



Fission Energy Corporation

(FIS-V: C\$0.87)

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BUY, Venture Risk *

12-month target price: N/A

Initiating Coverage: High Grade Uranium Discovery Extended

Risk	VENTURE
52-Week Range	high
Shares Outstanding (MM)	C\$ 0.15 - C\$ 1.20
Fully Diluted Shares (MM)	55.0
Market Capitalization (MM)	69.6
Ave. Volume (000 shares/day)	C\$ 52.3
Working Capital (31-Dec-09) - (MM)	583
Value Cash, ST Inv. (31-Dec-09) - (MM)	\$ 2.9
	\$ 2.5
Valuation (C\$/share)	
2011 - 10% DCF Corporate Value	NA
2010 Year-end Cash etc.	NA
2010 Additional Resource Value	NA
NAV	NA
DCF Multiple	NA
Target	NA

All Figures in C\$ Unless Otherwise Noted

Source: See Note 1

Conclusion: We are initiating coverage on Fission Energy with a BUY rating and a VENTURE Risk. Given the stellar assay results provided again today, backed by scintillometer results from last week, we have added confidence that Fission has encountered what we believe to be an important new and growing uranium discovery at Waterbury in the Athabasca Basin.

Unconformity uranium deposits are difficult to find and exploration and financing risks are often the foremost concern in the Athabasca. However once these high grade deposits are discovered they can often grow quickly. And Fission's current exploration is being funded by its JV partner. Fission's early stage exploration risk is becoming a valuation issue - a determination of whether the newly discovered J-Zone will gain the critical mass required to ultimately transform into an orebody that is economic. While we don't have a crystal ball, we do believe that Fission's discovery has all the hallmarks of a large unconformity-style deposit

Fission isn't a one trick pony. Dieter Lake in Quebec hosts a 24 MM lb resource, and there are several properties elsewhere in the Athabasca and Peru. We see FIS as a rising new star in this sector, and after writing six research notes, each more encouraging than the last, we now add it to formal coverage as a BUY. We are not currently assigning a target price.

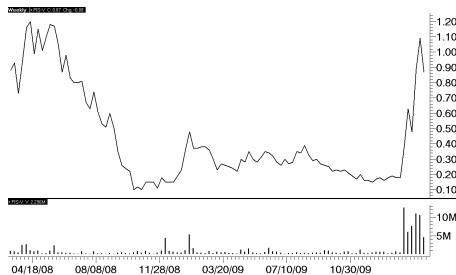
Showing signs of a multi-million pound uranium deposit

- **We expect J-Zone is already a multi-million pound deposit** based on our estimates. It measures roughly 55m by 20 to 30m wide. Assays define 30m inclusive of scintillometer readings that define a 45m strike. We use 10m influence around holes but continue to refine our model.
- **Weighted average grades and thickness rise 24% & 13%**, respectively after incorporating the new assays. We now estimate 2.65% U3O8 based on 6 holes and 9 intercepts using a 0.1% cut-off. This rises to 4.86% using a 1% cut-off grade. Our new thickness estimate averages 9m using a 0.1% cut-off. This falls to 5.7m using a 1% cut-off.
- **3.99% over 17m** includes 7.48% over 7m for hole WAT10-70B (Table 1, Figure 1). The entire 31.5m zone grades 2.17%. This is a 15m westward step out from discovery hole -63 (1.91% over 10.5m). Hole WAT10-68 returned 2.78% over 2.5m and was slightly narrower than expected.
- **Two drills now active.** Rig #1 remains testing J-Zone along strike. Each section is a 15m incremental step out westward and includes holes to the north and south of that hole. Rig #2 has begun to test other targets.
- **We await further news.** Scintillometer results for holes -71 to -73 were reported last week and we expect that up to hole -79 may now have been drilled. Assays are pending for all holes above -71 (Figure 2).

The right spot...and the right rocks

- **65 MM lbs of high grade lies within 4km**, including the Roughrider zone 140m along strike. Two operating uranium mills are also near by.

FIS-V: Price/Volume Chart



Source: Thomson ONE

Company Description

Fission Energy is a Canadian based uranium exploration and development company with properties in the Athabasca Basin of Saskatchewan, Quebec and the Macusani District in Peru. Its high grade Waterbury JV discovery located 140m west of the Roughrider Deposit in the Athabasca has quickly become the focus for the company.

