



ACN 119 057 457

ASX QUARTERLY EXPLORATION REPORT FOR PERIOD ENDED 31ST DECEMBER 2007

HIGHLIGHTS

Wynbring Project (South Australia):

- **Equivalent U₃O₈ values up to 2m @ 255ppm (including 0.2m @ 415ppm) intersected in Wynbring palaeochannel at shallow depth**
- **Untested palaeochannel up to 1km wide and 9km long**
- **Of the 9km defined less than 1km has been tested with wide spaced drilling**
- **Excellent potential for higher grade and possibly economic concentrations of uranium in untested portions**
- **Follow up drilling planned**

Western Australia Projects:

- **First ELs granted in WA**

Corporate

- **Strong cash position (\$5.73 million)**

EXPLORATION

Wynbring Project (Fission 100% uranium rights)

The Wynbring project is located within EL 3306 on the Gawler Craton approximately 100km northwest of Tarcoola in South Australia (Figure 1a). It covers a Tertiary palaeochannel 15km to the northwest of Toro Energy Ltd's Warrior uranium deposit and has a similar catchment area to that hosting Warrior.

Results from Fission's first drilling programme at Wynbring which was completed towards the end of the December quarter have highlighted its uranium potential.

The Wynbring palaeochannel was initially identified by uranium explorer PNC in the 1980's but has received no exploration since Fission completed its first 65 hole 3000m air core drilling programme last month. All 65 drill holes successfully penetrated the Tertiary sequence and were terminated mostly in granitic basement of the Gawler Craton.

The recent drilling has delineated a portion of a meandering sandy fluvial palaeochannel up to 1km in width within the Wynbring palaeovalley which trends in a broadly north-south direction through the project area. Reduced Tertiary basal fluvial sands with strongly anomalous equivalent uranium

contents (up to 2m @ 255ppm U_3O_8 (0.026 %) in hole W057 from 50 to 52m) were intersected in the southern portion of the tenement overlying weathered granite basement. The anomalism is obviously redox related, occurring in reduced sands immediately below the oxidised zone and below the water table, overlying granite basement. Although poorly tested, the upstream portion of the palaeochannel in the northern half of the tenement appears to be totally oxidised and less prospective, the uranium having most likely been mobilised further downstream.

A list of holes returning in excess of 100ppm (0.01%) equivalent U_3O_8 over a minimum width of 0.6m is shown in Table 1. To date less than 20 holes have intersected the main fluvial channel and only an 800m portion (three lines spaced 400m apart) has been tested at a closer drill spacing of 400 by 200m (refer Figures 2 & 3). The attached drill cross section (Figure 4) with e U_3O_8 down hole gamma logs clearly shows the strongly anomalous uranium content at the base of the palaeochannel. Drill chips from all of the radiometric anomalies have been sampled and sent to the laboratory for uranium analysis with results due in February 2008.

The latest drilling results have enhanced information from a previous EM survey, and it is now believed that a 9km portion of the channel with potential reduced uranium enriched basal sands remains essentially untested in the southern portion of the tenement (Figure 1) apart from several old holes drilled by PNC Exploration in the 1980's. These also displayed anomalous gamma logs in reduced sands below the weathering (redox) interface.

Drilling indicates that uranium anomalism is persistent over a 3 to 6 metre thickness of the reduced sands at the base of the palaeochannel. Follow up drilling, planned for the next quarter, will determine if this anomalism is due to leakage from higher grade roll-front style uranium mineralisation further along the channel, or is a modified style of roll-front / surface weathering (redox) related mineralisation.

As they are generally coarse grained and unconsolidated (and hence likely to be quite permeable) the basal uranium enriched palaeochannel sands at Wynbring would appear to be amenable to in situ uranium leaching as used at the Beverley deposit.

Fission is encouraged by the confirmation and discovery of new palaeochannel uranium in the Company's first significant drilling program, and believes there is excellent potential for higher grade and possibly economic concentrations of uranium in the large untested portion of the Wynbring palaeochannel.

