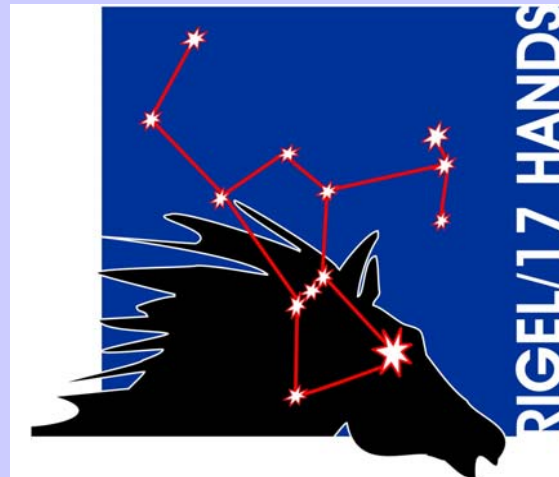
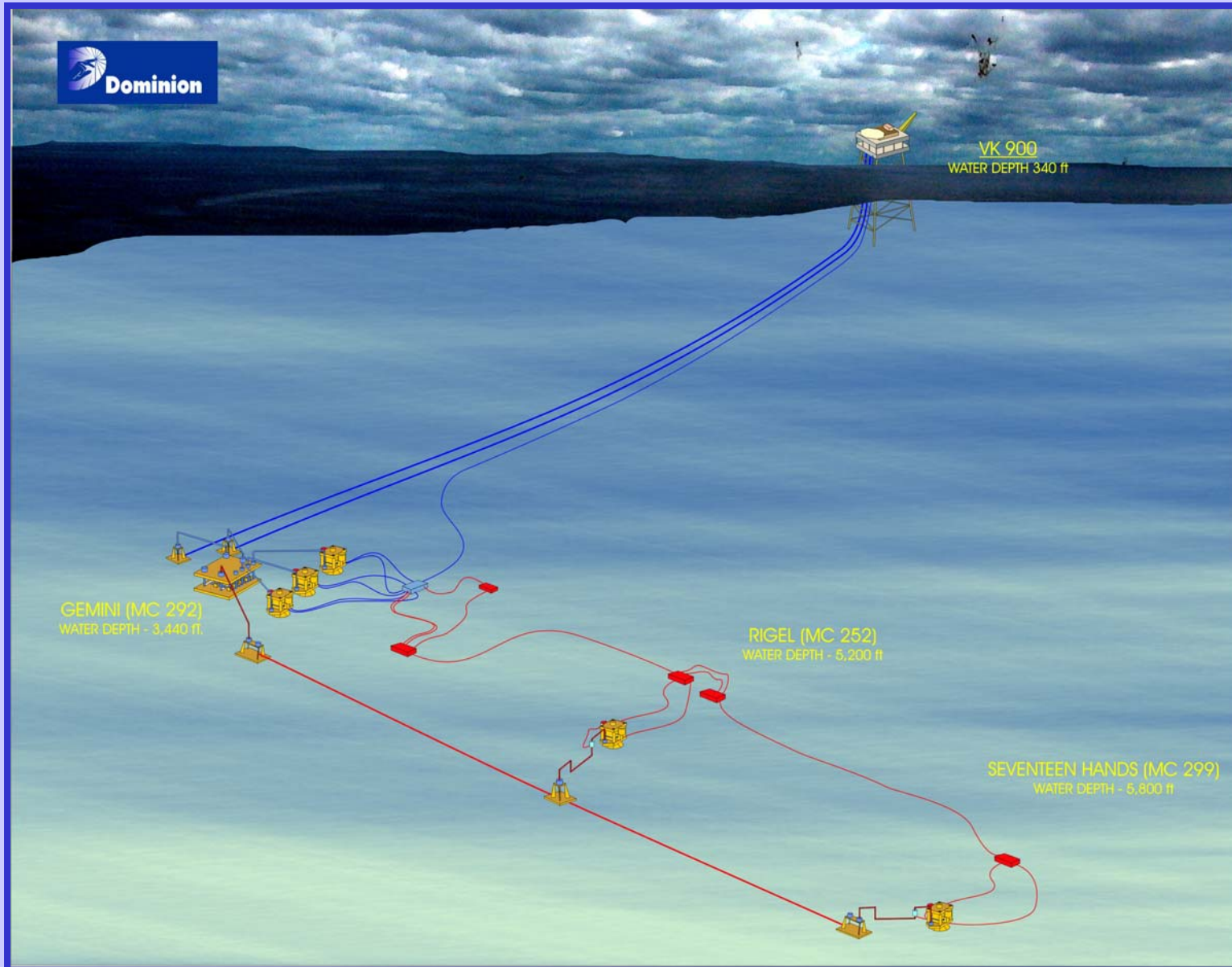


RIGEL/17 HANDS SUBSEA DEVELOPMENT



Larry Starlight - Dominion E&P

RIGEL / 17 HANDS SUBSEA JOINT FIELD DEVELOPMENT



RIGEL/ 17 HANDS LOCATION MAP



17 HANDS OVERVIEW

OCS Block

Mississippi Canyon 299

Water Depth: 5880'

Ownership:

Murphy Exploration & Production, Inc.	37.5%
Dominion Exploration & Production, Inc.	37.5% (Operator)
Spinnaker Exploration & Production (Hydro)	25.0%

History:

