GUIDELINES FOR REPORTING AND SUBMISSION OF OFFSHORE PETROLEUM DATA

Guidelines in relation to the Australian Government's *Offshore Petroleum and Greenhouse Gas Storage Act 2006* and the *Offshore Petroleum and Greenhouse Gas Storage (Resource Management and Administration) Regulations 2011.*

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1 Introduction

The National Offshore Petroleum Titles Administrator (NOPTA; Titles Administrator) is responsible for regulating the submission and release of information and samples under the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (OPGGSA) and in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Resource Management and Administration) Regulations 2011* (RMA Regulations).

The Act and RMA regulations can be found on the Title Administrator's website at http://www.nopta.gov.au/legislation/index.html. The OPGGSA and the RMA Regulations provide a framework for the adequate collection and timely dissemination of petroleum data. This is for the long term benefit of the Australian community as providing access to geoscientific data attracts the exploration industry to invest in Australian acreage.

These guidelines provide additional information to Part 7 of the RMA Regulations to assist industry in managing petroleum report, data and petroleum mining sample submission for geoscientific activities. The guidelines will be modified as required in accordance with prevailing petroleum legislation and supporting regulations and changes in technology. In the event of disagreement between these guidelines and current legislation or directions, the latter will prevail.

NOPTA in collaboration with Geoscience Australia and the (WA) Department of Mines and Petroleum (Geological Society of Western Australia), has established the National Offshore Petroleum Data and Core Repository (NOPDCR) through which petroleum mining samples and digital data are stored, maintained and made available for use once the relevant confidentiality periods expire and data is authorised for release.

NOPTA undertakes the compliance and quality control functions in relation to data submissions; and Geoscience Australia and the Western Australia Department of Mines and Petroleum provide data storage and access services.

For further information please contact:
NOPTA Compliance and Operations Support Manager
Phone: 08 64245300
Email: data@nopta.gov.au

2 Open Information

To assist in the management of metadata for wells and surveys, Part 1 of the RMA Regulations outlines the definitions for always-open information. A listing of offshore wells and surveys conducted in Australia is being developed by Geoscience Australia and will be hosted on their website.

open information about a survey means any of the following information:

(a) the name of the survey;
(b) the title under which the survey is being conducted;
(c) the name of the titleholder;
(d) the basin and sub-basin (if applicable) in which the survey is being conducted;
(e) the type of survey;
(f) the size of the survey in:

  (i) for a 2-dimensional survey—kilometres; or
  (ii) for a 3-dimensional survey square kilometres;

(g) the name of the vessel or aircraft conducting the survey;
(h) the name of the contractor conducting the survey;
(i) the dates on which the survey starts and ends or is proposed to start and end;

(j) whether the survey is exclusive or non-exclusive;
(k) navigation data for the survey, in the form of:

(i) for a 2-dimensional survey—line ends and bends; or
(ii) for a 3-dimensional seismic survey—a full fold polygon outline; or
(iii) for other 3-dimensional surveys—a polygon outline.

open information about a well means any of the following information:

(a) the name of the well;
(b) the offshore area in which the well is located;
(c) the basin and sub-basin (if applicable) in which the well is located;
(d) the well's latitude and longitude;
(e) the name of the title area in which the well is located;
(f) the name of the titleholder;
(g) the purpose of the well (for example development, appraisal, exploration or stratigraphy);
(h) if the well is a sidetrack—the name of the parent well;
(i) the well's spud date;
(j) the water depth at the well;
(k) what is being used as the depth reference for the well (for example the Kelly bushing or the rig floor);
(l) the height of the depth reference above sea level;
(m) the name of the rig drilling the well;
(n) the rig's make and model;
(o) the name of the rig contractor;
(p) the rig release date;
(q) the status of the well (for example producing, suspended or abandoned).

3 Export of Petroleum Mining Samples

Division 2 of Part 7 of the RMA Regulations require titleholders, who have conducted drilling operations, to seek approval prior to exporting confidential samples from Australia. This is not required for the sampling of petroleum mining samples that have already been publicly released, although approval to export may be required as part of the conditions of sampling imposed by the repository (Canberra or Perth) from which the samples are obtained.

Please direct requests for approval to export of confidential samples to data@nopta.gov.au and provide the following information:

- Title number.
- Well name(s).
- Rig release date(s).
- Confirmation that the titleholder/JVP requesting the export approval was responsible for the drilling of the well.
- The current location of the samples.
- Description and details of the samples.
- Details of analysis.
- If the analysis is destructive.
- The name, address and country of the company undertaking the analysis.
- Compliance with Regulations 7.07 to 7.10.
- Timeframe for returning samples and reporting.

4 Submission Variations

Part 7 of the RMA Regulations provide some provisions for variations to submission requirements, such as extended submission times and different media or formats. Titleholders requesting variations are to direct requests to data@nopta.gov.au and are to include the following information:

- Title Number(s).
- Relevant activity, such as well or survey name.
- The relevant regulation under which the request is being made.
- The relevant report or data type.
- Reason for the request.
- Requested alternative, for example new submission date or data format.
- Any impact on the availability of data for public release.

Submission timings are specified in Division 3 Part 7 of the RMA Regulations.

In relation to the submission of petroleum mining samples, variations in sample size or quantity due to drilling constraints; delays in submission due to contractor or additional analysis requirements; and requests to retain, preserve or resinate core must be approved.

5 Submission Addresses

The following table lists submission addresses for reports and data in relation to Part 7 of the RMA Regulations. Additional information about submission addresses and contact information is available on the Title Administrator's website www.nopta.gov.au.

General enquiries

To make an enquiry regarding …	**Then send an email to …**
general information,	info@nopta.gov.au.
finance, including invoicing and payments,	corporate@nopta.gov.au.
titles,	titles@nopta.gov.au.
geoscientific report/ data/ sample submissions such as: • well completion reports and data • seismic acquisition/ processing reports and data • core cuttings submissions,	data@nopta.gov.au.
core sampling,	data@nopta.gov.au.
access to open file geoscientific data,	data@nopta.gov.au.
release of confidential data,	data@nopta.gov.au.
subscriptions or unsubscribing to the NOPTA Newsletter,	info@nopta.gov.au.

Submissions

To submit a …	**Then send an email to …**
title application,	titles@nopta.gov.au.
submit a title register search request,	titles@nopta.gov.au.
submit a transfer or dealing,	titles@nopta.gov.au.
submit a company name change,	titles@nopta.gov.au.
request a variation to submission requirements for geoscientific report/ data/ samples, for example, longer submission times; or different data formats,	data@nopta.gov.au.
request to export core/ cuttings,	data@nopta.gov.au.
submit a notification of survey commencement,	reporting@nopta.gov.au.
submit WOMP and well activities applications,	resources@nopta.gov.au.
submit development plans,	resources@nopta.gov.au.
submit applications for field development plans,	resources@nopta.gov.au.

To submit a …	Then send an email to …
submit applications for recovery before field develop plan approved,	resources@nopta.gov.au.
request approval of rate of recovery,	resources@nopta.gov.au.
submit notification of significant event,	resources@nopta.gov.au.

Reports

To submit a …	Then send an email to …
submit a drilling report,	reporting@nopta.gov.au.
submit weekly seismic reports,	reporting@nopta.gov.au.
submit monthly production reports,	reporting@nopta.gov.au.
submit title assessment reports,	reporting@nopta.gov.au.
request to combine title assessment reports,	reporting@nopta.gov.au.
submit discovery reports,	resources@nopta.gov.au.
submit notification of discovery reports,	resources@nopta.gov.au.
submit discovery assessment reports,	resources@nopta.gov.au.

Samples

For …	Submit by post to …	Additional information
well completion reports and data, survey acquisition, processing and interpretation reports and data, survey reprocessing reports and data,	Compliance and Operations Support Team: NOPTA GPO Box 7871 Perth WA 6850 NOPTA Level 8 Alluvion Building 58 Mounts Bay Road Perth WA 6000	Level 8 is open for deliveries between 8am and 5pm weekdays.
survey field and support data, including 1/3 core, cuttings, hydrocarbon samples,	Manager, National Offshore Petroleum Data & Core Repositories Geoscience Australia Cnr Jerrabomberra Ave and Hindmarsh Drive SYMONSTON ACT 2609	Advise ausgeodate@ga.gov.au prior to submission and CC to data@nopta.gov.au.
2/3 core and SWC,	Manager, National Offshore Petroleum Data & Core Repository Perth Core Library, 37 Harris Street CARLISLE WA 6101	Advise Petroleumcore.submissions@dmp.wa.gov.au prior to submission and CC to data@nopta.gov.au.
thin sections and slide,	Manager Petroleum Exploration Information Geological Survey Department of Mines and Petroleum 100 Plain Street EAST PERTH WA 6004	Advise ausgeodata@ga.gov.au and NOPTA Data Manager prior to submission and CC to data@nopta.gov.au.

