid Glamorgan CF46 6LY.

Rydym yn croesawu gohebiaeth yn y
Gymraeg neu yn Saesneg.

Dŵr Cymru Cyf, cwmni cyfyngedig wedi'i gofrestru yng
Nghymru rhif 2366777. Swyddfa gofrestredig: Heol Pentwyn,
Nelson, Treharris, Morgannwg Ganol CF46 6LY.

Oliver Taylor

From: "GERWYN WILLIAMS" <[REDACTED]>
To: "OliverTaylor" <[REDACTED]>
Sent: 14 December 2011 12:05
Subject: Fw: 2011/00812/FUL - Llandow Ind Estate

----- Forwarded Message -----

From: GERWYN WILLIAMS <[REDACTED]>
To: Evans Maria <Maria.Evans@dwrcymru.com>
Sent: Tuesday, 11 October 2011, 15:29
Subject: Re: 2011/00812/FUL - Llandow Ind Estate

Thanks Maria

From: Evans Maria <Maria.Evans@dwrcymru.com>
To: GERWYN WILLIAMS <[REDACTED]>
Sent: Tuesday, 11 October 2011, 15:19
Subject: RE: 2011/00812/FUL - Llandow Ind Estate

Dear Gerwyn

Thank you for your email.

It has been forwarded to our Water Resource people for comment, I will respond to Steve Ball in due course.

Kind regards

Maria

From: GERWYN WILLIAMS [mailto:[REDACTED]]
Sent: 11 October 2011 14:32
To: ball j. s; TAYLOR Oliver
Cc: Evans Maria; GLWHome
Subject: Re: 2011/00812/FUL - Llandow Ind Estate

Dear Maria / Steve,

In reply to the Dwr Cymru queries please see below.

The drilling of the borehole utilises drilling fluids in a closed loop system that will be closely monitored. The returns from the borehole flow back over the shaker into the tanks. As the borehole increases in depth more fluids are required in the loop, the fluid is constantly monitored for specific gravity and viscosity by the drilling crew.

In the case of excessive fluid losses in the borehole, lost circulation prevention material can be added to the fluids, these swell in the water and block the fractures where water is being lost. The limestone measures will be completely cased with steel to prevent fluid losses or gains from the limestone before drilling into deeper measures.

A viscosifier will be added to the drilling fluids to increase the viscosity, this would typically be "Pure Bore" (see attached specification sheet). The increase in the viscosity of the fluid will also reduce the possibility of loss of fluid into the formation.

In essence the drilling through the limestone is no different from drilling a water well to extract ground water for drinking purposes. The same approved substances are utilised to effect control. Once the entire thickness of the Limestone has been penetrated, the whole of the Limestone measure will be cased off and cemented to surface to ensure no ground water pollution could possibly occur.

To summarise all drilling products used will be approved by both the Environment Agency and the Health and Safety Executive before drilling starts. This drilling operation is nothing to do with fracing or ground stimulation, similar drilling operations are taking place throughout the country for water extraction on a daily basis.

Regards

Gerwyn Williams CEng FIMMM MEI

Director
Coastal Oil and Gas Limited

From: "Ball, Steve J" <SJBall@valeofglamorgan.gov.uk>
To: Gerwyn Williams <[REDACTED]>; TAYLOR Oliver <[REDACTED]>
Cc: Evans Maria <Maria.Evans@dwrcymru.com>
Sent: Tuesday, 11 October 2011, 12:45
Subject: 2011/00812/FUL - Llandow Ind Estate

Dear Gerwyn,

As just discussed, please find attached the letter received today from Welsh Water requesting clarification and assurances with respect to drilling fluids and groundwater protection.

I would be pleased to receive your response to their concerns as soon as possible, and certainly by the end of the day, to hopefully enable us to report the matter to the next Planning Committee, the report for which needs to be finalised tomorrow morning.

I have copied this email to Maria Evans at Welsh Water in the hope that you will also send your response to them, and that they may be in a position to provide a further response by return on such matters.

Best Regards

Steve Ball
Principal Planner (Applications)
Planning and Transportation Services
Vale of Glamorgan Council / Cyngor Bro Morgannwg
tel / ffôn: 01446 704602
e-mail / e-bost: SJBall@valeofglamorgan.gov.uk

Visit our Website at 'www.valeofglamorgan.gov.uk'
Ewch i'n gwefan yn 'www.bromorgannwg.gov.uk'

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Ystyriwch yr amgylchedd. Peidiwch ag argraffu'r neges hon oni bai fod gwir angen.

Fe all fod gwybodaeth freiniol a/neu gyfrinachol a/neu ddeunydd dan amodau hawlfraint y neges e-bost yma. Os nad y chi sydd i fod gael y neges, neu'r un sy'n gyfrifol am ei throsglwyddo, rhaid i chi beidio a'i chopio na'i throsglwyddo i neb un arall na'i defnyddio mewn unrhyw fodd o gwbl. Mae gwaharddiad ar i chi wneud hynny ac efallai y byddech chi'n torri'r gyfraith trwy wneud hynny. Dinistriwch y neges yma acanfonwch neges e-bost at y sawl a'i hanfonodd i roi gwybod iddo fe. Dydy Cyngor Bwrdeistref Sirol Bro Morgannwg ddim yn cymeradwyo unrhyw farn, casgliad na gwybodaeth sy heb fod yn ymwneud a'n materion swyddogol ni.

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Dwr Cymru Welsh Water is investing heavily and working hard to ensure top quality services to all its communities. The company is investing £1.3 billion in its water and sewerage network between 2010 – 2015.

It is a 'not-for-profit company' which has been owned by Glas Cymru since 2001. Welsh Water does not have shareholders and any financial surpluses are reinvested in the business for the benefit of customers. Visit our website at www.dwrcymru.com to find out more about us.

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Company Name - DWR CYMRU CYFYNGEDIG. Registered Office: Pentwyn Road, Nelson, Treharris, Mid Glamorgan CF46 6LY Company No. 02366777

Mae Dwr Cymru Welsh Water yn buddsoddi'n hael ac yn gweithio'n galed i sicrhau gwasanaethau o'r ansawdd uchaf i'w holl gymunedau. Mae'r cwmni'n buddsoddi £1.3 biliwn yn ei rwydwaith dwr a charthffosiaeth rhwng 2010 a 2015.

Mae'n 'gwmni nid-er-elw', sydd wedi bod ym mherchnogaeth Glas Cymru ers 2001. Nid oes gan Dwr Cymru Welsh Water gyfranddalwyr, ac mae unrhyw wargedion ariannol yn cael eu hail-fuddsoddi yn y busnes er budd cwsmeriaid. Manylion pellach ar ein gwefan www.dwrcymru.com

Mae'r neges hon ac unrhyw ffeiliau atodedig at sylw'r bobl y cyfeiriwyd nhw atynt yn unig. Gallant gynnwys deunydd perchnogol, gwybodaeth gyfrinachol a/neu fod yn destun breintiau masnachol. Ni ddylid eu copïo, datgelu i neu ddefnyddio gan unrhyw barti arall. Os derbyniwyd trwy gamgymeriad, dilêwch y neges ac unrhyw atodiadau a hysbyswch yr anfonwr yn syth.

Enw'r cwmni - DWR CYMRU CYFYNGEDIG. Swyddfa gofrestredig: Heol Pentwyn, Nelson, Treharris, Morgannwg Ganol CF46 6LY Rhif y cwmni 02366777

CLIFF PATTEN PLANNING SERVICES

Cliff Patten MRTPI, 36 South Road, Porthcawl, Bridgend, CF36 3DG

Tel: [REDACTED] Mob: [REDACTED] Email: [REDACTED]

Maria Evans
Developer Services
Welsh Water
PO Box 3146
Cardiff
CF30 OEH
25/10/11

Dear Maria Evans

**Proposed Exploratory Borehole, Llandow, Vale of Glamorgan. PA ref.
11/00812/FUL**

I act for Coastal Oil and Gas Ltd in respect of the above planning application and the impending appeal.

I refer to your letters of the 11th and 19th of October 2011 addressed to Mr S.Ball, of the planning department of The Vale of Glamorgan in which you refer to the small risk of contamination of your reserve groundwater sites.(your ref DC/MDE/VOG/20)

I would be grateful if you would provide me with the location and horizons of those reserves that you consider could be at risk, in order that I may evaluate the situation.

Yours Sincerely,

Cliff Patten

CLIFF PATTEN PLANNING SERVICES

Cliff Patten MRTPI, 36 South Road, Porthcawl, Bridgend, CF36 3DG

Tel: [REDACTED] Mob: [REDACTED] Email: [REDACTED]

Maria Evans
Developer Services
Welsh Water
PO Box 3146
Cardiff
CF30 OEH
8/12/11

Dear Maria Evans

Proposed Exploratory Borehole, Llandow, Vale of Glamorgan. PA ref. 11/00812/FUL

I act for Coastal Oil and Gas Ltd in respect of the above planning application and the impending appeal.

I refer to your letter to myself of the 1/11/2011 and to your letters to the Vale of Glamorgan Planning Department of the 11/10/2011 and the 19/11/2011.

Coastal Oil and Gas are preparing an appeal against the refusal of planning permission for the above application on the alleged grounds that insufficient information was submitted to satisfy the Authority that the quantity and quality of groundwater supplies in the vicinity of the site would be protected.

In order that a thorough assessment can be made of the reason for refusal, I would be grateful for your comments relating to the following points.

1. Given that your groundwater abstraction sites lie some 7.85 km and 8.67 km away from the Llandow site, and given the catchment areas of these wells (as identified in the Environment Agency Report: Groundwater Quality Review, Porthcawl-Schwyll Aquifer Unit) and the intervening geology, what technical assessment did you undertake that led you to believe that there was a risk to your water resources from this development?
2. Given the methodology to be used for the borehole drilling and the composition of the drilling fluids, what technical assessment did you undertake to lead you to believe that there was a risk to your water resources?

Yours Sincerely,

Cliff Patten



Dŵr Cymru
Welsh Water

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Fax: +44 (0)2920 740472
E.mail: developer.services@dwrcymru.com

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Ffacs: +44 (0)2920 740472
E.bost: developer.services@dwrcymru.com

Cliff Patten Planning Services
36 South Road
Porthcawl
Bridgend
CF36 3DG

Your ref
Our ref DS/MDE/VOG/20
Enquiries Maria Evans
Telephone 0800 917 2652

For the attention of Mr C Patten

1 November 2011

Dear Sir

**Re: Proposed Exploratory Borehole, Llandow, Vale of Glamorgan
Planning Application ref 11/00812/FUL**

We refer to your email and attachment dated 25 October 2011 regarding the above, we wish to reply as follows:

Please find below brief details of two sources for which we hold abstraction licences in the Vale of Glamorgan.

Bridgend

Source Type Multiple Well Limestone Source

Whilst covered by 2 separate licences, the boreholes have and continue to be operated as one Source.

Well Details Shallow Well: 9 m deep at c 1m diameter, with follow borehole on to c. 23 m depth.

Borehole No.1: 232 m depth.

Borehole No.2: 122 m depth.

Installation details not known.

Carboniferous Limestone aquifer.

glas
Glas Cymru Cyfyngedig

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We welcome correspondence in
Welsh and English.

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Wales no. 2366777. Registered office: Pentwyn Road,
Nelson, Treharris, Mid Glamorgan CF46 6LY.

Rydym yn croesawu gohebiaeth yn y
Gymraeg neu yn Saesneg.

Dŵr Cymru Cyf, cwmni cyfyngedig wedi'i gofrestru yng
Nghymru rhif 2366777. Swyddfa gofrestredig: Heol Pentwyn,
Nelson, Treharris, Morgannwg Ganol CF46 6LY.

Grid reference SS934796

Licence Details 21/58/44/5 Shallow Well and Borehole No.1.

Max daily is **4.204 MI/day**, average annual is **3.237 MI/day**.

21/58/44/12 Borehole No.2. Daily limit is **2.727MI/day**.

Therefore for the source system as a whole combined limits are:

Peak Daily: 6.93 MI/day

Average Daily: 5.964 MI/day.

Schwyll

Source Type Collector Well Source

Licence Details 21/58/44/6.

Average licence is 21.8 MI/day, no daily limit.

Pumps limited to 30.7 MI/day.

Well Details Large diameter well approx 6.5m dia. & 7m deep

Carboniferous Limestone aquifer.

Grid reference SS888772

Hydrogeology Carboniferous Limestone.

Source catchment is highly karstified,

We hope the above is satisfactory, however should you require any further information in relation to the above then please contact my colleague Mr Paul Henderson on 01443 452300. Alternatively, should any further planning matters arise then please do not hesitate to contact myself on the number detailed above.

Yours faithfully



Maria Evans
Developer Services



Application for Planning Permission. Town and Country Planning Act 1990

You can complete and submit this form electronically via the Planning Portal by visiting www.planningportal.gov.uk/apply

Publication of applications on planning authority websites

Please note that the information provided on this application form and in supporting documents may be published on the Authority's website. If you require any further clarification, please contact the Authority's planning department.

Please complete using block capitals and black ink.

It is important that you read the accompanying guidance notes as incorrect completion will delay the processing of your application.

1. Applicant Name and Address		2. Agent Name and Address	
Title:	First name:	Title:	First name:
Last name:		Last name:	
Company (optional):	COASTAL OIL AND GAS LIMITED	Company (optional):	
Unit:	9 House number: House suffix:	Unit:	House number: House suffix:
House name:	BRIDGEND BUSINESS CENTRE	House name:	
Address 1:	BRIDGEND INDUSTRIAL ESTATE	Address 1:	
Address 2:		Address 2:	
Address 3:		Address 3:	
Town:	BRIDGEND	Town:	
County:	MID GLAMORGAN	County:	
Country:		Country:	
Postcode:	CF31 3SH	Postcode:	

3. Description of the Proposal

DRILL AND TEST THE INSITU LOWER LIMESTONE AND ASSOCIATED STRATA FOR THE PRESENCE OF GAS

Has the building, work or change of use already started? Yes No
 If Yes, please state the date when building, work or use were started (DD/MM/YYYY): (date must be pre-application submission)

Has the building, work or change of use been completed? Yes No
 If Yes, please state the date when the building, work or change of use was completed: (DD/MM/YYYY): (date must be pre-application submission)

4. Site Address Details

Please provide the full postal address of the application site.

Unit: House number: House suffix:

House name: UNIT 1, LLANDOW INDUSTRIAL ESTATES

Address 1: COWBRIDGE

Address 2:

Address 3:

Town:

County: VALE OF GLAMORGAN

Postcode (optional): CF40 1SJ

Description of location or a grid reference (must be completed if postcode is not known):

Easting: 295851 Northing: 172167

Description:

HARD STANDING AT UNIT1 LLANDOW INDUSTRIAL ESTATE

5. Pre-application Advice

Has assistance or prior advice been sought from the local authority about this application? Yes No

If Yes, please complete the following information about the advice you were given. (This will help the authority to deal with this application more efficiently).

Please tick if the full contact details are not known, and then complete as much as possible:

Officer name: M Lucas

Reference:

Date (DD/MM/YYYY): 19.01.11
(must be pre-application submission)

Details of pre-application advice received?

Gave advice on content of submission

6. Pedestrian and Vehicle Access, Roads and Rights of Way

Is a new or altered vehicle access proposed to or from the public highway? Yes No

Is a new or altered pedestrian access proposed to or from the public highway? Yes No

Are there any new public roads to be provided within the site? Yes No

Are there any new public rights of way to be provided within or adjacent to the site? Yes No

Do the proposals require any diversions /extinguishments and/or creation of rights of way? Yes No

If you answered Yes to any of the above questions, please show details on your plans/drawings and state the reference of the plan (s)/drawings(s).

7. Waste Storage and Collection

Do the plans incorporate areas to store and aid the collection of waste? Yes No

If Yes, please provide details:

Skip and tank storage as indicated on plan.