Drilled, May 2001, MC299#1 and MC299#1 ST across Rob E Objective

SITP

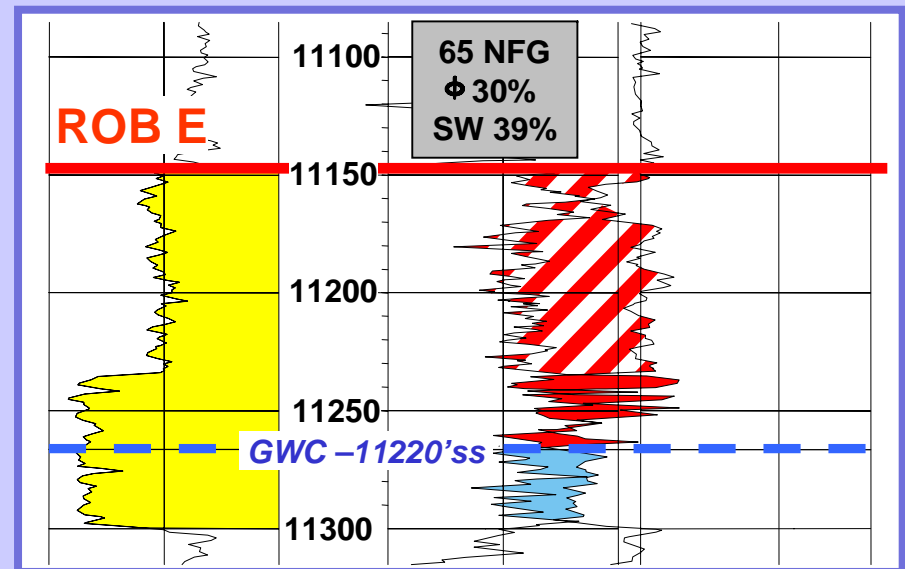
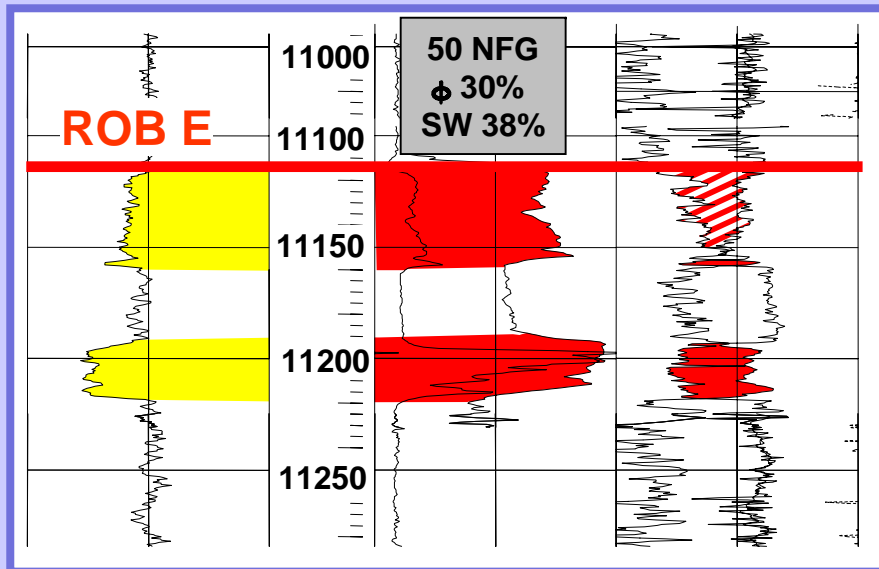
5650 psi

17 HANDS FIELD

MISSISSIPPI CANYON 299

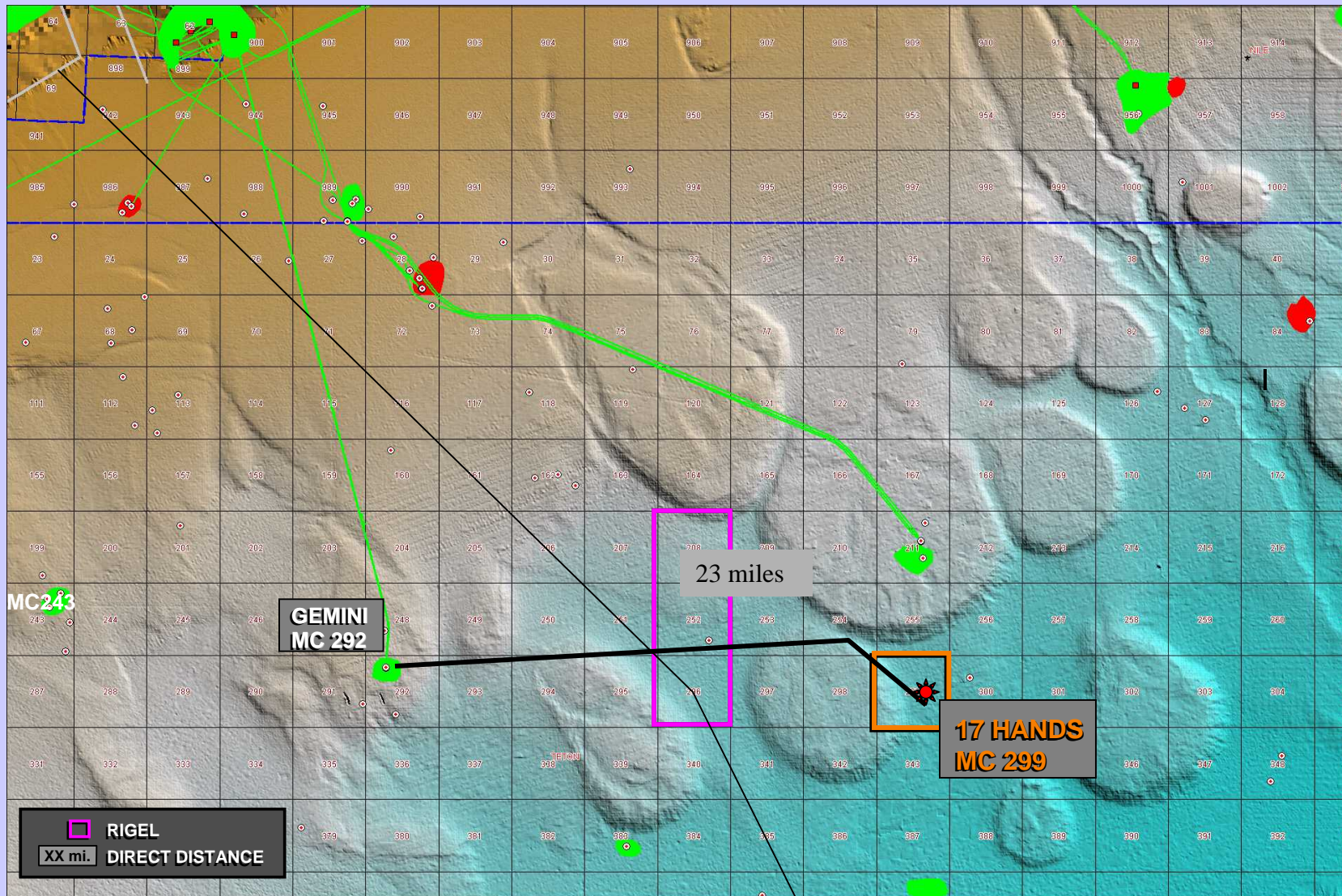
DISCOVERY WELL MURPHY #1

APPRAISAL WELL MURPHY #1 ST1



17 HANDS DEVELOPMENT

Gemini-VK900 ChevronTexaco HOST FACILITIES



RIGEL OVERVIEW

OCS Blocks

Mississippi Canyon 208
Mississippi Canyon 252
Mississippi Canyon 296

Water Depth: 5230'

