



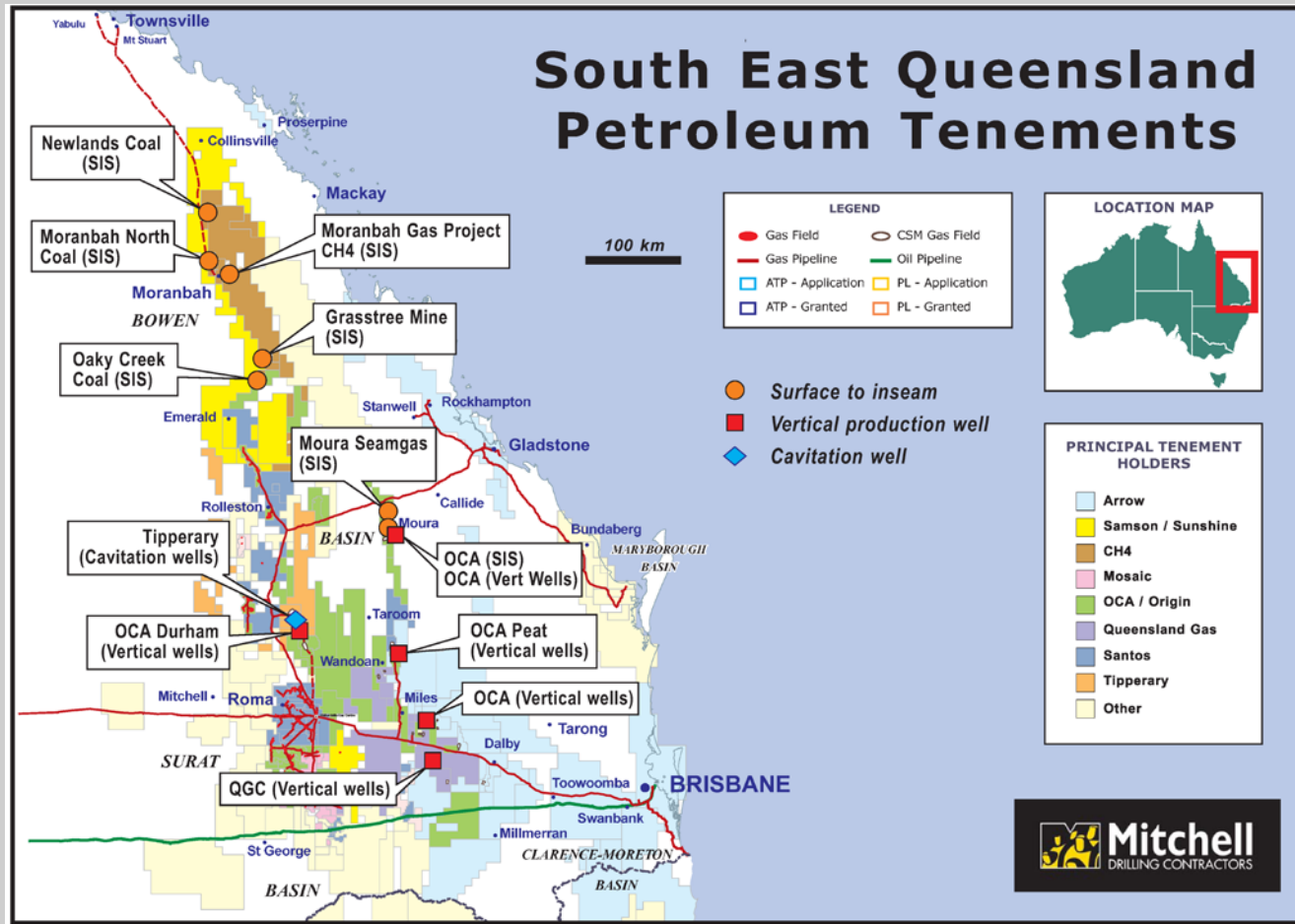
Dymaxion Surface to in-seam Drilling

Presented By:
Tony Field



Mitchell
DRILLING CONTRACTORS

