Pantheon Resources PLC Corporate and Operational Update Webinar

17<sup>th</sup> September 2024



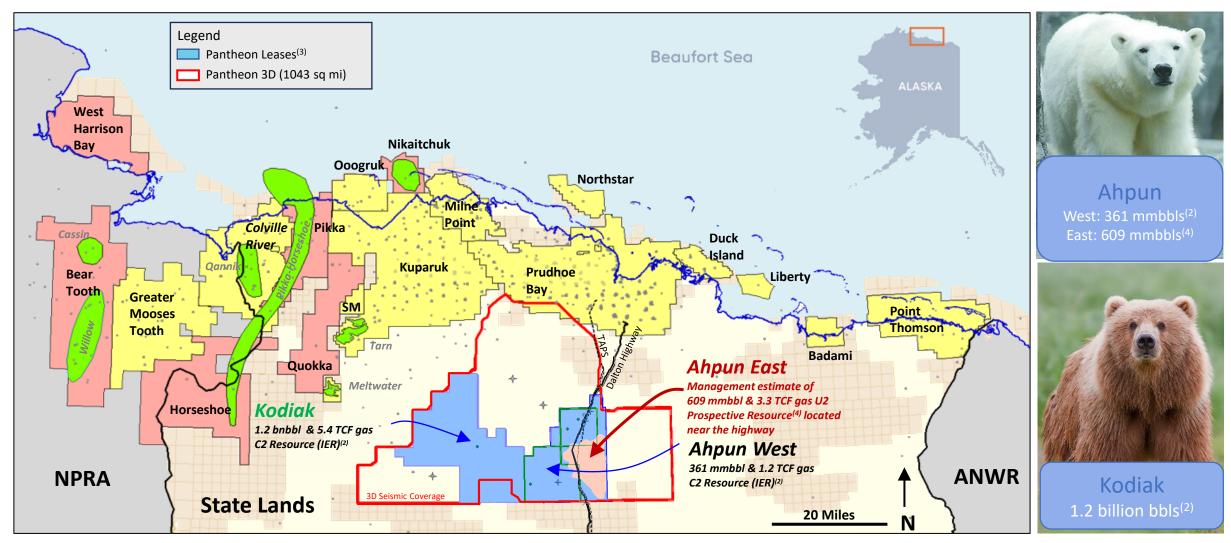
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- Competent Person's statement: David Hobbs has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he is undertaking to qualify as a Competent Person in accordance with the guidance note for Mining, Oil & Gas Companies issued by the London Stock Exchange in respect of AIM Companies, which outlines standards of disclosure for mineral projects. David Hobbs consents to the inclusion in this Presentation of the matters based on his information in the form and context in which it appears.

#### PANTHEON'S STRATEGIC FOCUS IS DEVELOPING ITS ± 1.6 BILLION BBLS 2C RESOURCE(1,2)

All activities are weighed against whether they accelerate, reduce value dilution or reduce cost



(1) Refer slide 6 for specific breakdown of resource estimates; (2) Independently certified Contingent Resources – by NSAI (9 April 2024), LKA (1 May 2024) and CG&A (10 June 2024) – see slide 22 for details; (3) includes ~66,000 acres awarded in December 2023 lease sales; (4) Management estimate – see RNS dated 10 April 2024

#### SIGNIFICANT PROGRESS SINCE LAST UPDATE





- ✓ Completed \$29 million interim fundraise<sup>(1)</sup>
  - ✓ Funding requirement to Ahpun FID reduced to \$32-\$57 Million
- ✓ Megrez pad under construction (± 50% complete)
- ✓ Preparations to mobilize rig in line with expectations
  - ✓ Targeting > 600 mmbbls (2U) Prospective Recoverable Resource
  - ✓ Targeting Q4 spud
- ✓ US CFO appointment and continuing consolidation in Houston, TX
- ✓ Agreed appointment of US advisors on success fee basis

#### INVESTMENT CASE POTENTIALLY MORE ATTRACTIVE THAN "BIG 4" BASINS IN US LOWER 48

Management targeting 10x – 20x Return (≥ than 10 Year Return on Continental, Diamondback and Pioneer)





#### ± 3.8 billion boe total resources base (including independent assessment of ± 2.5 billion boe 2C)

Discovered and Appraised, 2C: Kodiak (1.2 Bbbl recoverable) and Ahpun (360 mmbbl recoverable) plus 6.6 Tcf natgas Prospective, 2U: Eastern topsets of Ahpun (609 mmbbl) plus 3.3 Tcf natgas



#### Unique business model for Alaska due to location under TAPS and Dalton Highway

Cash Sink to First Production: < \$150-\$200 million vs \$1.5-\$2.0 billion (Pikka) and \$6-\$8 billion (Willow) Modular development: Each pad of 30 wells to deliver > 20,000 bpd + 60 mmcfd at \$500 million funded out of cashflow



#### Robust economics and CapEx optionality - management target \$5/bbl (Indicative Total Value \$7.85 Bn (1))

Breakeven: \$20-\$35/bbl WTI price for 20% IRR <sup>(2)</sup>, maximum unhedged capital commitment after production start-up of \$60 million (to install incremental well pad and process facilities)

Field Development Economics: Independently assessed unit values of \$2.5-\$6.0/bbl

Aligned with Company assessment of fully taxed discounted cashflows based on 3 years to FID, 1 year to first production, ANS crude prices in \$60-\$90/bbl range reduced by 10% quality discount, TAPS and seaborne shipping \$8.50/bbl and real discount rates of 7.5%-12.5%



#### Internal Management Comparison to US Lower 48 "Big 4" basins (Midland, Delaware, Eagleford, Williston)

Breakeven WTI \$/bbl (10% IRR): Pantheon range \$20-\$35/bbl vs Tier 1 mean \$45 - \$60/bbl "Big 4" basins are currently the most active basins in the lower 48.

# Discovered – 2C

#### CORE STRATEGY FOCUSED ON DELIVERING VALUE OF DISCOVERED RESOURCES

Two Short Term Initiatives Aim to Optimize Value Delivery



Source (Support)	SPE PRMS Classification	Best Estimate Oil (mm bbls)	Best Estimate NGL (mm bbls)	Total Marketable Liquids (mm bbls)	NPV 10% Real DCF at \$80 oil price <sup>(1)</sup>	Best Estimate Gas (bcf)
Kodiak (NSAI – April 24)	2C	426	782	1,208	\$5/bbl  Company Strategic Goal <sup>(2)</sup>	5,396
Ahpun – Alkaid (LKA – April 24)	2C	43	36	79	\$0.2 - \$0.5 billion  Lee Keeling Estimate	424
Ahpun – Western Topsets (CGA – June 24)	2C	152	130	282	\$1.7 billion (Cawley Gillespie Estimate)	804
Total Discovered Resources	<b>2</b> C	621	948	1,569		6,624

## Short term initiatives to optimise value of core strategy:

- Drill Megrez-1 well to secure Ahpun development timeline and enhance start-up/ramp-up cashflows leading to earlier financial self-sufficiency
- Finalise Gas Sales Precedent Agreement to potentially provide non-dilutive funding and reduce expected value dilution in overall financing strategy

#### MEGREZ-1 SUCCESS PROVIDES HIGHER QUALITY INITIAL RESERVOIR DEVELOPMENT

Beginning with Eastern Topsets in Ahpun Would Reduce Initial Cash Sink and Accelerates Cash Flow