Garford Project (Fission 100% uranium rights)

Garford, located on the Gawler Craton approx. 80km south east of Coober Pedy in South Australia (Figure 1a), covers over 80km of Tertiary and older palaeochannels which have never been explored for uranium. Garford is considered prospective for Tertiary-age palaeochannel hosted uranium mineralisation as it is draining Precambrian crystalline basement (potential uranium enriched source rocks) and contains palaeochannel sediments with reduced horizons (potential uranium traps).

An airborne electromagnetic (TEMPEST) survey was flown for Tasman Resources over the Garford palaeochannel in August 2006 and was designed to better define the location and depth of the channel to aid planning of follow-up ground exploration. The survey confirmed that in excess of 80 kilometres of the Garford palaeochannel exists within Fission's tenements to depths of around 40 to 50m (Figure 5a).

A similar length of deeper linear TEMPEST conductors to maximum depths of 130m located partially beneath the Garford channel (Figure 5b) are interpreted to represent older buried Mesozoic-Permian palaeodrainages, based on the available stratigraphic drilling data. As the latter are also draining Precambrian crystalline basement rocks and are known to contain carbonaceous (reduced) material they are also considered to be prospective for the roll-front-style of uranium deposit identified in the younger

Tertiary palaeodrainages in South Australia.

Initial broad spaced reconnaissance drilling and down hole gamma logging of this very large uranium target is planned for next quarter.

Parkinson Dam (Fission 100% Uranium Rights)

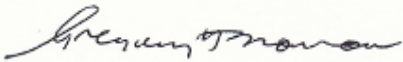
Parkinson Dam is located approx. 60km west of Port Augusta in South Australia (Figure 1b). A drilling program to follow up an outcropping uraninite occurrence at the “Torbernite Hill” prospect is planned for the March quarter. Previous surface sampling here by PNC Exploration in the 1980’s returned 970ppm U. Tasman initially tested this prospect with several RC holes in 2006 and interpretation of these results indicates possible along strike potential which will be tested with a further four holes.

The known uranium occurrence is located near the base of the Mesoproterozoic Corunna Conglomerate adjacent to the unconformity with Palaeoproterozoic quartzite and the area has potential for unconformity style uranium mineralisation.

Western Australian Projects (Fission 100%)

The application for EL 29/650 (Barlee East) was granted during the quarter and notification has been received that EL 29/651 (Elvire), located nearby, was granted on the 22nd January 2008. Both tenements cover airborne radiometric uranium anomalies on Lake Barlee, a Tertiary playa lake located in Archaean granite terrain on the Yilgarn Craton approx. 500 km north east of Perth (Figure 1b).

Initial field reconnaissance is planned for next quarter.



Greg Solomon

Executive Chairman

The interpretations and conclusions reached in this report are based on current geological theory and the best evidence available to the authors at the time of writing. It is the nature of all scientific conclusions that they are founded on an assessment of probabilities and, however high these probabilities might be, they make no claim for complete certainty. Any economic decisions that might be taken on the basis of interpretations or conclusions contained in this report will therefore carry an element of risk.

The information in this announcement, insofar as it relates to Mineral Exploration activities, is based on information compiled by Michael J. Glasson and Robert N. Smith and, who are members of the Australian Institute of Geoscientists, and who have more than five years experience in the field of activity being reported on. Mr Glasson and Mr Smith are full-time employees of the company. Mr and Mr Smith Glasson have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2004 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’. Mr Glasson and Mr Smith consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.

It should not be assumed that the reported Exploration Results will result, with further exploration, in the definition of a Mineral Resource.