SIS Drilling Locations in the Bowen Basin

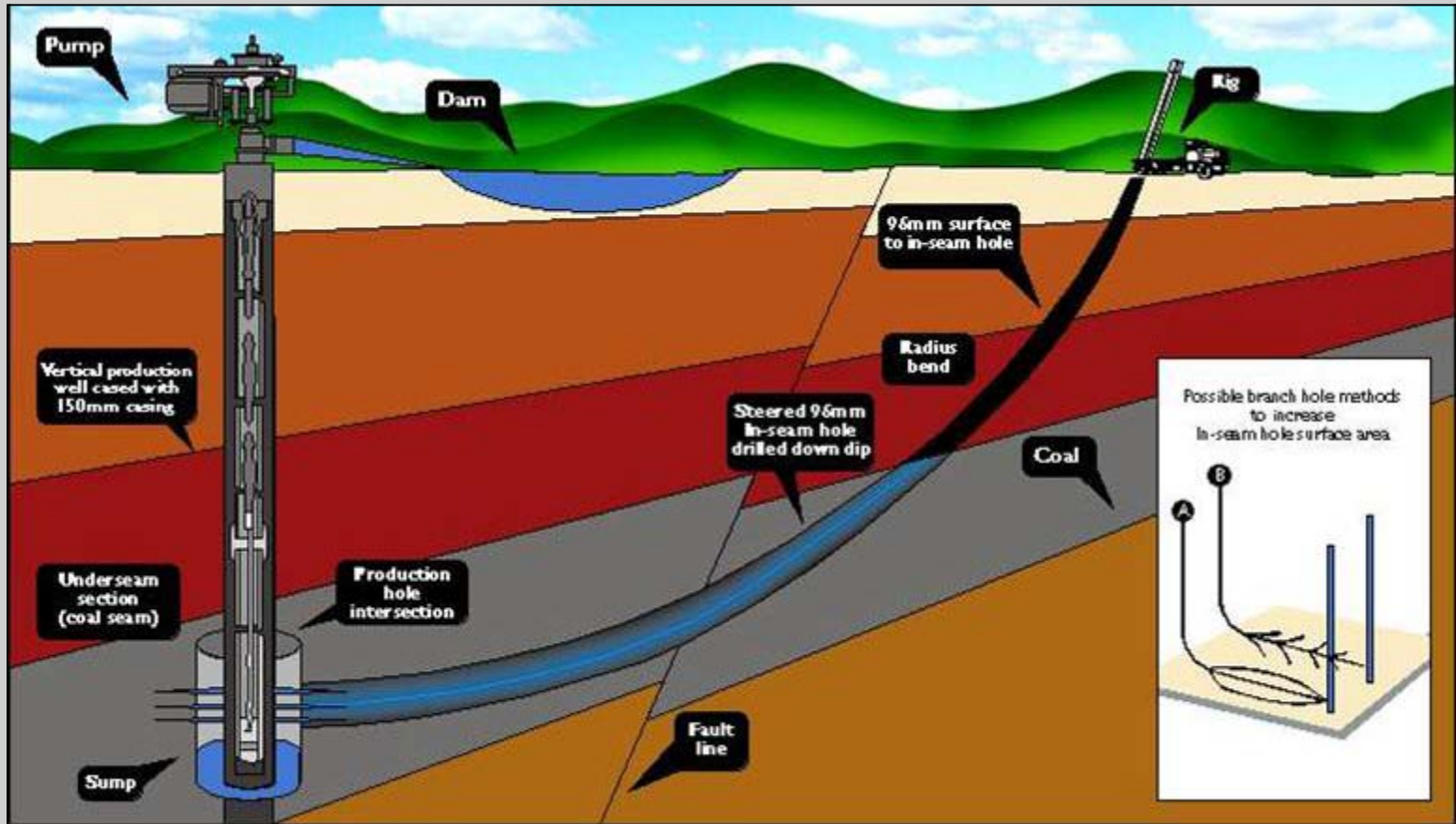


Surface to In-seam Overview

- Well Schematic
- Equipment