6 Transmittals

NOPTA preferred transmittal forms are available at http://www.nopta.gov.au/data-mgmt/transmittals.html

Titleholders are requested to provide the following information in the all transmittals:

- Title number(s).
- Titleholder.
- The unique and accurate well or survey name.
- A clear list of reports and data in accordance with Part 7 of the Regulations.
- Contact details: name, email and phone number.

Wells:

- Location of the well (Lat/Long (decimal degrees preferred)).
- Whether it is a new well or existing well.
    - If an existing well, the type of well activity (eg. workover, re-entry etc.).
    - If a new well, the purpose of well (eg. Sidetrack, deepening, horizontal; exploration, appraisal or development etc).

Surveys:

- Full survey name and aliases.
- The seismic line prefix.
- The inclusion of any licensed non-exclusive data, which is still confidential.

7 Submission Receipt and Quality Control

Transmittal Forms will be returned by the Titles Administrator to acknowledge the submission and to indicate that a compliance quality control process will commence. Titleholders will be contacted regarding the outcome of the quality control process. If compliance issues are identified a re-submission process may be required.

8 Report and Data Submission Tables

The following tables combine regulatory information referenced from Part 7 of the RMA Regulations with the guidelines. Regulatory information is shown in **bold** text with the relevant regulation referenced in brackets. Variations permissible under the RMA Regulations are indicated by a "**V**".

Regulatory information included in these guidelines is not a substitute for the RMA Regulations. Titleholders must refer to the RMA Regulations. The Title Administrator will manage data submission compliance in accordance with the RMA Regulations.

The public release column indicates data that the Title Administrator could choose to make publicly available under Part 8 of the RMA Regulations. As release dates vary depending on various criteria, only a reference to the relevant regulation is provided.

One criterion that determines the relevant day for making petroleum information publicly available is the classification of reports and data into basic or interpretative information, as defined by Regulation 8.01. Classification information is provided in the tables below.

Titleholders are requested to submit basic and interpretative information separately, to assist the Titles Administrator in processing the information for public release. Well completion reports and data are classified as Initial or Final as defined in Regulation 7.13. These classifications relate to submission timing and are not to be confused with the data classifications used for making data and information publicly available.

Classification Information

Data	Classification
Gravity/Magnetic Survey	All data is basic information other than: • potential field qualitative and quantitative interpretation maps/reports.
Seismic Survey	All data is basic information other than: • seismic picks, correlations and stratigraphic units on sections • time/depth contour maps • interpretation reports.
Lithological Data	All data is basic information other than: • core analysis studies carried out by titleholder research units utilising proprietary techniques.
Palaeontological Data	All data is basic information other than: • biostratigraphic zones • conclusions drawn from the Species Lists and Range Charts.
Source Rock Data	All data is basic information other than: • conclusions in the reports.
Routine Core Analysis (RCA)	All data is basic information other than: • all contractor derived data and results.
Special Core Analysis (SCAL)	All data is basic information other than: • relative permeability data • capillary pressure test data • water flood test results derived by titleholder research units utilising propriety techniques • All contractor derived data and results.
Regional Geological Data	All data is basic information other than: • regional basin wide geological and palaeonenvironment maps • regional formation structure and isopach maps.
Reservoir Engineering Data	All data is basic information other than: • analytical results from test data such as formation permeability, kh and productivity index.
Reservoir Data	All data is basic information other than: • structure, isopach and other maps of reservoir units • estimates on in-place and recoverable reserves

Data	Classification
	• reserve interpretation reports.
Well Drilling Data	All data is basic information other than: • well interpretation reports and maps.
Wireline Log Data	All data is basic information other than: • log interpretation • composite log.
Fluid Analysis	All data is basic information other than: • conclusions drawn
Formation Tops	All formation tops picked from electrical logs and other well data are regarded as interpretative.

The following points apply to all submissions:

- Hardcopies of reports and data are not to be submitted. If no format is indicated in the regulations, an electronic format appropriate to the report or data is to be used. For example PDF for a report.
- PDF files are to be security free.
- The Titles Administrator will not accept submissions made via an FTP (File Transfer Protocol) site or equivalent means.

Table 8.1: Wells

Petroleum Mining Samples

Report/ Data/ Samples	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Export core or cutting progress report of the analysis **(r7.08)**	N/A	**PDF** **CD-ROM/DVD or portable hard drive**	NOPTA postal or courier address	**The end of each subsequent 12 month period from the authorisation date (r7.08)**	Not released	• Analysis report and data is to be submitted as part of the final well completion report (where available); or separately where the report becomes available after the final well completion report has been submitted.
Ditch cuttings **(r7.20)**	**Petroleum Mining Sample (711 OPGGSA)**	**2 sets of 200 grams dry weight per sample interval.** **V. (r7.20)**	1 x set to NOPDCR WA Department of Mines and Petroleum Core Store, Perth 1 x set to NOPDCR Geoscience Australia, Canberra	**6 months after the rig release date. V. (r7.20)**	**(r8.15)**	• A minimum of 200g dry weight per sample interval set and thoroughly cleaned, dried and suitably packaged with indelible printing of well name, depth ranges.
Full hole conventional cores **(r7.20)**	**Petroleum Mining Sample (7.11 OPGGSA)**	**1/3 of the core.** **V. (r7.20)**	NOPDCR, Geoscience Australia, Canberra	**6 months after the rig release date. V. (r7.20)**	**(r8.15)**	• If cut - fresh core slabbed vertically. • Submission of raw imagery with core submission where possible. • The 1/3 section should be provided to the NOPDCR (Canberra) in its entirety wherever possible.
Full hole conventional cores **(r7.20)**	**Petroleum Mining Sample (7.11 OPGGSA)**	**2/3 of the core.** **V. (r7.20)**	NOPDCR WA Department of Mines and Petroleum Core Store, Perth	**As soon as practicable after the titleholder completes tests on the core (r7.20)**	**(r8.15)**	• If cut - fresh core slabbed vertically. • Submission of raw imagery with core submission where possible. • It is recognised that where further sampling and testing has been undertaken that less than 2/3 of the core may remain for submission to the NOPDCR (Perth). Where substantially less than 2/3 is to be submitted, reasons should be provided to NOPTA at data@nopta.gov.au as to why this is necessary.

Report/ Data/ Samples	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Core plugs	**Petroleum Mining Sample (7.11 OPGGSA)**	**All material collected** **V. (r7.20)**	NOPDCR WA Department of Mines and Petroleum Core Store, Perth	**As soon as practicable after the titleholder completes tests (r7.20)**	**(r8.15)**	• If cut and not consumed or contaminated by analysis. • Plugs to be numbered or indexed with the listing to be provided in initial or final WCR (where available); or separately where the report becomes available after these reports have been submitted.
Sidewall core material **(r7.20)**	**Petroleum Mining Sample (7.11 OPGGSA)**	**All material collected** **V. (r7.20)**	NOPDCR WA Department of Mines and Petroleum Core Store, Perth	**The day 18 months after the rig release date. V. (r7.20)**	**(r8.15)**	• if recovered.
Liquid hydrocarbon samples **(r7.20)**	**Petroleum Mining Sample (711 OPGGSA)**	**1 litre** **V. (r7.20)**	NOPDCR, Geoscience Australia, Canberra	**(a) if the sample is collected during the drilling of a well—the day 6 months after the rig release date; or** **(b) if the sample is collected during a test on a completed well—as soon as practicable after collection of the sample V. (r7.20)**	**(r8.15)**	If collected from wireline, drill stem or production tests: • Consultation with GA recommended • Submit in an API approved safety container. • See appendix 8.4 for further detail on hydrocarbon sample submission.
Gaseous hydrocarbon samples **(r7.20)**	**Petroleum Mining Sample (7.11 OPGGSA)**	**300 cm^3** **V. (r7.20)**	NOPDCR, Geoscience Australia, Canberra	**As soon as practicable after completion of the test during which the sample is collected (r7.20)**	**(r8.15)**	If collected from wireline, drill stem or production tests: • Contact GA prior to submission • Submit in an API approved safety container. • See appendix 8.5 for further detail on gas sample submission.

Report/ Data/ Samples	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Palynological slides and residues, Paleontological material and Petrological slides **(r7.20)**	**Petroleum Mining Sample (711 OPGGSA)**	**All material collected** **(r7.20)**	NOPDCR WA Department of Mines and Petroleum Minerals House , Perth	**The day 18 months after the rig release date. V. (r7.20)**	**(r8.15)**	• If prepared.

Petroleum Mining Sample Analysis

Report/ Data/ Samples	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Reports on investigation, analysis, etc. of cuttings or cores	Basic	**PDF** **CD-ROM/DVD or portable hard drive**	NOPTA postal or courier address	**6 months after completion of analysis**	**(r8.11)**	• Refer to repository conditions of sampling. • Clearly identify well names and type of analysis. • Report to include the final results of interpretation of the raw data.
Data from investigation, analysis, etc. of cuttings or cores	Basic	**ASCII, XLS** **CD-ROM/DVD or portable hard drive**	NOPTA postal or courier address	**6 months after completion of analysis**	**(r8.11)**	• As a tab delimited ASCII file with metadata included and attached to the analysis report. • Refer to conditions of sampling.