# Current Activity: Megrez Pad Under Construction. Drill Before Winter Season

- ✓ Test 609 mmbbl (2U) Prospective Resource<sup>(1)</sup> with Low Geological Risk
- ✓ Conventional High-Quality Reservoir
- ✓ Drilled from Gravel Pad Alongside Dalton Highway

## Megrez Well Plan

- ✓ Maximize information gathering: full suite of e-logs plus cores
- ✓ Optimize bottom-hole location with 45-degree deviation
- ✓ Use of oil based mud and rig enhancements to mitigate operational risk
- ✓ Success in Megrez-1 enhances Start-up/Ramp-up phase by allowing focus of initial development through higher value, higher deliverability wells

#### REGARDLESS OF OUTCOME OF MEGREZ-1: AHPUN & KODIAK TO PROCEED



Development Beginning with Western Topsets of Ahpun

- ➤ Develop ± 1.5 billion bbl (2C) Contingent Resources<sup>(1)</sup>
- Competitive Metrics vs "Big 4" Lower 48 Basins<sup>(2)</sup>
- > Alternative Funding Pathways include Strategic Transactions, Equity

#### GAS SALES POTENTIAL REDUCES EXPECTED DILUTION TO FUND OIL DEVELOPMENT

Gas Sales Precedent Agreement Provides Potential Path to Funding



- ✓ WoodMac Draft Report Demonstrates Attractiveness of AK LNG Phase 1 vs Alternatives to Fill Alaska's Gas Supply Shortfall
- ✓ AGDC Anticipates Funding Arrangements by Y/E 2024 (for Studies to Reach FID)
- ✓ Pantheon Estimates Potential for ± \$250 Million of Financing Capacity Secured on Gas Sales if AK LNG Phase 1 Project Proceeds as Planned

Summar





Gas supply via pipeline provides higher economic impact, jobs, and lower delivered costs by stimulating demand, though it requires higher capex and a later first gas

- Cook Inlet gas supply has declined, and despite exploration efforts by operators, no new volumes have been discovered
- Lack of reliable and affordable gas supply drove decline in demand, however going forward supply is expected to drop faster creating a demand gap
  of ~2.3 tcf (to 2071) projected to begin by the end of this decade
- With Cook Inlet gas production proving to be challenging, there are two main alternatives to address the forecasted supply & demand gap:

		Natural Gas Supply via Pipeline	LNG Imports
	A 765	mile (Phase 1), 42-inch diameter pipeline connecting the Southcentral Alaska region with the North Slope fields	Gas imports via LNG, for which regas and further downstream infrastructure is required
<u> </u>	<ul><li>Cost</li></ul>	t of delivered gas in the US\$2.23 – \$12.8/mmbtu	Cost of delivered gas in the US\$10.2 – \$13.7/mmbtu (plus onshore costs)
Z	• Tim	ne to first gas 2031³	Time to first gas potentially 2028 <sup>2</sup>
		ect, indirect and induced GVA: ~US\$ 10.3 Bn 71 jobs¹ created during construction and 1,138 in operations	<ul> <li>Lower capex &amp; lower direct, indirect and induced GVA ~US\$0.6 – 1.4 Bn</li> <li>568 jobs¹ during construction and 250 in operations</li> </ul>
ÎÎ	ecc ■ Rec	ovides access to <b>upside demand</b> with additional industrial and conomic benefits to the state ducing emissions and removal from EPA's nonattainment in irbanks via substitution of oil & wood as primary energy source	<ul> <li>Focused supply for the Southcentral region</li> <li>No Fairbanks or additional industrial demand</li> </ul>
		ther likelihood of full Alaska LNG Project	Preliminary Analysis

Source: Wood Mackenzie Interim Draft Report – published September 2024

#### REGARDLESS OF GAS SALES OUTCOME: AHPUN & KODIAK TO PROCEED



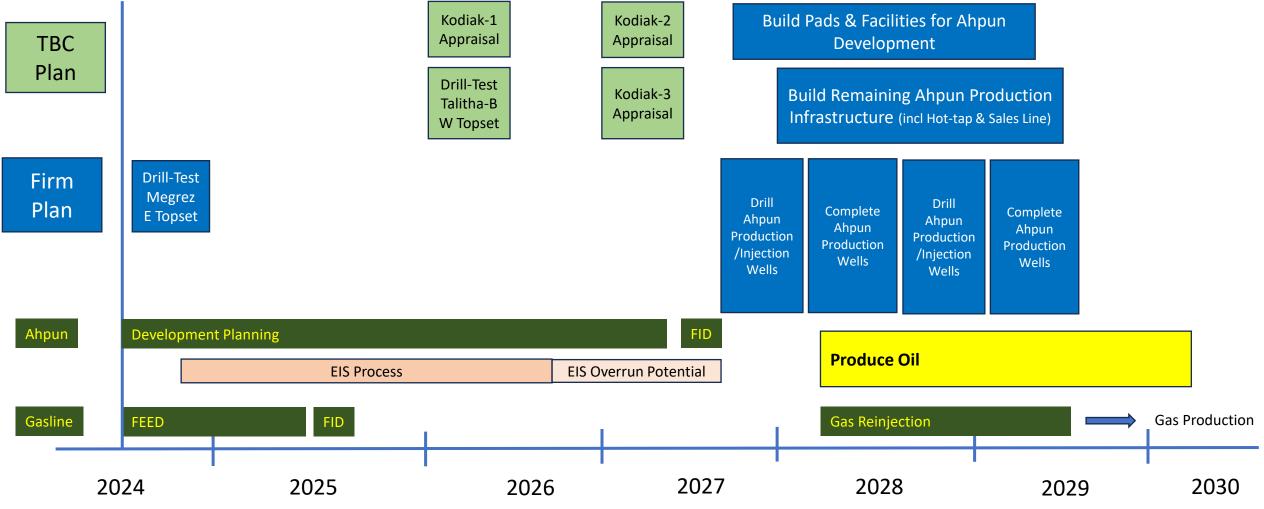
Development Beginning with Western Topsets of Ahpun

- ➤ Develop ± 1.5 billion bbl (2C) Contingent Resources<sup>(1)</sup>
  - Gas Reinjection is Base Case Plan
- Competitive Metrics vs "Big 4" Lower 48 Basins (2)
- Alternative Funding Pathways Include Strategic Transactions and Equity Fund Raise

### **Pantheon Planning Conservatively for Production in 2028**

Timeline for Additional Appraisal Subject to Funding<sup>(1)</sup>





# Appendices



#### STRONGLY COMMERCIAL AHPUN TOPSET AND KODIAK DEVELOPMENTS



Conceptual single well economics – NPV10 Sensitivity Analysis (Company Estimates)

EUR per well	Megrez-1 East Ahpun Top Set 9.57 MMBBL			heta West	West Ahpun Top Set  3.48 MMBBL	
Pricing	NP V 10 (\$m ln)	NPV10 per bbl. (\$)	NPV10 (\$mln)	NPV10 per bbl. (\$)	NPV10 (\$mln)	NPV10 per bbl. (\$)
\$60	\$202.3	\$21.1	\$54.3	\$14.8	\$30.0	\$8.6
\$70	\$249.3	\$26.0	\$71.7	\$19.5	\$40.7	\$11.7
\$80	\$296.3	\$30.9	\$89.0	\$24.2	\$51.5	\$14.8
\$90	\$343.3	\$35.8	\$106.4	\$28.9	\$62.2	\$17.9