- Innovations



Typical Well Schematic



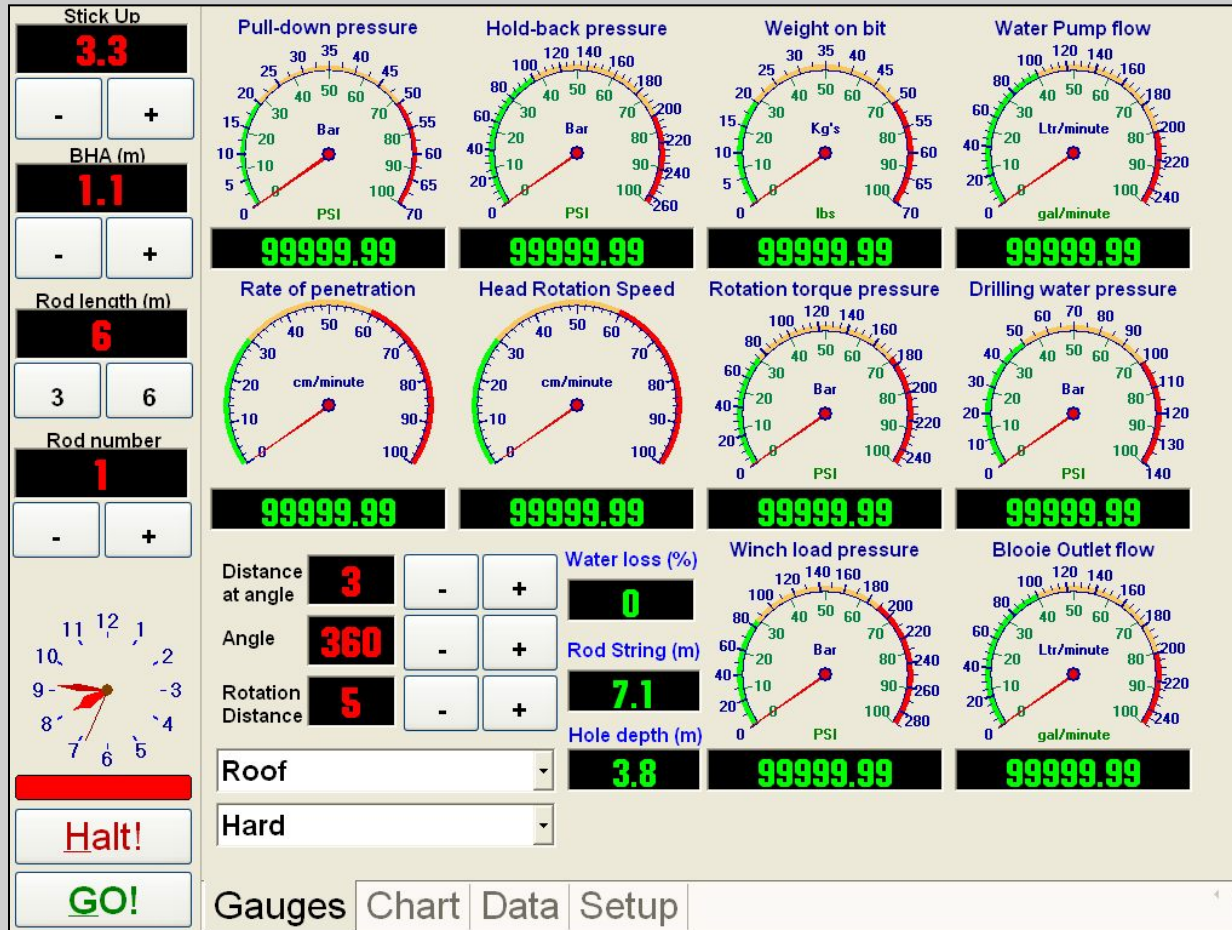
Multipurpose mineral exploration rig used for SIS Drilling