Initial Well Reports and Data

Report/ Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Daily drilling reports **(r7.12)**	N/A	**PDF** **Email**	reporting@nopta.gov.au	**Midday on the day after the day to which the report relates (r7.12)**	Not released	• Please format the email subject line by; Titleholder: well name: daily drilling report number for example: Woodside: Bull 1: DDR3. • Refer to Initial well completion report regarding public release. • Daily logs if generated.

Report/ Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Initial well completion report **(r7.13)**	Basic	**PDF** **CD-ROM/DVD or portable hard drive**	NOPTA postal or courier address	**6 months after the rig release date. V. (r7.13)**	**(r8.11)**	• Daily drilling reports are to be included in the initial well completion report. • Hard copies are not to be submitted. • Image files and logs included in the report must be submitted as separate files. • Refer to RMA Regulations for information required in this report (r7.13). • Contact the NOPTA Compliance Manager regarding submission dates for wells drilled with top holes or for a well test after the rig release date. • See notes on petrophysical, geochemical or other sample analyses under Final WCR.
Raw data, edited field data and processed data for all wireline logs, MWD or LWD tools **(r7.13, schedule 1)**	Basic	**LIS, DLIS or LAS** **CD-ROM/DVD or portable hard drive. V (r7.13, schedule 1)**	NOPTA postal or courier address	**6 months after the rig release date. V. (r7.13)**	**(r8.11)**	• Include a verification listing of the data supplied. The data shall include full header information. • Processed data to include cleansed and spliced log runs (if generated) able to be directly loaded by users into geological and geophysical interpretation software. • Includes raw well data for all tests conducted.
Log displays **(r7.13, schedule 1)**	Basic	**PDS, META, PDF or TIF** **CD-ROM, DVD or portable hard drive. V (r7.13, schedule 1)**	NOPTA postal or courier address	**6 months after the rig release date. V. (r7.13)**	**(r8.11)**	• Continuous page at 1:500 and at 1:200 scale
Edited field and processed data for borehole deviation surveys **(r7.13, schedule 1)**	Basic	**LIS, DLIS, ASCII, LAS, or XLS** **CD-ROM/DVD or portable hard drive. V (r7.13, schedule 1)**	NOPTA postal or courier address	**6 months after the rig release date. V (r7.13)**	**(r8.11)**	• The data shall include full header information.

Report/ Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Mudlogging data **(r7.13, schedule 1)**	Basic	**ASCII or LAS** **CD-ROM, DVD or portable hard drive. V (r7.13, schedule 1)**	NOPTA postal or courier address	**6 months after the rig release date. V. (r7.13)**	**(r8.11)**	• Include a header giving field names, curve names and units of measure.
Mudlog display **(r7.13,schedule 1)**	Basic	**TIF or PDF** **CD-ROM, DVD or portable hard drive. V (r7.13, schedule 1)**	NOPTA postal or courier address	**6 months after the rig release date. V. (r7.13)**	**(r8.11)**	• Continuous page at a readable scale
If generated, data from velocity surveys including: **(a) raw data;** **(b) Processed data; and** **(c) checkshot and time/depth analysis** **(r7.13,schedule 1)**	Basic	**DLIS or SEG-Y for raw data and processed data** **DLIS, SEG-Y or ASCII for checkshot data** **CD-ROM, DVD or portable hard drive. V (r7.13, schedule1)**	NOPTA postal or courier address	**6 months after the rig release date. V. (r7.13)**	**(r8.11)**	• To include verification header file
Velocity survey displays **(r7.13,schedule 1)**	Basic	**TIF, JPEG, PDF or PDS** **CD-ROM, DVD or portable hard drive. V (r7.13, schedule 1)**	NOPTA postal or courier address	**6 months after the rig release date. V. (r7.13)**	**(r8.11)**	

Report/ Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Photography of the core and sidewall core, in both natural and UV light **(r7.13,schedule 1)**	Basic	**JPEG, PNG or TIF** **CD-ROM, DVD or portable hard drive. V (r7.13, schedule 1)**	NOPTA postal or courier address	**6 months after the rig release date. V. (r7.13)**	**(r8.11)**	• UV light photography to be done and submitted in fluorescent sections only. • Provide minimum 300 DPI image in 24-bit colour. High-resolution images able to be magnified (zoom in) without pixilation. If not in specified format, a reader program to be provided. • These are requested separately to images included in other reports so that original quality can be preserved. • Where possible, raw imagery to also be provided when submitting core samples.

Final Well Reports and Data

Report/Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Final well completion report **(r7.14)**	Interpretative	**PDF** **CD-ROM/DVD or portable hard drive**	NOPTA postal or courier address	**18 months after the rig release date. V. (r7.14)**	**(r8.12)**	• Image files and logs included in report must be submitted as separate files. • See notes on Petrophysical, geochemical or other sample analyses in this table.

Report/Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Petrophysical/Log analysis **(r7.14, schedule 2)**	Interpretative	**LIS, DLIS, ASCII, LAS or XLS** **CD-ROM, DVD or portable hard drive.** **V (r7.14, schedule 2)**	NOPTA postal or courier address	**18 months after the rig release date. V. (r7.14)**	**(r8.12)**	• As a tab delimited ASCII file with metadata included • This dataset was managed as 'basic data' under the previous *Petroleum (Submerged Lands) (Data Management) Regulations 2004* (2004 Regulations). The change from submission as part of the previous 'basic well completion' dataset to the 'final well completion' dataset in the RMA regulations was adopted to provide titleholders a longer submission time due to the difficulty with meeting the earlier 'basic' submission dates. Despite the later submission time, this dataset will still be managed as 'basic information' as defined in Regulation 8.01 of the RMA regulations. • To assist processing the public release of this dataset, titleholders are requested to either: 1. Submit the dataset as part of the final well completion report single PDF file **and also** submit this data as a separate file or files to the final well completion report, or 2. Submit this data as a separate file or files to the final well completion report.
Composite well log **(r7.14, schedule 2)**	Interpretative	**TIF, JPEG or PDF** **CD-ROM, DVD or portable hard drive.** **V (r7.14, schedule 2)**	NOPTA postal or courier address	**18 months after the rig release date. V. (r7.14)**	**(r8.12)**	• As part of the final WCR
Well index sheet **(r7.14, schedule 2)**	Interpretative	**PDF** **CD-ROM, DVD or portable hard drive.V (r7.14, schedule**	NOPTA postal or courier address	**18 months after the rig release date. V. (r7.14)**	**(r8.12)**	• As part of the final WCR

Report/Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Geochemical or other sample analyses **(r7.14, schedule 2)**	Basic	**ASCII or XLS** **CD-ROM, DVD or portable hard drive. V. (r7.14, schedule 2)**	NOPTA postal or courier address	**18 months after the rig release date. V. (r7.14)**	**(r8.11)**	• As a tab delimited ASCII file with metadata included • This dataset was managed as 'basic data' under the previous *Petroleum (Submerged Lands) (Data Management) Regulations 2004* The change from submission as part of the previous 'basic well completion' dataset to the 'final well completion' dataset in the RMA regulations was adopted to provide titleholders a longer submission time due to the difficulty with meeting the earlier 'basic' submission dates. Despite the later submission time, this dataset will still be managed as 'basic information' as defined in Regulation 8.01 of the RMA regulations. • To assist processing the public release of this dataset, titleholders are requested to either: 1. Submit the dataset as part of the final well completion report single PDF file **and also** submit this data as a separate file or files to the final well completion report, or 2. Submit this data as a separate file or files to the final well completion report.

Production Data

Report/Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Monthly production reports **(r7.19)**	Basic	**PDF** **Email**	reporting@nopta.gov.au	**(a) starting on the last day of the named month to which the report relates; and** **(b) ending 15 days after that day.** **(r 7.19)**	**(r8.11)**	

Table 8.2: Well Workover

Report/Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Daily reports	N/A	**PDF** **Email**	reporting@nopta.gov.au	**Midday on the day after the day to which the report relates**	**Not released**	• please format the email subject line by: Titleholder: Workover: Well name: Daily report number for example: Woodside: Workover: Bull 1: DDR3. • daily logs
Workover/re-entry report	Basic	**PDF** **CD-ROM/DVD or portable hard drive**	reporting@nopta.gov.au	**6 months after completion of the well activity**	**(r8.11)**	• Basic and Interpretative volumes must be separated; image files included in reports must also be submitted as separate JPEG or TIF files. • Where an interpretative volume is submitted, an operator may apply to the Titles Administrator for that data to be considered confidential (rr8.5).
Raw data, edited field data and processed data for all wireline logs, MWD or LWD tools **(r7.13, schedule 1)**	Basic	**LIS, DLIS or LAS** **CD-ROM/DVD or portable hard drive. V (r7.13, schedule 1)**	NOPTA postal or courier address	**6 months after the rig release date. V. (r7.13)**	**(r8.11)**	• Include a verification listing of the data supplied. The data shall include full header information. • Processed data to include cleansed and spliced log runs (if generated) able to be directly loaded by users into geological and geophysical interpretation software. • Includes raw well data for all tests conducted

Table 8.3: Seismic Survey

Seismic Survey

Report/Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Weekly survey report	N/A	**PDF** **Email**	reporting@nopta.gov.au	**As soon as practicable after the end of each week of the survey (r7.15)**	Not released	• Please format the email subject line by: Titleholder: survey name: weekly survey report number for example: Woodside: Bull 2D: WSR3. • Refer to survey acquisition regarding public release.