Table 1: Wynbring Project - Equivalent Uranium (eU₃O₈*) Drilling Results

(based on 100ppm cut off and minimum downhole thickness of 0.6m)

Hole No.	East	North	Hole Depth m	From m	To m	Interval m	eU ₃ O ₈ ppm
W006	379048	6634001	53	43.6	44.6	1.0	111
W007	378842	6634004	63	43.6	44.6	1.0	122
				45.2	46.4	1.2	134
W008	378736	6634011	54	43.2	44.8	1.6	120
				45.8	47.6	1.8	138
W034	379545	6635010	66	26	26.8	0.8	199
W042	379598	6640165	51	45.6	46.4	0.8	126
W056	379067	6634395	60	47.2	50.4	3.2	136
W057	379264	6634393	60	46.0	52.0	6.0	178
			includes	48.0	50.0	2.0	255
			includes	49.0	49.2	0.2	415
W058	379452	6634410	53	31.4	32.2	0.8	150
				42.6	44.4	1.8	224
				45.2	46.0	0.8	125
W059	379482	6634871	54	33.8	34.4	0.6	123
W059				43.4	44.2	0.8	195
W060	379271	6634873	60	48.4	51.4	3.0	128

* Equivalent uranium values were estimated from down hole gamma logging assuming all of the gamma radiation measured is due to uranium and that uranium and its daughter products are in equilibrium. Generally only background values were detected in the oxidised fluvial sands, therefore the high count rates measured in the stratigraphically equivalent reduced portions are believed to be due solely to uranium rather than a thorium bearing heavy mineral component as heavy minerals are unlikely to be affected by oxidation. The state of equilibrium of the palaeochannel uranium is currently unknown.

The eU₃O₈ estimates have been carried out by an independent technical consultant and are based on calibration of Fission's downhole logging equipment by PIRSA geophysicists at their test pits in Adelaide.

All holes were vertical and logged through the drill rods and appropriate corrections have been applied for hole diameter and attenuation of the gamma count rate due to drill rods and ground water. These results are approx. 2% higher than the preliminary results reported in the announcement of 15/01/08 following revision of the hole diameter correction factor.