Surface to In-Seam Rig showing auto rod loader in operation



Data Acquisition While Drilling (DAWD) Screen



3" DX Oilfield grade drill pipe



Hybrid 96mm PCD Bit



Geo Steering Tool Operator



EM Survey Instrument

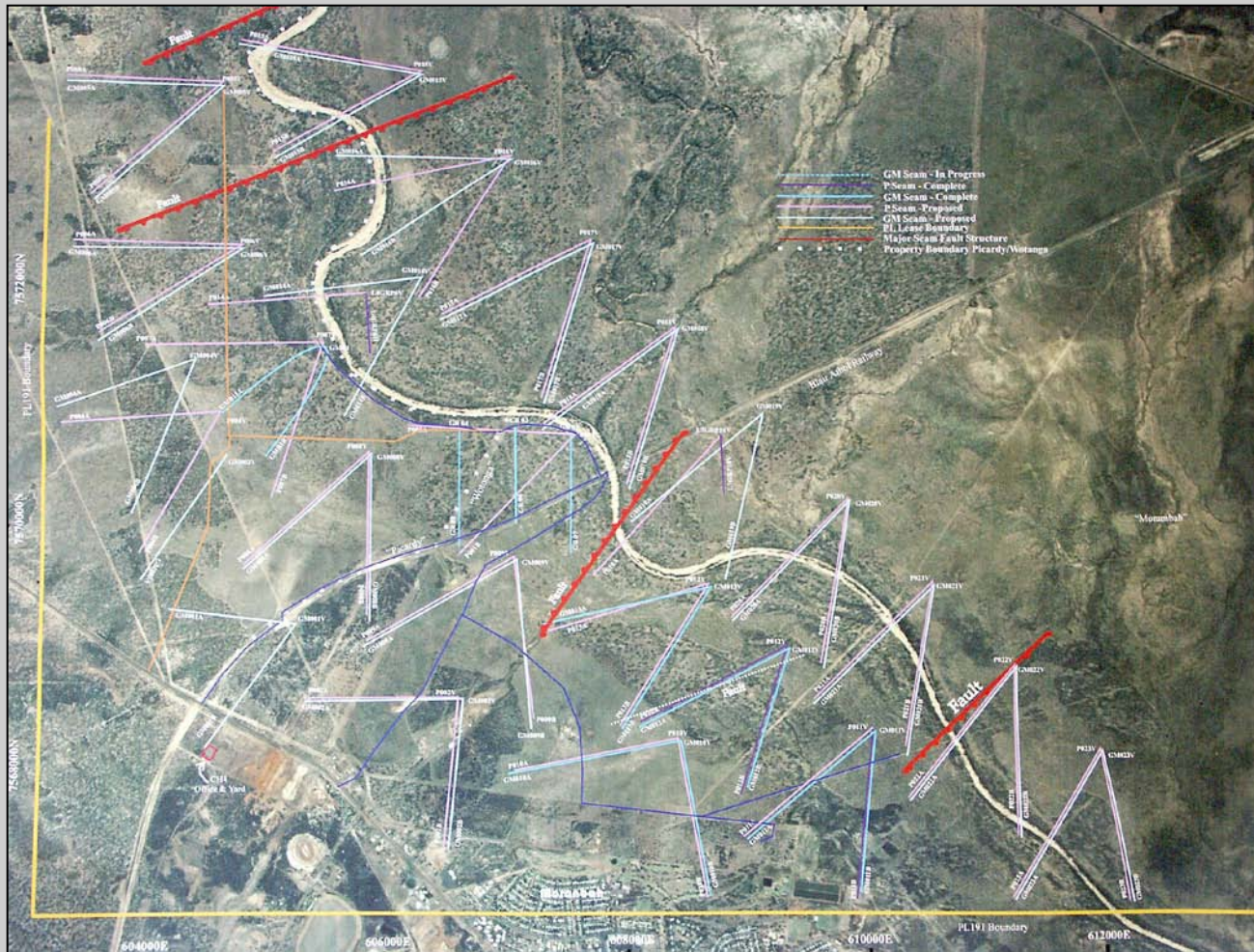


Moranbah Gas Project


- Overview
- Drilling sequence
- Equipment



Moranbah Gas Project Drilling pattern



Drilling Sequence

- Drill & complete vertical well: Rig 8
 - Precollar horizontal wells to ~100m, run and cement surface casing: Rig 11
 - Drill radius bend 100 – 300m: Rig 7
 - Drill in-seam section, intersect vertical well, run polyethylene liner: Rig 4, 10
- 