Acquisition Report and Data for 2D and 3D Surveys

Report/Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Seismic field data **(r7.16, schedule 3)**	Basic	**SEG Standard** **3592 cartridge or** **Other approved media V (r7.16, schedule 3)**	NOPDCR, Geoscience Australia, Canberra	**18 months after the day that the acquisition of the data is completed.** **V. (r7.16)**	**(r8.11)**	• To be accompanied by itemised field tape listing and support data (navigation, observer logs, etc). • Must include observer logs. • Where possible, the survey acquisition report should be submitted to NOPTA at the same time as the field data is provided to the NOPDCR.
Seismic support data **(r7.16, schedule 3)**	Basic	**PDF** **CD-ROM, DVD or portable hard drive.** **V (r7.16, schedule 3)**	1 x NOPDCR, Geoscience Australia, Canberra 1 x NOPTA postal or courier address	**18 months after the day that the acquisition of the data is completed. V. (r7.16)**	**(r8.11)**	• Should be submitted concurrently with field data • Observers logs. • See Appendices 8.1 and 8.2 for requested details.
Itemised field tape listing showing: **(a) tape number;** **(b) survey name;** **(c) line number;**	Basic	**ASCII** **CD-ROM, DVD or portable hard drive.**	1 x NOPDCR, Geoscience Australia, Canberra 1 x NOPTA postal or courier address	**18 months after the day that the acquisition of the data is completed.** **V. (r7.16)**	**(r8.11)**	• Field data showing tape number, survey name, line number, shotpoint range. see Appendix 8.3 (Seismic Data Listings) for the required format.

Report/Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
(d) shotpoint range; **(e) data type.** **(r7.16, schedule 3)**		**V (r7.16, schedule 3)**				
Survey acquisition report **(r7.16)**	Basic	**PDF** **CD-ROM, DVD or portable hard drive**	NOPTA postal or courier address	**18 months after the day that the acquisition of the data is completed.** **V. (r7.16)**	**(r8.11)**	• Any retained outputs to be documented in report. To accompany itemised field tape listing • Weekly survey reports are to be included. • If surveys cross into international waters or JPDA, contact the NOPTA Data Manager to discuss data submission. • Clearly identify the seismic line prefix and line numbers. • Where possible, the survey acquisition report should be submitted to NOPTA at the same time as the field data is provided to the NOPDCR.
Raw navigation data **(r7.16, schedule 3)**	Basic	**UKOOA (P2/94 or later)** **CD-ROM, DVD, portable hard drive or 3592 cartridge** **Or other approved media.** **V (r7.16, schedule 3)**	1 x NOPDCR, Geoscience Australia, Canberra 1x NOPTA postal or courier address	**18 months after the day that the acquisition of the data is completed.** **V. (r7.16)**	**(r8.11)**	• Refer to Appendix 8.1 (2D) and 8.2 (3D) for examples of the requirements for seismic data.

Processing Report for 2D and 3D Surveys

Report/Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Survey Processing Report **(r7.17)**	Basic	**PDF** **CD-ROM, DVD or portable hard drive**	NOPTA postal or courier address	**24 months after the day that the acquisition of the data is completed.** **V. (r7.17)**	**(r8.11)**	• To include sample print out of SEGY header • To include sample print out of SEGY EBCDIC header, 3D grid definition details used for loading SEGY into interpretation work stations. See Appendix 8.2 (3D Seismic Data) for example.

Processed Data for 2D Surveys

Report/Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Raw and final stacked data, including near/mid/far sub-stacks if generated **(r7.17, schedule 4)**	Basic	**SEG-Y** **3592 cartridge or** **Other approved media** **V (r7.17, schedule 4)**	NOPTA postal or courier address	**24 months after the day that the acquisition of the data is completed. V. (r7.17)**	**(r8.11)**	• Includes fully annotated EBCDIC header
Raw and final migrated data, including (if generated): **(a) pre-stack time migration (PSTM);** **(b) pre-stack depth migration (PSDM); and** **(c) near/mid/far sub-stacks**	Basic	**SEG-Y** **3592 cartridge or** **Other approved media.** **V (r7.17, schedule 4)**	NOPTA postal or courier address	**24 months after the day that the acquisition of the data is completed. V. (r7.17)**	**(r8.11)**	• Includes fully annotated EBCDIC header
Final processed navigation, elevation and bathymetry data	Basic	**UKOOA (P1/90 or later)** **CD-ROM, DVD or portable hard drive.** **V (r7.17, schedule 4)**	NOPTA postal or courier address	**24 months after the day that the acquisition of the data is completed. V. (r7.17)**	**(r8.11)**	• 2D Header information of navigation / shotpoint location data including elevations or bathymetry. Header data must include geodetic datum, spheroid, projection and clearly stated transformation parameters. • Refer to Appendix 8.1 for example of the requirements for 2D seismic data.
Shotpoint to common depth point (CDP) relationship	Basic	**ASCII** **CD-ROM, DVD or portable hard drive.** **V (r7.17, schedule 4)**	NOPTA postal or courier address	**24 months after the day that the acquisition of the data is completed. V. (r7.17)**	**(r8.11)**	• Sufficient SP/CDP data for input into workstation interpretation. At least SOL and EOL relationships for each line and a listing of equivalent CDP/SP pairs for each line.

Report/Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Data for both stacking and migration velocities, including: **(a) Line number;** **(b) shotpoint;** **(c) time versus root mean square (RMS) pairs**	Basic	**ASCII** **CD-ROM, DVD or portable hard drive.** **V (r7.17, schedule 4)**	NOPTA postal or courier address	**24 months after the day that the acquisition of the data is completed. V. (r7.17)**	**(r8.11)**	• Including line number, shotpoint, time versus RMS pairs • ASCII Western Format.
Itemised process tape listing showing: **(a) tape number** **(b) survey name** **(c) line number** **(d) shotpoint range** **(e) common depth points (CDPs)** **(f) data type** **(r7.17, schedule 4)**	Basic	**ASCII** **CD-ROM, DVD or portable hard drive.** **V (r7.17, schedule 4)**	NOPTA postal or courier address	**24 months after the day that the acquisition of the data is completed. V. (r7.17)**	**(r8.11)**	• Showing tape number, survey name, line number, shotpoint range, data type. See Appendix 8.3 (Seismic Data Listings) for format.

Processed Data for 3D Surveys

Report/Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Raw and final stacked data, including near/mid/far sub-stacks if generated	Basic	**SEG-Y** **3592 cartridge or** **Other approved media. V. (r7.17, schedule 4)**	NOPTA postal or courier address	**24 months after the day that the acquisition of the data is completed. V. (r7.17)**	**(r8.11)**	• Includes fully annotated EBCDIC header.
Raw and final migrated data, including (if generated): **(a) pre-stack time migration (PSTM)** **(b) pre-stack depth migration (PSDM)** **(c) near/mid/far sub-stacks** **(r7.17, schedule 4)**	Basic	**SEG-Y** **3592 cartridge or** **Other approved media.** **V. (r7.17, schedule 4)**	NOPTA postal or courier address	**24 months after the day that the acquisition of the data is completed.** **V. (r7.17)**	**(r8.11)**	• Includes fully annotated EBCDIC header.
Final processed navigation, elevation and bathymetry data **(r7.17, schedule 4)**	Basic	**UKOOA (P1/90 or later)** **CD-ROM, DVD or portable hard drive. V.** **(r7.17, schedule 4)**	NOPTA postal or courier address	**24 months after the day that the acquisition of the data is completed. V. (r7.17)**	**(r8.11)**	• All associated data sufficient to re-process seismic data including shot and receiver coordinates. See Appendix 8.2 for example of the requirements for 3D seismic data.