Ownership:

Dominion Exploration & Production, Inc.	52.5% (Operator)
Newfield Exploration & Production	25.0%
Mariner Energy, Inc.	22.5%

History

MC252#1 ST2 – Drilled and T&A'd (cased across Rob E).
MC296#1 – Drilled and T&A'd Oct 2003 (cased across Rob E upper and Rob E)

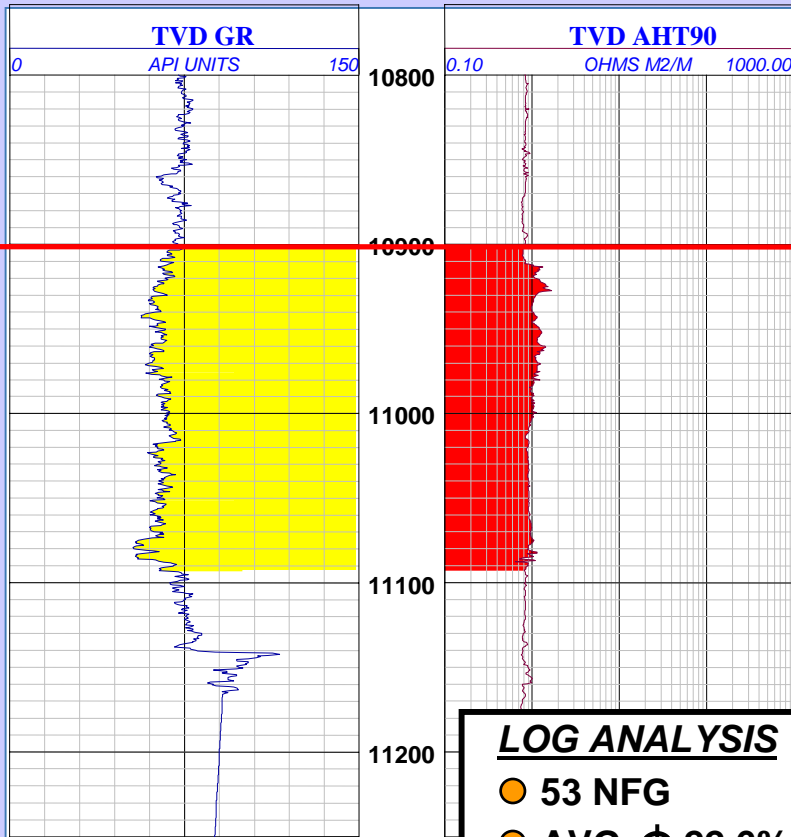
SITP

5810 psi

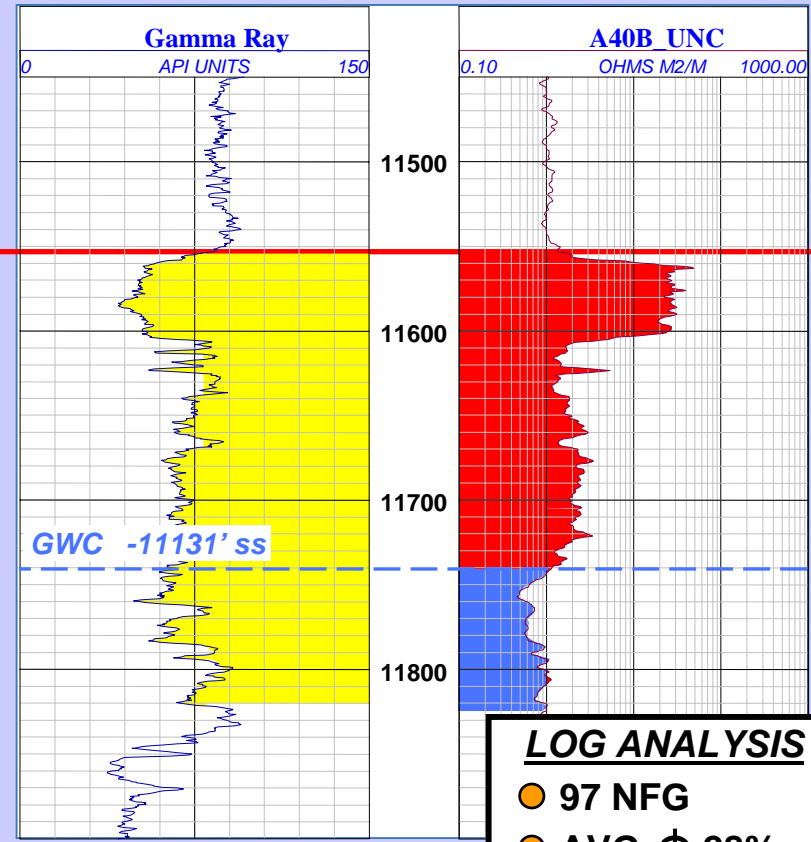
RIGEL FIELD

DISCOVERY WELL MC252 TEXACO #1 ST-2