Have arrangements been made for the separate storage and collection of recyclable waste? Yes No

If Yes, please provide details:

8. Neighbour and Community Consultation

Have you consulted your neighbours or the local community about the proposal? Yes No

If Yes, please provide details:

9. Authority Employee / Member

With respect to the Authority, I am:

- a) a member of staff Yes No
b) an elected member
c) related to a member of staff Yes No
d) related to an elected member

Do any of these statements apply to you?

If Yes, please provide details of the name, relationship and role

4. Site Address Details

Please provide the full postal address of the application site.

Unit:	<input type="text"/>	House number:	<input type="text"/>	House suffix:	<input type="text"/>
House name:	UNIT 1, LLANDOW INDUSTRIAL ESTATE				
Address 1:	COWBRIDGE				
Address 2:	<input type="text"/>				
Address 3:	<input type="text"/>				
Town:	<input type="text"/>				
County:	VALE OF GLAMORGAN				
Postcode (optional):	CF40 1SJ				
Description of location or a grid reference (must be completed if postcode is not known)					
Easting:	<input type="text" value="295851"/>	Northing:	<input type="text" value="172167"/>		
Description:					
HARD STANDING AT UNIT1 LLANDOW INDUSTRIAL ESTATE					

5. Pre-application Advice

Has assistance or prior advice been sought from the local authority about this application? Yes No

If Yes, please complete the following information about the advice you were given. (This will help the authority to deal with this application more efficiently).

Please tick if the full contact details are not known, and then complete as much as possible:

Officer name:	<input type="text" value="M Lucas"/>
Reference:	<input type="text"/>
Date (DD/MM/YYYY): (must be pre-application submission)	<input type="text" value="19.01.11"/>
Details of pre-application advice received?	
<input type="checkbox"/> Gave advice on content of submission	

6. Pedestrian and Vehicle Access, Roads and Rights of Way

Is a new or altered vehicle access proposed to or from the public highway? Yes No

Is a new or altered pedestrian access proposed to or from the public highway? Yes No

Are there any new public roads to be provided within the site? Yes No

Are there any new public rights of way to be provided within or adjacent to the site? Yes No

Do the proposals require any diversions /extinguishments and/or creation of rights of way? Yes No

If you answered Yes to any of the above questions, please show details on your plans/drawings and state the reference of the plan (s)/drawings(s)

<input type="text"/>

7. Waste Storage and Collection

Do the plans incorporate areas to store and aid the collection of waste? Yes No

If Yes, please provide details:

<input type="text" value="Skip and tank storage as indicated on plan."/>
--

Have arrangements been made for the separate storage and collection of recyclable waste? Yes No

If Yes, please provide details:

<input type="text"/>

8. Neighbour and Community Consultation

Have you consulted your neighbours or the local community about the proposal? Yes No

If Yes, please provide details:

<input type="text"/>

9. Authority Employee / Member

With respect to the Authority, I am:

- a) a member of staff Yes No
b) an elected member
c) related to a member of staff Yes No
d) related to an elected member

If Yes, please provide details of the name, relationship and role

<input type="text"/>

10. Materials

If applicable, please state what materials are to be used externally. Include type, colour and name for each material:

	Existing (where applicable)	Proposed	Not applicable	Don't Know
Walls			<input checked="" type="checkbox"/>	<input type="checkbox"/>
Roof			<input checked="" type="checkbox"/>	<input type="checkbox"/>
Windows			<input checked="" type="checkbox"/>	<input type="checkbox"/>
Doors			<input checked="" type="checkbox"/>	<input type="checkbox"/>
Boundary treatments (e.g. fences, walls)	Temporary site fencing will mark out the boundary		<input type="checkbox"/>	<input type="checkbox"/>
Vehicle access and hard-standing	Existing hard standing on the site will be utilised		<input type="checkbox"/>	<input type="checkbox"/>
Lighting	Temporary lights will be used in the night, these will be positioned in such a way as not to extend beyond the site boundary.		<input type="checkbox"/>	<input type="checkbox"/>
Others (please specify)			<input checked="" type="checkbox"/>	<input type="checkbox"/>

Are you supplying additional information on submitted plan(s)/drawing(s)/design and access statement? Yes No

If Yes, please state references for the plan(s)/drawing(s)/design and access statement:

11. Vehicle Parking

Please provide information on the existing and proposed number of on-site parking spaces:

Type of Vehicle	Total Existing	Total proposed (including spaces retained)	Difference in spaces
Cars	0	4 (TEMPORARY SPACES)	4
Light goods vehicles/ public carrier vehicles	0	1 (FOR OFFLOADING)	1
Motorcycles	0	0	0
Disability spaces	0	0	0
Cycle spaces	0	0	0
Other (e.g. Bus)	0	0	0
Other (e.g. Bus)	0	0	0

12. Foul Sewage

Please state how foul sewage is to be disposed of:

- Mains sewer Cess pit
 Septic tank Other
 Package treatment plant

Are you proposing to connect to the existing drainage system? Yes No

If Yes, please include the details of the existing system on the application drawings and state references for the plan(s)/drawing(s):

13. Assessment of Flood Risk

Is the site within an area at risk of flooding? (Refer to the Environment Agency's Flood Map showing flood zones 2 and 3 and consult Environment Agency standing advice and your local planning authority requirements for information as necessary.)

Yes No

If Yes, you will need to submit a Flood Risk Assessment to consider the risk to the proposed site.

Is your proposal within 20 metres of a watercourse (e.g. river, stream or beck)? Yes No

Will the proposal increase the flood risk elsewhere? Yes No

How will surface water be disposed of?

- Sustainable drainage system Existing watercourse
 Soakaway Pond/lake
 Main sewer

14. Biodiversity and Geological Conservation

To assist in answering the following questions refer to the guidance notes for further information on when there is a reasonable likelihood that any important biodiversity or geological conservation features may be present or nearby and whether they are likely to be affected by your proposals.

Having referred to the guidance notes, is there a reasonable likelihood of the following being affected adversely or conserved and enhanced within the application site, or on land adjacent to or near the application site?

a) Protected and priority species:

- Yes, on the development site
 Yes, on land adjacent to or near the proposed development
 No

b) Designated sites, important habitats or other biodiversity features:

- Yes, on the development site
 Yes, on land adjacent to or near the proposed development
 No

c) Features of geological conservation importance:

- Yes, on the development site
 Yes, on land adjacent to or near the proposed development
 No

16. Trees and Hedges

Are there trees or hedges on the proposed development site? Yes No

And/or: Are there trees or hedges on land adjacent to the proposed development site that could influence the development or might be important as part of the local landscape character? Yes No

If Yes to either or both of the above, you will need to provide a full Tree Survey, with accompanying plan before your application can be determined. Your Local Planning Authority should make clear on its website what the survey should contain, in accordance with the current 'BS5837: Trees in relation to construction - Recommendations'.

15. Existing Use

Please describe the current use of the site:

HARD STANDING

Is the site currently vacant? Yes No

If Yes, please describe the last use of the site:

Not known

When did this use end (if known)?

DD/MM/YYYY

(date where known may be approximate)

Not known

Does the proposal involve any of the following:

Land which is known to be contaminated? Yes No

Land where contamination is suspected for all or part of the site? Yes No

A proposed use that would be particularly vulnerable to the presence of contamination? Yes No

If you have answered Yes to any of the above, you will need to submit an appropriate contamination assessment.

17. Trade Effluent

Does the proposal involve the need to dispose of trade effluents or waste? Yes No

If Yes, please describe the nature, volume and means of disposal of trade effluents or waste:

SEE SUPPORTING INFORMATION.

18. Residential Units (Including Conversion)

Does your proposal include the gain, loss or change of use of residential units? Yes No
 If Yes, please complete details of the changes in the tables below:

Proposed Housing							Existing Housing								
Market Housing	Not known	Number of Bedrooms					Total	Market Housing	Not known	Number of Bedrooms					Total
		1	2	3	4+	Unknown				1	2	3	4+	Unknown	
Houses	<input type="checkbox"/>							<input type="checkbox"/>							
Flats and maisonettes	<input type="checkbox"/>							<input type="checkbox"/>							
Live-work units	<input type="checkbox"/>							<input type="checkbox"/>							
Cluster flats	<input type="checkbox"/>							<input type="checkbox"/>							
Sheltered housing	<input type="checkbox"/>							<input type="checkbox"/>							
Bedsit/studios	<input type="checkbox"/>							<input type="checkbox"/>							
Unknown type	<input type="checkbox"/>							<input type="checkbox"/>							
Totals (a+b+c+d+e+f+g)=							Totals (a+b+c+d+e+f+g)=								
Social Rented	Not known	Number of Bedrooms					Total	Social Rented	Not known	Number of Bedrooms					Total
		1	2	3	4+	Unknown				1	2	3	4+	Unknown	
Houses	<input type="checkbox"/>							<input type="checkbox"/>							
Flats and maisonettes	<input type="checkbox"/>							<input type="checkbox"/>							
Live-work units	<input type="checkbox"/>							<input type="checkbox"/>							
Cluster flats	<input type="checkbox"/>							<input type="checkbox"/>							
Sheltered housing	<input type="checkbox"/>							<input type="checkbox"/>							
Bedsit/studios	<input type="checkbox"/>							<input type="checkbox"/>							
Unknown type	<input type="checkbox"/>							<input type="checkbox"/>							
Totals (a+b+c+d+e+f+g)=							Totals (a+b+c+d+e+f+g)=								
Intermediate	Not known	Number of Bedrooms					Total	Intermediate	Not known	Number of Bedrooms					Total
		1	2	3	4+	Unknown				1	2	3	4+	Unknown	
Houses	<input type="checkbox"/>							<input type="checkbox"/>							
Flats and maisonettes	<input type="checkbox"/>							<input type="checkbox"/>							
Live-work units	<input type="checkbox"/>							<input type="checkbox"/>							
Cluster flats	<input type="checkbox"/>							<input type="checkbox"/>							
Sheltered housing	<input type="checkbox"/>							<input type="checkbox"/>							
Bedsit/studios	<input type="checkbox"/>							<input type="checkbox"/>							
Unknown type	<input type="checkbox"/>							<input type="checkbox"/>							
Totals (a+b+c+d+e+f+g)=							Totals (a+b+c+d+e+f+g)=								
Key worker	Not known	Number of Bedrooms					Total	Key worker	Not known	Number of Bedrooms					Total
		1	2	3	4+	Unknown				1	2	3	4+	Unknown	
Houses	<input type="checkbox"/>							<input type="checkbox"/>							
Flats and maisonettes	<input type="checkbox"/>							<input type="checkbox"/>							
Live-work units	<input type="checkbox"/>							<input type="checkbox"/>							
Cluster flats	<input type="checkbox"/>							<input type="checkbox"/>							
Sheltered housing	<input type="checkbox"/>							<input type="checkbox"/>							
Bedsit/studios	<input type="checkbox"/>							<input type="checkbox"/>							
Unknown type	<input type="checkbox"/>							<input type="checkbox"/>							
Totals (a+b+c+d+e+f+g)=							Totals (a+b+c+d+e+f+g)=								
Total proposed residential units (A+B+C+D)=							Total existing residential units (E+F+G+H)=								

TOTAL NET GAIN or LOSS of RESIDENTIAL UNITS (Proposed Housing Grand Total - Existing Housing Grand Total):

19. All Types of Development: Non-residential Floorspace

Does your proposal involve the loss, gain or change of use of non-residential floorspace? Yes No

If you have answered Yes to the question above please add details in the following table:

Use class/type of use	Not applicable	Existing gross internal floorspace (square metres)	Gross internal floorspace to be lost by change of use or demolition (square metres)	Total gross internal floorspace proposed (including change of use)(square metres)	Net additional gross internal floorspace following development (square metres)
A1	<input type="checkbox"/>				
Shops	<input type="checkbox"/>				
Net tradable area:	<input type="checkbox"/>				
A2	<input type="checkbox"/>				
Financial and professional services	<input type="checkbox"/>				
A3	<input type="checkbox"/>				
Restaurants and cafes	<input type="checkbox"/>				
B1 (c)	<input type="checkbox"/>				
Light industrial	<input type="checkbox"/>				
B2	<input type="checkbox"/>				
General industrial	<input type="checkbox"/>				
B8	<input type="checkbox"/>				
Storage or distribution	<input type="checkbox"/>				
C1	<input type="checkbox"/>				
Hotels and halls of residence	<input type="checkbox"/>				
C2	<input type="checkbox"/>				
Residential institutions	<input type="checkbox"/>				
D1	<input type="checkbox"/>				
Non-residential institutions	<input type="checkbox"/>				
D2	<input type="checkbox"/>				
Assembly and leisure	<input type="checkbox"/>				
OTHER	<input type="checkbox"/>				
Please Specify	<input type="checkbox"/>				
Total					

In addition, for hotels, residential institutions and hostels, please additionally indicate the loss or gain of rooms

Use class	Type of use	Not applicable	Existing rooms to be lost by change of use or demolition	Total rooms proposed (including changes of use)	Net additional rooms
C1	Hotels	<input type="checkbox"/>			
C2	Residential Institutions	<input type="checkbox"/>			
OTHER		<input type="checkbox"/>			
Please Specify		<input type="checkbox"/>			

20. Employment

Please complete the following information regarding employees:

	Full-time	Part-time	Total full-time equivalent
Existing employees			
Proposed employees	7	3	8.5

21. Hours of Opening

Please state the hours of opening for each non-residential use proposed:

SEE SUPPORTING INFORMATION

Use	Monday to Friday	Saturday	Sunday and Bank Holidays	Not known

22. Site Area

Please state the site area in hectares (ha)

23. Industrial or Commercial Processes and Machinery

Please describe the activities and processes which would be carried out on the site and the end products including plant, ventilation or air conditioning. Please include the type of machinery which may be installed on site:

DRILLING A BOREHOLE TO APPROXIMATELY 800M TO TEST THE SHALE AND ASSOCIATED STRATA

Is the proposal a waste management development? Yes No

If the answer is Yes, please complete the following table:

	Not applicable	The total capacity of the void in cubic metres, including engineering surcharge and making no allowance for cover or restoration material (or tonnes if solid waste or litres if liquid waste)	Maximum annual operational throughput in tonnes (or litres if liquid waste)
Inert landfill	<input type="checkbox"/>		
Non-hazardous landfill	<input type="checkbox"/>		
Hazardous landfill	<input type="checkbox"/>		
Energy from waste incineration	<input type="checkbox"/>		
Other incineration	<input type="checkbox"/>		
Landfill gas generation plant	<input type="checkbox"/>		
Pyrolysis/gasification	<input type="checkbox"/>		
Metal recycling site	<input type="checkbox"/>		
Transfer stations	<input type="checkbox"/>		
Material recovery/recycling facilities (MRFs)	<input type="checkbox"/>		
Household civic amenity sites	<input type="checkbox"/>		
Open windrow composting	<input type="checkbox"/>		
In-vessel composting	<input type="checkbox"/>		
Anaerobic digestion	<input type="checkbox"/>		
Any combined mechanical, biological and/or thermal treatment (MBT)	<input type="checkbox"/>		
Sewage treatment works	<input type="checkbox"/>		
Other treatment	<input type="checkbox"/>		
Recycling facilities construction, demolition and excavation waste	<input type="checkbox"/>		
Storage of waste	<input type="checkbox"/>		
Other waste management	<input type="checkbox"/>		
Other developments	<input type="checkbox"/>		

Please provide the maximum annual operational throughput of the following waste streams:

Municipal	
Construction, demolition and excavation	
Commercial and industrial	
Hazardous	

If this is a landfill application you will need to provide further information before your application can be determined. Your waste planning authority should make clear what information it requires on its website.

