

Appendix E

Review of Regeneration on 1989 Seismic Lines

EMPIRE OIL & GAS NL

MULLERING ONSHORE 3D SEISMIC SURVEY

REVIEW OF REGENERATION ON 1989 SEISMIC LINES



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1 INTRODUCTION

Empire Oil & Gas NL (Empire) are proposing to conduct a three dimensional (3D) seismic survey to delineate the sub-surface structure of the Mullering Anticline located within the Mullering area. The survey area covers an area of approximately 53 sq km surrounding the Mullering No. 1 and Cataby No. 1 wells, and is located approximately 20km west of the Brand Highway, north-west of Cataby on Woolka Road. The project area is primarily located within Unallocated Crown Land (UCL) with private property (P13953 and P167377 'Tombstone Rocks') located on the western boundary (Gulliver Productions 2004).

An Environmental Management Plan (EMP) is being developed to address impacts of the proposed survey on flora and vegetation of the project area. The Department of Environment and Conservation (DEC) have requested information regarding the success of regeneration on previously cleared lines in the project area to support the revegetation process proposed for the project.

Empire commissioned Woodman Environmental Consulting Pty Ltd to conduct a brief assessment of lines cleared for seismic surveys during 1989 within the project area, with an emphasis to be placed on wet heath environments.

2 AIMS

The aim of this review was to collect photographic evidence from representative locations on seismic lines cleared in 1989 and to record observations regarding regeneration of vegetation and visible impacts to soil.

3 METHODS

Greg Woodman of Woodman Environmental Consulting Pty Ltd visited the project area on the 5th of December 2006 and located regenerating seismic lines cleared during 1989. Locations along these lines were identified that intersected a range of plant communities including wet and dry heaths and woodlands. At each location the following data was collected:

- GPS coordinates (GDA94 Zone 50)
- Photograph
- Notes on vegetation regeneration
- Notes on visible soil disturbance
- Notes on fire history

4 RESULTS

The results of the review are presented in Table 1. All lines visited appeared to have had either a single or multiple fires over them since line clearing in 1989. Understorey cover on the lines was generally similar to that observed adjacent to the lines however tree cover was generally lower indicating that trees had been cleared to establish the lines. Tree seedlings and saplings were observed on the regenerating lines. Soil disturbance associated with line clearing was rarely visible and not obvious at any of the locations visited.

Seismic line	Easting	Northing	Photo	Comments
B89-439	338104	6604556	1	Photo facing west Community H1 Line no longer visible due to fire history
B89-441	340519	6602725	2	Photo facing west Community H1 Line no longer visible due to fire history
			3	Photo facing west Community H1 Germination on the line
B89-438	340185	6605650	4	Photo facing west Community H1
B89-440	340611	6603637	5	Photo facing east Community H3 Line no longer visible due to fire history
			6	Photo facing west Community W3 Line no longer visible due to fire history
B89-104	341741	6601829	7	Photo facing west Community W3 Line no longer visible due to fire history
B89-439	339796	6604662	8	Photo facing west Community W3



Photo 1: Community H1 (Seismic Line B89-439)



Photo 2: Community H1 (Seismic Line B89-441)



Photo 3: Community H1 germination on line (Seismic Line B89-441)



Photo 4: Community H1 (Seismic Line B89-438)



Photo 5: Community H3 (Seismic Line B89-440)



Photo 6: Community H3 (Seismic Line B89-440)



Photo 7: Community W3 (Seismic Line B89-104)



Photo 8: Community W3 (Seismic Line B89-439)

5 DISCUSSION

This revision of historical seismic lines within the Mullering 3D Seismic has shown that the lines recover well from the clearing and data acquisition process when fire occurs following the disturbance. Soil compaction was not observed on any of the lines inspected and therefore it appears that this should not be a significant issue for the Mullering project.