#### All well models display:

- IRRs > 100%
- Paybacks < 1.5 years</li>
- PIRs above 2x at \$80 ANS

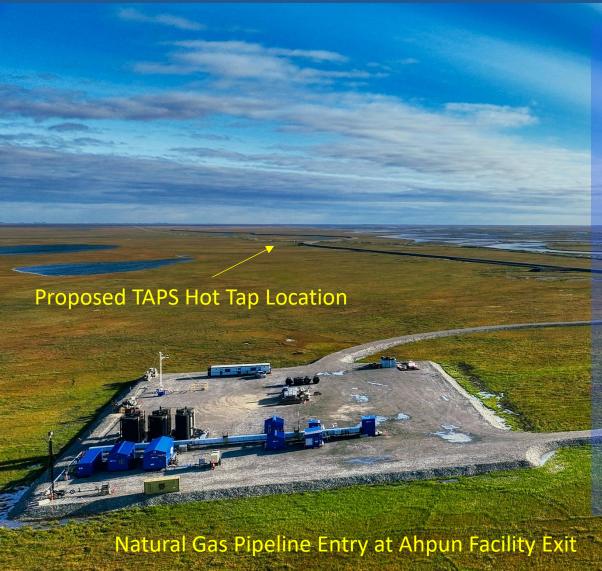
Principal assumptions and management estimates (Outturn may differ from assumptions)

- Prices have been discounted by 10% from ANS for quality bank adjustment. No revenues for natural gas
- Combination of TAPS tariff and shipping to US West Coast estimated at \$10.00 bbl
- Production well cost \$24.5 million (\$22.6 million for Ahpun East) include allocation of
  - 1 injection well for every 3 production wells
  - Well pads and production facilities estimated at \$2.5 million per well (based on estimated \$50 million for 20 well pad)
- Royalty rates modelled at between 17.5 18%,
- Economics after severance/production taxes but before Federal Taxes

#### REQUIRED PERMITS FOR AHPUN PROJECT TO PROCEED TO GAS SALES

Process should be eased by Pantheon leases being from the State of Alaska<sup>(1)</sup>





- FID on In-State Phase of Alaska LNG Project
  - LNG Export, Right of Way and Major Environmental Permits, and Federal Loan Guarantee in hand
- Wetland Fill Permits (Corps of Engineers)
- Unit Development Plan Approval (State)
- State Pipeline Right-of-Way Lease (State)
- Hot Tap Design Approval (Fed DoT/Alyeska)
- Air Quality Permit (ADEC)
  - Development Permit (North Slope Borough)

#### GAS SALES PRECEDENT AGREEMENT SHOULD GENERATE ADDITIONAL VALUE

Could Result in Additional Pre-FID Funding to Reduce Needed Equity Commitments



## **Gas Sales Precedent Agreement**

- ✓ Turning a liability into an asset<sup>(3)</sup> fewer gas disposal wells required
- ✓ Potentially transformational impact on project via commercialization of the entire<sup>(3)</sup> hydrocarbon stream (oil, condensate, NGLs and gas)
- ✓ Positive for State of Alaska<sup>(2)</sup> & value uplift for PANR
- ✓ Could result in at least \$100 MM of post-FID funding<sup>(3)</sup> (details on next slide)

## Potential integrated hydrocarbon/helium project with:

- ✓ Discovered resources 2.7 billion barrels of oil equivalent<sup>(1)</sup> and
- ✓ Undiscovered resources 1.1 billion barrels of oil equivalent<sup>(1)</sup> with material upside from future low risk appraisal drilling activities
- ✓ Helium concentrations of 0.5% 1.5% in Kodiak associated gas

#### INTENDED GAS MONETISATION TO FUND THE OIL DEVELOPMENT

Gas Sales Precedent Agreement with AGDC Executed June 2024



#### Key commercial terms to be included in final agreement<sup>(1)</sup>:

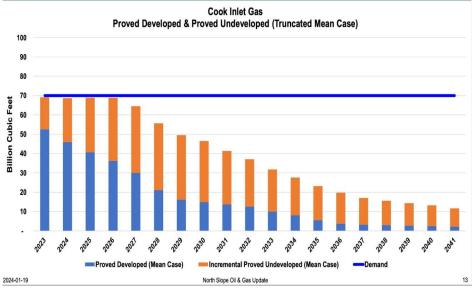
- ✓ Sales of up to 500 mmscf per day into pipeline
- ✓ Maximum \$1/mmBtu indexed to inflation
- ✓ Expected 70% Take or Pay over initial 20 year plateau
- ✓ Free transport and redelivery of Helium
- Funding capacity through potential debt backed by Take or Pay contract estimated by management at \$100-250 million<sup>1</sup>
- Potential material CapEx savings fewer gas disposal wells required

#### Southcentral Alaska's energy crisis Gas shortage forecast from 2027

#### DNR's 2022 Cook Inlet Forecast



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#### Frank Richards, President of AGDC, commented on 5 June 2024:

"This agreement solidifies the commercial foundation needed for the Phase 1 portion of Alaska LNG and provides enough pipeline-ready natural gas, at beneficial consumer rates, to resolve Southcentral Alaska's looming energy shortage as soon as 2029. Phasing Alaska LNG by leading with the construction of the pipeline will make Alaska LNG's export components more attractive to LNG developers and investors, and this agreement will help unlock the project's substantial economic, environmental, and energy security benefits for international markets as well as for Alaska. Today's announcement represents the culmination of the committed work of Pantheon and AGDC leaders and enhances the prospects of Alaska LNG in a way that benefits both the State of Alaska and Pantheon."

<sup>&</sup>lt;sup>1</sup> Based on 50% of Real NPV10 of post tax gas revenues with no capital offsets and subject to final gas sales agreement execution

Pantheon Resources PLC
Technical Presentation – Ahpun Field Topsets

17<sup>th</sup> September 2024



#### MEGREZ-1 SUCCESS PROVIDES HIGHER QUALITY INITIAL RESERVOIR DEVELOPMENT

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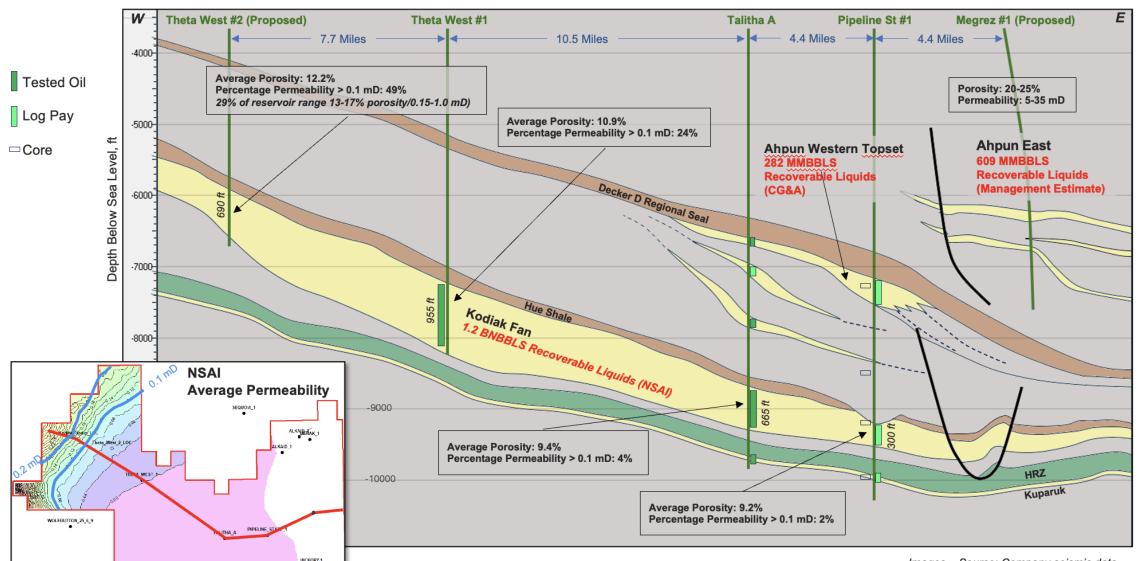
- ✓ Maximize information gathering: full suite of e-logs, cores
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(1) Company estimate