24. Hazardous Substances

Does the proposal involve the use or storage of any of the following materials in the quantities stated below? Yes No Not applicable

If Yes, please provide the amount of each substance that is involved:

Acrylonitrile (tonnes) <input type="text"/>	Ethylene oxide (tonnes) <input type="text"/>	Phosgene (tonnes) <input type="text"/>
Ammonia (tonnes) <input type="text"/>	Hydrogen cyanide (tonnes) <input type="text"/>	Sulphur dioxide (tonnes) <input type="text"/>
Bromine (tonnes) <input type="text"/>	Liquid oxygen (tonnes) <input type="text"/>	Flour (tonnes) <input type="text"/>
Chlorine (tonnes) <input type="text"/>	Liquid petroleum gas (tonnes) <input type="text"/>	Refined white sugar (tonnes) <input type="text"/>

Other:

Other:

Amount (tonnes):

Amount (tonnes):

25. Ownership Certificates

One Certificate A, B, C, or D, must be completed, together with the Agricultural Holdings Certificate with this application form
CERTIFICATE OF OWNERSHIP - CERTIFICATE A

Town and Country Planning (General Development Procedure) Order 1995 Certificate under Article 7

I certify/The applicant certifies that on the day 21 days before the date of this application nobody except myself/ the applicant was the owner (*owner is a person with a freehold interest or leasehold interest with at least 7 years left to run*) of any part of the land or building to which the application relates.

Signed - Applicant:

Or signed - Agent:

Date (DD/MM/YYYY):

CERTIFICATE OF OWNERSHIP - CERTIFICATE B

Town and Country Planning (General Development Procedure) Order 1995 Certificate under Article 7

I certify/ The applicant certifies that I have/the applicant has given the requisite notice to everyone else (as listed below) who, on the day 21 days before the date of this application, was the owner (*owner is a person with a freehold interest or leasehold interest with at least 7 years left to run*) of any part of the land or building to which this application relates.

Name of Owner	Address	Date Notice Served
Elete Design Limited	R/O 10-12 Dunraven Place, Bridgend CF31 1JD	13.08.11

Signed - Applicant:

Or signed - Agent:

Date (DD/MM/YYYY):

CERTIFICATE OF OWNERSHIP - CERTIFICATE C

Town and Country Planning (General Development Procedure) Order 1995 Certificate under Article 7

I certify/ The applicant certifies that:

- Neither Certificate A or B can be issued for this application
- All reasonable steps have been taken to find out the names and addresses of the other owners (*owner is a person with a freehold interest or leasehold interest with at least 7 years left to run*) of the land or building, or of a part of it, but I have/ the applicant has been unable to do so.

The steps taken were:

Name of Owner	Address	Date Notice Served

Notice of the application has been published in the following newspaper (circulating in the area where the land is situated):

On the following date (which must not be earlier than 21 days before the date of the application):

Signed - Applicant:

Or signed - Agent:

Date (DD/MM/YYYY):

25. Ownership Certificates (continued)

CERTIFICATE OF OWNERSHIP - CERTIFICATE D

Town and Country Planning (General Development Procedure) Order 1995 Certificate under Article 7

I certify/ The applicant certifies that:

- Certificate A cannot be issued for this application
- All reasonable steps have been taken to find out the names and addresses of everyone else who, on the day 21 days before the date of this application, was the owner (owner is a person with a freehold interest or leasehold interest with at least 7 years left to run) of any part of the land to which this application relates, but I have/ the applicant has been unable to do so.

The steps taken were:

Notice of the application has been published in the following newspaper (circulating in the area where the land is situated):

On the following date (which must not be earlier than 21 days before the date of the application):

Signed - Applicant:

Or signed - Agent:

Date (DD/MM/YYYY):

26. Agricultural Holdings

AGRICULTURAL HOLDINGS CERTIFICATE

Town and Country Planning (General Development Procedure) Order 1995 Certificate under Article 7

Agricultural Land Declaration - You Must Complete Either A or B

(A) None of the land to which the application relates is, or is part of, an agricultural holding.

Signed - Applicant:

Or signed - Agent:

Date (DD/MM/YYYY):

13.08.11

(B) I have/ The applicant has given the requisite notice to every person other than myself/ the applicant who, on the day 21 days before the date of this application, was a tenant of an agricultural holding on all or part of the land to which this application relates, as listed below:

Name of Tenant	Address	Date Notice Served

Signed - Applicant:

Or signed - Agent:

Date (DD/MM/YYYY):

27. Planning Application Requirements - Checklist

Please read the following checklist to make sure you have sent all the information in support of your proposal. Failure to submit all information required will result in your application being deemed invalid. It will not be considered valid until all information required by the Local Planning Authority has been submitted.

The original and 3 copies of a completed and dated application form:



The correct fee:



The original and 3 copies of the plan which identifies the land to which the application relates drawn to an identified scale and showing the direction of North:



The original and 3 copies of a design and access statement:



The original and 3 copies of other plans and drawings or information necessary to describe the subject of the application:



The original and 3 copies of the completed, dated Ownership Certificate (A, B, C, or D - as applicable):



The original and 3 copies of the completed, dated Article 7 Certificate (Agricultural Holdings):



28. Declaration

I/we hereby apply for planning permission/consent as described in this form and the accompanying plans/drawings and additional information.

Signed - Applicant:

Or signed - Agent:

Date (DD/MM/YYYY):

13.08.11

(date cannot be pre-application)

29. Applicant Contact Details

Telephone numbers

Country code: National number: Extension number:

Country code: Mobile number (optional):

Country code: Fax number (optional):

Email address (optional):

glw@btinternet.com

30. Agent Contact Details

Telephone numbers

Country code: National number: Extension number:

Country code: Mobile number (optional):

Country code: Fax number (optional):

Email address (optional):

31. Site Visit

Can the site be seen from a public road, public footpath, bridleway or other public land? Yes No

If the planning authority needs to make an appointment to carry out a site visit, whom should they contact? (Please select only one)

Agent Applicant Other (if different from the agent/applicant's details)

If Other has been selected, please provide:

Contact name:

Gerwyn Williams

Telephone number:

07989 306870

Email address:

25. Ownership Certificates

One Certificate A, B, C, or D, must be completed, together with the Agricultural Holdings Certificate with this application form

CERTIFICATE OF OWNERSHIP - CERTIFICATE A

Town and Country Planning (General Development Procedure) Order 1995 Certificate under Article 7

I certify/The applicant certifies that on the day 21 days before the date of this application nobody except myself/ the applicant was the owner (owner is a person with a freehold interest or leasehold interest with at least 7 years left to run) of any part of the land or building to which the application relates.

Signed - Applicant:

Or signed - Agent:

Date (DD/MM/YYYY):

CERTIFICATE OF OWNERSHIP - CERTIFICATE B

Town and Country Planning (General Development Procedure) Order 1995 Certificate under Article 7

I certify/ The applicant certifies that I have/the applicant has given the requisite notice to everyone else (as listed below) who, on the day 21 days before the date of this application, was the owner (owner is a person with a freehold interest or leasehold interest with at least 7 years left to run) of any part of the land or building to which this application relates.

Name of Owner	Address	Date Notice Served
Elete Design Limited	R/O 10-12 Dunraven Place, Bridgend CF31 1JD	13.08.11

Signed - Applicant:

Or signed - Agent:

Date (DD/MM/YYYY):

CERTIFICATE OF OWNERSHIP - CERTIFICATE C

Town and Country Planning (General Development Procedure) Order 1995 Certificate under Article 7

I certify/ The applicant certifies that:

- Neither Certificate A or B can be issued for this application
- All reasonable steps have been taken to find out the names and addresses of the other owners (owner is a person with a freehold interest or leasehold interest with at least 7 years left to run) of the land or building, or of a part of it, but I have/ the applicant has been unable to do so.

The steps taken were:

Name of Owner	Address	Date Notice Served

Notice of the application has been published in the following newspaper (circulating in the area where the land is situated):

On the following date (which must not be earlier than 21 days before the date of the application):

Signed - Applicant:

Or signed - Agent:

Date (DD/MM/YYYY):

25. Ownership Certificates (continued)**CERTIFICATE OF OWNERSHIP - CERTIFICATE D****Town and Country Planning (General Development Procedure) Order 1995 Certificate under Article 7**

I certify/ The applicant certifies that:

- Certificate A cannot be issued for this application
- All reasonable steps have been taken to find out the names and addresses of everyone else who, on the day 21 days before the date of this application, was the owner (when is a person with a freehold interest or leasehold interest with at least 7 years left to run) of any part of the land to which this application relates, but I have/ the applicant has been unable to do so.

The steps taken were:

--

Notice of the application has been published in the following newspaper (circulating in the area where the land is situated):

--

On the following date (which must not be earlier than 21 days before the date of the application):

--

Signed - Applicant:

Or signed - Agent:

Date (DD/MM/YYYY):

--

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26. Agricultural Holdings**AGRICULTURAL HOLDINGS CERTIFICATE****Town and Country Planning (General Development Procedure) Order 1995 Certificate under Article 7****Agricultural Land Declaration - You Must Complete Either A or B**

(A) None of the land to which the application relates is, or is part of, an agricultural holding.

Signed - Applicant:

Or signed - Agent:

Date (DD/MM/YYYY):

--

--

13.08.11

(B) I have/ The applicant has given the requisite notice to every person other than myself/ the applicant who, on the day 21 days before the date of this application, was a tenant of an agricultural holding on all or part of the land to which this application relates, as listed below:

Name of Tenant	Address	Date Notice Served

Signed - Applicant:

Or signed - Agent:

Date (DD/MM/YYYY):

--

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27. Planning Application Requirements - Checklist

Please read the following checklist to make sure you have sent all the information in support of your proposal. Failure to submit all information required will result in your application being deemed invalid. It will not be considered valid until all information required by the Local Planning Authority has been submitted.

The original and 3 copies of a completed and dated application form:



The correct fee:



The original and 3 copies of the plan which identifies the land to which the application relates drawn to an identified scale and showing the direction of North:



The original and 3 copies of a design and access statement:



The original and 3 copies of other plans and drawings or information necessary to describe the subject of the application:



The original and 3 copies of the completed, dated Ownership Certificate (A, B, C, or D - as applicable):



The original and 3 copies of the completed, dated Article 7 Certificate (Agricultural Holdings):



Notice Under Articles 6 and 9 (1) of the Town and Country Planning (General Development Procedure) Order 1995

(to be published in a newspaper or to be served on an owner* or a tenant*)

Proposed development at (a) LAND NORTH OF SUTTON ROAD
LLANDOW INDUSTRIAL ESTATE LLANDOW SOUTH GLAM.

I give notice that (b) COASTAL OIL AND GAS LIMITED

having applied to the (c) VALE OF GLAMORGAN COUNCIL

to (d) DRILL AND TEST THE INSITU LOWER LIMESTONE AND ASSOCIATED STRATA FOR THE PRESENCE OF GAS.

is appealing to the Secretary of State Welsh Ministers

against the decision of the Council

on the failure of the Council to give notice of a decision.


Any owner of the land* or tenant** who wishes to make representations about this appeal should write to

The Planning Inspectorate, Crown Buildings, Cathays Park, Cardiff, CF10 3NQ
by (e) 4th JANUARY 2012

If you decide to make representations you should make it clear that you are an owner of the appeal site or tenant of an agricultural holding on the site and you should give the site address.

*"owner" means a person having a freehold interest or a leasehold interest the unexpired term of which is not less than seven years, or in the case of development consisting of the winning or working of minerals, a person entitled to an interest in a mineral in the land (other than oil, gas, coal, gold or silver).

** "tenant" means a tenant of an agricultural holding any part of which is comprised in the land.

Signed...  On behalf of COASTAL OIL AND GAS LIMITED Date 14th DEC 2011

Statement of owners' rights

The grant of planning permission does not affect owners' rights to retain or dispose of their property, unless there is some provision to the contrary in an agreement or in a lease.

Statement of agricultural tenants' rights

The grant of planning permission for non-agricultural development may affect agricultural tenants' security of tenure.

Insert:

- (a) address or location of the proposed development
- (b) applicant's name
- (c) name of council
- (d) description of the proposed development
- (e) date giving a period of 21 days beginning with the date of service, or 14 days beginning with the date of publication, of the notice (as the case may be)

CONTENTS

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2. Supporting Information	1
3. The Applicant	1
4. Gas Quality	2
5. Regulation of Onshore Oil and Gas	2
6. The Site	3
7. Details of Proposal	4
8. Conclusions	10

Plans

Description	Scale	Reference
Borehole Location Site Plan	1/10000	PEDL217/SS87/LLANDOW/DRAWING/LOC120811
Site Plan	1/1250	PEDL217/SS87/LLANDOW/PLANNING/SITEAREA120811
Site Layout Plan	1/250	PEDL217/SS87/LLANDOW/PLANNING/SITELAYOUT120811
East – West Cross Section	1/250	PEDL217/SS87/LLANDOW/PLANNING/E-WSEC120811
North - South Cross Section	1/250	PEDL217/SS87/LLANDOW/PLANNING/N-SSEC120811
Surface Site drainage	1/250	PEDL217/SS87/LLANDOW/PLANNING/DRAINLAYOUT120811
Lighting Layout Plan	1/250	PEDL217/SS87/LLANDOW/PLANNING/LIGHTLAYOUT120811

Appendices

Description	Scale	Reference
Details of Site Office	1/50	APPENDIX I
Details of Site Cabins	1/50	APPENDIX II
Details of Temporary Fencing		APPENDIX III
Noise Assessment		APPENDIX IV

1. Introduction

The applicant seeks consent for one test borehole at Llandow Business Park. The scheme will be managed so as to facilitate *minimisation of risk*, both physical and financial, *and minimisation of disturbance*.

This application does **not** include fracing.

The application is made by Coastal Oil and Gas Limited for the purpose of drilling to take core samples of Limestone shales with a view to future possible capture and supply of shale gas (unconventional gas) as a clean energy supply and also to penetrate the Upper Devonian measures to test for the presence of conventional gas. This is estimated to be a depth of approximately 650m. This is part of a continuing program of sampling across South Wales, permissions have previously been granted in Bridgend County Borough Council and Neath Port Talbot County Borough Council. Further applications are pending in both these areas and one is due to be submitted to Rhondda Cynon Taf Council.

The application seeks permission to drill an exploratory borehole for the purpose of taking core samples for analysis on land at Llandow Business Park as indicated on the accompanying plan marked “Borehole Location Plan”. The borehole is aimed primarily at the Lower Limestone Shales below the Limestone measures.

This planning application is a revised version of a previous submission which was withdrawn due to the discovery of a dwelling house within the Llandow Business Park. Further noise assessment work has been carried out [report attached as Appendix IV] and has indicated that noise levels at the dwelling will be within guidelines. More detailed information on proposed traffic movements has also been included.

2. Supporting Information

The information contained within this supporting documentation to the formal Planning Application is given to help promote the understanding of the operations involved and thereby to assist in the planning process. The supporting documentation has been expanded to include additional information, which will only be relevant to certain individual consultees. Others, who may be interested in the development scheme, will be able to better understand the concept of the overall project by reference to this document.

This supporting documentation and site design has been prepared giving consideration to the purposes of the current legislation governing planning and environmental matters. The aim being, to ensure as far as is practicably possible, that the development will not knowingly permit the introduction into the environment of any substances or energy liable to cause hazards to human health, harm to living resources and ecological systems, loss of any amenity, or interference with the legitimate use of the environment by the general public and especially those that are neighbours to the development.

3. The Applicant

Coastal Oil and Gas Limited is based at the Bridgend Business Centre. It is principally involved in the exploration of UK onshore gas reserves. It has a 50% interest in approximately 99.7sq. km. of Petroleum Exploration and Development Licence (PEDL) 217 and is approved as an operator for this licence by the Crown. The remaining 50% is

held by Coastal’s Australian partner Eden Energy UK Limited whose registered offices is the same as that of Coastal Oil and Gas Limited at Bridgend.

4. Gas Quality

Geological modelling shows that the Llandow Business Park sits on a geological structure that could be a trap for Devonian conventional gas; the Devonian Measures are renowned for USA gas production. The borehole will be designed to test the presence of this gas.