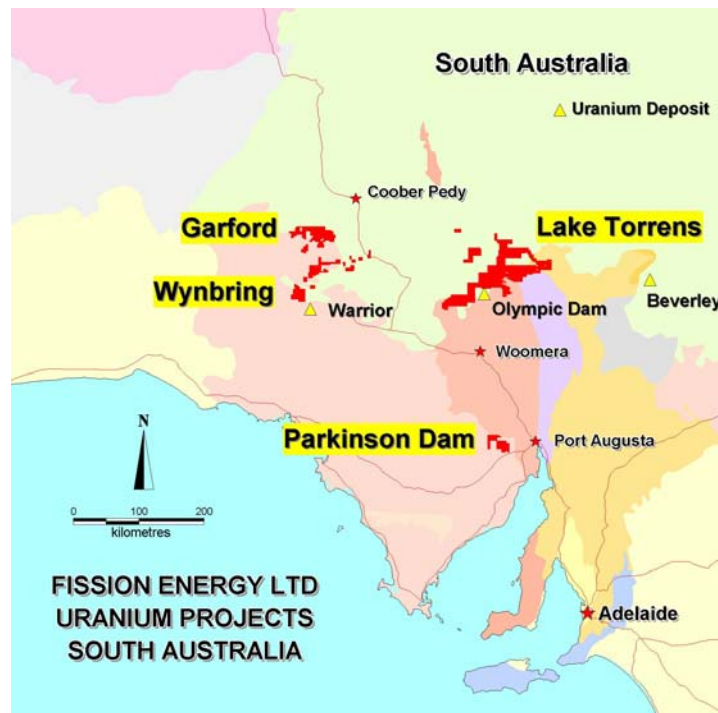


Figure 1a: South Australia Project Locations

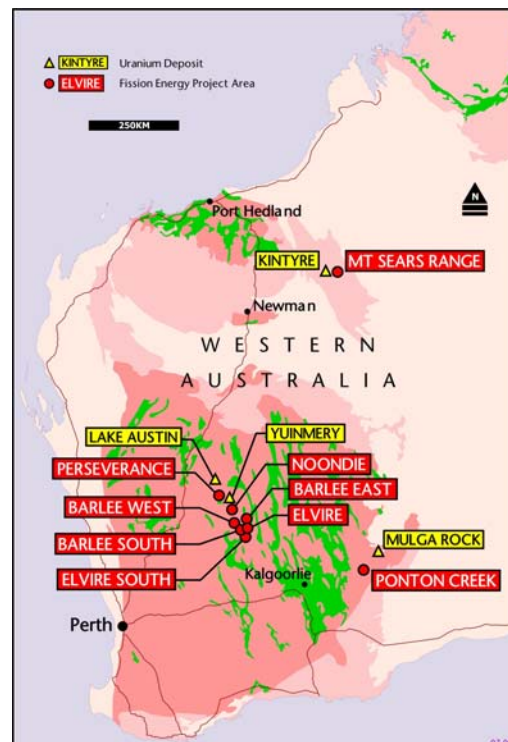