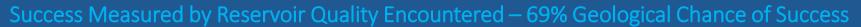
#### **REGIONAL SCHEMATIC**



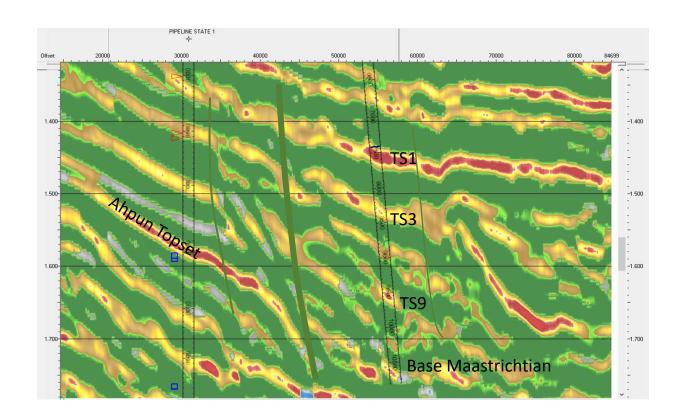


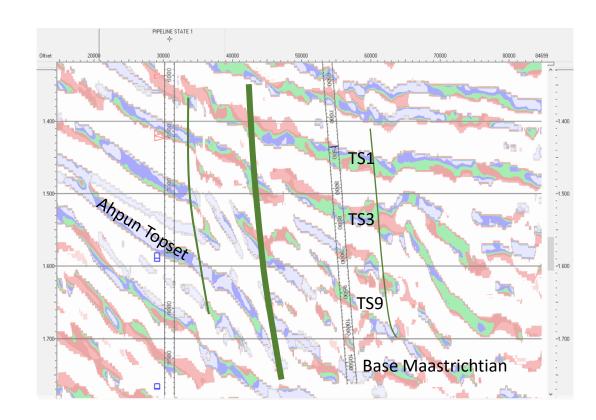


#### **MEGREZ-1 PLANNED TO INTERSECT THREE TOPSETS**









#### **Expected Results:**

- Porosity 20-25%
- Permeability 5-35 mD

#### **Success Threshold:**

- Light Oil Saturated
- Porosity and Permeability Equal to Western Topset

# Q&A

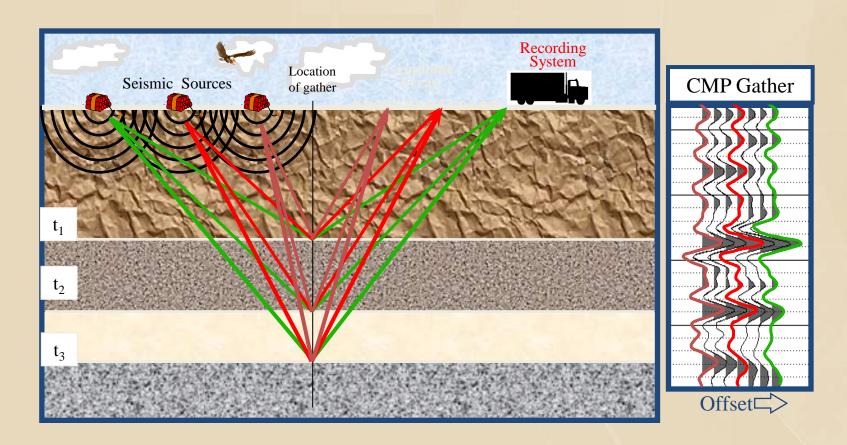




# AVO Amplitude Variations with Offset



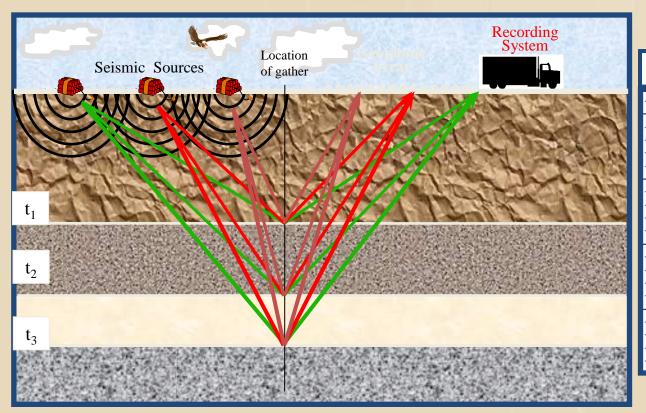
# The CDP Gather

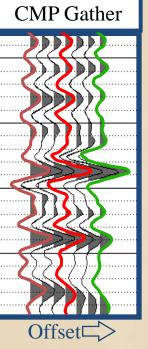


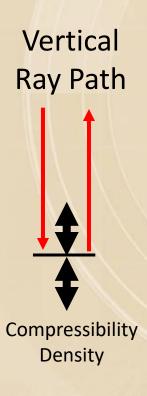
The CDP gather, at any given time, samples each subsurface point at different angles.



# The CDP Gather



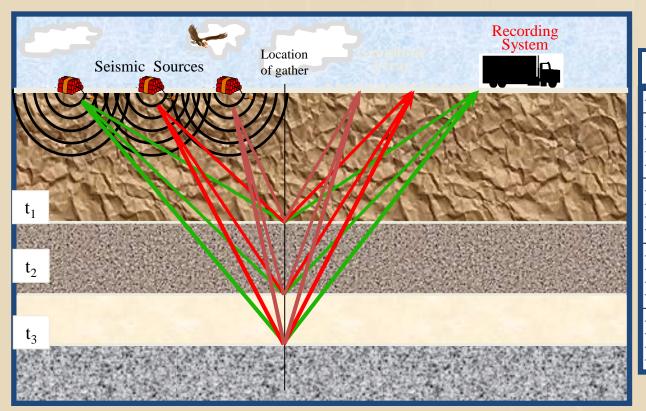


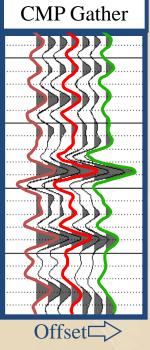


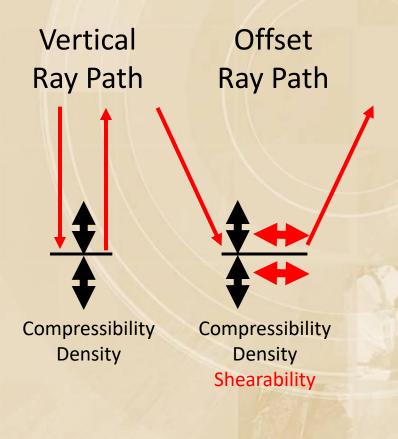
The CDP gather, at any given time, samples each subsurface point at different angles.