International drilling and testing of similar gas resources has proved a resultant high quality, clean gas.

5. Regulation of Onshore Oil and Gas

“The Petroleum (Production) Act 1934, as amended by Section 18 of the Oil and Gas (Enterprise) Act 1982, provided for exploration of and production of onshore hydrocarbon resources. The Act vests ownership of petroleum underground in the Crown and empowers the Secretary of State for Energy to grant to such persons as he thinks fit, Licences to search, bore for and get petroleum.

The main objectives of the Licensing regime are to further the general Government policy of establishing the extent of the Country’s indigenous hydrocarbon resources. The regime is also intended to provide a framework within which the search for and production of oil and gas onshore can be undertaken in a safe and orderly manner, and to provide a satisfactory balance of safeguards and rights between the Government and Licensees. This regime also maintained unproved acreage on short licence and provided a satisfactory longer-term licence for production.

The framework comprises a single exclusive and unitary licence now known as a “PEDL”, Petroleum Exploration and Development Licence. Licences are still awarded for an initial period of six years although some flexibility is allowed and then, if required, for a further term of twenty years.

Planning permission will be required before the deep drilling of exploratory wells can be undertaken, and the Government will continue to require proof that the necessary planning permission has been obtained for deep drilling and production, and that all necessary consultations have been completed before authorising commencement of these activities.

The government still supports the development of coal-derived methane as part of its clean coal technology programme.

Forecast future energy shortages are putting pressure on onshore gas producers to develop suitable fields.

Excerpt from DECC Annual Energy Statement July 2010

ACTION 11: In the forthcoming Energy Security and Green Economy Bill, we will seek to ensure that access to UK oil and gas infrastructure is available to all companies. This will help the exploitation of smaller and more difficult oil and gas fields, allowing us to make the most of our natural resources.

ACTION 12: We will introduce further measures on gas security as promised in the Coalition Programme for Government. In the future, we need more gas storage capacity, more gas import capacity, and greater assurance that our market will deliver

gas when it is needed. This means that our gas market arrangements must have a sharper focus on increased flexibility and resilience.

6. The Site

6.1 Location

The site is located at Llandow Business Park. The national grid co-ordinates for the site are Eastings 295851 Northings 172167. Shown on the Borehole Location Plan – PEDL217/SS87/LLANDOW/DRAWING/LOC120811

6.2 Current Use

The land is disused apart from the unauthorised parking of lorry trailers and other vehicles. Unauthorised rubbish is also being dumped on the site. The site will be cleaned up as part of this scheme.

6.3 Ownership

The landowner is Elete Design Limited; R/O 10-12 Dunraven Place, Bridgend CF31 1JD.

6.4 Site Infrastructure

The site requires minimal moving of material apart from that required to tidy the area. There is an existing, level concrete base and no further ground preparation will be required for drilling or siting cabins/offices.

6.5 Ground Conditions

Initial investigation shows that the land is comprised of a small thickness of glacial material overlying the Porthkerry Formation (Lower Lias) of Jurassic age. A detailed survey will be conducted during the development process.

6.6 Access

The proposed access from the main highway network will be the same as the Llandow Business Park off the Llantwit Major Road, the B4270. To minimise risk the proposal for site access is to travel in very early in the morning when traffic is minimal. The drill rig is a standard lorry size or track mounted and carried on a trailer. Albeit heavy traffic, such as the rig, drill pipe and cabins, will only travel to the site once and from the site once; site entry will be from the south via the A4050, A4226 and B4265 to avoid Llysworney Village. Once on site, traffic will consist of cars and vans at the beginning and end of shift and deliveries. The rig does not require specialist escort. The vehicles create no more noise than other heavy goods vehicles. No additional highway amendments are required.

A summary of proposed traffic flows into the site is as follows: -

Singular Movements

<i>Drill rig</i>	<i>1</i>
<i>Drill Rods</i>	<i>3</i>
<i>Casing</i>	<i>4</i>
<i>Tanks and other equipment</i>	<i>3</i>
<i>Compressors</i>	<i>1</i>
<i>Generators</i>	<i>1</i>
<i>Survey equipment</i>	<i>1</i>
<i>Cabins & Portaloos</i>	<i>4</i>

Regular Movements

<i>Tankers</i>	<i>2 per week</i>
<i>Foul sewerage tanker</i>	<i>1 per week</i>
<i>Skips</i>	<i>4 per week</i>
<i>Drilling supplies</i>	<i>1 per week</i>
<i>Personnel (cars/vans)</i>	<i>2/3 per 12 hr shift</i>

6.7 Environment Agency - Development and Flood Risk

TAN15 maps from the Welsh Assembly Government indicate the site to be in Zone A: Considered to be at little or no risk of fluvial or tidal/coastal flooding. The site is not on a recognised flood plain.

6.8 Area

The enclosed area of the application site is 0.17 hectares.

7. Details of Proposal**7.1 The Construction of the Exploration Borehole**

The borehole will be constructed to comply with current legislation and applicable codes and rules. The hole will be constructed under the governance of the Health and Safety Executive Oil and Gas Division. A final Department of Environment and Climate Change permission in the form of a Well Operation Notice is required before work can commence.

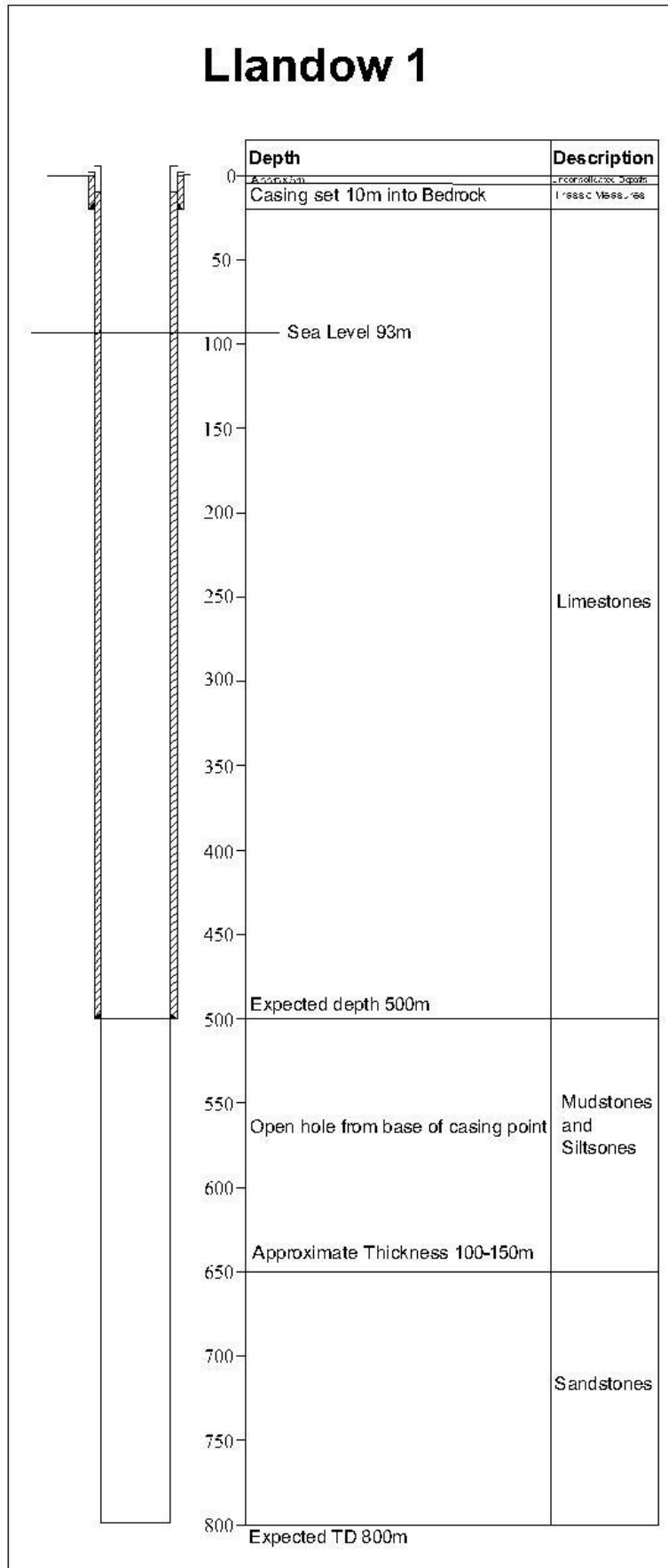


Figure 1: Approximate depths of the boreholes

The works for the boreholes will include: -

- ❖ Drilling a surface completion hole at approximately 30cm Diameter up to 25 metres well depth into rockhead.
- ❖ Cementing the surface completion in place.
- ❖ Drilling through the Carboniferous Limestone to a depth of approximately 500 metres
- ❖ Casing off the Carboniferous Limestone and cementing in place
- ❖ Pressure testing the 500 metre casing string after allowing adequate curing time.
- ❖ Drilling into the strata below the limestone utilising suitable Well Head Protection and Diversion System to a suitable vent system.
- ❖ Utilising suitable monitoring systems to test the borehole.

Well Testing Procedure: -

- ❖ Samples of the strata will be taken from the borehole and tested both in the on-site and at an external laboratory
- ❖ Running a suite of geophysical logs
- ❖ Any gas flow that may take place will be measured for quantity and quality using suitable instruments and meters.

7.2 Site Location

The location of the proposed borehole site is included in this application and indicated on the attached plan reference: -

PEDL217/SS87/LLANDOW/DRAWING/LOC120811

A site layout plan reference: -

PEDL217/SS87/LLANDOW/PLANNING/SITEAREA120811

is also attached.

7.3 Site Construction

The site is located on a level area of concrete in an industrial surrounding. The offices and cabins will be located on the concreted area. The drilling rig will also be located on the concreted area. Drip trays will be placed where required. Drilling water will be recycled. Please see detailed site layout drawing: –

PEDL217/SS87/LLANDOW/PLANNING/SITELAYOUT120811

7.4 Summary of Geology

The borehole area is situated on the Porthkerry Formation (Lower Lias) of Jurassic age. This shallow dipping strata is up to 50m thick overlying Cornelley Oolite (Viséan) Lower Carboniferous age. From the geological model constructed by Coastal Oil and Gas Limited there is a high in the Devonian Strata below Llandow.

7.5 Gas Control

If gas is encountered during drilling operations the drilling fluid will safely contain that gas. On completion of drilling and testing the well will be shut in using the well head control mechanism.

The control mechanism is housed on a well head assembly that effects well control. Entries are available for water infeed while drilling and to divert gas. A suitable BOP (Blow Out Preventor) will be utilised.

7.6 Monitoring Operations

Gas flows, purities, pressures including Hydrogen Sulphide values will be monitored during the drilling period. Drilling will be 24 hours per day. Twenty-Four hour security will be present with the site manned at all times.

7.7 Environmental Control

The control of ground water during the drilling of this well will be by the density of the drilling fluids which would prevent any major water ingress. The main aquifer has been identified in the Carboniferous Limestone and this will be completely sealed with steel casing cemented into place, this is a recognised method of sealing an aquifer by the Environment Agency. This coupled with the restoration proposals outlined below will insure that there will be no risk to aquifers and licensed abstractions during this stage.

The water / fluids used for drilling are contained in a closed loop system; the volume of fluid required will depend on the depth of the well. The drilling fluid will be held in tanks on the surface so that they can be checked for levels and leaks.

- Shaker screen – the drilling fluid is passed over a fine vibrating sieve of various sizes to allow the drill cuttings to pass into a covered skip for disposal and the drilling fluid to drop through and return to the closed loop system. This separates the solid drill cuttings from the fluid so that it can be re-circulated back down the wellbore. In oilfield industry, linear motion shale shakers are widely used.
- At the end of the drilling operation all excess drilling fluid will be tankered off site to a licensed disposal facility.

As all drilling fluids are maintained in a closed loop system this can easily be monitored for leaks. In the event of a loss of fluid to the system then the source of that loss will be investigated. If there is a leak to a tank / pipe then this will be repaired as soon as practical. The tanks will be placed so that they can be observed by the drilling crew and site staff. In the event that there is an increase in drilling fluid that may allow a spillage

from the tanks, drilling will cease until additional tanks can allow for the increase in fluid or the additional fluid is tankered off site to an appropriate facility.

The storage of all oils and fuels will be within a bunded fuel tank where the volume of the bund is 1.5 times the capacity of the tank. During fuel transfer absorbent matting will be placed below the fuel fill point to catch any drips. Drip trays lined with absorbent matting will be placed under the drilling rig at all times.

The storage of drilling muds, prior to mixing the drilling muds are in powder form in bags. These will be stored in the drilling store shown on the site layout plan.

Foul sewage will be from the site toilet; this will be a hired 'portaloos' type and will be emptied weekly by a licensed operator.

Control of surface water will be affected by constructing a single block wall around the site and installing a sealed inceptor tank. Waste water will be tankered off site to a licensed disposal site. See plan Reference: -

PEDL217/SS87/LLANDOW/PLANNING/SURFACEGW120811

7.8 Vibration Assessment

At the proposed drilling site in Llandow Business Park are a number of factors that will limit the effects on vibration on local residents.

- The nearest properties a dwelling house in the centre of the business park some 260m North North-East, Sheeplys Farm 513m North North-West, Two Semis on Sutton Road 588m North West, Detached House on The Grove 538m West, Springfield Nursery 750m West are all over 500m away. There are closer industrial units.
- There is up to 5m of made ground/Glacial till consisting of a gravelly clay (this will absorb surface vibrations)
- The local bedrock is Carboniferous limestone; the individual beds are generally less than 5m thick.
- The drilling method will be utilising rotary drilling methods to minimise vibration.
- If required a vibration monitoring scheme prior to and during the drilling period will be conducted in accordance with BS 6472-1:2008 and BS 5228-2:2009
- If vibration levels are deemed excessive when recorded at the residential property then the drilling will cease until additional remedial measures can be put in place.

7.8 Noise

A noise report carried out by Hunter Acoustics is submitted with the application which concludes that, *“We would not therefore assess noise from the drilling works to be an issue on this site.”*

7.9 Visual Amenity

The site is not prominent in the landscape and is shielded by industrial units and hedges. Any views of the drilling rig, which will have an approximate height of 12 metres when fully extended, will be fleeting and the structure will not be dissimilar to other temporary structures/masts that are located in such areas. The rig and equipment will only be in place for a short period of time.

7.10 Restoration

Upon completion of the drilling and testing, the borehole will be completely filled with cement. Cement will be mixed on the surface in a grout mixer then pumped to the base of the borehole via a tremmy pipe. The tremmy pipe will be lifted out of the borehole in stages and more cement will be pumped into the borehole. The volume of the borehole will be confirmed by the results of the geophysical logging. The casing that has been cemented in place in the limestones will be left in situ. The multi stage filling will ensure that the borehole is completely filled. The cement will have similar density to the surrounding rock. The filling of the borehole will seal the hole to stop the vertical migration of groundwater.

