OPERATIONS REPORT

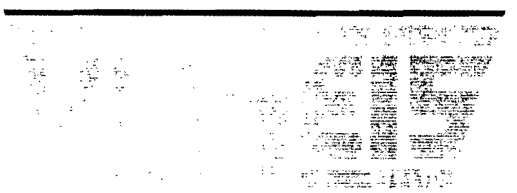
EP-25 HYC MINE SEISMIC SURVEY

NORTHERN TERRITORY

FOR

M.I.M. PETROLEUM EXPLORATION PTY. LTD.

AUGUST, 1992



Integrated Seismic Technologies

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1. INTRODUCTION

1.1 GENERAL

M.I.I. Petroleum Exploration Pty. Ltd., on behalf of Mount Isa Mines Limited, contracted Velseis Pty. Ltd. from Brisbane, to acquire and possibly process data at the HYC Mine, EP25 Northern Territory, in August, 1992.

The programme was recorded using the Mini-SOSIE technique.

1.2 LOCATION/ACCESS

Access to the survey area was via the main road between Cape Crawford Roadhouse and Borroloola. The programme was approximately 7 kilometres north of the HYC camp.

Only one east/west line 5.3 kilometres long was recorded.

1.3 TERRAIN

The survey area was reasonably flat with several, small creeks and gullies towards the eastern end of the line.

1.4 WEATHER

The weather throughout the survey was warm and fine, with light breezes on some days.

1.5 LOGISTICS

Both Velseis and MIMPEX personnel stayed at the H.Y.C Mine camp for the duration of the survey.

1.6 COMMUNICATIONS

A telephone was available at the HYC Camp for communication with the Brisbane offices of M.I.M. and Velseis.

2. SURVEYING

Surveying was carried out by Seisline Surveys of Eumundi, Queensland. Please refer to the report submitted by the above for information regarding surveying.

3. LINE CLEARING

The seismic line was cleared with the aid of a front end loader. This improved vehicle access along the line and assisted production speed.

4. EQUIPMENT/PERSONNEL

4.1 SURVEY EQUIPMENT

- Nissan Patrol 4x4
- Sokkisha 3FR Semi Total Station
- Survey Chains, Stadia Rods, Compasses etc.
- Survey Pin Markers, Flagging, Star Pickets etc.
- Trimble G.P.S. System

4.2 RECORDING CREW VEHICLES

- 1 Toyota Landcruiser 4x4 Recording Vehicle (Air/Cond.)
- 2 Toyota Landcruiser 4x4 Cable/Geophone Vehicles

4.3 RECORDING EQUIPMENT

* - SERCEL SN338HR 48/2 IFP Amplifier and selected hardware
* - Velseis 'VELCOM' Field Monitor System and 486/50 Computer Interface
- Streamer Tape Unit
- 3 Tait Model T-198 25 watt vehicle mounted Transceivers
- 3 Tait Model T-302 20 watt hand held Transceivers
- 160 GeoSpace GSC-20D, 10hz Geophone Arrays, 6 Elements per Array
- 100 Traces of 100 pair Main Cable with 27.5 metre T/O intervals
- 2 Wacker model BS65Y Rammer units
- Spare parts and accessories for all equipment
- Spare Decoder Unit for I/O SSS200 Radio Shooting System

* NOTE: A complete systems description appears in Item 6.

4.4 FIELD PROCESSING EQUIPMENT

- Western Computer 386 33MHz Computer
- DL 2600 Fujitsu Printer
- Qualstar 9 Track Tape Unit

4.5 MISCELLANEOUS EQUIPMENT

- Generator hired at Mt. Isa
- Vehicle Service Tool Kit (Velseis)
- Cable and Geophone Repair Kit (Velseis)

4.6 PERSONNEL

Surveying : (Seisline Surveys)

Mick Crask - Surveyor
Tommy Hackett - Rodman

Recording Crew : (Velseis Pty. Ltd.)

John Horsley - Crew Manager/Observer/Engineer
Gerard Wells - Line Boss/Observer
Andy McSherry - Field Hand
* Mick McSherry - Wacker Operator
Brad Morgan - Field Hand
John Bokelund - Field Hand

Technical Support at start of survey: (Velseis Pty. Ltd.)

Brent Haines - Operations Geophysicist

Client Personnel : (MIMPEX)

Michael Mc Nichol (Consultant)

* Note: An additional, experienced Mini-SOSIE man was mobilised by Velseis, at no cost to M.I.M., in an effort to improve production in the difficult operating conditions of the Kilgour Survey (which was recorded immediately prior to the HYC Mine survey). This man was retained on the crew for HYC Mine survey.

5. RECORDING

5.1 ENERGY SOURCE

The Mini-Sosie source was a Wacker BS65Y Rammer (surface impactor). This source is ideal for regions in which access is limited or areas where the use of a dynamite source is prohibited due to environmental or other constraints.

5.2 SPREAD GEOMETRY

Spread Type : 48 trace, symmetrical split

Spread Layout : 612.5-37.5-0-37.5-612.5 m

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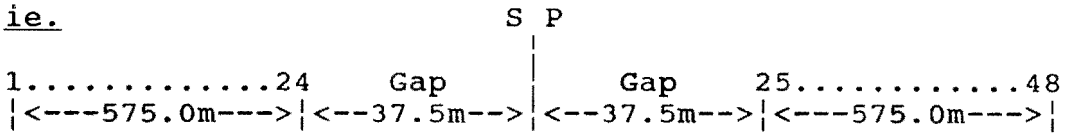

5.3 RECORDING PARAMETERS

Recording	:	48 Trace, IFP, SEG-B Output
Sample Rate/Record Length	:	2 milliseconds / 2 seconds
Record Filters	:	Low Cut - OUT High Cut - OUT
Coverage	:	2400%
Shot Point Interval	:	25 metres
Group Interval	:	25 metres
Geophone Pattern	:	Twelve in line over 25 m
Geophone Frequency	:	10 Hertz

6. RECORDING EQUIPMENT DESCRIPTION

6.1 RECORDING SYSTEM

The recording instruments used for this survey are based ob a SERCEL SN338HR 48 channel, 1 millisecond sample rate data acquisition system. Interfaced to it is a Velseis VELCOM computer control system to provide data demultiplex on line and spread geometry input in real time, together with display of the data on a computer screen. Data were stored on hard disc in a proprietary format and archived to 60mb streamer tape cassettes. Data were then transferred to standard 0.5 inch tape reels in SEG-Y format. The system is capable of producing a basic brute stack in the field, utilising technology developed within the VELSEIS system.

Note: A separate 386 PC with VELSEIS processing software was available for field data processing if required.

7. TIME TABLE OF EVENTS

Survey Crew

3/8 to 4/8	:	Pegging, Scouting and Surveying
4/8	:	Survey calculations
5/8	:	Demobilisation to Daly Waters

Recording Crew

17/8 to 19/8	:	Production recording
19/8	:	Demobilisation to Daly Waters