# The CDP Gather





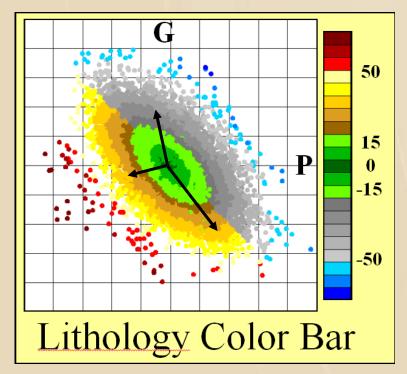


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# Rocks vs. Distance & Direction In Inverted P and G space

#### Elliptical Distance



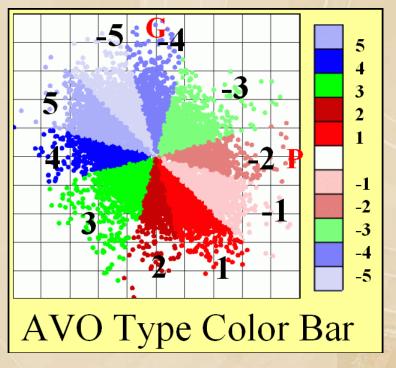
Function of?

Lithology

Fluids

Thickness

#### Direction



Function of?

**Porosity** 

Blocky or Laminated

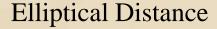
Infers Depositional Facies

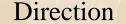


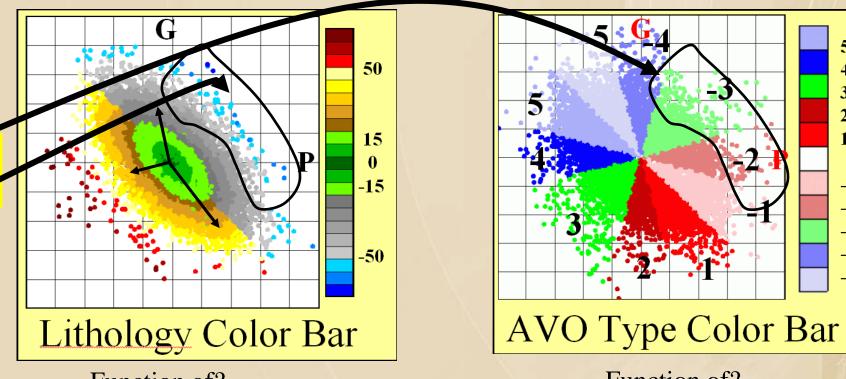
**Current Ahpun Top Sets** 

Kodiak Basin Floor Fan

# Rocks vs. Distance & Direction In Inverted P and G space







Function of?

Lithology

Fluids

**Thickness** 

Function of?

**Porosity** 

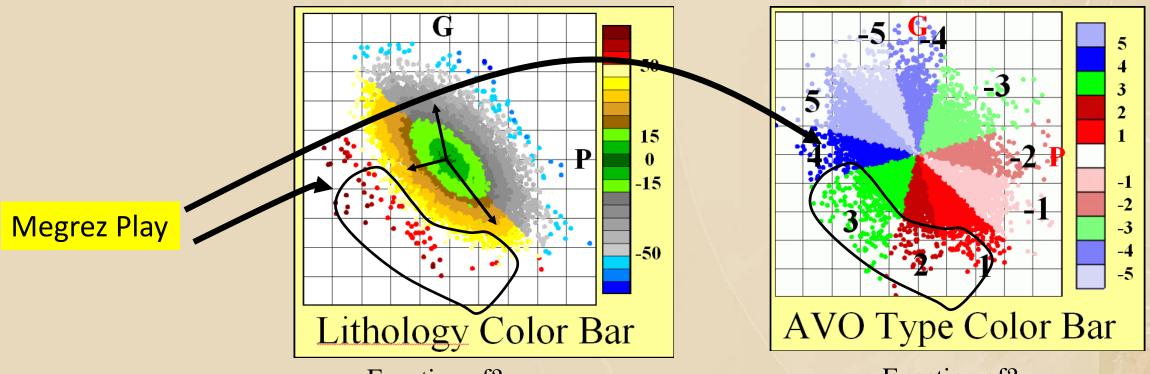
Blocky or Laminated

Infers Depositional Facies



# Rocks vs. Distance & Direction In Inverted P and G space





Function of?

Lithology

Fluids

**Thickness** 

Function of?