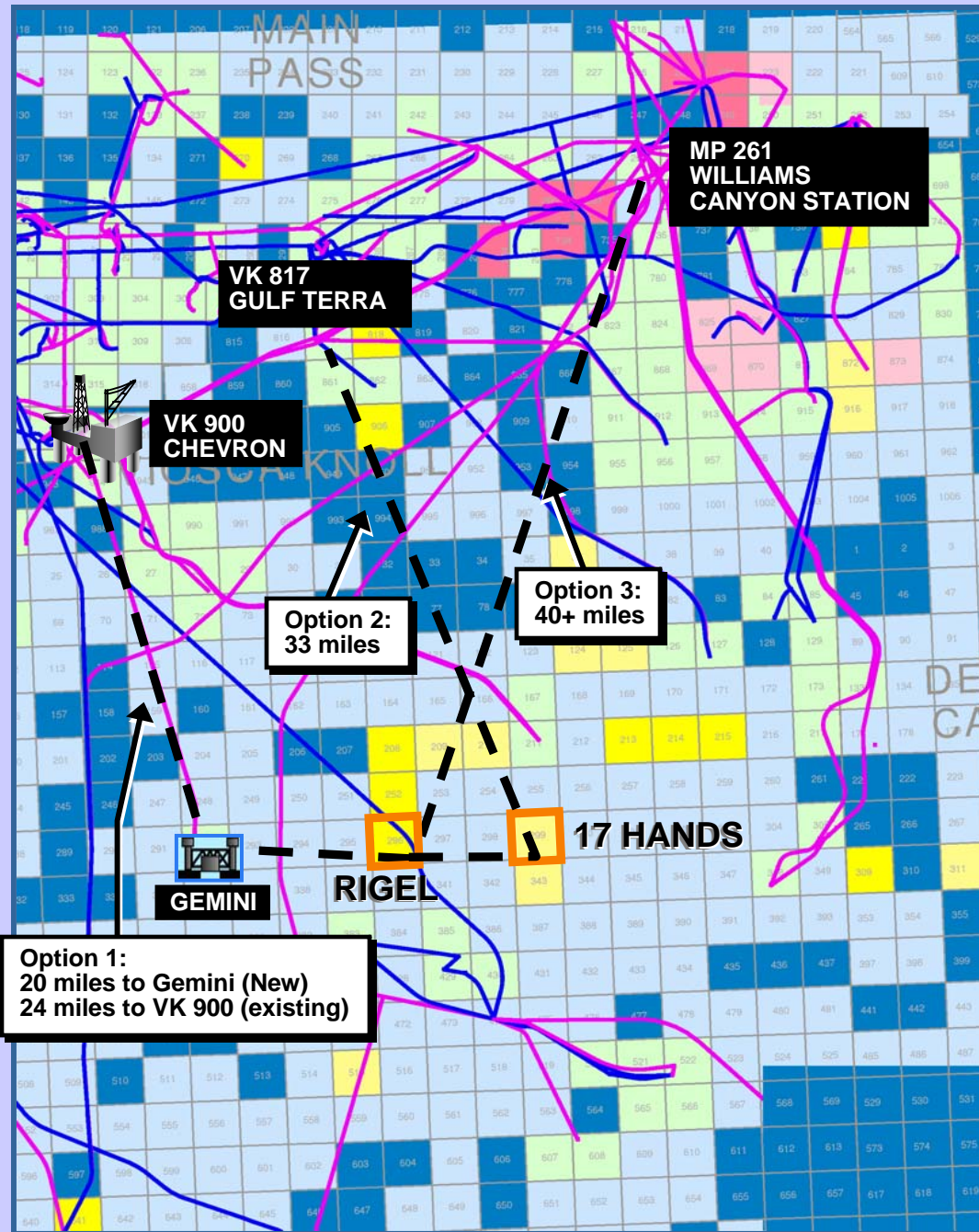
APPRAISAL WELL MC296 #1 BP (MD log)



- LOG ANALYSIS**
- 53 NFG
 - AVG. ϕ 22.6%
 - AVG. SW 53%
 - NG 54%



- LOG ANALYSIS**
- 97 NFG
 - AVG. ϕ 28%
 - AVG. SW 29%
 - NG 69%



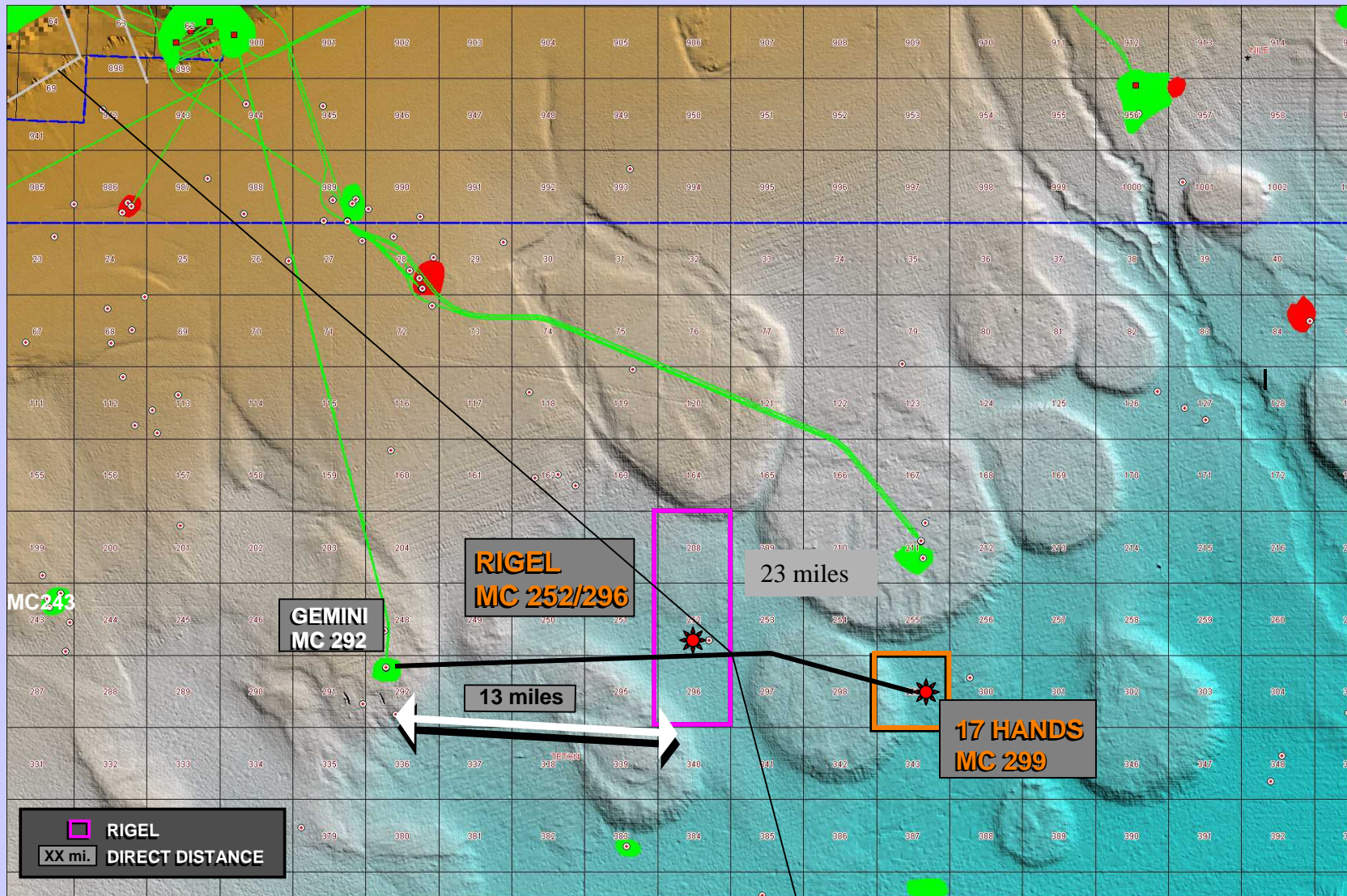
RIGEL / 17 HANDS

Leading Host Options

- **OPTION 1: Chevron via Gemini (VK 900)**
- **OPTION 2: Gulf Terra, et al (VK 817)**
- **OPTION 3: Williams Canyon Station (MP 261)**