Report/Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Final navigation data in the form of **(a) final processed (grid) bin coordinates** **(b) polygonal position data (outline of the full fold area)** **(r7.17, schedule 4)**	Basic	**UKOOA (P6/98 or later)** **CD-ROM, DVD or portable hard drive.** **V (r7.17, schedule 4)**	NOPTA postal or courier address	**24 months after the day that the acquisition of the data is completed. V. (r7.17)**	**(r8.11)**	• UKOOA 3D binning grids • Listing major inflection points of a polygon describing the location of the survey providing survey name, polygon point, inline/crossline nomenclature, latitude and longitude. (P6/98 format) • See Appendix 8.2 for example. • In (a), 'grid 'coordinates refer to bin centre coordinates.
Data for both stacking and migration velocities, including: **(a) bin number** **(b) time versus root mean square (RMS) pairs** **(r7.17, schedule 4)**	Basic	**ASCII** **CD-ROM, DVD or portable hard drive.** **V (r7.17, schedule 4)**	NOPTA postal or courier address	**24 months after the day that the acquisition of the data is completed.** **V. (r7.17)**	**(r8.11)**	• ASCII western format • Including bin number and time versus RMS velocity pair for both stacked and migrated velocities. • In (a), inline/ xline or bin/track and x/y navigation values are required. • In (b), PSTM and PSDM should include INT, Epsilon or Delta values where appropriate.
2D data subset, if production is required as a condition of the grant of a title **(r7.17, schedule 4)**		**SEG-Y** **3592 cartridge.** **V (r7.17, schedule 4)**	NOPTA postal or courier address	**24 months after the day that the acquisition of the data is completed.** **V. (r7.17)**	**(r8.11)**	• Relates to non-exclusive surveys • Final migrated data. • Referred to in r1.05 as "seismic extracted data grid" – • 5 km x 5 km

Report/Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Itemised process tape listing showing: **(a) tape number survey name** **(b) in-lines and crosslines** **(c) data type** **(r7.17, schedule 4)**	Basic	**ASCII** **CD-ROM, DVD or portable hard drive.** **V (r7.17, schedule 4)**	NOPTA postal or courier address	**24 months after the day that the acquisition of the data is completed.** **V. (r7.17)**	**(r8.11)**	• Showing tape number, survey name, in-lines and crosslines, cdps and data type.

Interpretative Report and Data for 2D and 3D Surveys

Report/Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Survey Interpretation Report and Data **(r7.18)**	Interpretative	**PDF** **CD-ROM, DVD or portable hard drive.** **V. (r7.18)**	NOPTA postal or courier address	**30 months after the day that the acquisition of the data is completed.** **V. (r7.18)**	**(r8.12)**	• Required under the RMA Regulations if the titleholder undertakes a survey • Not required for non-exclusive surveys.
Digital images of interpretation maps **(r7.18, s5)**	Interpretative	**Geo-referenced TIF or PDF** **CD-ROM, DVD or portable hard drive.** **V. (r7.18, s5)**	NOPTA postal or courier address	**30 months after the day that the acquisition of the data is completed.** **V. (r7.18)**	**(r8.12)**	• These include TWT and depth structure maps at key horizons and representative sections showing seismic horizon picks as Geo-referenced TIF or PDF images • Required under the RMA Regulations if the titleholder undertakes a survey • Not required for non-exclusive surveys.

Table 8.4: Gravity, Magnetic and all other Geophysical or Geological Survey Data

Report/Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Weekly survey report	N/A	**Email**	reporting@nopta.gov.au	**As soon as practicable after the end of each week of the survey** **(r7.15)**	Not released	• Please format the email subject line by: Titleholder: Survey name: Weekly survey report number for example: Woodside: Bull Aeromagnetic Survey: WSR3. • Refer to acquisition report regarding public release.

Acquisition Report and Data

Report/Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Field data	Basic	**ASCII** **CD-ROM, DVD or portable hard drive.** **(r7.16, schedule 3).**	1 x NOPDCR, Geoscience Australia, Canberra 1 x NOPTA postal or courier address	**18 months after the day that the acquisition of the data is completed.** **V. (r7.16)**	**(r8.11)**	• Aeromagnetic located field data. Must include: descriptive headers, flight number, line number, date and time, fiducial, raw magnetic reading, processed magnetic reading, radar and GPS or barometric altimeter, and base station reading. All coordinate data must also include clearly stated datum, spheroid and projection also transformation parameters if not in same coordinate system as was acquired in the field. • Gravity field data. Including raw loop data, raw elevations plus measurement times and dates. All coordinate data must also include clearly stated datum, spheroid and projection, clearly stated transformation parameters if not in Including raw loop data, raw elevations plus measurement times and dates. All coordinate data must also include clearly stated datum, spheroid and projection, clearly stated transformation parameters if not in same coordinate system as was acquired in the field. All elevation values must be AHD. • Altimeter, storm monitor, etc. (aeromagnetic only). One copy of analogy monitor records, diurnal records and altimeter records in an appropriate format. • Other types of surveys (for example, CSEM). Submission and format details to be negotiated. • Where possible, the survey acquisition report should be submitted to NOPTA at the same time as the field data is provided to the NOPDCR.

Report/Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Field support data and navigation data	Basic	**ASCII** **CD-ROM, DVD or portable hard drive.** **(r7.16, schedule 3).**	1 x NOPDCR, Geoscience Australia, Canberra 1 x NOPTA postal or courier address	**18 months after the day that the acquisition of the data is completed.** **V. (r7.16)**	**(r8.11)**	• Please discuss with NOPTA.
Survey acquisition report (r7.16)	Basic	**PDF** **CD-ROM, DVD or portable hard drive**	NOPTA postal or courier address	**18 months after the day that the acquisition of the data is completed.** **V. (r7.16)**	**(r8.11)**	• Refer to RMA Regulations for information required in this report (r7.16). • Weekly survey reports are to be included. • Titleholders are to submit only data acquired in Australian waters, which will be released in accordance with Part 8 of the RMA Regulations. Reports pertaining to surveys with data acquisition in Australian and international waters will be accepted and released in accordance with Part 8 of the RMA Regulations. • Must include location map and flight line map if applicable. Aeromagnetic surveys: Including aircraft and survey equipment details and specifications, flight line directions and terrain clearance, line spacing, total line kilometres. Gravity surveys: Including meter type, scale factor for meter. Data must be tied to an Isogal station in the Australian Fundamental Gravity Network. • Where possible, the survey acquisition report should be submitted to NOPTA at the same time as the field data is provided to the NOPDCR.

Processed Reports and Data

Report/Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Survey Processing Report	Basic	**PDF** **CD-ROM, DVD or portable hard drive**	NOPTA postal or courier address	**24 months after the day that the acquisition of the data is completed.** **V. (r7.17)**	**(r8.11)**	• Refer to RMA Regulations for information required in this report (r7.17). • Processing report must include company details and processing parameters.

Report/Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Final processed data	Basic	**ASCII or ASEG-GDF2** **CD-ROM, DVD or portable hard drive.** **(r7.17, schedule 4, Part 3)**	NOPTA postal or courier address	**24 months after the day that the acquisition of the data is completed.** **V. (r7.17)**	**(r8.11)**	• Aeromagnetic processed data. Including pre and post microlevelling data. All coordinate data must also include clearly stated datum, spheroid and projection also clearly stated transformation parameters if not in same coordinate system as acquired in the field. • Gravity processed data. Data must include: descriptive headers, station, XY lat/long coordinates, meter reading, observed gravity value, elevation value calculation errors, final processed gravity value. All coordinate data must also include clearly stated datum, spheroid and projection, also clearly stated transformation parameters if not in same coordinate system as acquired in the field.
Final processed images	Basic	**PDF** **CD-ROM, DVD or portable hard drive.** **V (r7.17, schedule 4, Part 3)**	NOPTA postal or courier address	**24 months after the day that the acquisition of the data is completed.** **V. (r7.17)**	**(r8.11)**	

Interpretative Report and Data

Report/Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Survey Interpretation Report and Data (r7.18)	Interpretative	**PDF** **CD-ROM, DVD or portable hard drive.** **V (r7.18)**	NOPTA postal or courier address	**30 months after the day that the acquisition of the data is completed.** **V. (r7.18)**	**(r8.12)**	• Refer to RMA Regulations for information required in this report (r7.18).
Digital images of interpretation maps (r7.18, s5)	Interpretative	**Geo-referenced TIF or PDF** **CD-ROM, DVD or portable hard drive.** **V (r7.18, schedule 5)**	NOPTA postal or courier address	**30 months after the day that the acquisition of the data is completed. V. (r7.18)**	**(r8.12)**	• These include any maps included in the Interpretation report as separate Georeferenced TIF or PDF images.