**Porosity** 

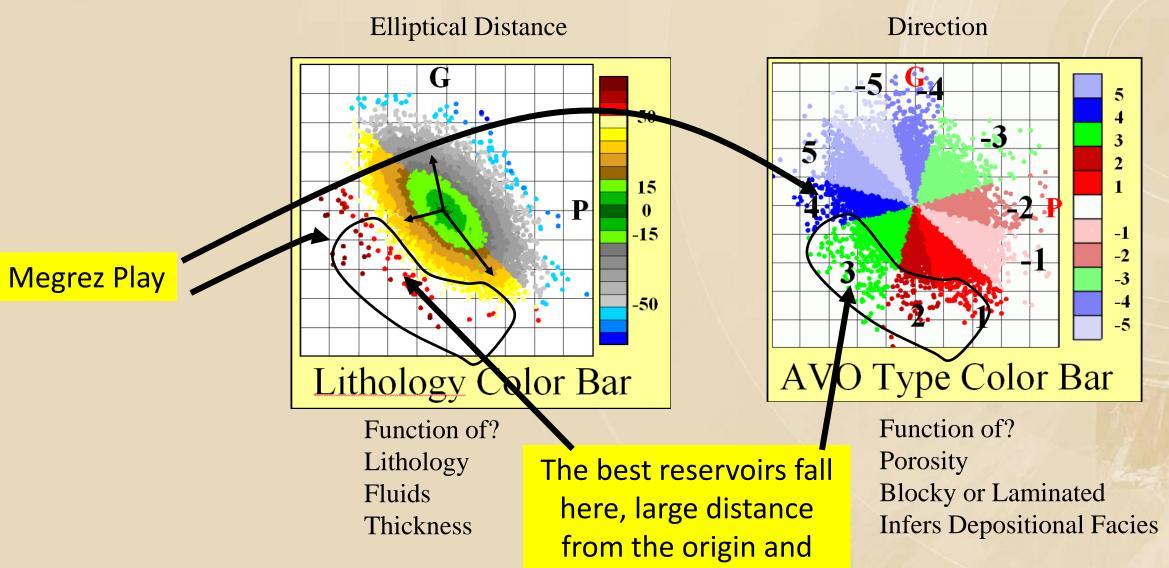
Blocky or Laminated

Infers Depositional Facies



# Rocks vs. Distance & Direction In Inverted P and G space

AVO type 3



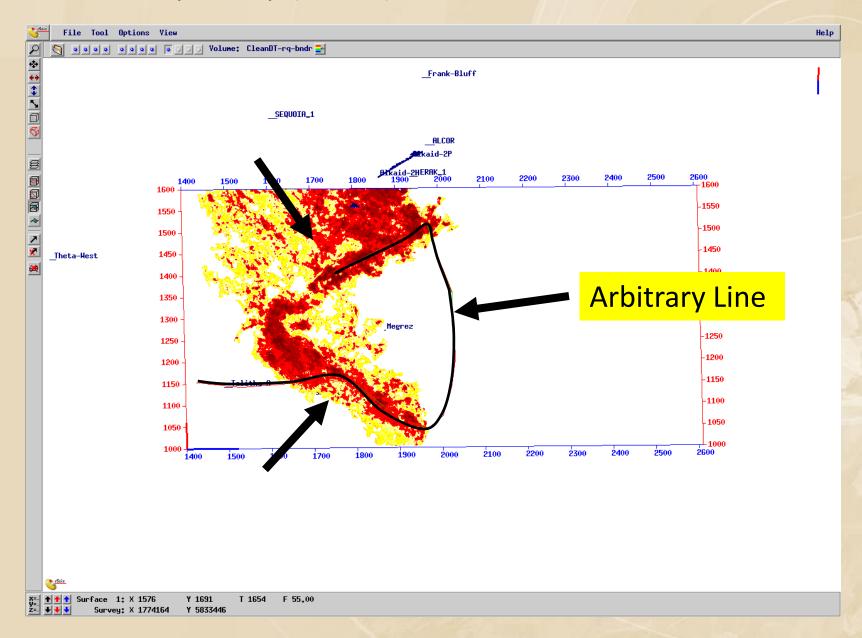


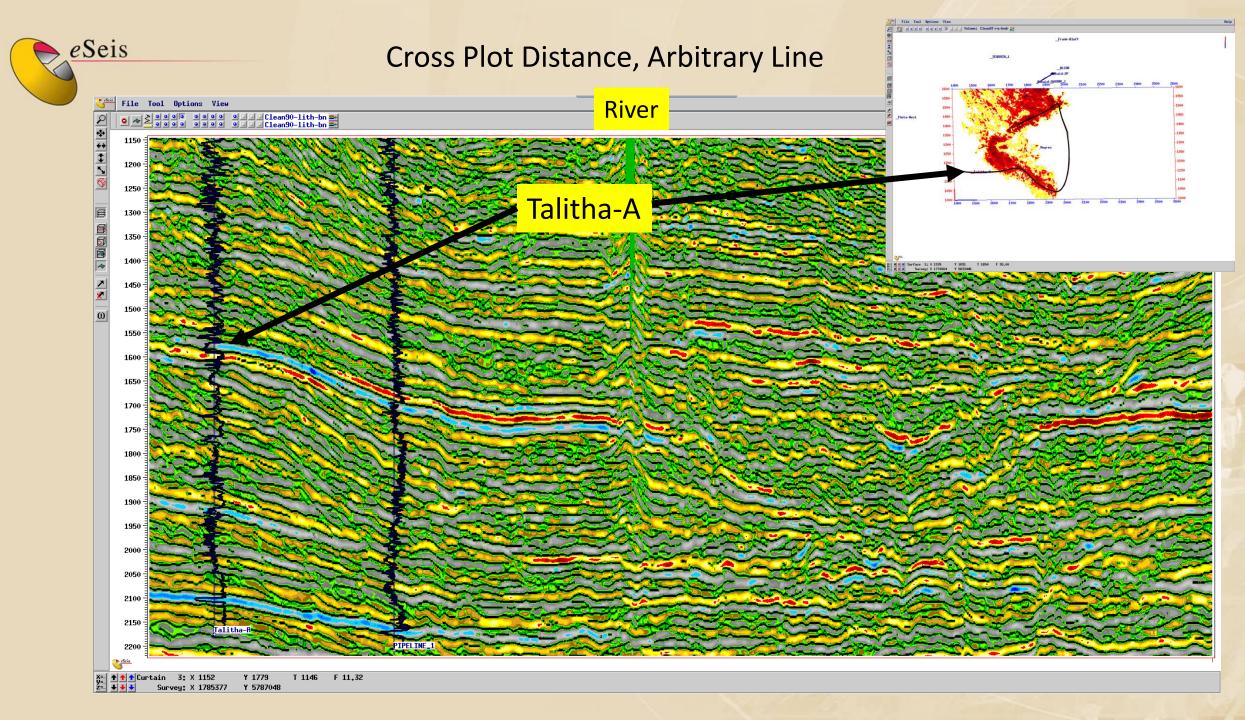