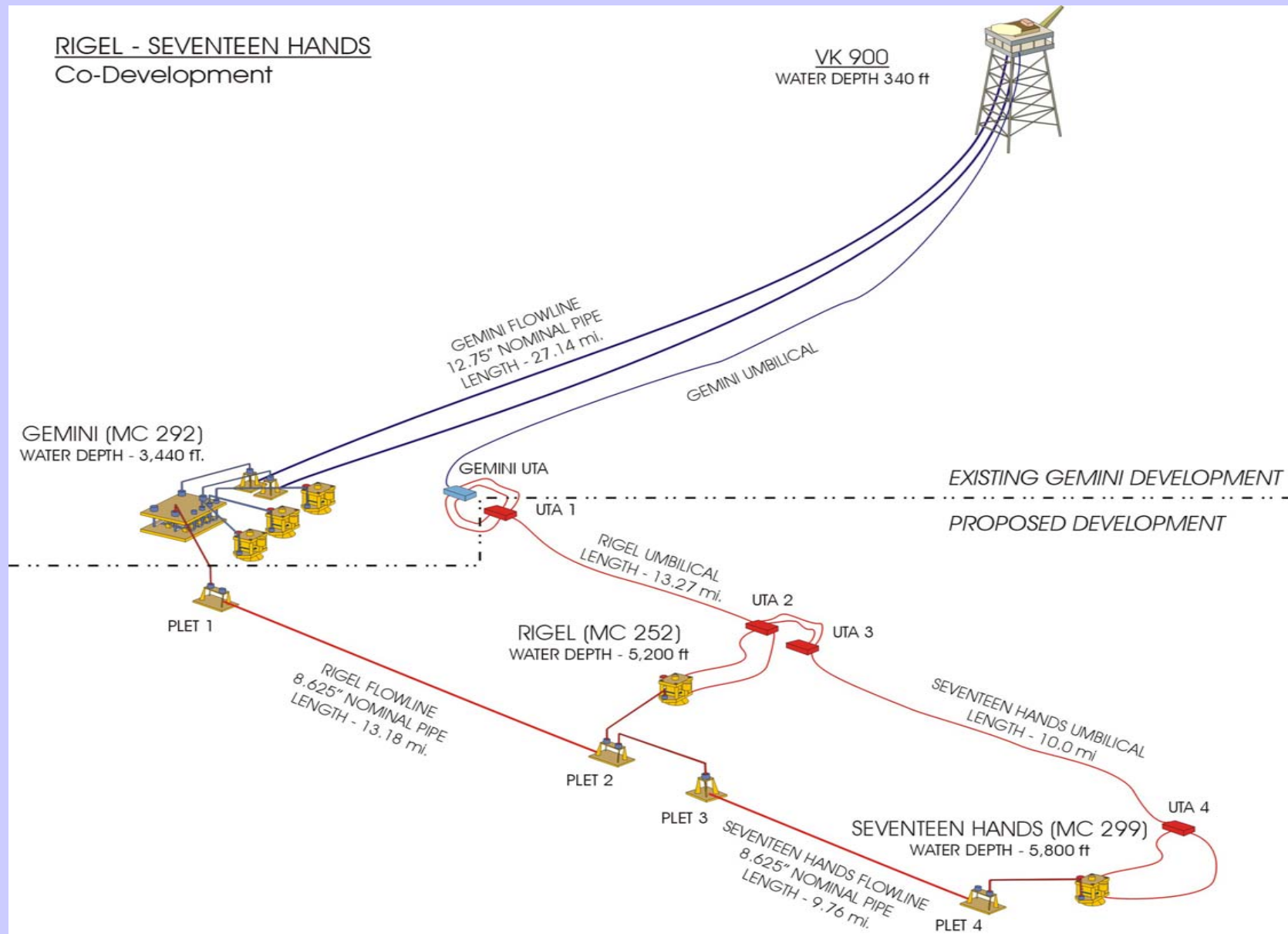
RIGEL /17 HANDS DEVELOPMENT

Gemini-VK900 ChevronTexaco HOST FACILITIES



RIGEL/17 HANDS Field Layout

RIGEL - SEVENTEEN HANDS
Co-Development



DESIGN and IMPLEMENTATION

Integrated Project Team Approach

- All 5 Partners
- Specialized Subsea Engineering Consultants
- Central Core of 9-10 People