The borehole will be sealed in accordance with the guidelines presented by the Environment Agency publication „Decommissioning Redundant Boreholes and Wells’. (Indicated in C in the diagram below)

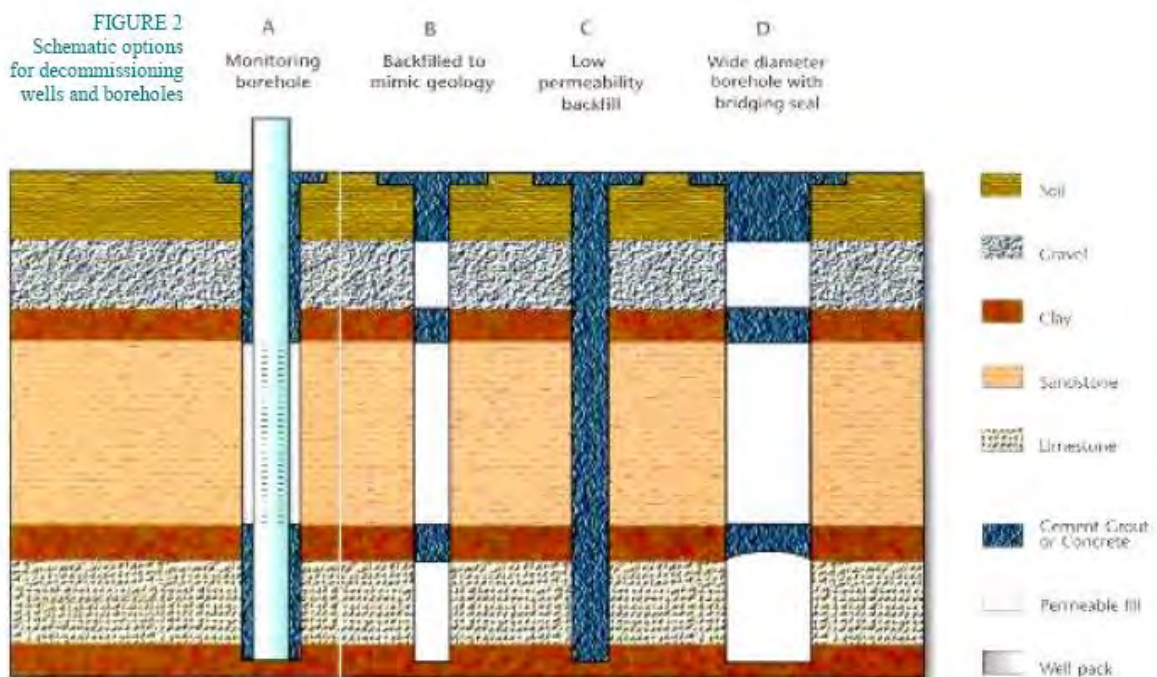


Figure 2 – C Backfilled completely with a low permeability backfill (cement)

g) Recording details on site plan

Complete and accurate records should be kept of the abandonment procedures for possible future reference.

These records should include the following;

- The reasons for abandonment (e.g. water quality problems).
- Measurement of groundwater level prior to backfilling.
- The depth and position of each layer of backfilling and sealing materials.

- *The type and quantity of backfilling and sealing materials used.*
- *Any changes made to the borehole/well during the abandonment (e.g. casing removal).*
- *Any problems encountered during the abandonment procedure.*

Abandoned borehole and well locations should be marked on site records and, if possible, on the ground. Details of any decommissioning or modifications to borehole construction should also be forwarded to the British Geological Survey.

7.11 Permissions to Drill

All permissions to drill will be in place before work commences.

Permissions required are: -

Petroleum Licence from the DECC – In place PEDL217
 Planning Permission from Vale of Glamorgan Council
 Approval for Drilling from the Health and Safety Executive
 Well Operations Notice from the DECC

7.12 Construction Period

Summary of Time Scale

	Weeks
Site Establishment	(up to) 1
Drilling	(up to) 5
Testing	(up to) 2
Borehole Restoration	(up to) 1
Site Clearance	(up to) 1

7.13 Hours of Work

Hours of work during the site establishment and site clearance period will be 10 hours per day 08.00 hrs until 18.00 hrs excluding Sunday and drilling, testing and restoration period will be 24 hour, seven days per week.

8. Conclusions

It should be noted that this application is only for exploratory drilling and testing it does not involve fracing or the commercial extraction of gas. It is considered that due to the scale, duration and nature of this proposal it would not create adverse environmental impacts, given the industrial location.

End

Llandow - 2011/00812/FUL

List of Drawings sent to LPA as part of the application

Plans

Description	Scale	Reference
Borehole Location Site Plan	1/10000	PEDL217/SS87/LLANDOW/DRAWING/LOC120811
Site Plan	1/1250	PEDL217/SS87/LLANDOW/PLANNING/SITEAREA120811
Site Layout Plan	1/250	PEDL217/SS87/LLANDOW/PLANNING/SITELAYOUT120811
East – West Cross Section	1/250	PEDL217/SS87/LLANDOW/PLANNING/E-WSEC120811
North - South Cross Section	1/250	PEDL217/SS87/LLANDOW/PLANNING/N-SSEC120811
Surface Site drainage	1/250	PEDL217/SS87/LLANDOW/PLANNING/DRAINLAYOUT120811
Lighting Layout Plan	1/250	PEDL217/SS87/LLANDOW/PLANNING/LIGHTLAYOUT120811

Appendices

Description	Scale	Reference
Details of Site Office	1/50	APPENDIX I
Details of Site Cabins	1/50	APPENDIX II
Details of Temporary Fencing		APPENDIX III
Noise Assessment		APPENDIX IV

**Proposed Drilling Operations at;
Llandow Industrial Estate
Llandow
CF71**

**Noise Impact Assessment
2594/ENS1**

20th May 2011

For: **Mr Oliver Taylor**
Coastal Oil and Gas Ltd
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Bridgend
CF31 3SH
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Hunter Acoustics is the trading name of Hunter Acoustics Ltd
Registered Office: Henstaff Court Business Centre, Llantrisant Road, Cardiff CF72 8NG
Registered Number: 4587925

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5.2	Predicted Noise Levels.....	7
6.0	Good Practice Guide	8
7.0	Conclusion	9

1.0 Introduction

Coastal Oil and Gas Ltd is proposing to drill at a site located on Llandow Industrial Estate, Llandow to look for natural gas. The proposed drilling will take place 24 hours a day for approximately 6 weeks.

Hunter Acoustics have been commissioned to monitor background noise levels prior to the drilling taking place, in order to propose noise limits at critical Noise Sensitive Premises (NSPs).

Appendix A explains acoustic terminology used in this report.

2.0 Planning Guidance

BS 4142: 1997 'Method for Rating Industrial Noise Affecting Mixed Residential and Industrial Areas'

When assessing noise emissions from fixed industrial sources near residential development, local authorities refer to BS4142: 1997. This standard describes a rating method comparing L_{Aeq} noise levels from the industrial source with pre-existing background L_{A90} levels at the residential receiver. It advises at a difference (industrial noise - background) of:

- +10dB or higher, complaints are likely;
- -10dB or lower - complaints are unlikely;
- A difference of + 5dB is of marginal significance.

A + 5dB penalty is applied to the industrial noise level if it exhibits a distinguishable discrete continuous note (whine, hiss, screech, hum, etc.), distinct impulses (bangs, clicks, clatters or thumps), or the noise is irregular enough to attract attention.

Before assessing implications from the above guidance, it is necessary to define the existing noise climate on site.

3.0 Environmental Noise Survey

3.1 Procedure

Continuous noise monitoring was carried out from 1600hrs on 19th May 2011 to determine the existing minimum consistent background noise levels. Data including L_{max} , L_{eq} & L_{90} was logged at 5minute intervals over the monitoring period.

Site plan 2594/SP1 shows the development site and the measurement position used;

Position A Located west of proposed drilling site, approximately 1.2 - 1.5m above local ground level. Background noise levels at this location deemed representative of those at the nearest NSPs (except house located on Ind. Est.)

Position B Located in garden of Six Wells Cottage on Llandow Industrial Estate, approximately 1.5m above local ground level.

2594/SP1 - Site Plan Showing Monitoring Locations



3.2 Equipment Used

The following equipment was used:

Larson Davis 820 Sound Level Meter	(Type 1)	Position A
Rion NL32 Sound Level Meter	(Type 1)	Position B
Norsonic Acoustic Calibrator Type 1251		
Windshields		

The measurement systems were calibrated before and after the survey, no variation occurred.

3.3 Weather Conditions

Weather conditions were mainly dry throughout the monitoring period with no significant winds.

4.0 Results

Time history graphs 2594/TH1 and 2594/TH2 show L_{max} , L_{eq} & L_{90} sound pressure levels measured over consecutive 5minute periods at position A and B respectively.

As the drill rig is to operate continuously for the 6 week period, noise limits at the NSPs should be based on the minimum consistent background noise level (L_{A90}) acquired during the survey.

Position A; Minimum consistent L_{A90} = 21dB (occurred 2300-0000hrs)

Position B; Minimum consistent L_{A90} = 20dB (occurred 0200-0300hrs)

4.1 World Health Organisation Guidance

BS 4142:1997 advises;

"The method is not suitable for assessing the noise measured in buildings or when the background and rating noise levels are both very low.

NOTE: For the purposes of this standard, background noise levels below about 30dB and rating levels below about 35dB are considered to be very low."

Minimum consistent background noise levels measured are therefore considered to be very low.

The World Health Organisation (WHO) 'Guidelines for Community Noise – 1999' quotes sleep disturbance limits in bedrooms at night of $L_{Aeq,8hr}$ 30dB(A).

5.0 Noise Predictions

5.1 Noise Sensitive Properties

Locations of critical NSPs are shown in site plan 2594/SP1 (highlighted with yellow squares).

- 1). Six Wells Cottage on Llandow Ind. Est, approximately 260m north of proposed drill site
- 2). Farm house on The Grove, approximately 530m west of proposed drill site
- 3). Sheepleys Guest House, approximately 530m north of proposed drill site
- 4). House on Sutton Road, approximately 620m north of proposed drill site

Note: Locations of NSPs should be confirmed with the Local Environmental Health Officer.

5.2 Predicted Noise Levels

The proposed drill rig has a typical noise level of 74 dB(A) at 1m – as advised in email from Oliver Taylor dated 21/01/2011 with manufacturer's specs for a similar drill rig.

Taking into account the distance and screening losses, the noise level of the drill rig at each NSP is predicted to be as follows;

NSP 1	25dB(A) L_{Aeq}	(30dB(A) $L_{A,r,Tr}$ rating level)
NSP 2	19dB(A) L_{Aeq}	(24dB(A) $L_{A,r,Tr}$ rating level)
NSP 3	19dB(A) L_{Aeq}	(24dB(A) $L_{A,r,Tr}$ rating level)
NSP 4	18dB(A) L_{Aeq}	(23dB(A) $L_{A,r,Tr}$ rating level)

Note: Predictions do not account for any soft ground absorption that is likely to occur to NSP 2 and NSP 4 and these can therefore be classed as worst case predictions.

When allowing for a 15dB loss through a partially open window, noise levels would fall well below the 30dB(A) internal WHO sleep disturbance guidance limit at all NSPs.

6.0 Good Practice Guide

The following advice is given with the aim of reducing noise associated with the drilling operations by means of good practice.

A summary of the practical measures in the choice and use of plant to reduce noise is given below:

- Avoid unnecessary revving of engines and switch off equipment when not required.
- Ensure plant and vehicles are properly maintained, check silencers and bearings.
- If the noise is directional, point the source away from noise-sensitive locations.
- Limit the use of particularly noisy plant or vehicles.
- Start up plant sequentially rather than together.
- Ensure the plant is operated with noise control hoods closed.
- Ensure doors to units (including roller shutter door) remain closed when undertaking noisy operations.

7.0 Conclusion

Coastal Oil and Gas Ltd is proposing to drill on a site at Llandow Industrial Estate to look for natural gas. The proposed drilling will take place 24hours a day for approximately 6 weeks.

Critical Noise Sensitive Premises (NSPs) have been identified.

Daytime noise levels are not indicated to be an issue.

Exceptionally low background night time noise levels have been measured, well below the level at which a BS 4142:1997 assessment would be appropriate. We have therefore referred to the World Health Organisation (WHO) sleep disturbance limits to assess noise levels at NSPs at night.

Levels of around 10dB(A) are predicted in bedrooms when allowing for a 15dB loss through a partially open window. This is well below the WHO sleep disturbance guidance figure of 30dB(A).

We would not therefore assess noise from the drilling works to be an issue on this site.

Prepared by:



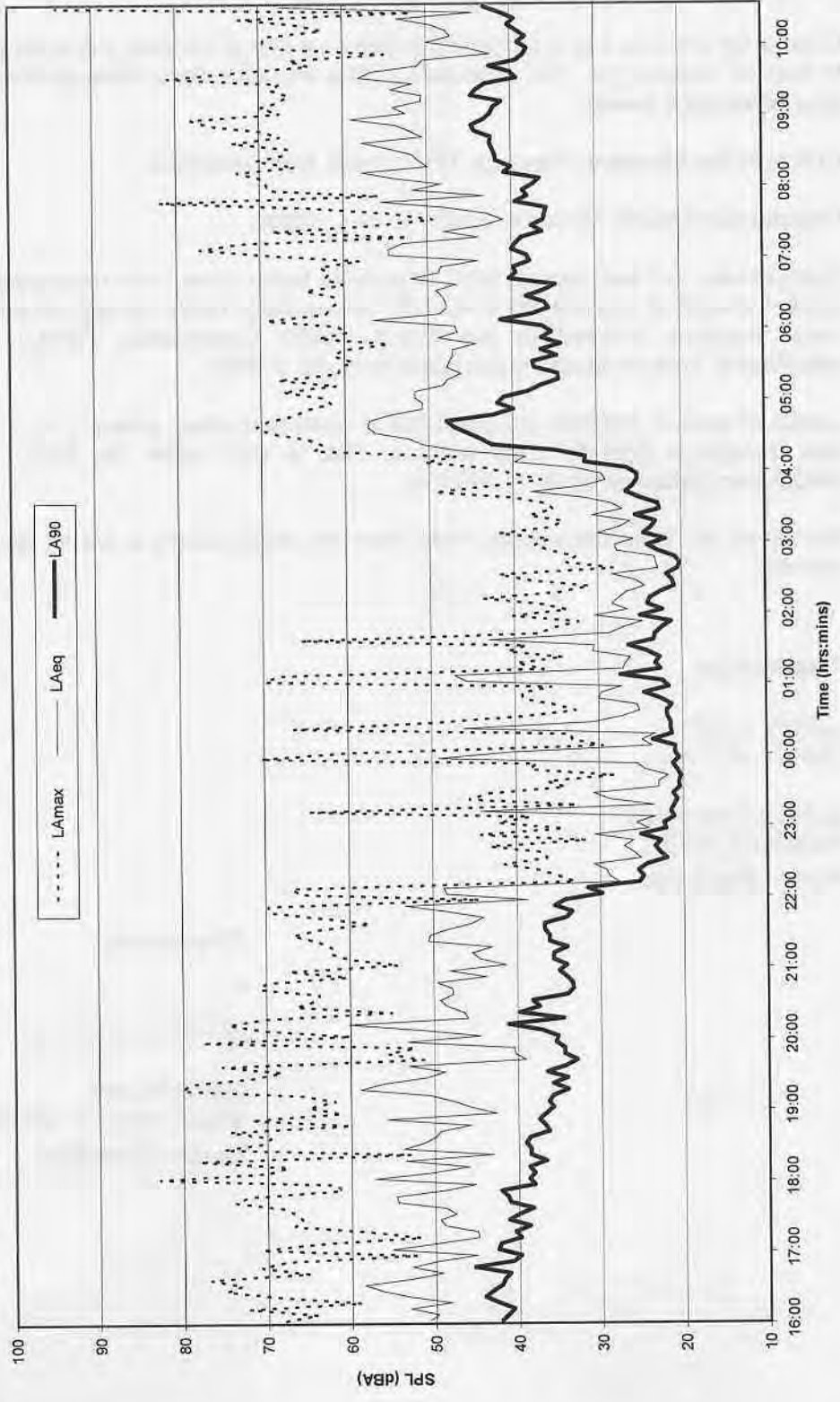
Meirion Townsend
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Hunter Acoustics

Checked by:

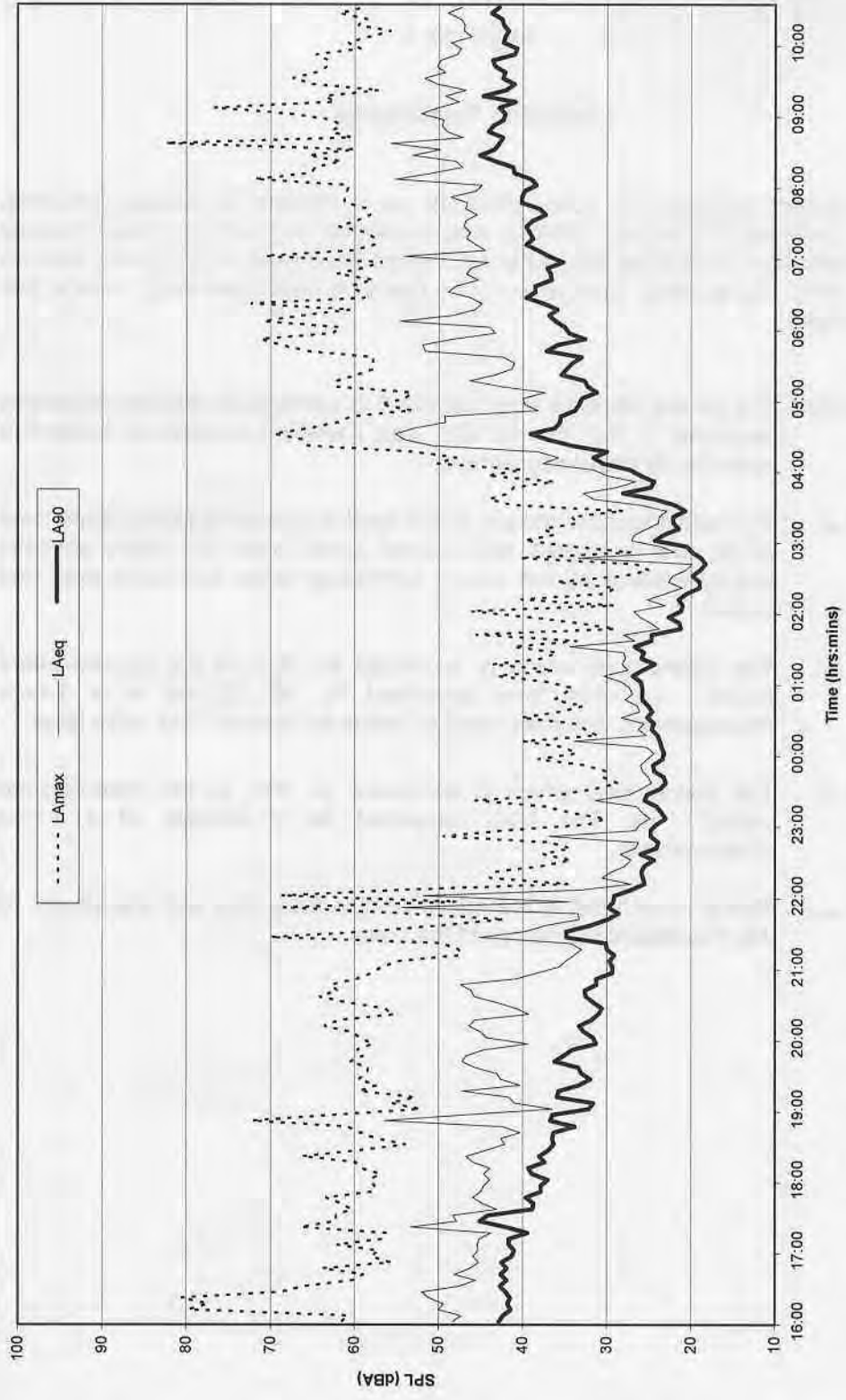


David Hunter
BSc(Hons) MSc MIOA
Hunter Acoustics

2594/TH1 - Continuous Monitoring Time History: Position A



2594/TH2 - Continuous Monitoring Time History: Position B



Appendix A

Acoustic Terminology

Human response to noise depends on a number of factors including; Loudness, Frequency content, and variations in level with time. Various frequency weightings and statistical indices have been developed in order to objectively quantify 'annoyance'. The following units have been used in this report:

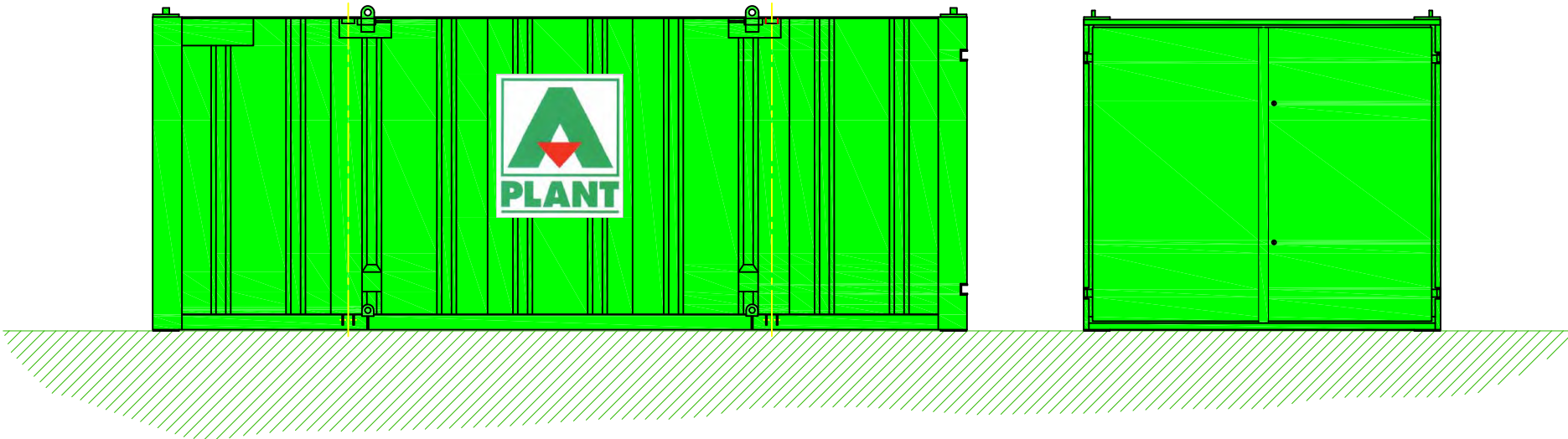
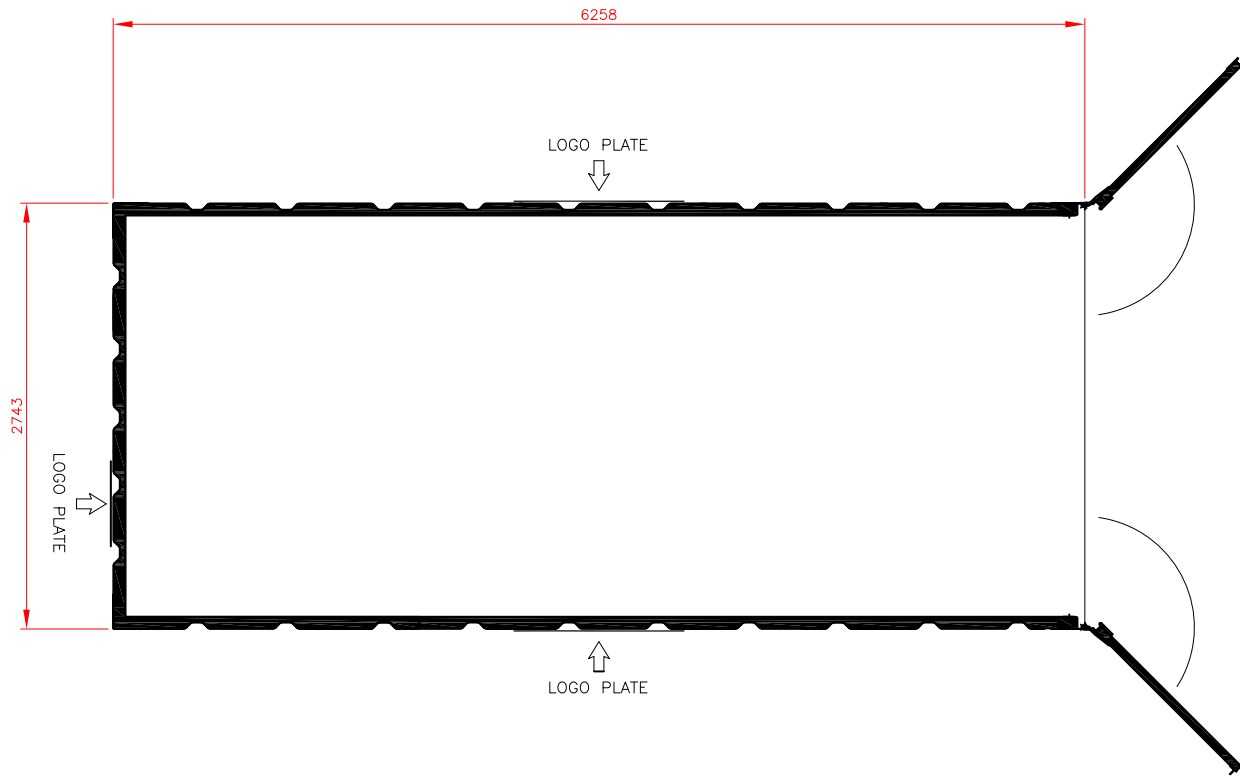
dB(A): The sound pressure level weighted to correspond with the frequency response of the human ear, and therefore a persons subjective response to frequency content.

L_{eq}: The equivalent continuous sound level is a notional steady state level which over a quoted time period would have the same acoustic energy content as the actual fluctuating noise measured over that period.

L₉₀: The sound level which is exceeded for 90% of the measurement period. i.e. The level exceeded for 54 minutes of a 1-hour measurement. It is often used to define the background noise level.

L₁₀: The sound level which is exceeded for 10% of the measurement period. i.e. The level exceeded for 6 minutes of a 1-hour measurement

L_{Af,Tr}: Rating noise level is the specific noise level plus any adjustment for the characteristic features of the noise



0	(Date)	First Issue	(By)
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rev	date	description	by	chkd
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PROJECT
21' x 9' AV
Store Unit

TITLE
Plan & Elevations

SCALE 1/50@A4 DATE 15/05/08

DRAWN BY MV CHECKED BY

DRAWING STATUS:
PRELIMINARY

DRAWING No 81136-16 REV -

heras® 151 and 151steadfast system

round top panel with anti-climb mesh
 high visibility orange blocks
 steadfast strut
 anti-tamper coupler
 fully tested and certificated
 health and safety compliant (HSG 151)

Having invented the original concept of temporary fencing back in the 80's, Heras is proud of its reputation as a true innovator.

Our latest solution for securing site perimeters and protecting the public has been phenomenally successful since its launch, and offers the ultimate market leading temporary fencing system.

Our safest, most stable and most secure system ever offers you total peace of mind, and unrivalled performance.

You can be sure that by installing the Heras® 151 Steadfast System (patent pending), you are conforming fully to the latest HSE Guidelines on "Protecting the Public" from the dangers of construction sites.

Heras has campaigned widely over recent years against falling product standards, and has consulted closely with senior figures across the construction industry to ensure our products meet and exceed your expectations. This latest innovative system means you should never again need to compromise on:

- Value for money
- Quality
- Performance
- Design
- Ease of installation.

All backed up with unbeatable service from our nationwide branch network – deal direct with Heras – your safety first fencing supplier.

Fully Tested and Certificated

- Extensive independent testing by Sheffield Hallam University has proved the performance of the system, resisting wind speeds well in excess of gale force.
- The HSE has confirmed that the system meets all of the guidelines in the HSG 151 Publication "Protecting the Public - Your next move".
- In turn, therefore, we can offer customers a certificate of compliance when they purchase this system from Heras.
- It is your responsibility to ensure the system is correctly installed and fixed. For help and advice, contact your nearest branch.

151 system

The key components of the Heras 151 system are as listed.

Round Top Panel with Anti-Climb Mesh

- The strongest panel on the market, with 3 sides formed from a continuous length of tube, eliminating the top corner weld, often the weakest point in traditional panel design.

High Visibility Orange Block

- Permanently coloured with a durable UV stabilised "hi-viz" casing and filled with solid high density concrete.
- Effectively highlights any potential trip hazard.
- Beware of cheap imitations – painted coatings will chip and peel.

Heraslock® Anti-Tamper Coupler

- Providing additional security, these couplers can only be removed with the use of the specialist tool.

151 steadfast system

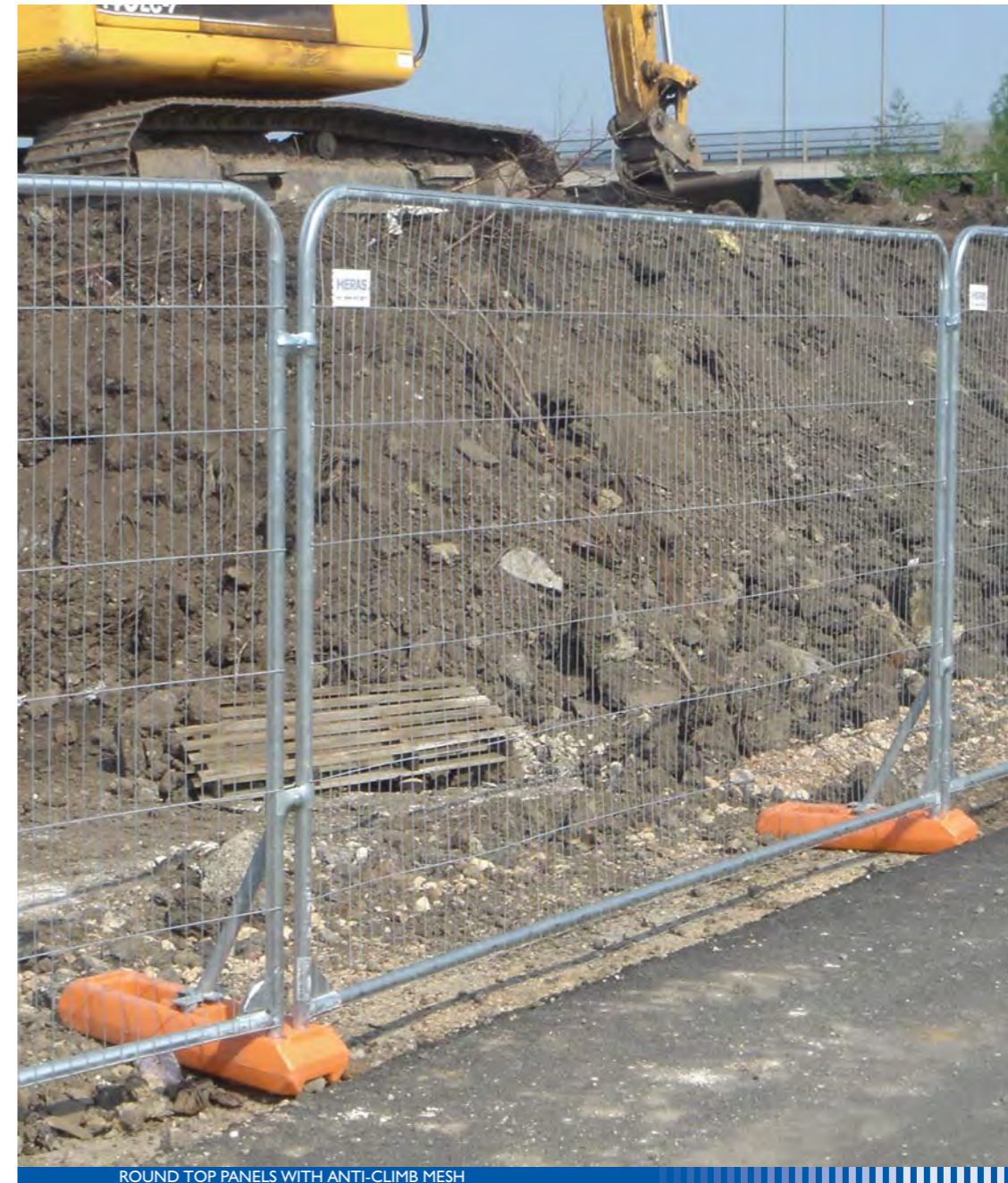
The Heras 151 steadfast system incorporates all the benefits of the 151 system, with the addition of the patented...