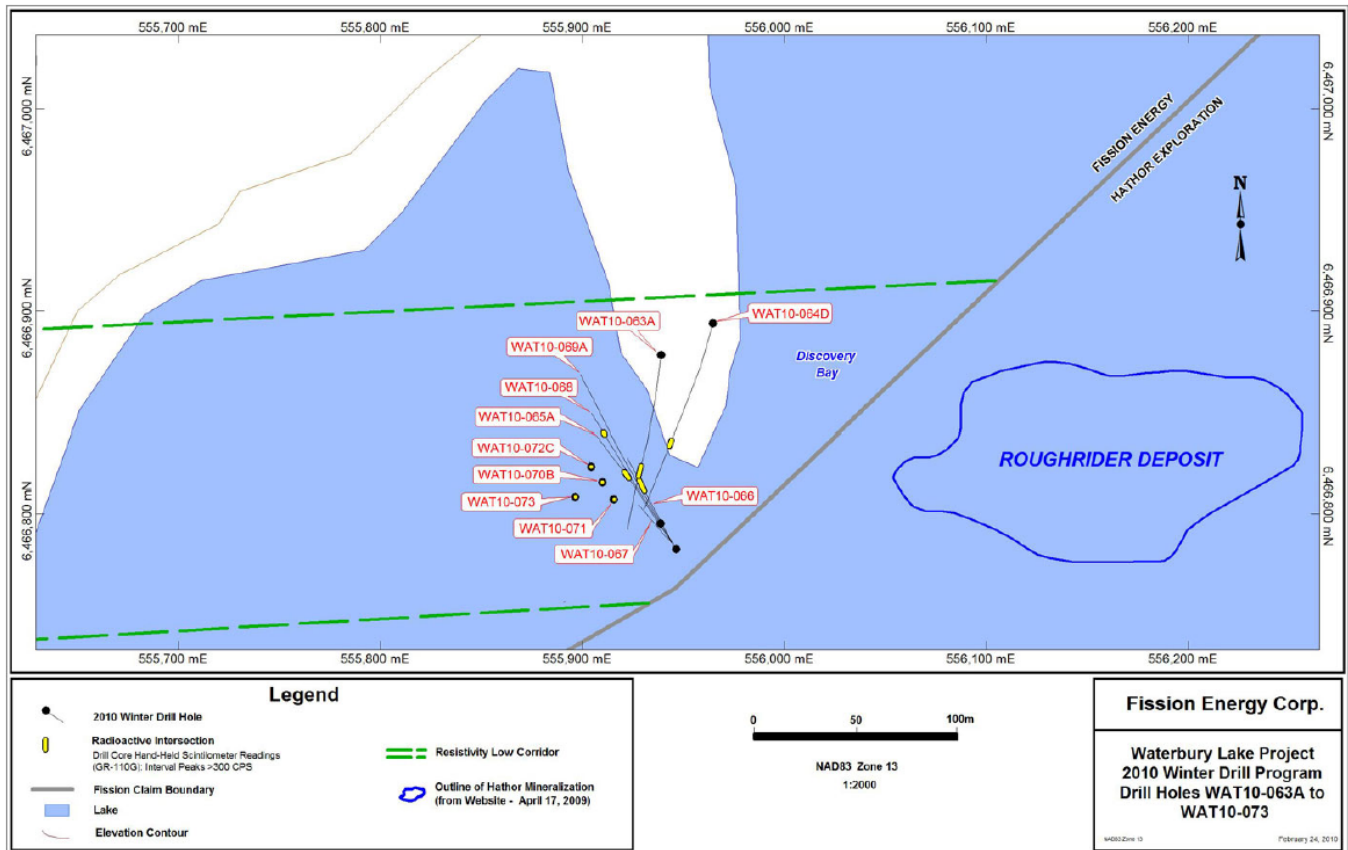
- **Unconformity style mineralization** in the Athabasca, like that found at Waterbury, currently hosts the largest high grade uranium deposits in the world, including McArthur River and Cigar Lake that combine for 842 million pounds of U3O8 resources.