Table 8.5: Reprocessed Seismic Data

(Undertaken as part of Work Program)

Reprocessed Seismic Reports and Data

Report/Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Raw stacked data 2D and 3D, near/mid/far sub-stacks—if generated	Basic	**SEG-Y** **3592 cartridge** **(Schedule 4, Part 2)** **V**	NOPTA postal or courier address	**Not later than the end of the title year in which the information was created.**	**(r8.11)**	• If the data reprocessed is licensed non-exclusive data that is still confidential, the data will not be made publicly available until the original survey is publicly available. • The original survey names and line prefixes are to be clearly identified. • Clearly identify the reprocessing project name, using the same project name for all submissions.
Raw and final migrated data including, PSDM / PSTM (2D and 3D), near/mid/far sub-stacks - if generated	Basic	**SEG-Y** **3592 cartridge** **(Schedule 4, Part 2)** **V**	NOPTA postal or courier address	**Not later than the end of the title year in which the information was created.**	**(r8.11)**	
Final processed (grid) bin coordinates for 3D Seismic Survey	Basic	**UKOOA** **CD-ROM/DVD or portable hard drive** **(Schedule 4, Part 2)**	NOPTA postal or courier address	**Not later than the end of the title year in which the information was created.**	**(r8.11)**	• To be completed using UKOOA(P6/98 or later). • See Appendix 8.2 for example.
Polygonal positions for 3D data (Full Fold Outline)	**Basic**	**UKOOA** **CD-ROM/DVD or portable hard drive**	**NOPTA postal or courier address**	**Not later than the end of the title year in which the information was created.**	**(r8.11)**	• Listing major inflection points of a polygon describing the location of the survey providing survey name, polygon point, inline/crossline nomenclature, latitude and longitude (P6/98 format). See Appendix 8.3 for example.
Itemised processed tape listing	**Basic**	**ASCII** **CD-ROM/DVD or portable hard drive**	**NOPTA postal or courier address**	**Not later than the end of the title year in which the information was created**	**(r8.11)**	• Showing tape number, survey name, line number, shotpoint range, data type. – see Appendix 8.3 for format.

Report/Data	Classification	Format/ Media/ Quantity	Submission Address	Submission Date	Public Release	Remarks
Velocity data	**Basic**	**ASCII** **CD-ROM/DVD or portable hard drive**	**NOPTA postal or courier address**	**Not later than the end of the title year in which the information was created.**	**(r8.11)**	• Include line number, shotpoint, time versus RMS pairs for both stacking and migration velocities.
Final report (Reprocessing)	Basic	**PDF** **CD-ROM/DVD or portable hard drive** **V**	NOPTA postal or courier address	**12 months after the end of permit year in which processing was completed**	**(r8.11)**	• The original survey names and line prefixes are to be clearly identified. • If the report related to the reprocessing of licensed non-exclusive survey data is still confidential, the report will not be made publicly available until the original survey is publicly available. • Clearly identify the reprocessing project name, using the same project name for all submissions.
Final report (Interpretative)	Interpretative	**PDF** **CD-ROM/DVD or portable hard drive**	NOPTA postal or courier address	**12 months after the end of permit year in which processing was completed**	**(r8.12)**	• Georeferenced TIF to include TWT and depth structure maps at key horizons and representative sections showing seismic horizon picks.
Digital images of interpretation maps	Interpretative	**TIF or PDF** **CD-ROM/DVD or portable hard drive** **(Schedule 5)**	NOPTA postal or courier address	**12 months after the end of permit year in which processing was completed**	**(r8.12)**	• These include TWT and depth structure maps at key horizons and representative sections showing seismic horizon picks as Georeferenced TIF or PDF images.

Appendix 8.1: P1/90 Example of Data Requirements for 2D Seismic Data

```
H0100SURVEY AREA                    2D MSS, AC/P30, BROWSE BASIN, NW SHELF
H0102VESSEL DETAILS                 ACADIAN SEARCHER          1
H0103SOURCE DETAILS                 BOLT 3200 CU IN ARRAY     1    1
H0104STREAMER DETAILS               SYNTRAK 480-24 RDA        1        1
H0200DATE OF SURVEY                 19990119-19990227
H0201DATE OF ISSUE OF TAPE          31-Mar-1999
H0202TAPE VERSION IDENTIFIER        UKOOA P1/90
H0300CLIENT                         BHP PETROLEUM (AUSTRALIA) PTY LTD
H0400GEOPHYSICAL CONTRACTOR         VERITAS DGC AUSTRALIA PTY. LTD
H0500POSITIONING CONTRACTOR         FUGRO SURVEY PTY LTD
H0600POSITIONING PROCESSING         SPRINT
H0700POSITIONING SYSTEM             VESSEL_1 SPECTRA MRDGPS DGPS
H0800COORDINATE SYSTEM              CMP AT SHOTPOINT
H0900OFFSET SYSTEM TO CMP           1    2    0.00  -147.13
H0901OFFSET SYSTEM TO GPS SECOND    1    2   -0.20    -0.20
H0902OFFSET SYSTEM TO GPS PRIME     1    2   -0.70     0.40
H0903OFFSET SYSTEM TO STERN         1    2    0.00   -45.50
H0904OFFSET SYSTEM TO SOURCE        1    2    0.00   -87.46
H0905OFFSET SYSTEM TO CNG           1    2    0.00  -206.80
H1000CLOCK TIME                     GMT 0.000
H1100RECEIVER GROUPS PER SHOT       480
H1400GEODETIC DATUM AS SURVEY       AGD 84      Australian N 6378160.000 298.2500000
H1500GEODETIC DATUM FOR POST.       AGD 84      Australian N 6378160.000 298.2500000
H1700VERTICAL DATUM                 MSL                    : ECHOSOUNDER
H1800PROJECTION                     2UNIVERSAL TRANSVERSE MERCATOR
H1900ZONE                           51  SOUTHERN ORIENTATED
H2000GRID UNITS                     1INTERNATIONAL METERS     1.000000000000
H2001HEIGHT UNITS                   1INTERNATIONAL METER      1.000000000000
H2301GRID ORIGIN                    0 0 0.000N123 0 0.000E
H2302GRID COORDINATES               500000.00E10000000.00N
H2401SCALE FACTOR                   0.9996000000
H2600  IN THE SEG-D HEADERS AND ON AUTOMATIC TAPE LABELING THE SURVEY NAME WAS
H2600  TRUNCATED TO 4 CHARACTERS, I.E. FROM HBR1998B- TO HBRB- TO FIT INTO
H2600  8 CHARACTERS
H2600DEPTH DATA REDUCTION           CORRECTED FOR TRANSDUCER DEPTH
H2600DEPTH DATA REDUCTION           TIDAL CORRECTIONS APPLIED USING BHP PROVIDED
H2600DEPTH DATA REDUCTION           TIDE-TABLE FOR AC/P30.
H2600DEPTH DATA REDUCTION           ECHOSOUNDER VEL/P AT 1509 M/S
H2600COMPASSES                      EXTERNAL, SELF BIASING, DIGICOURSE 318/321 IN 5011 BIRDS
H2600TAILBUOY                       NON ACTIVE
H2600SHOT RECORD DESCRIPTION        V=VESSEL REF POINT
H2600SHOT RECORD DESCRIPTION        E=ECHOSOUNDER POSITION
H2600SHOT RECORD DESCRIPTION        S=CENTRE OF SOURCE
H2600SHOT RECORD DESCRIPTION        C=NEAR CMP
H2600 Line HBR1998B-02              From Shot 3437 To Shot  881
VHBR1998B-02    1     3437131957.15SCHEDULE 1224314.13E 469741.38526067.1 453.9 56 95128
EHBR1998B-02    1     3437131957.29SCHEDULE 1224314.53E 469753.18526063.0 453.9 56 95128
SHBR1998B-02    11    3437131958.44SCHEDULE 1224316.72E 469819.38526027.6 453.9 56 95128
CHBR1998B-02    111   3437131959.39SCHEDULE 1224318.45E 469871.48525998.6 453.9 56 95128
VHBR1998B-02    1     3436131956.66SCHEDULE 1224313.46E 469721.08526082.3 453.7 56 95138
EHBR1998B-02    1     3436131956.79SCHEDULE 1224313.85E 469732.98526078.4 453.7 56 95138
SHBR1998B-02    11    3436131957.92SCHEDULE 1224316.06E 469799.38526043.5 453.7 56 95138
CHBR1998B-02    111   3436131958.87SCHEDULE 1224317.79E 469851.58526014.5 453.7 56 95138
VHBR1998B-02    1     3435131956.23SCHEDULE 1224312.79E 469700.98526095.5 454.0 56 95148
```

See International Association of Oil & Gas Producers Survey & Positioning Committee web-site for specifications: http://www.epsg.org/Exchange/P1.pdf