Heras® Steadfast Strut

- The unique design of this clever strut dramatically increases the stability of the fence.
- The strut fits neatly within the high visibility block allowing a neat and compact solution, and acts as an integrated anti-lift device.
- 3 additional fixing holes incorporated into the design allow for soil pins and thunderbolts, dependent on ground conditions.

Optional Extras

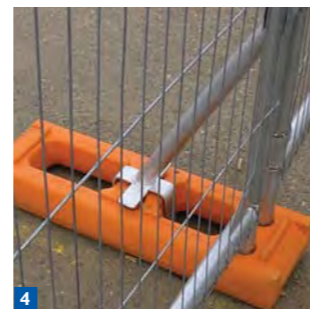
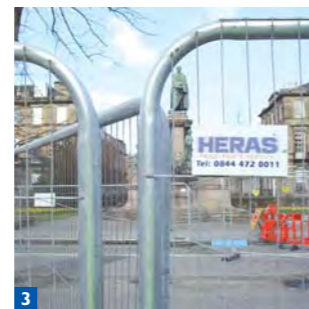
- Heras® Steadfast Safety Strips with reflective coating can be fitted in minutes to highlight site dangers.
- Front support brackets allow vastly improved performance on softer ground conditions and fit quickly and easily into the high visibility blocks.



ROUND TOP PANELS WITH ANTI-CLIMB MESH



1. Front stabiliser.
2. High visibility footblocks.
3. Round top panel.
4. Steadfast strut.
5. Anti-tamper coupler.
6. Optional steadfast safety strips.
7. Anti-climb round top panel with steadfast struts to increase stability.



Our latest solution for securing site perimeters and protecting the public has been phenomenally successful since its launch, and offers the ultimate market leading temporary fencing system.

heras® mesh systems

anti-climb panels
RFX corner plates and smartwelds
concrete and plastic footings
anti-lift device
steadfast strut
vehicle and pedestrian gates



ROUND TOP PANELS WITH ANTI-CLIMB MESH

Heras® Temporary Fencing Anti-Climb Panel Range

As recommended in HSG 151, anti-climb mesh uses closer wire spacings to prevent intruders or children gaining hand or footholds on the fence panel, making Heras Anti-climb fences practically impossible to scale.

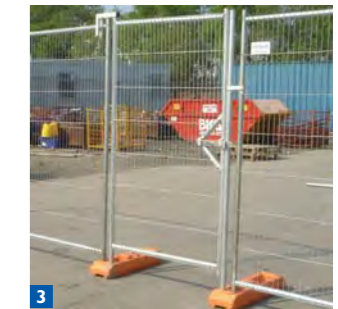
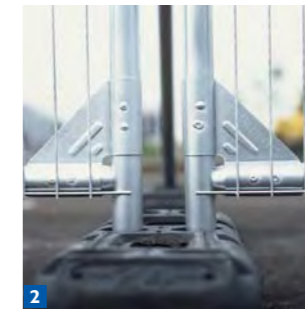
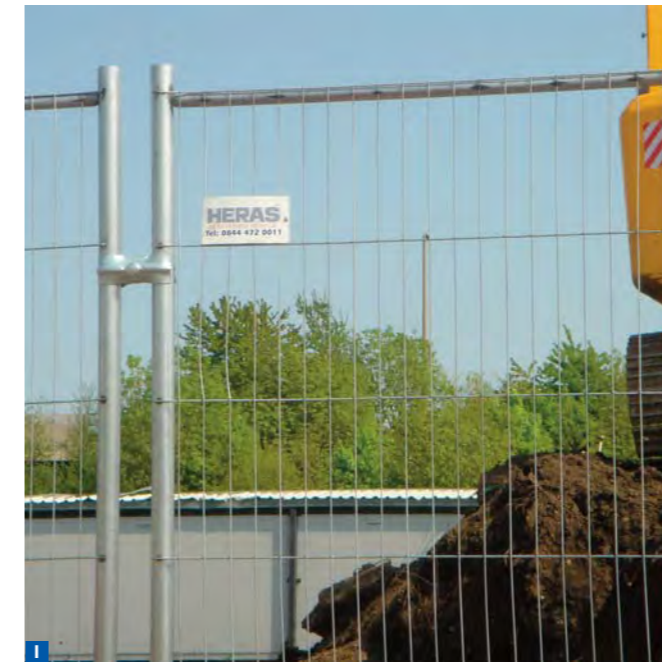
Heras continues to fight hard against falling standards in the construction industry and will not compromise on the demanding Heras materials specification

Heras® Round Top Panel

- Undoubtedly the strongest and most durable panel on the market, the **Round Top** has quickly become our most popular panel.
- The clever design utilises a continuous length of tube to form three sides, eliminating the top corner weld, often the weakest point in traditional panel design.
- The lower corner welds are reinforced with **RFX** corner plates for added strength and protection against weld failure.
- The **Heavy Duty** (38.1mm) tubes are welded using the acclaimed **Smartweld** technology, improving weld strength by up to 70% when compared to standard MIG welds.

- Anti-climb mesh ensures compliance with HSG 151 recommendations.
- Nominal dimensions are 2.0m high x 3.5m wide. For detailed drawings and technical specification, contact your nearest branch.

In addition to the panels detailed, Heras® can offer alternative specifications. Just call your nearest branch for advice and guidance



Heras® Standard Anti-Climb Panel

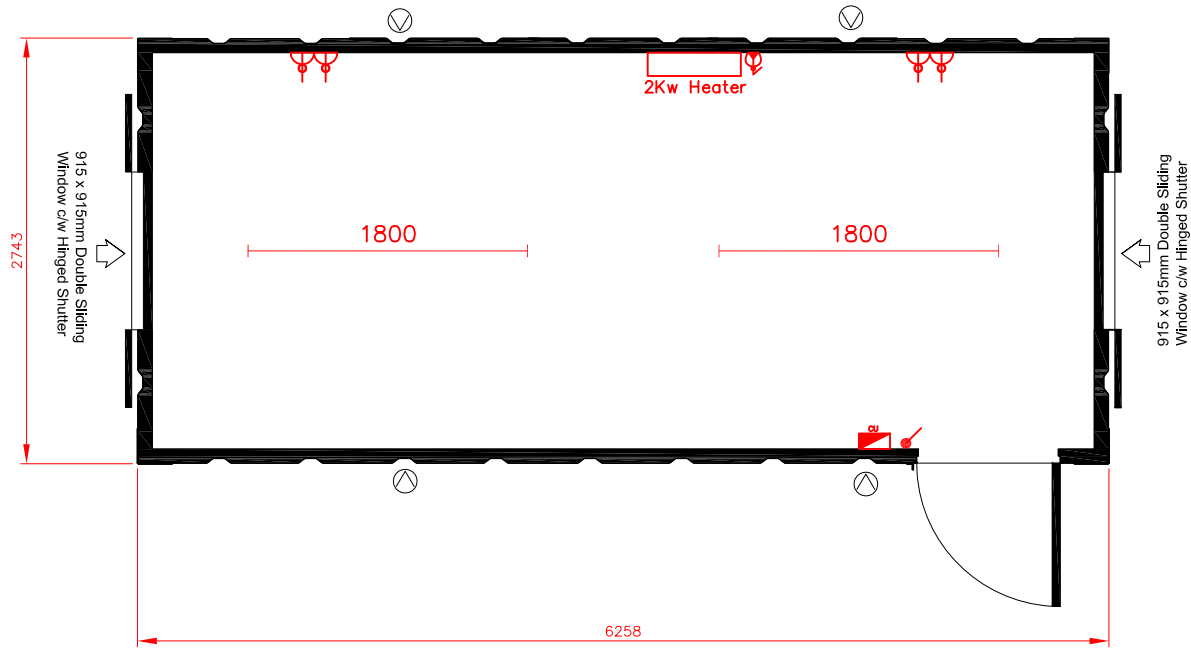
- Classic design offers excellent all round performance and value for money.
- Heavy duty verticals (38.1mm) combine with standard horizontal tubes (25.4mm) to give great strength and versatility.
- All corner welds utilise **Smartweld** technology, improving weld strength by up to 70% when compared to standard MIG welds.
- Anti-climb mesh ensures compliance with HSG 151 recommendations.
- Nominal dimensions are 2.0m high x 3.5m wide. For detailed drawings and technical specification, contact your nearest branch.

All Heras® Anti-climb panels are supplied in galvanised finish. Polyester coatings in a variety of colours are available upon request.

A full range of pedestrian and vehicle gates are available. Please call **0844 472 0011** or visit www.herasreadyfence.co.uk

Heras has drawn on many years experience to put together the latest range of Anti-climb fencing panels, using only top quality materials for superior performance, durability and value for money.

1. Standard anti-climb panel. 2. RFX Corner plates/smartweld technology
3. Pedestrian gates designed to fit anywhere within the fencing line to give a 1.1 meter opening. 4. Standard anti-climb panels with footblocks and struts. 5. Plastic footing.
6. Orange high visibility footblocks. 7. Concrete footing. 8&9. Heras stocks and deliveries.



ELECTRICAL LEGEND

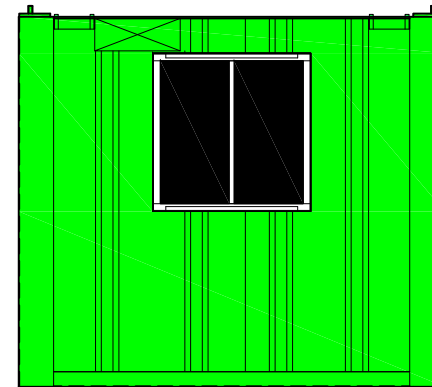
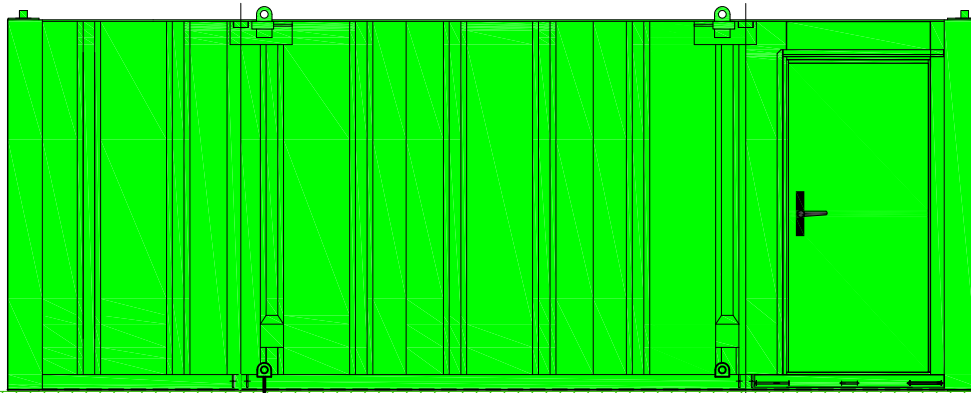
CONVECTOR HEATER

DOUBLE SWITCHED SOCKET FITTED @ 450mm AFFL

FLUORESCENT LIGHT (SIZE STATED)

SWITCH (FITTED @ 1000mm AFFL)

SUB - CONSUMER UNIT



0	(Date)	First Issue	(By)
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rev	date	description	by	chkd
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PROJECT

21' x 9' AV
Office Unit

TITLE

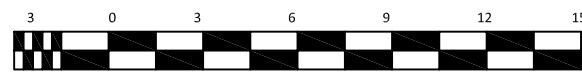
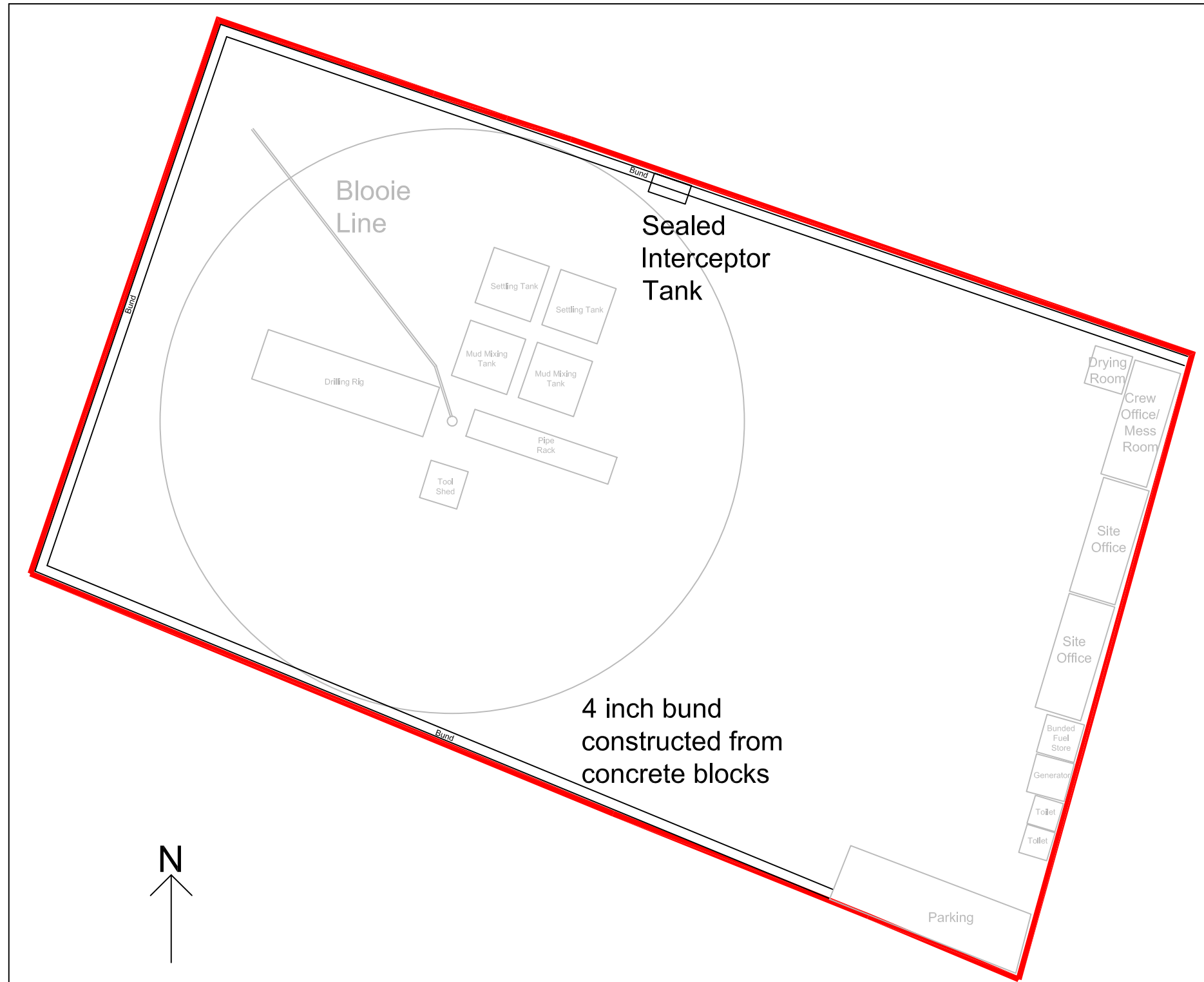
Plan & Elevations