Table 1: Summary of the assay results and scintillometer reading highlights for holes WAT10-67, -68, -69A and -70B as reported by Fission on 4-Mar-10 and 16-Feb-10, respectively.

Zone J Hole Number	From (m)	To (m)	Length (m)	Scintillometer Readings		Composite Assays	
				Scint Counts (cps)	Zone Thickness	Length (m)	U3O8 (wt%)
WAT10-067	237.50	238.00	0.50	473	1.0m	No significant mineralization	
	238.00	238.50	0.50	343			
	265.50	266.00	0.50	843	0.5m		
WAT10-068	208.00	208.50	0.50	500	6.0m	2.5m including 1.5m	2.78% including 4.56%
	208.50	209.00	0.50	360			
	209.00	209.50	0.50	640			
	209.50	210.00	0.50	730			
	210.00	210.20	0.20	2800			
	210.20	211.30	1.10	>9,999			
	211.30	211.50	0.20	8000			
211.50	212.00	0.50	1,500				
WAT10-069A	No anomalous readings					No significant mineralization	
WAT10-070B	194.50	195.00	0.50	675	31.0m	17.0m including 7.00m including 0.5m including 2.5m	3.99% including 7.48% including 20.60% including 0.15%
	195.00	195.50	0.50	1,500			
	195.50	196.00	0.50	815			
	196.00	196.50	0.50	1,000			
	196.50	196.70	0.20	6000			
	196.70	200.00	3.30	>9,999			
	200.00	200.15	0.15	7,800			
	200.15	200.35	0.20	>9,999			
	200.35	200.50	0.15	4,000			
	200.50	201.00	0.50	6,100			
	201.00	201.25	0.25	>9,999			
	201.25	201.50	0.25	3,000			
	201.50	202.50	1.00	>9,999			
	202.50	203.00	0.50	6,400			
	203.00	203.50	0.50	9,700			
	203.50	204.00	0.50	6,000			
	204.00	204.50	0.50	7,000			
	204.50	205.00	0.50	8,100			
	205.00	205.25	0.25	5,400			
	205.25	206.00	0.75	>9,999			
	206.00	206.50	0.50	9,800			
	206.50	207.00	0.50	>9,999			
	207.00	207.50	0.50	3,400			
	207.50	208.00	0.50	3000			
	208.00	209.50	1.50	>9,999			
	209.50	210.00	0.50	5000			
	210.00	210.50	0.50	1100			
	210.50	211.00	0.50	3000			
	211.00	211.50	0.50	500			
	211.50	212.00	0.50	400			
	212.00	212.50	0.50	370			
212.50	213.00	0.50	300				
213.00	213.50	0.50	190				
213.50	214.00	0.50	180				
214.00	214.50	0.50	1800				
214.50	215.00	0.50	1600				
215.00	215.50	0.50	1500				
215.50	216.00	0.50	440				
216.00	216.50	0.50	900				
216.50	217.00	0.50	>300				
217.00	217.50	0.50	320				
217.50	224.00	6.50	>300				
224.00	224.50	0.50	1000				
220.50	224.00	3.50	>300				
224.00	224.50	0.50	1000				
224.50	225.00	0.50	760				
225.00	225.50	0.50	540				

Source: Dundee Securities Corporation, Company Reports

Figure 1: Plan map of Fission's Waterbury JV showing the location of drill holes WAT10-063A to WAT10-073 from its 2010 Winter Drill Program. Drill holes -74 to -77 and -79 have been completed or are in progress but scintillometer results and assays remain pending. Hole -78 was drilled with a second rig that is located elsewhere on the property.



Source: Company Reports

Table 2: Tracking the progress of Fission's Winter 2010 drill program at Waterbury. New assay results were provided for holes -67, -68, -69A and -70B.