Figure 1b: Western Australia Project Locations

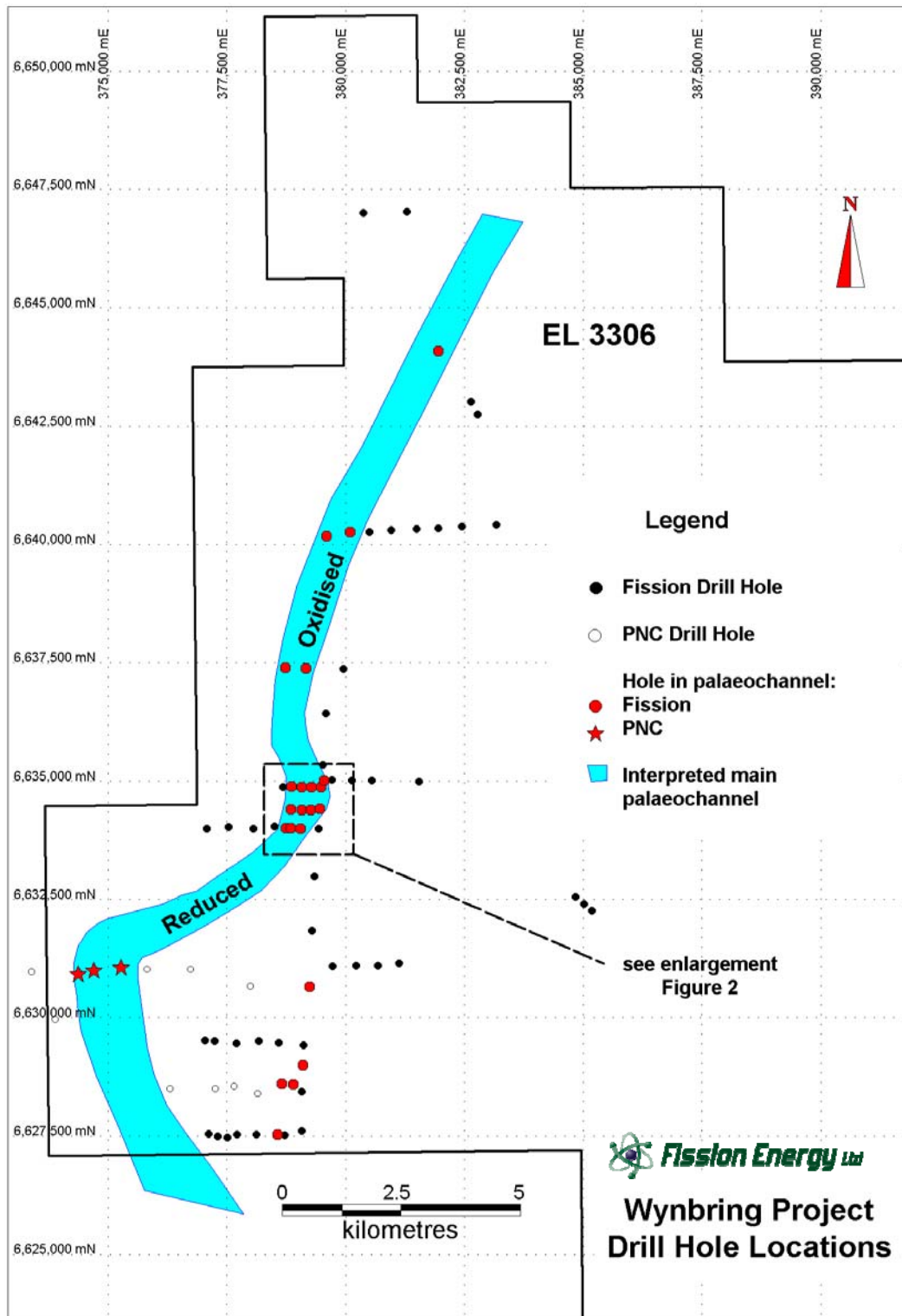


Figure 2: Wynbring Project - Drill Hole