RIGEL / 17 HANDS

Project Implementation

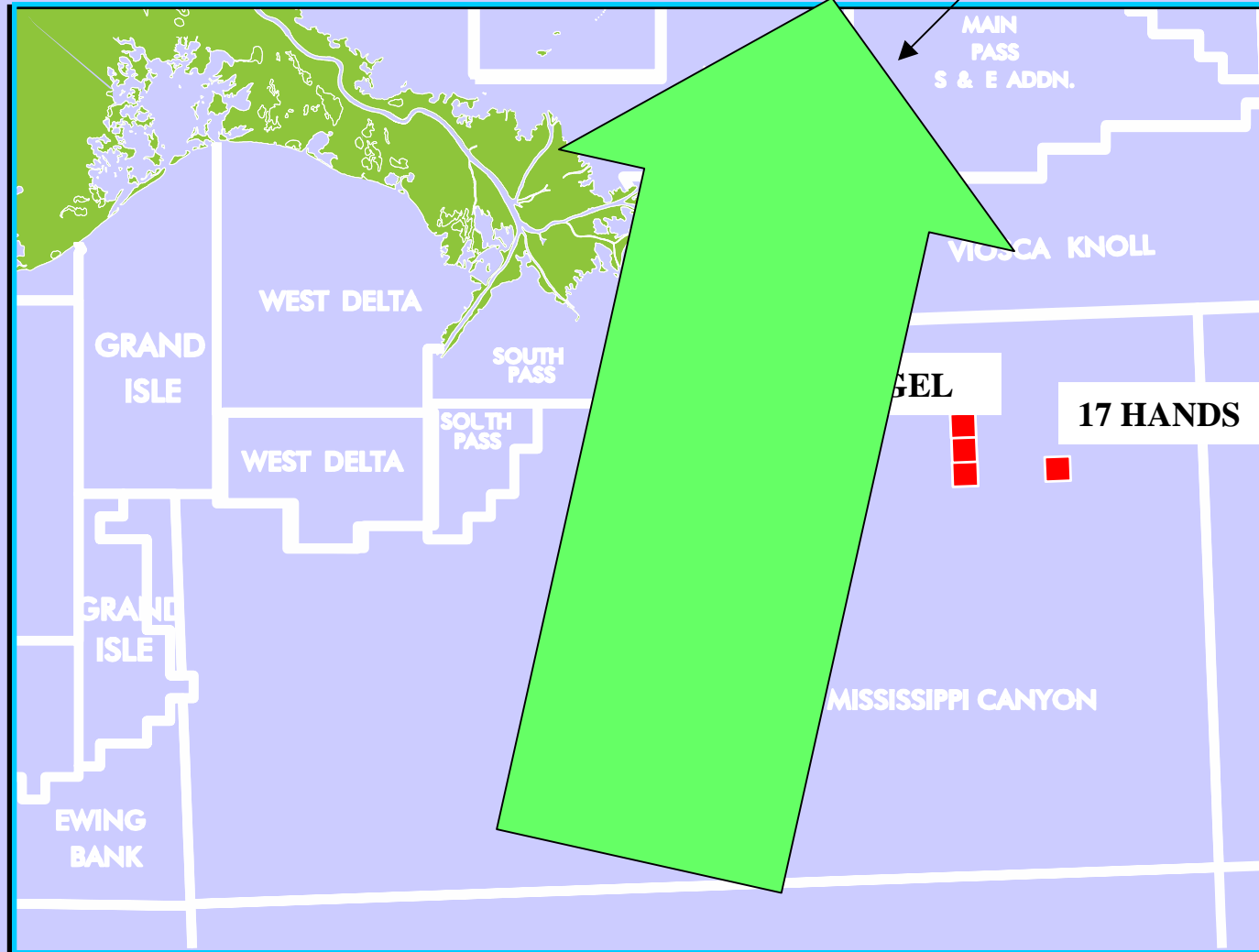
RIGEL/17 HANDS

Development Components

- 2- Cameron 10K Horizontal Subsea Trees
- 23 miles of 8", 0.5" wt, X-60 pipe
- 23 miles of 3.5" Oceaneering Umbilical-
8 zinc coated 19D tubes, 2 electrical quads
- ABB Vetco Control System
- 2- Roxar Subsea Wet Gas Meters
- Plets, Jumpers, UTAs, Flying Leads