Hole	Planned	Drilled	Scintillometer Readings	Assay Results	Notes	Reported Scint	Assays
WAT10-63A	☆	☆	9.5m radioactivity @ 2,500 to >9,999 cps	1.91% over 10.5, incl. 13.87% over 1m	Discovery hole in basement rocks	25-Jan	11-Feb
-64D	☆	☆	11m radioactivity incl. 1m @ 2000 cps	0.10% over 2.5m	Unconformity - ~25m NE of discovery	08-Feb	22-Feb
-65A	☆	☆	20m radioactivity incl. 1.5m @ 1,120 to >9,999cps	1.62% over 2m incl. 3.02% over 1m; 0.09% over 3.5m	Unconformity	08-Feb	22-Feb
-66	☆	☆	25.5m radioactivity incl. 4m @ 500 to >9,999cps	3.64% over 12m incl. 27.38% over 1.5m and incl. 45.20% over 0.5m; 0.18% over 1.5m; 0.19% over 3.5m	Unconformity - ~15m SE of discovery	08-Feb	22-Feb
-67	☆	☆	NSV	-	-	16-Feb	04-Mar
-68	☆	☆	4m radioactivity incl 1.3m @ 8,000 to >9,000cps	2.78% over 2.5m incl. 4.56% over 1.5m	Unconformity - ~20m NW of discovery	16-Feb	04-Mar
-69A	☆	☆	NSV	-	-	16-Feb	04-Mar
-70B	☆	☆	31m radioactivity incl. 13.5m @ 3,000 to >9,999cps	3.99% over 17m incl. 7.48% over 7m, incl 20.6% over 0.5m	Unconformity - ~15m W of discovery	16-Feb	04-Mar
-71	☆	☆	6m radioactivity incl. 4.26m @ >9,999cps	-	Unconformity - ~10m SE of -70B	24-Feb	
-72C	☆	☆	22m radioactivity incl. 3.50m @ 3,200 to >9,999cps	-	Unconformity - ~10m NW of -70B	24-Feb	
-73	☆	☆	33.75m radioactivity incl. 16.05m mainly @ 3,100 to >9,999cps	-	Unconformity - ~15m W of -70B	24-Feb	
-74	☆	☆			Drilled ~10m N of -73		
-75	☆	☆			Drilled ~10m S of -73		
-76	☆	☆			Drilled 30m SW of -73		
-77	☆	☆			Drilled 15m W of -73		
-78	☆	☆			Target outside J Zone		
-79	☆	☆			In progress ~10m N of -77		
-80	☆	☆					

Source: Company Reports, Dundee Capital Markets

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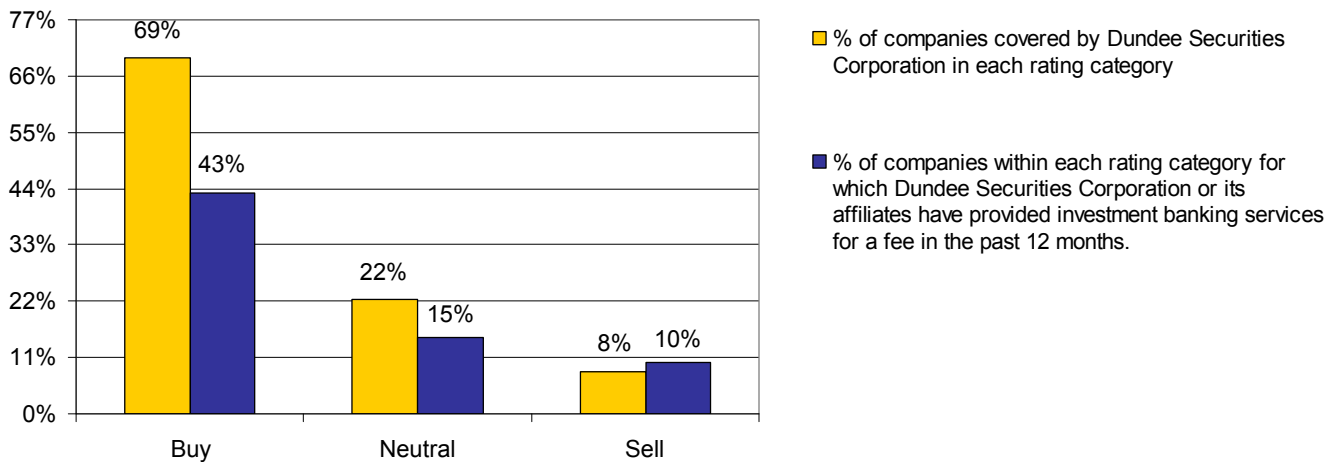
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