Locations and Interpreted Fluvial Channel Location

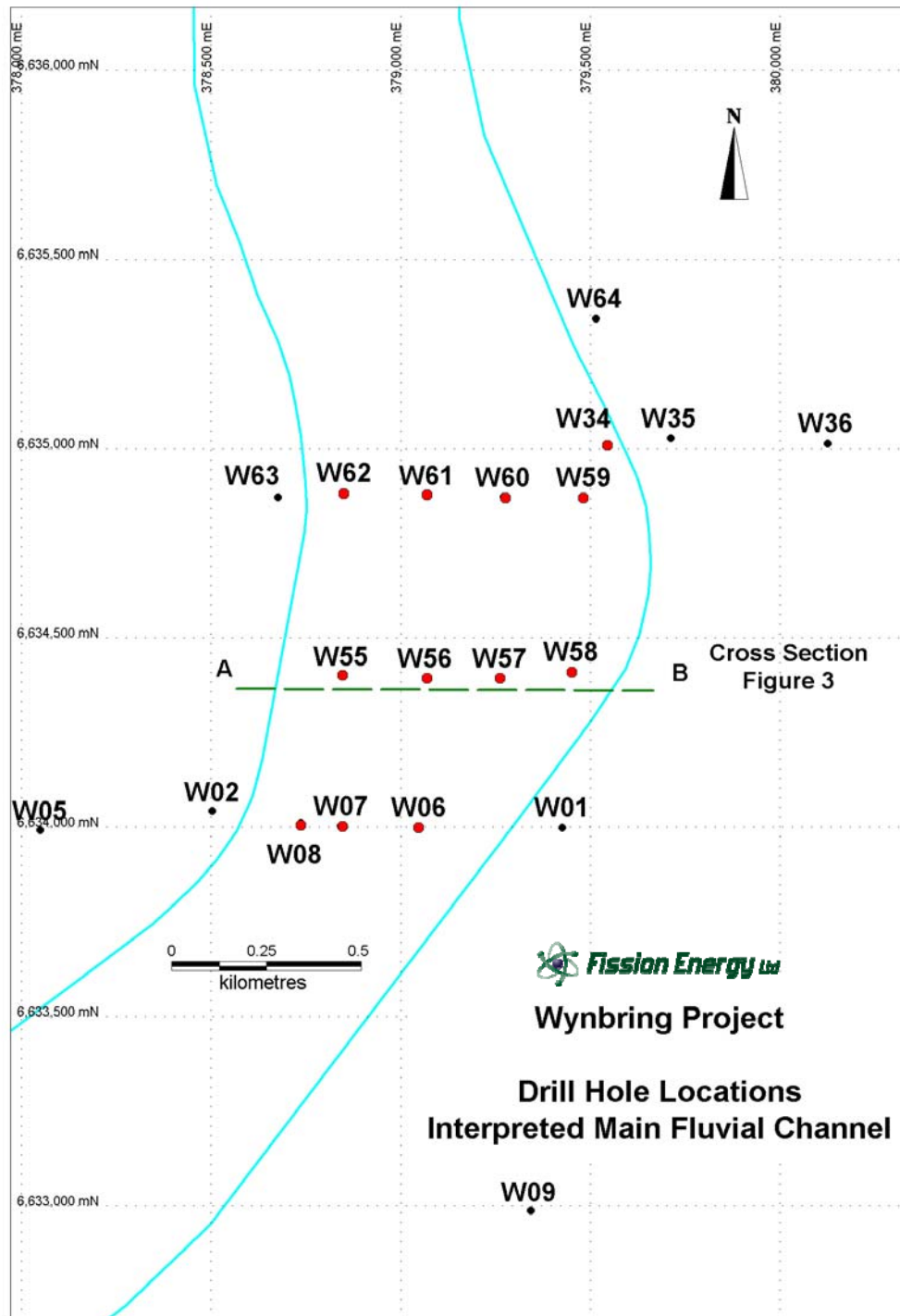
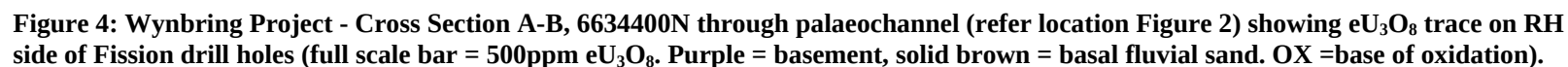