SCALE 1/50@A4 DATE 15/05/08

DRAWN BY MV CHECKED BY

DRAWING STATUS: PRELIMINARY

DRAWING No 81136-04 REV -



Scale in metres
1:250

Coastal Oil and Gas Limited 

Surface site drainage Plan

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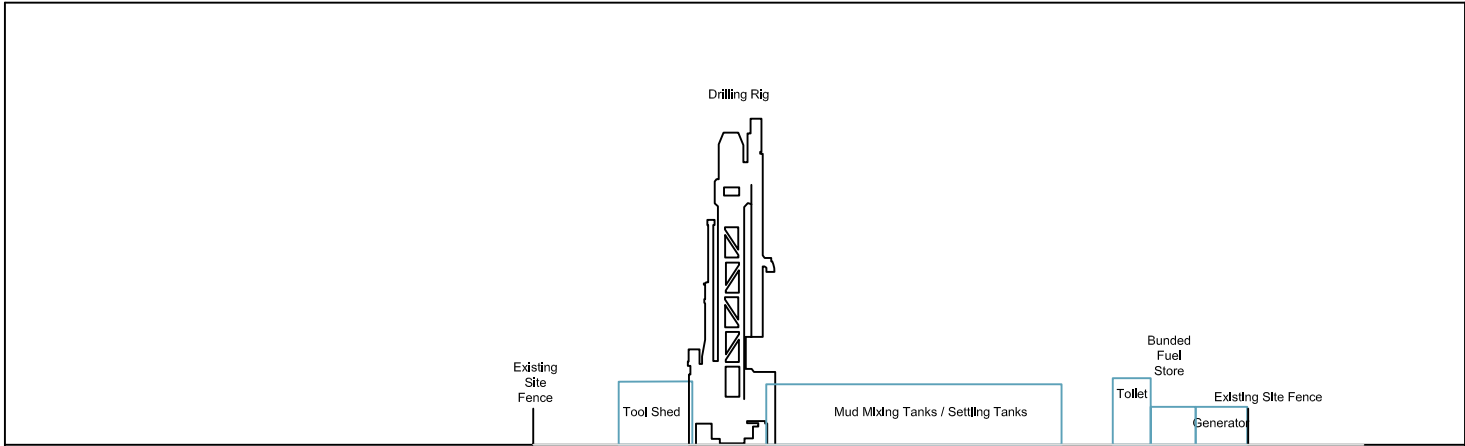
Unit 9
Bridgend Business Centre
Bridgend Industrial Estate
BRIDGEND
CF31 3SH

Llandow Shale Testing

Reference Number: -

Date: August - 2011

PEDL217/SS87/LANDOW/PLANNING/DRAIN/LAYOUT/120811



Scale in metres
1:250

Coastal Oil and Gas Limited 

North - South Section

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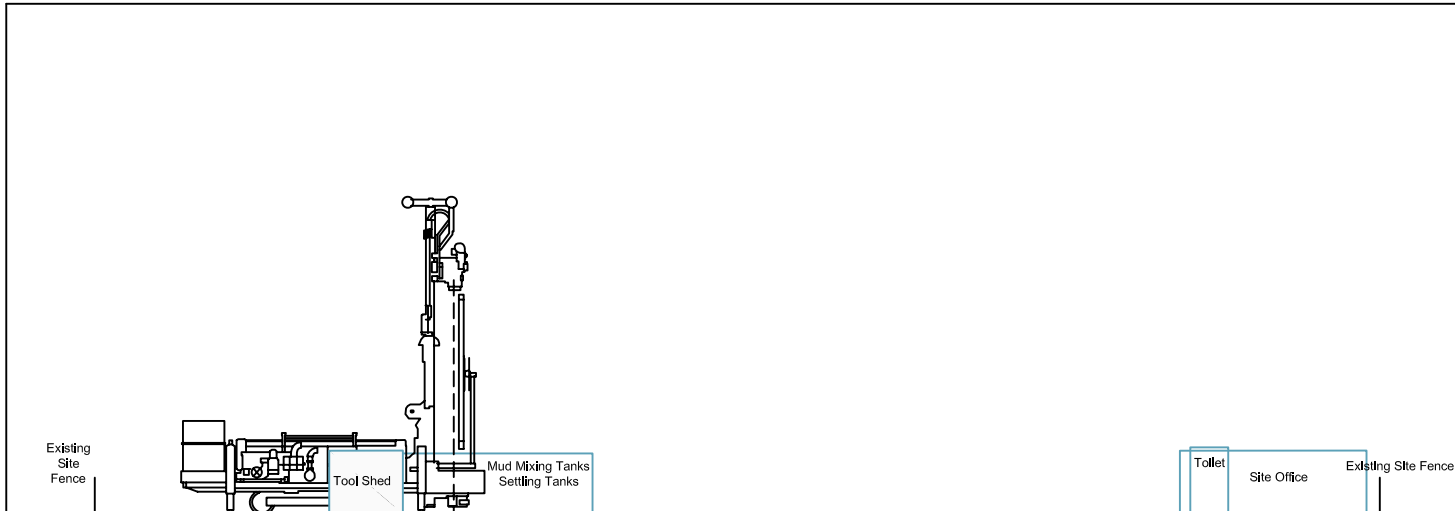
Unit 9
Bridgend Business Centre
Bridgend Industrial Estate
BRIDGEND
CF31 3SH

Llandow Shale Testing

Date: August - 2011

Reference Number: -

PEDL217/SS87/LLANDOW/PLANNING/N-SS/EC120811



Scale in metres
1:250

Coastal Oil and Gas Limited 

East - West Section

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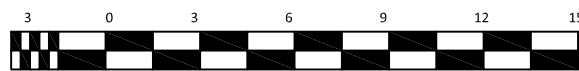
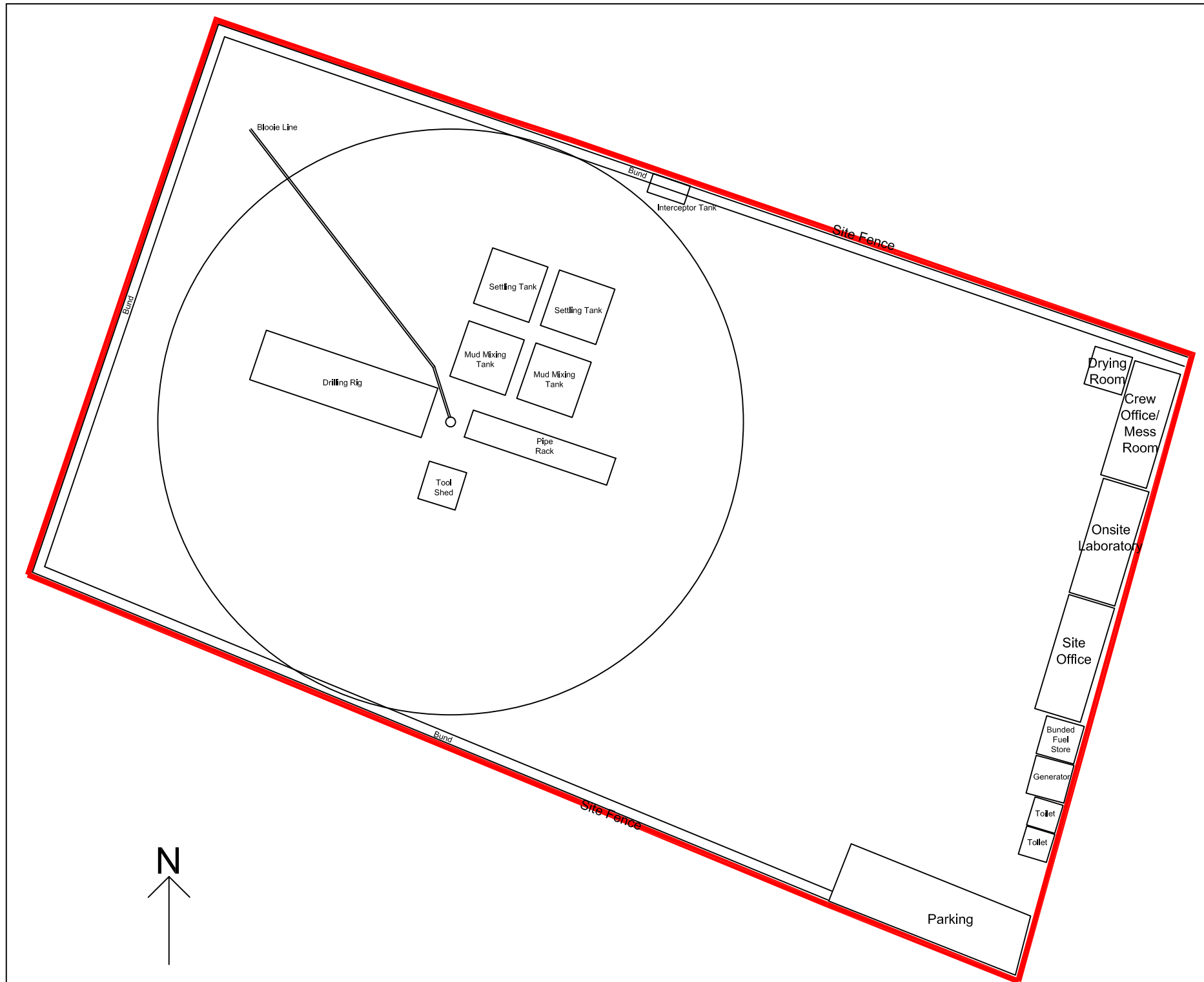
Date: August - 2011

Unit 9
Bridgend Business Centre
Bridgend Industrial Estate
BRIDGEND
CF31 3SH

Llandow Shale Testing

Reference Number: -

FEDL217/587/LLANDOW/PLANNING/E-WSEC120811



Scale in metres
1:250

Coastal Oil and Gas Limited 

Site Layout Plan

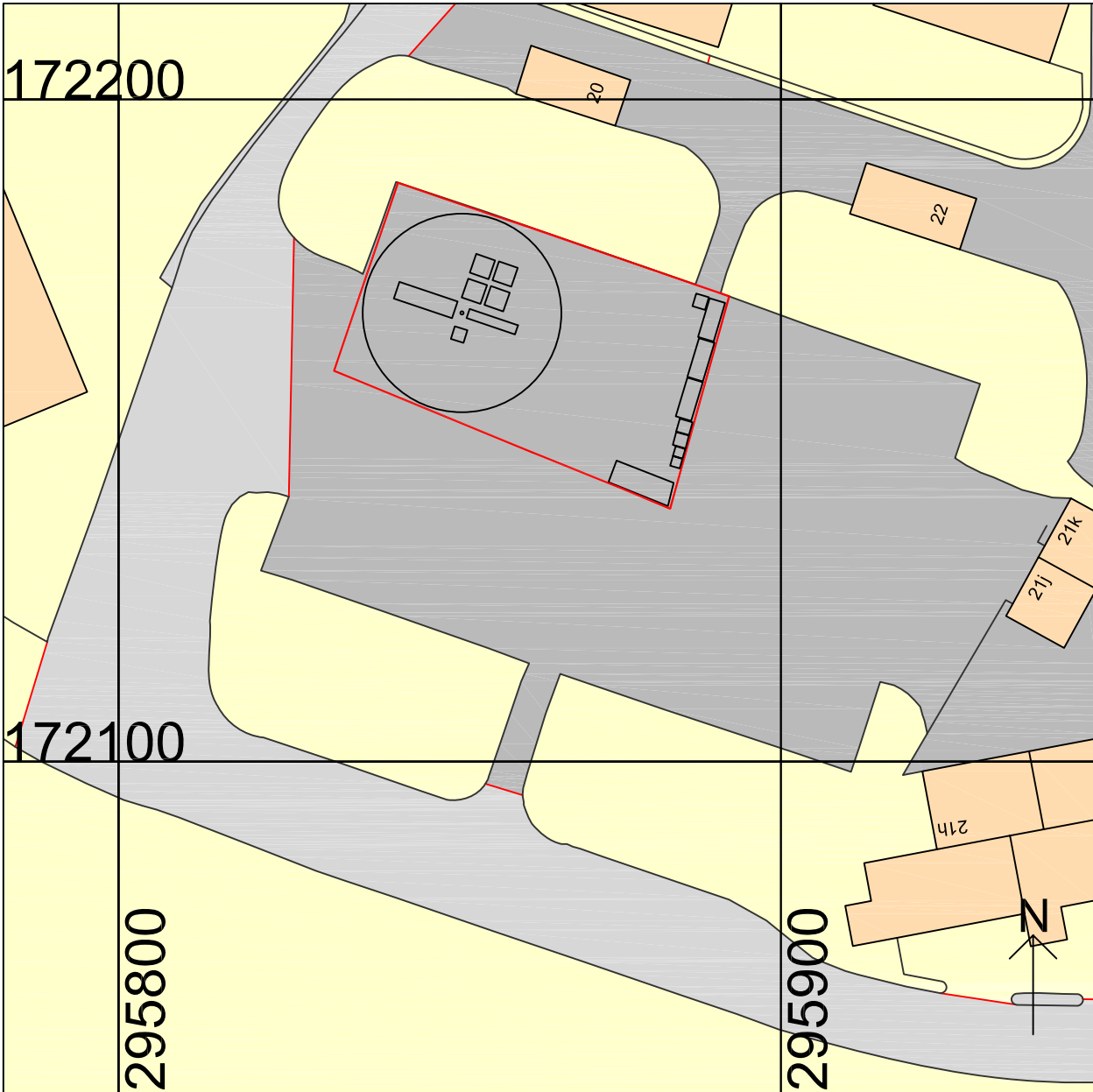
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Unit 9
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Bridgend Industrial Estate
BRIDGEND
CF31 3SH

Llandow Shale Testing

Date: August - 2011

Reference Number: -
PEDL217/SS87/LANDOW/PLANNING/SITELAYOUT120811

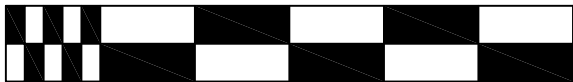


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Coastal Oil and Gas Limited 

Scale in metres
 25 0 1:1000 25 50

Site Location Plan



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Unit 9
 Bridgend Business Centre
 Bridgend Industrial Estate
 BRIDGEND
 CF31 3SH

Llandow Shale Testing

Date: August - 2011

Reference Number: -
 PEDL217/SS87/LANDOW/
 PLANNING/SITEAREA120811

Llandow - 2011/00812/FUL

Correspondence

Section 7

Description	Date	Reference
7-1 Llandow appeal ww Letter from CP - 25-10-11	25-10-11	Letter from C Patten to Welsh Water
7-2 Llandow exploratory bore_20111102075758	1-11-11	Reply from Welsh Water
7-3 Llandow appeal ww Letter from CP - 8-12-11	8-12-11	Letter from C Patten to Welsh Water

Llandow - 2011/00812/FUL

Correspondence

Section 8

Description	Date	Reference
8-1 2011_00812_FUL - Llandow Ind Estate	11-10-11	Email from S Ball to Coastal RE: Welsh Water
8-2 llandow 2_20111011114347	11-10-11	Letter from Welsh Water to LPA (Attached to email above)
8-3 Re_2011_00812_FUL - Llandow Ind Estate 11-10-11 13-32	11-10-11	Reply to email from S Ball / Welsh Water
8-4 PureBore_180411	11-10-11	Technical Data Sheet for Purebore drilling fluid
8-5 Fw_201100812FUL - Llandow Ind Estate 11-10-20 11 15-29	11-10-11	Reply from GLW / Welsh Water
8-6 Fw_2011_00812_FUL - Llandow Ind Estate 12-10-11 11-00	12-10-11	Additional questions from Welsh Water
8-7 FW_2011_00812_FUL - Llandow Ind Estate 12-10-11 14-50	12-10-11	Additional questions from Welsh Water
8-8 Request For Correspondence 21-10-11 10-30	21-10-11	Letter from Coastal to LPA
9-9 RE Request For Correspondence 21-10-11 10-55	21-10-11	Response from LPA to Coastal
8-10 DCWW Response 20th October 2012	21-10-11	Attachment to above email
8-11 DCWW Response 20th October 2012	21-10-11	Attachment to above email
8-12 Letter to EAW, EHO and DCWW - request for further submisisons	21-10-11	Attachment to above email