RIGEL / 17 HANDS LOCATION MAP

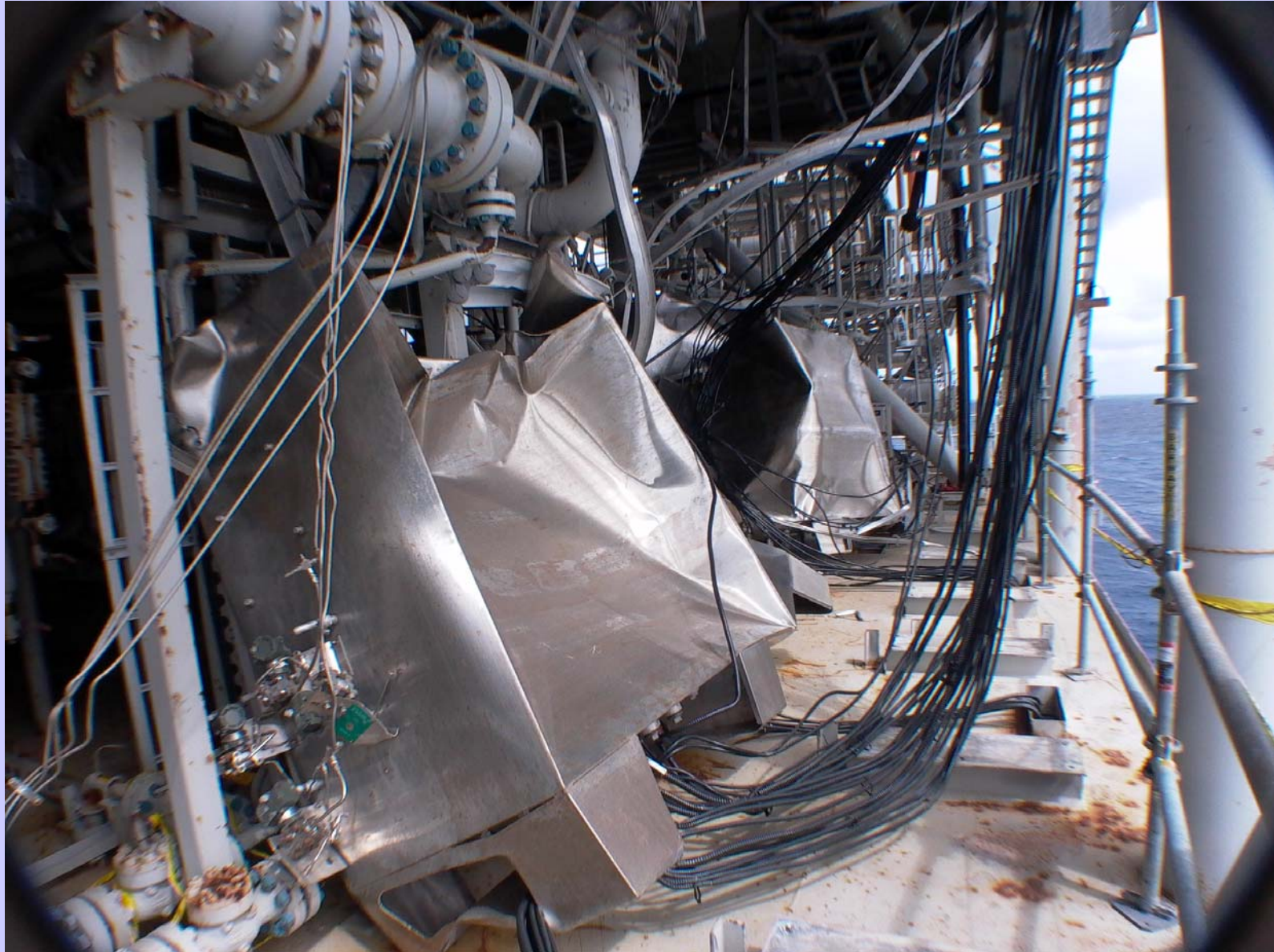
IVAN 135 mph Cat 4
Sept 2004



VK 900 Platform



VK 900 - Control Panels





Transocean-Cajun Express



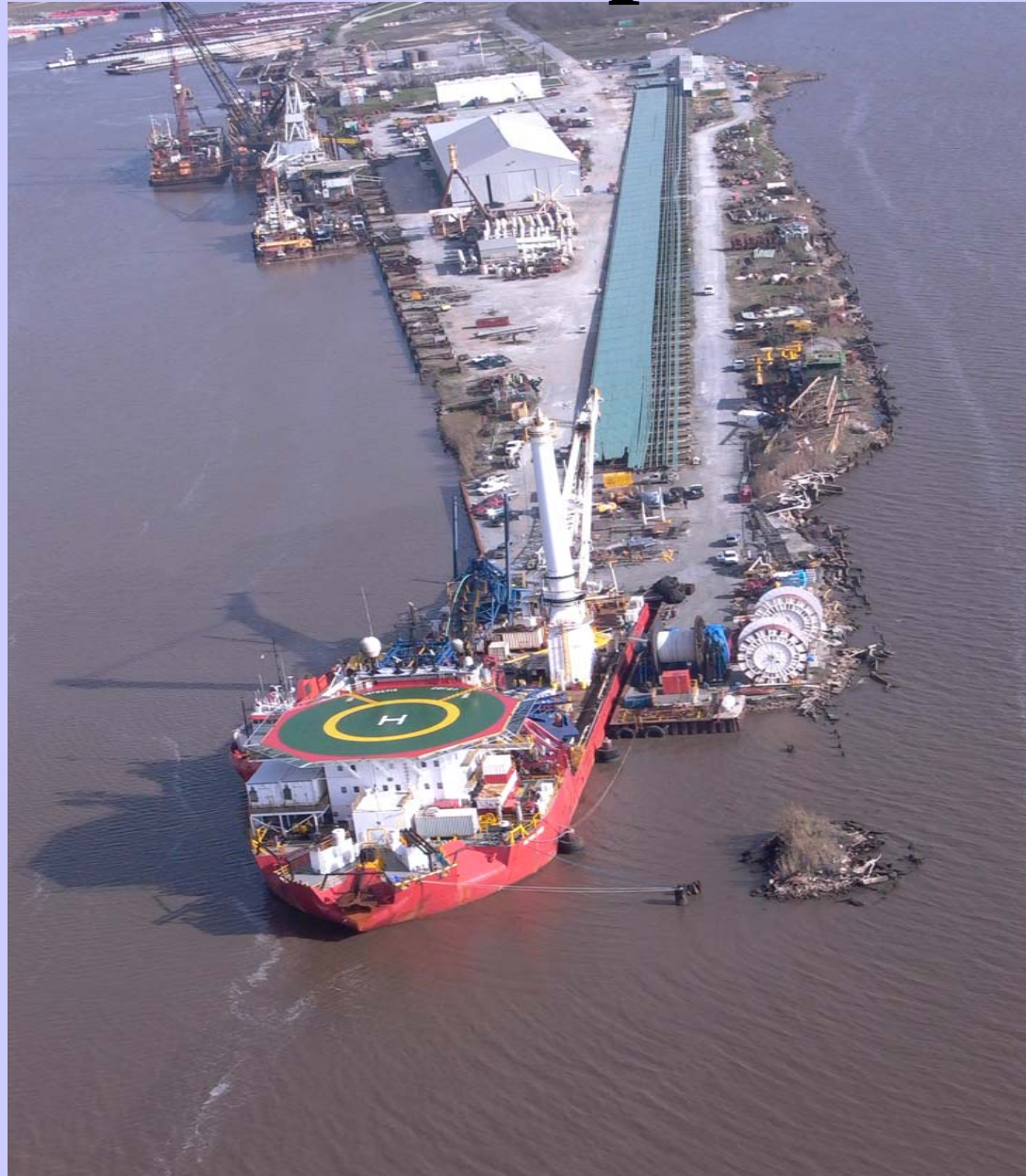
Cameron –Subsea Trees



Delmar – HCLS System



Cal Dive – Spoolbase



External Buckle Arrestors



Rigel PLET



Cal Dive - Intrepid



Flowline Jumpers at SIT





Roxar Subsea Wet Gas Meter



Subsea Wet Gas Meters

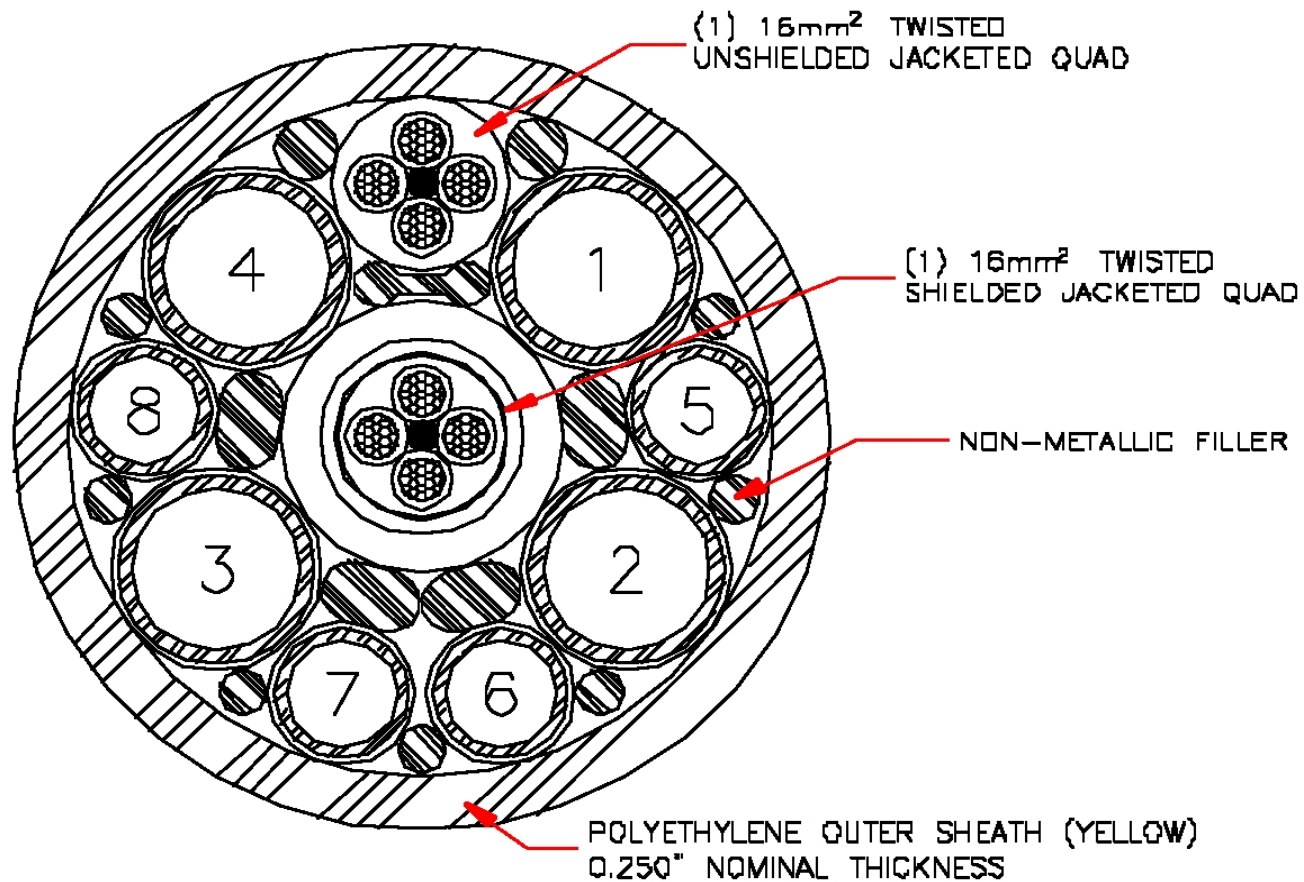


Overboarding Jumper



Umbilical X Section

UMBILICAL CROSS-SECTION



Umbilical X Sections



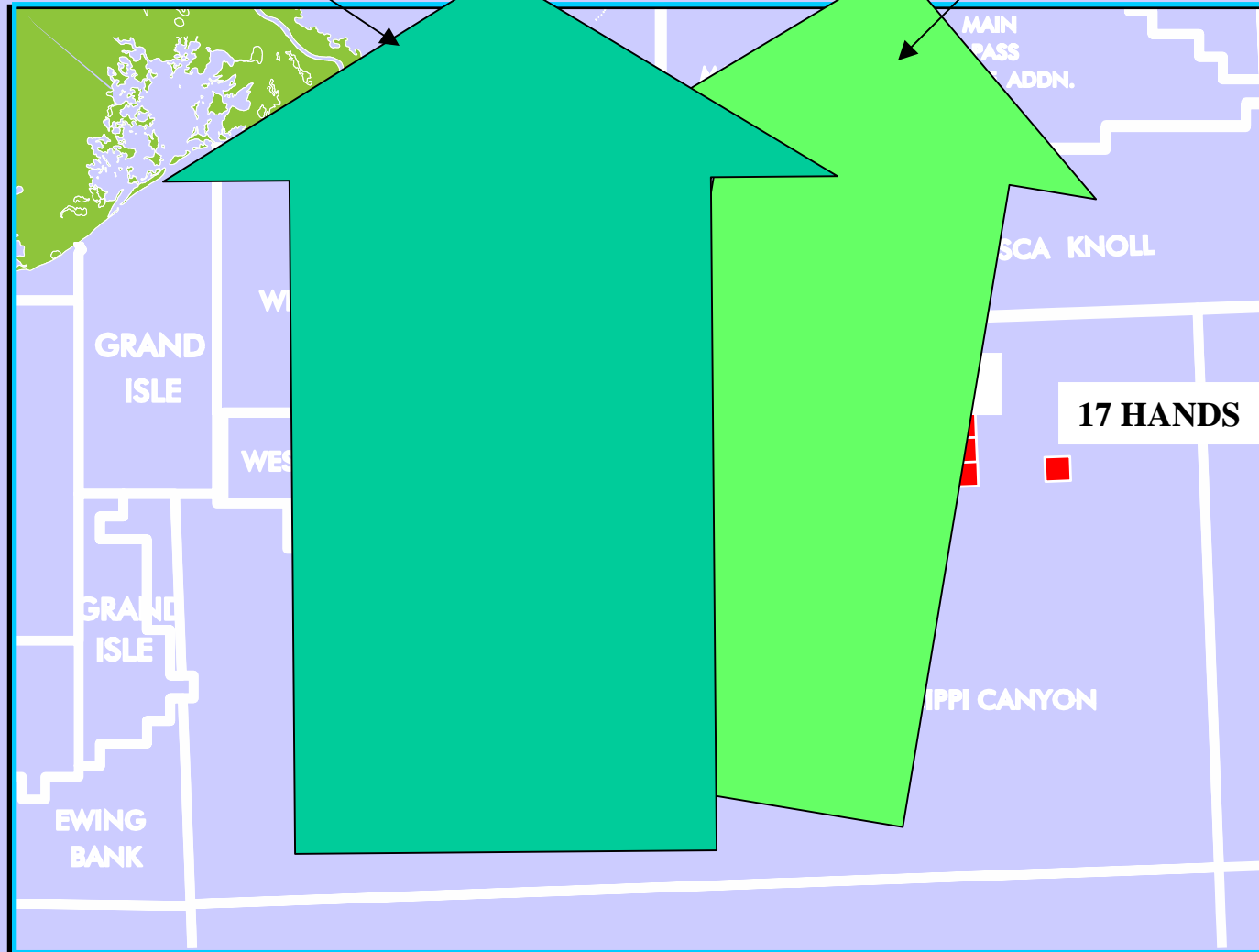
Umbilical SIT



RIGEL / 17 HANDS LOCATION MAP

KATRINA 150 mph Cat 4
August 2005

IVAN 135 mph Cat 4



Tensioner



Damaged Section



Damaged Section



Splice in Progress



Splice in Progress



Tensioner Solution



Completed Splice



Overboarding UTA



Gemini UTA



RIGEL/17 HANDS

- Successful Startup following VK900 Repairs – March 1, 2006
- Ramped up rates to 145 MMCFPD

RIGEL/17 HANDS

Conclusion

- Successful Extension of Existing Subsea Infrastructure
- Win–Win solution for both Chevron and R/17 Partners
- Despite numerous delays and problems, perseverance and the solution driven focus of the project team paid off.