Figure 3: Wynbring Project - Drill Hole Locations Enlargement



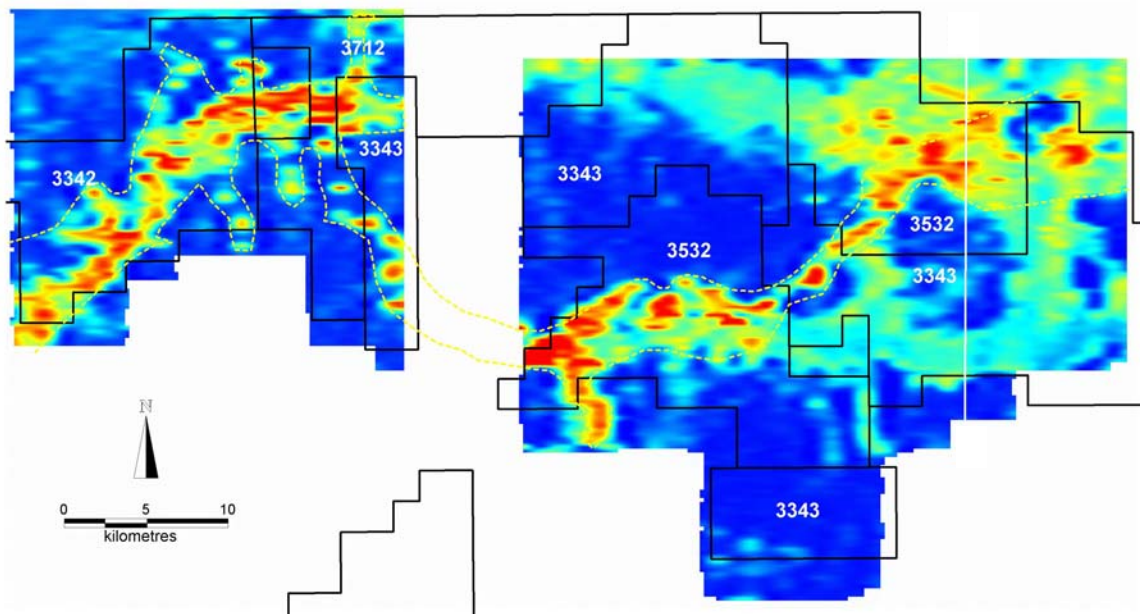


Figure 5a: Garford Tempest Survey Conductivity Image at 40m

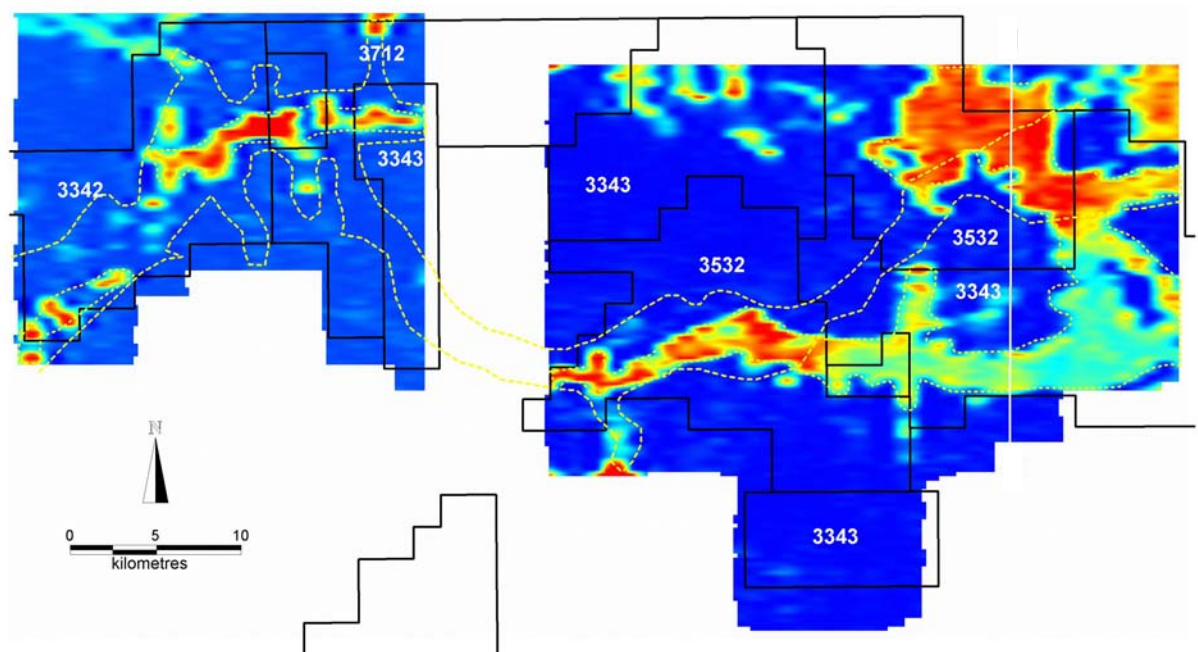


Figure 5b: Garford Tempest Survey Conductivity Image at 70m

Appendix 5B

Mining exploration entity quarterly report

Introduced 1/7/96. Origin: Appendix 8. Amended 1/7/97, 1/7/98, 30/9/2001.

Name of entity

FISSION ENERGY LTD

ABN

49 119 057 457

Quarter ended ("current quarter")

31 DECEMBER 2007

Consolidated statement of cash flows

		Current quarter \$A'000	Year to date (6 months) \$A'000
Cash flows related to operating activities			
1.1	Receipts from product sales and related debtors		
1.2	Payments for (a) exploration and evaluation	(43)	(98)
	(b) development		
	(c) production		
	(d) administration	(202)	(331)
1.3	Dividends received	0	0
1.4	Interest and other items of a similar nature received	84	204
1.5	Interest and other costs of finance paid	0	0
1.6	Income taxes paid – GST Paid	(18)	(43)
	Income Taxes – GST Refunds Received	33	69
1.7	Other (provide details if material)-		
Net Operating Cash Flows		(146)	(199)
Cash flows related to investing activities			
1.8	Payment for purchases of: (a)prospects		
	(b)equity investments		
	(c)other fixed assets	(3)	(53)
1.9	Proceeds from sale of: (a) prospects		
	(b)equity investments		
	(c) other fixed assets		
1.10	Loans to other entities		
1.11	Loans repaid by other entities		
1.12	Other (provide details if material)		
Net investing cash flows		(3)	(53)
1.13	Total operating and investing cash flows (carried forward)	(149)	(252)