Ahpun East Seismic Petrophysics

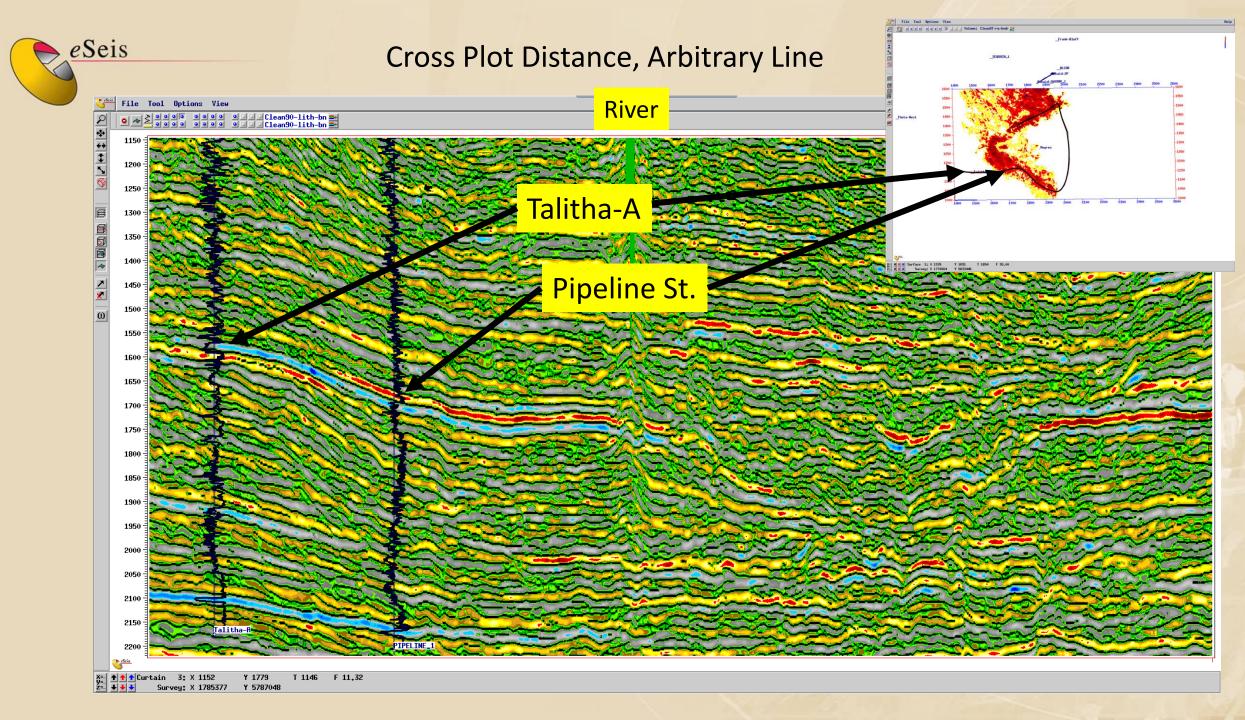


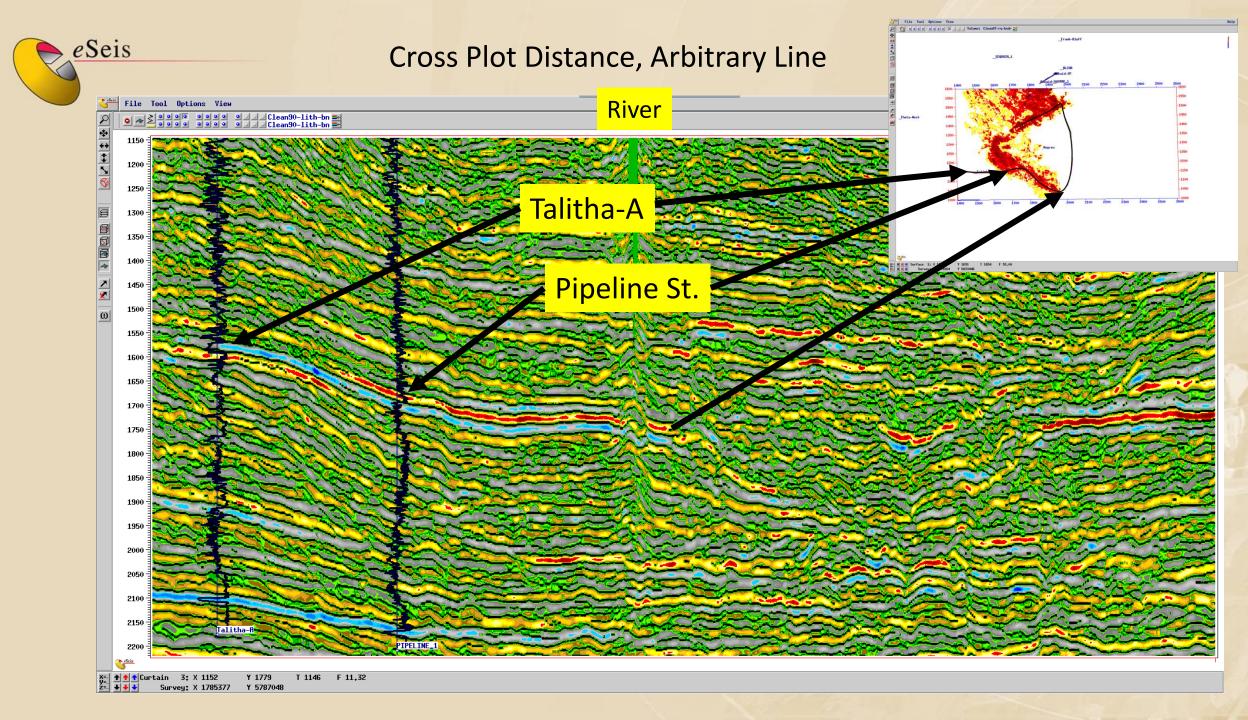
Pick on K10/Decker D
Illustrating the two
prograding shelf
margins

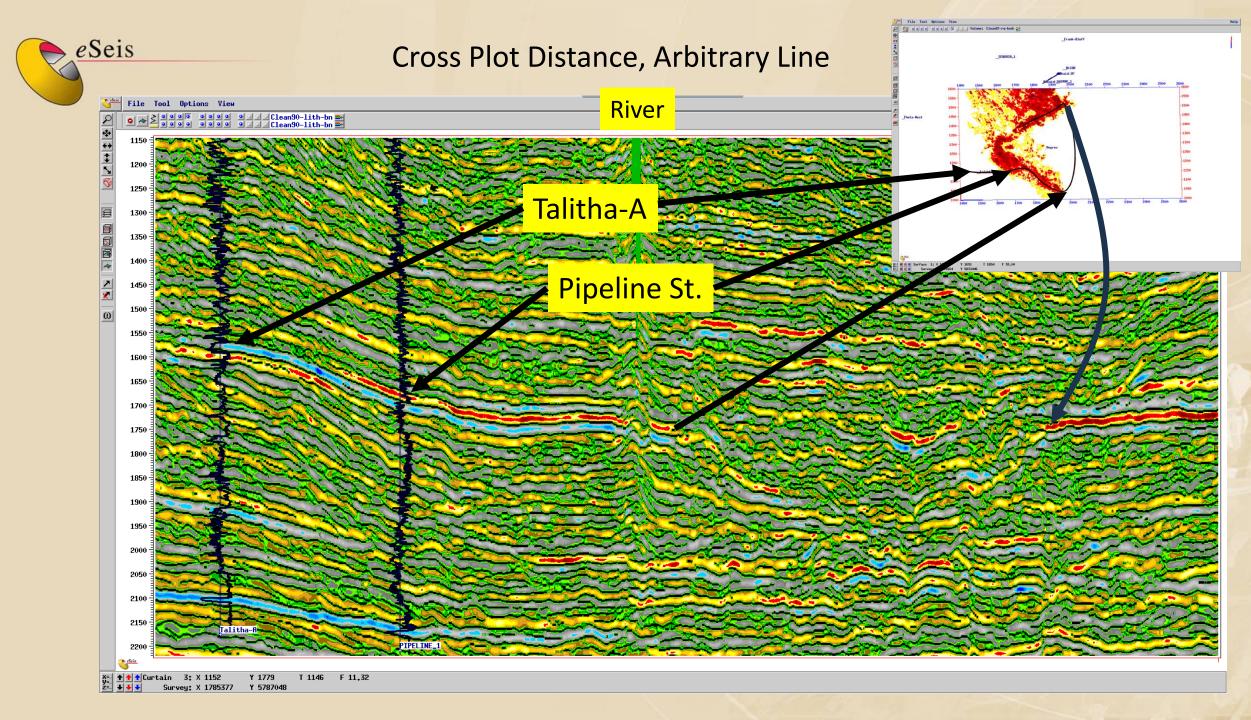
## The Super Trap (funnel)