Appendix 8.2: Example of Data Requirements for 3D Seismic Data

Field Navigation

```
H01 SURVEY AREA                 HV11 TIMOR SEA AUSTRALIA
H02 SURVEY YEAR                 1990
H021 DATE OF TAPE               08/31/90
H022 TAPE DENSITY               6250
H03 CLIENT                      BHP AUSTRALIA
H04 GEOPHYSICAL CONTRACTOR      GECO GEOPHYSICAL CO. SFE
H05 POSITIONING CONTRACTOR      ONI
H06 NAV. PROCESSING CONTR.      GECO GEOPHYSICAL CO. NSA
H07 NAVIGATION SYSTEM           SPOT
H08 COORDINATE LOCATION         SOURCE AND RECIEVER POSITIONS
H090 OFFSET-SYSTEM TO COORDS    ANTENNA TO 1ST GRP = 229.0 METERS
H091 OFFSET-SYSTEM TO COORDS    SOURCE TO 1ST GRP = 133.0 M.
H10 CLOCK TIME                  G.M.T.
H11 NR. OF RECEIVERS            480
H11 NR. OF STREAMERS            TWO
H111 NUMBERING OF RECIEVERS     CABLE 1   REC#   1-240   STARBOARD
H111 NUMBERING OF RECIEVERS     CABLE 2   REC# 241-480   PORT
H12 SURVEY SPHEROID             AUSTRALIAN NATIONAL      6378160.000 298.2500000
H13 POST PLOT SPHEROID          AUSTRALIAN NATIONAL      6378160.000 298.2500000
H14 SURVEY DATUM                AGD 66
H15 POST PLOT DATUM             AGD 66
H160 DATUM SHIFT:               PARAMETER FROM SURVEY TO POSTPLOT DATUM
H161 SHIFT CONSTANTS:(METERS)   DX=    00.00  DY=    00.00  DZ=   00.00
H161                            XROT=   0.00  YROT=   0.00  ZROT= 0.00
H161                            DIMENSIONLESS SCALE FACTOR = 0.000 PPM
H17 VERTICAL:                   SEA LEVEL
H18 PROJECTION:                 TRANSVERSE MERCATOR
H19 PROJECTION ZONE:            UTM ZONE NO.51  SOUTHERN HEMISPHERE
H20 GRID UNIT:                  METER
H220 CENTRAL MERIDIAN:          1230000.000E
H231 ORIGIN:                    0000000.000 1230000.000E
H232 FALSE EASTING,NORTHING     10000000.00N  500000.00E
H241 SCALE FACTOR:              0.9996
H242 LONG. AT SCALE FACTOR:     1230000.000E
H26 COMMENTS: FINAL NAV OUTPUT WITH ONE SOURCE POSITION FOLLOWED BY 240
H26 COMMENTS: STARBOARD AND 240 PORT RECIEVER POSITIONS
SHV11-121      689123231.80SCHEDULE 1242745.77E 6589207 86130480 89.4194232733
R    1  6590463 86129820     2   6590546 86129730     3     6590629 86129630
R    4  6590712 86129540     5   6590795 86129450     6     6590878 86129350
R    7  6590961 86129260     8   6591044 86129170     9     6591128 86129070
R   10  6591211 86128980    11   6591294 86128890    12     6591377 86128790
R   13  6591460 86128700    14   6591543 86128610    15     6591627 86128510
R   16  6591710 86128420    17   6591793 86128330    18     6591876 86128230
R   19  6591959 86128140    20   6592043 86128050    21     6592126 86127950
R   22  6592209 86127860    23   6592293 86127770    24     6592376 86127670
R   25  6592459 86127580    26   6592543 86127490    27     6592626 86127390
R   28  6592709 86127300    29   6592793 86127210    30     6592876 86127110
R   31  6592959 86127020    32   6593043 86126930    33     6593126 86126840
R   34  6593209 86126740    35   6593293 86126650    36     6593376 86126560
R   37  6593459 86126460    38   6593543 86126370    39     6593626 86126280
R   40  6593709 86126180    41   6593793 86126090    42     6593876 86126000
R   43  6593960 86125900    44   6594043 86125810    45     6594127 86125720
R   46  6594210 86125620    47   6594294 86125530    48     6594377 86125440
R   49  6594461 86125350    50   6594544 86125250    51     6594628 86125160
R   52  6594711 86125070    53   6594794 86124970    54     6594878 86124880
R   55  6594961 86124790    56   6595044 86124690    57     6595128 86124600
R   58  6595211 86124510    59   6595294 86124410    60     6595378 86124320
R   61  6595461 86124230    62   6595545 86124140    63     6595628 86124040
R   64  6595711 86123950    65   6595795 86123860    66     6595878 86123760
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P1/90 Post-Binning Navigation File

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H0100 SURVEY & AREA NAME         HB96B, BUFFALO                  130396
H0101 GENERAL SURVEY DETAILS     DUAL CABLE, DUAL SOURCE 3D SURVEY
H0102 VESSEL DETAILS             WESTERN HORIZON P131       1
H0103 SOURCE DETAILS             N/A
H0104 STREAMER DETAILS           N/A
H0200 DATE OF SURVEY             MARCH TO MAY 1996
H0201 POSTPLOT DATE              23 DECMBER 1996
H0202 TAPE VERSION               UKOOA-P1/1990 (WESTERN VERSION 01.01)
H0300 CLIENT NAME                B.H.P.
H0400 GEOPHYSICAL CONTRACTOR     Western Geophysical.
H0500 POSITIONING CONTRACTOR     Western Geophysical.
H0600 PROCESSING CONTRACTOR      WESTERN ATLAS INTERNATIONAL
H0700 POSITIONING SYSTEM         WISDOM (TM) INTEGRATED NAV SYSTEM
H0800 COORDINATE LOCATION        STACK TRACE CENTRE OF BIN
H0900 POSITION OFFSETS           N/A
H1000 CLOCK TIME                 GMT + 0 HOURS
H1100 RECEIVER GROUPS PER SHOT   480
H1400 GEODETIC DATUM AS SURVEYEDAGD-84 AUSTRALIAN N 6378160.000                    298.2500000
H1401 TRANSFORMATION PARAMETERS  -116.0   -50.5   141.7    -.230      -.390      -.344    .0983000
H1500 GEODETIC DATUM AS PLOTTED AGD-84 AUSTRALIAN N 6378160.000                    298.2500000
H1501 TRANSFORMATION PARAMETERS -116.0   -50.5   141.7    -.230      -.390      -.344    .0983000
H1600 DATUM SHIFTS               .0          .0      .0     .000       .000       .000    .0000000
H1700 VERTICAL DATUM             MEAN SEA LEVEL           ECHO SOUNDER
H1800 PROJECTION TYPE            002UNIVERSAL TRANSVERSE MERCATOR
H1900 UTM ZONE                   52S
H2000 GRID UNITS                 1METERS                   1.000000000000
H2001 HEIGHT UNITS               1METRES                   1.000000000000
H2002 ANGULAR UNITS              1DEGREES
H2200 CENTRAL MERIDIAN           129 0  .000E
H2301 GRID ORIGIN                0 0 .000N129 0 .000E
H2302 GRID COORDINATES AT ORIGIN 500000.00E10000000.00N
H2401 SCALE FACTOR               .9996000000
H2402 SCALE FACTOR DEFINED AT    0 0 .000N129 0 .000E
H2600
H2600 DATUM ROTATION PARAMETERS ARE EXPRESSED IN COORDINATE FRAME SENSE
H2600
QHB96-10000          1900104642.22SCHEDULE 1255821.88E 168901.08806882.5 528.2
QHB96-10000          1901104641.89SCHEDULE 1255821.89E 168901.08806892.5 528.2
QHB96-10000          1902104641.57SCHEDULE 1255821.89E 168901.08806902.5 529.8
QHB96-10000          1903104641.24SCHEDULE 1255821.89E 168901.08806912.5 529.8
QHB96-10000          1904104640.92SCHEDULE 1255821.89E 168901.08806922.5 529.8
QHB96-10000          1905104640.59SCHEDULE 1255821.90E 168901.08806932.5 529.8
QHB96-10000          1906104640.27SCHEDULE 1255821.90E 168901.08806942.5 529.8
QHB96-10000          1907104639.94SCHEDULE 1255821.90E 168901.08806952.5 529.8
QHB96-10000          1908104639.62SCHEDULE 1255821.91E 168901.08806962.5 529.8
QHB96-10000          1909104639.29SCHEDULE 1255821.91E 168901.08806972.5 529.8
QHB96-10000          1910104638.97SCHEDULE 1255821.91E 168901.08806982.5 529.8
QHB96-10000          1911104638.64SCHEDULE 1255821.92E 168901.08806992.5 529.8
QHB96-10000          1912104638.32SCHEDULE 1255821.92E 168901.08807002.5 529.8
QHB96-10000          1913104637.99SCHEDULE 1255821.92E 168901.08807012.5 529.8
QHB96-10000          1914104637.67SCHEDULE 1255821.93E 168901.08807022.5 529.8
QHB96-10000          1915104637.34SCHEDULE 1255821.93E 168901.08807032.5 529.8
```

See International Association of Oil & Gas Producers Survey & Positioning Committee web-site for specifications http://www.epsg.org/Exchange/P1.pdf