Moranbah Gas Project Vertical Rig



Moranbah Gas Project SIS Rig



Running polyethylene liner



Flaring from production well



Surface to in-seam costs / statistics

- Vertical Wells
- In-seam Wells



Table 1: Vertical well penetration rate and well cost

Shifts to complete	hole depth (m)	m/12 hour shift	Approximate cost /well
9	300	100	\$ 50,000

Table 2: In-seam penetration rate

Radius Bend 5 7/8"	In-seam to 1000m	In-seam 1000m - TD	Penetration rate decrease past 1000m
m/12 hour shift	m/12 hour shift	m/12 hour shift	
90	170	110	36%

Table 3: Horizontal well statistics

well depth	In-seam distance	Target inter-section runs	12 hour Shifts to complete well	Approximate cost / well
1400	1100	<2	26	\$ 185,000

New Technology

- Soilmec G-55
- American Augers DD140



Soilmec G-55



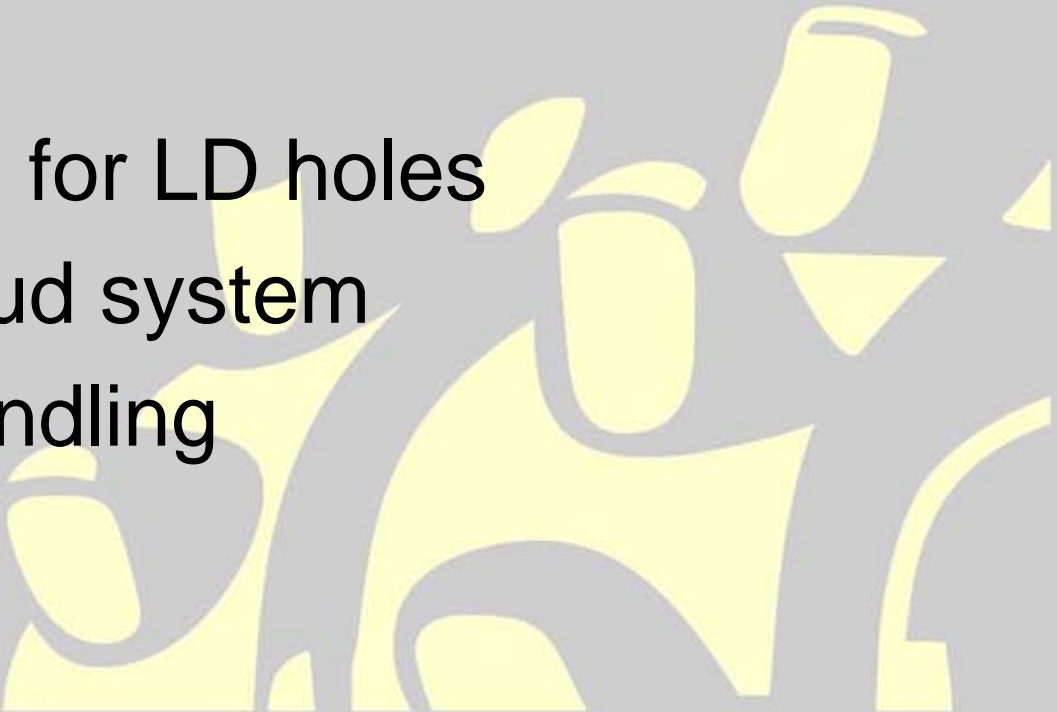
Soilmec G-55



Self Contained Mud System



Soilmec G-55 Features

- 1200m production hole (8") capacity
 - 2000m+ Dymaxion SIS capacity
 - Range 3 drillpipe
 - Range 2 casing
 - 40" table opening for LD holes
 - Self contained mud system
 - Automatic rod handling
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Rig 125 – American Augers DD 140



DD 140 Features

- Depth capacity ~3000m
- 120mm+ hole size capacity
- Oilfield drill pipe allows wider range of hole designs
- Self contained mud system
- 10° to 60° drill angle



CBM in far away places

- Rig 114, UDR 1500, on location Central India



CBM in far away places

- Digging mud pits



CBM in far away places

- Day Shift Crew



CBM in far away places

- MDC crew participating in local “festival of colours”