1.13	Total operating and investing cash flows (brought forward)	(149)	(252)
	Cash flows related to financing activities		
1.14	Proceeds from issues of shares, options, etc.	0	285
1.15	Proceeds from sale of forfeited shares		
1.16	Proceeds from borrowings		
1.17	Repayment of borrowings	(2)	(2)
1.18	Dividends paid		
1.19	Other (provide details if material)		
	Share Issue Costs	(4)	(71)
	Net financing cash flows	(6)	212
	Net increase (decrease) in cash held	(155)	(40)
1.20	Cash at beginning of quarter/year to date	5,889	5,774
1.21	Exchange rate adjustments to item 1.20	0	0
1.22	Cash at end of quarter	5,734	5,734

Payments to directors of the entity and associates of the directors
Payments to related entities of the entity and associates of the related entities

		Current quarter \$A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	107
1.24	Aggregate amount of loans to the parties included in item 1.10	0

1.25 Explanation necessary for an understanding of the transactions

Management Fees, as per agreement, were paid during the quarter to a company of which Mr GH Solomon and Mr DH Solomon are directors.
Bona-fide reimbursement of expenses for the period to 31 December 2007
Directors Fees and Superannuation paid during the period.

Non-cash financing and investing activities

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

Nil

2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

Not applicable

Financing facilities available

Add notes as necessary for an understanding of the position.

	Amount available \$A'000	Amount used \$A'000
3.1 Loan facilities	Nil	Nil
3.2 Credit standby arrangements	Nil	Nil

Estimated cash outflows for next quarter

	\$A'000
4.1 Exploration and evaluation	150
4.2 Development	
Total	150

Subsequent to end of quarter additional capital has been raised to fund part of this expenditure.

Reconciliation of cash

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.	Current quarter \$A'000	Previous quarter \$A'000
5.1 Cash on hand and at bank	434	1,889
5.2 Deposits at call	5,300	4,000
5.3 Bank overdraft	0	0
5.4 Other (provide details)	0	0
Total: cash at end of quarter (item 1.22)	5,734	5,889

Changes in interests in mining tenements

	Tenement reference	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1	Interests in mining tenements relinquished, reduced or lapsed			
6.2	Interests in mining tenements acquired or increased	EL 29/650	Licence Granted	100%
Outstanding Applications:				
ELA 28/1744, ELA 29/651, ELA 45/3203 (replacement of ELA 45/3101), ELA 57/692, ELA 57/693, ELA 57/695, ELA 77/1393, ELA 77/1402, ELA 77/1417				
Fission Energy Ltd has the right to explore for uranium within Tasman Resources NL's tenements, except for basement rocks within the area subject to the WCP Joint Venture, and an excluded area at Parkinson Dam Project (approximately 15km ²) where Tasman is aggressively testing for high grade epithermal gold-silver.				

Issued and quoted securities at end of current quarter

Description includes rate of interest and any redemption or conversion rights together with prices and dates.

		Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1	Preference +securities (description)	NOT APPLICABLE			
7.2	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions				
7.3	*Ordinary securities	57,000,000	31,000,000		
7.4	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs				
7.5	*Convertible debt securities (description)	NOT APPLICABLE			
7.6	Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted				
7.7	Options	1,000,000 41,000,000 1,500,000	NIL 28,500,000 NIL	<i>Exercise price</i> 20 cents 20 cents 20 cents	<i>Expiry date</i> 18 June 2010 28 February 2011 31 March 2011
7.8	Issued during quarter	NIL	NIL		
7.9	Exercised during quarter	NIL	NIL		
7.10	Expired during quarter	NIL	NIL		
7.11	Debentures (totals only)	NOT APPLICABLE			
7.12	Unsecured notes (totals only)	NOT APPLICABLE			

Compliance statement

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act or other standards acceptable to ASX (see note 4).
- 2 This statement does give a true and fair view of the matters disclosed.

RAYMOND FRANCIS BUSCALL
COMPANY SECRETARY
Date: 29 January 2008

Notes

- 1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 **Issued and quoted securities.** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- 4 The definitions in, and provisions of, *AASB 1022: Accounting for Extractive Industries* and *AASB 1026: Statement of Cash Flows* apply to this report.
- 5 **Accounting Standards** ASX will accept, for example, the use of International Accounting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

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