Polygon Position Data and Processing Report Inclusion

Grid Definitions

Datum	AGD-84				
Spheroid	ANS	Semi-major axis		6378160.000	
		Semi-minor axis		6356774.719	
		Inverse flattening		298.25000	
		Eccentricity		0.006694	
Projection	UTM	Central meridian		120.00	
		Scale factor		0.99600	
		False Easting		50000.00	
		False Northing		10000000.00	
Datum shift from WGS-84 to LOCAL					
		dX	+116.0000	rX	-0.230000
		dY	+050.4700	rY	-0.390000
		dZ	500000.00	rZ	-0.344000
		Scale	-0098300000		
Navigation origin		Easting		636744.95	
(inline 1001 crossline 1001)		Northing	8473164.88		
		Latitude	13 48 28.060 S		
		Longitude	124 15 540447 E		
Processing grid					
		CDP spacing	12.5m		
		CDP increment	1.0		
		Line spacing	12.5m		
		Line increment	1.0		
		Prospect angle	40.005000 degrees		

Corner points of the grid

X-coords	Y-coords	Inline	Crossline
635870.41	8472619.28	981	921
686385.321	8524919.867	981	6738
663634.5862	8445803.044	4069	921
714149.4973	8498103.631	4069	6738

Total number of cells 17971802

See International Association of Oil & Gas Producers Survey & Positioning Committee web-site for specifications: http://www.epsg.org/Exchange/P6.pdf

Appendix 8.3: Seismic Data Listings

Survey Data Field and Processed Tape Listing

Box Number	Field Tape Number	Sequence (optional)	Line Number	First SP	Last SP	FF	LF	Date Written	Format	Media	Comments

Survey Support Data Listing

Box Number	Report	Item	Description	Data Type	Format	Media	Comments

Appendix 8.4: Hydrocarbon Samples

(updated Date: 16 April 2003)

Background:

Operators are required by the regulations under the Offshore Petroleum and Greenhouse Gas Storage Act 2006 (OPGGSA) to submit to Geoscience Australia fluid samples (crude oil, condensate and natural gas) recovered during exploration work programs. Samples must be taken from all wireline, drill stem or production tests, and must be representative of the reservoir fluid. Samples submitted to Geoscience Australia from onshore wells by the state/NT regulators or directly from Companies should also follow these guidelines. Outlined below are the following requirements for hydrocarbon samples.

1 Physical Sample

1.1 Representative Hydrocarbon Samples

A representative hydrocarbon sample must be taken from;

- the test tool for Repeat Formation Tester (RFT), Modular Formation Dynamics Tester (MDT) or equivalent, and
- the flow lines for Drill Stem Test (DST) and Production Test (PT).

The hydrocarbon sample must be representative of the reservoir and is not the remaining fraction left in the cylinder after (PVT or other) tests have been performed.

If multiple samples are collected from the same geological zone then the minimum requirement is for the submission of one representative sample; however, if ample sample is collected then submission of additional samples is encouraged. If liquid hydrocarbons are recovered, then the gas and liquid hydrocarbon pair from the same reservoir unit should be submitted.

1.2 Notes on Hydrocarbon Fluid Samples

For liquid hydrocarbons collected from the separator and stock tank, both types of sample should be submitted. Depending on the analysis that is to be performed at a later date, then these different sample types may be used for several purposes:

- Separator samples contain more light ends than stock tank samples so are more representative of the overall fluid composition.
- For gas/condensate analysis it is better to provide additional cylinders of gas so the liquids can be recovered in the laboratory.
- Both separator liquid and stock tank samples are useful for biomarker analyses, when the light ends are removed in the laboratory in order to concentrate the heavier molecules.

1.3 Flash samples of liquid hydrocarbons at atmospheric pressure

If liquid hydrocarbons are recovered from a DST or PT, 0.5–1L of the liquid hydrocarbons must be submitted at atmospheric pressure in a 1L screw top Pyrex/Schott glass bottle.

2 Data Requirements

The well and test data must be supplied with the transmittal. The sample (gas cylinder and/or glass bottle) must be labelled clearly (labels should not be hand written).

The information to be supplied is as follows:

- Well name

- Basin name
- Date and time of sampling
- Test type RFT/MDT (or equivalent)
- Depth of RFT/MDT (or equivalent) sample
- Depth of perforated interval for DST and PT sample
- Reservoir pressure
- Cylinder pressure
- Pressure conditions under which the sample was collected, i.e., wellhead, atmospheric etc.
- Conditions under which the sample was collected, i.e., dynamic or static, before or after the separator etc
- Temperature of formation or surface, as appropriate
- Weight of evacuated cylinder/valve(s)
- Weight of full cylinder/valve(s)

3 Freight and Storage

The operator is responsible to ensure that the sample container is suitable for both safe transport and storage at the pressure of its contents. All Occupational Health and Safety Guidelines must be followed. Dangerous Goods information must be supplied with the consignment.

4 Transmittal Requirements

A transmittal document must accompany the sample container, detailing the Service Company and Petroleum Company contact details and sample information. A return ‘receipt of goods sheet’ must be included.

Samples are to be sent to:
Geoscience Australia
Data Repository Manager
Cnr Jerrabomberra Avenue and Hindmarsh Drive, Symonston, ACT 2609

For further information contact:
Data Repository
Phone 02 6249 9222
Fax 02 6249 9903
E-mail ausgeodata@ga.gov.au

Appendix 8.5: Guidelines for the Submission of Natural Gas Samples

(updated Date: 16 April 2003)

Background:

Operators are required by the regulations under the Offshore Petroleum Greenhouse Gas and Storage Act 2006 (OPGGSA) to submit to Geoscience Australia fluid samples (crude oil, condensate and natural gas) discovered during exploration work programs. Samples must be taken from all wireline, drill stem or production tests, and must be representative of the reservoir fluid. Samples submitted to Geoscience Australia from onshore wells by the Designated Authority or directly from Companies should also follow these guidelines. Outlined below are the following requirements for hydrocarbon samples.

1 Physical Sample

1.1 Representative Natural Gas Samples

A representative hydrocarbon sample must be taken from;

- the test tool for Repeat Formation Tester (RFT), Modular Formation Dynamics Tester (MDT) or equivalent, and
- the flow lines for Drill Stem Test (DST) and Production Test (PT).

The gas sample must be representative of the reservoir and is not the remaining fraction left in the cylinder after (PVT or other) tests have been performed.

If multiple samples are collected from the same geological zone then the minimum requirement is for the submission of one representative sample; however, if ample sample is collected then submission of additional samples is encouraged. If liquid hydrocarbons are recovered, then the gas and liquid hydrocarbon pair from the same reservoir unit should be submitted.

1.2 Gas Cylinder Specifications

Samples must be stored in appropriate stainless steel gas cylinders that are new, clean and evacuated prior to filling. A total sample volume of 300 cc must be submitted as either one cylinder of 300 cc internal volume or two cylinders of 150 cc internal volume. The cylinders must be equipped with at least one appropriate on/off value.

For RFT, MDT samples (or equivalent), the sample should be submitted at reservoir pressure where possible.

NOTE: GA Laboratory typically uses cylinders rated to 5000 psi, these can have 3000 psi valves or 5000 psi values attached (according to requirement). This means that they would be able to hold a gas sample of about 2500 psi and 4500 psi, respectively.

For DST and PT surface samples, the sample should be submitted at the sampling pressure.

NOTE: GA Laboratory typically uses cylinders rated to 1800 psi.

The gas cylinders typically use a female ¼" NPT swage lock gas tight fitting, therefore a male ¼" NPT swage lock gas tight adaptor is used to connect to the parent cylinder.

2 Data Requirements

The well and test data must be supplied with the transmittal. The gas cylinder must be labelled clearly; (labels should not be hand written).

The information to be supplied is as follows:

- Well name
- Basin name
- Date and time of sampling
- Test type RFT/MDT (or equivalent)
- Depth of RFT/MDT (or equivalent) sample
- Depth of perforated interval for DST and PT sample
- Reservoir pressure
- Cylinder pressure
- Pressure conditions under which the sample was collected, i.e., wellhead, atmospheric etc.
- Conditions under which the sample was collected, i.e., dynamic or static, before or after the separator etc
- Temperature of formation or surface, as appropriate
- Weight of evacuated cylinder/valve(s)
- Weight of full cylinder/valve(s)

3 Freight and Storage

The operator is responsible to ensure that the sample container is suitable for both safe transport and storage at the pressure of its contents. All Occupational Health and Safety Guidelines must be followed. Dangerous Goods information must be supplied with the consignment.

4 Transmittal Requirements

A transmittal document must accompany the sample container, detailing the Service Company and Petroleum Company contact details and sample information. A return ‘receipt of goods sheet’ must be included.

Samples are to be sent to:
Geoscience Australia
Data Repository Manager
Cnr Jerrabomberra Avenue and Hindmarsh Drive, Symonston, ACT 2609

For further information contact:
Data Repository
Phone 02 6249 9222
Fax 02 6249 9903
E-mail ausgeodata@ga.gov.au

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Publication Date	November 2013

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