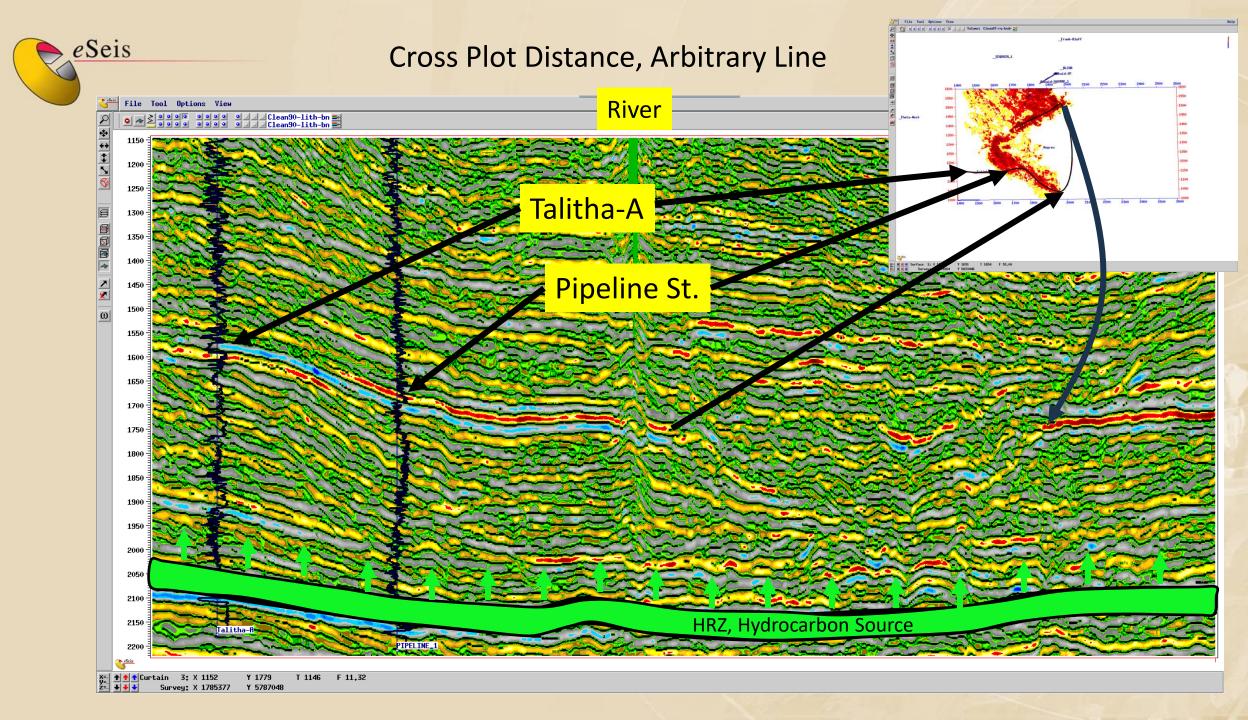


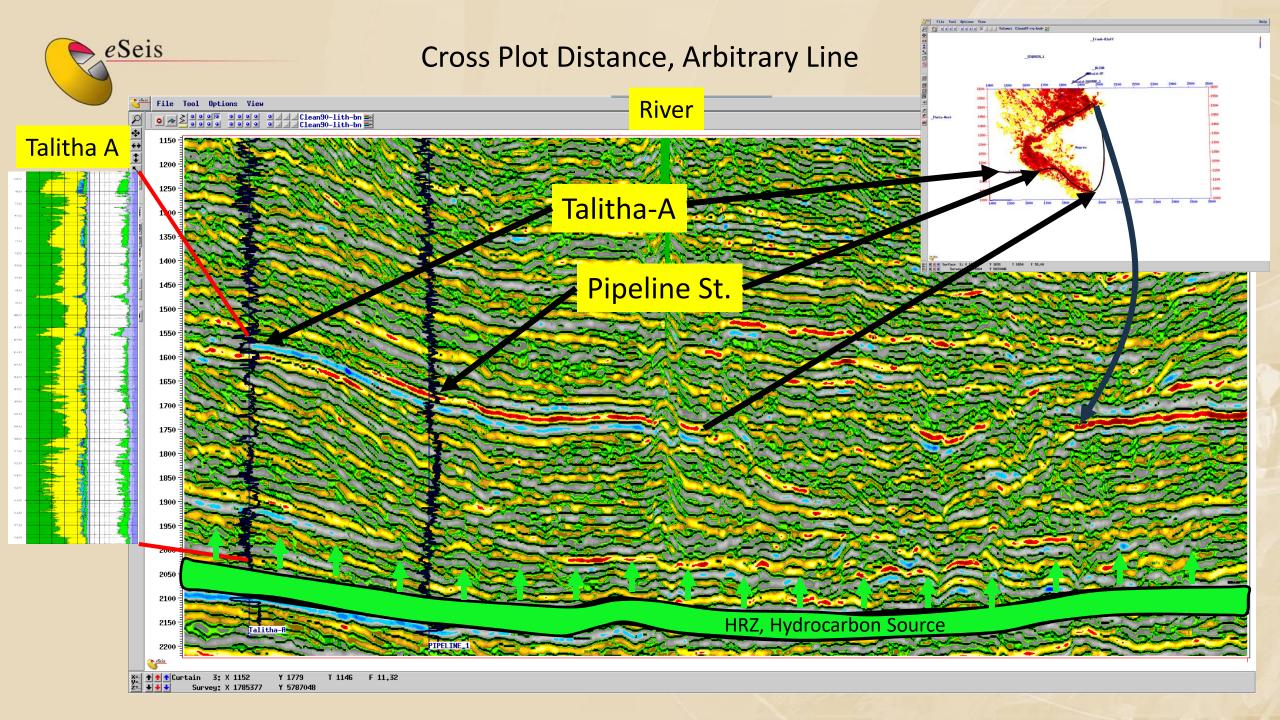


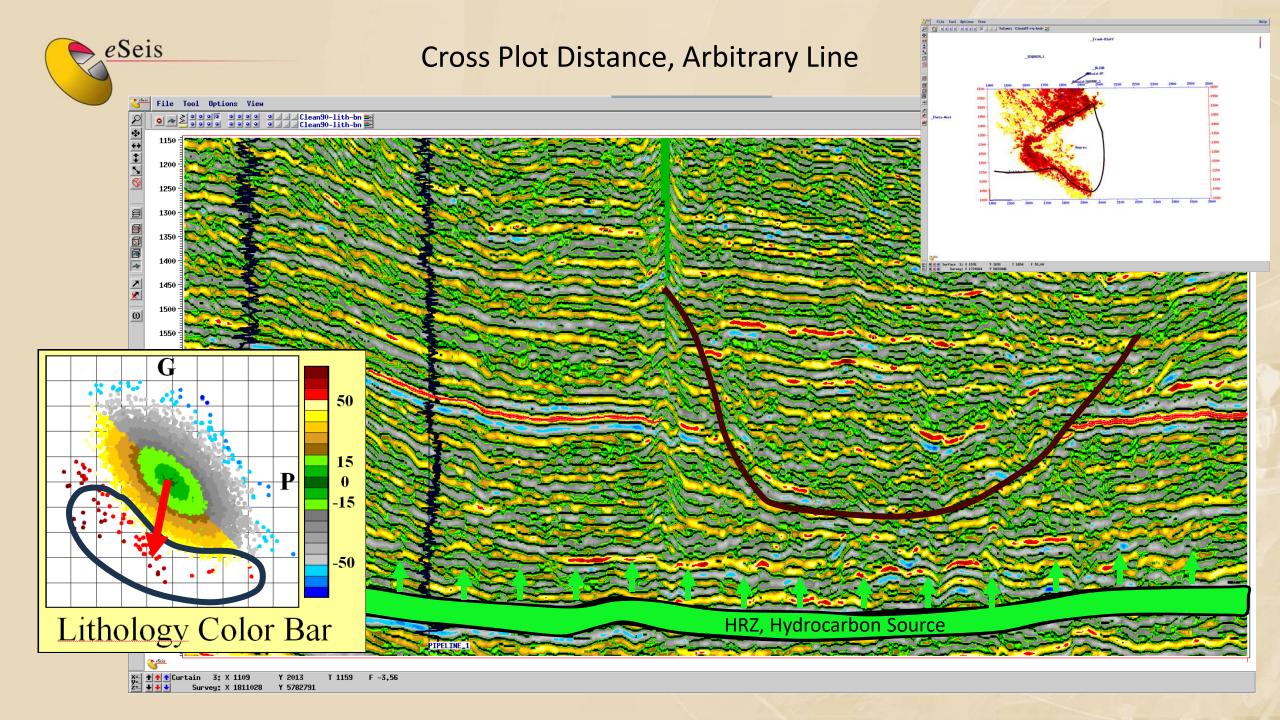


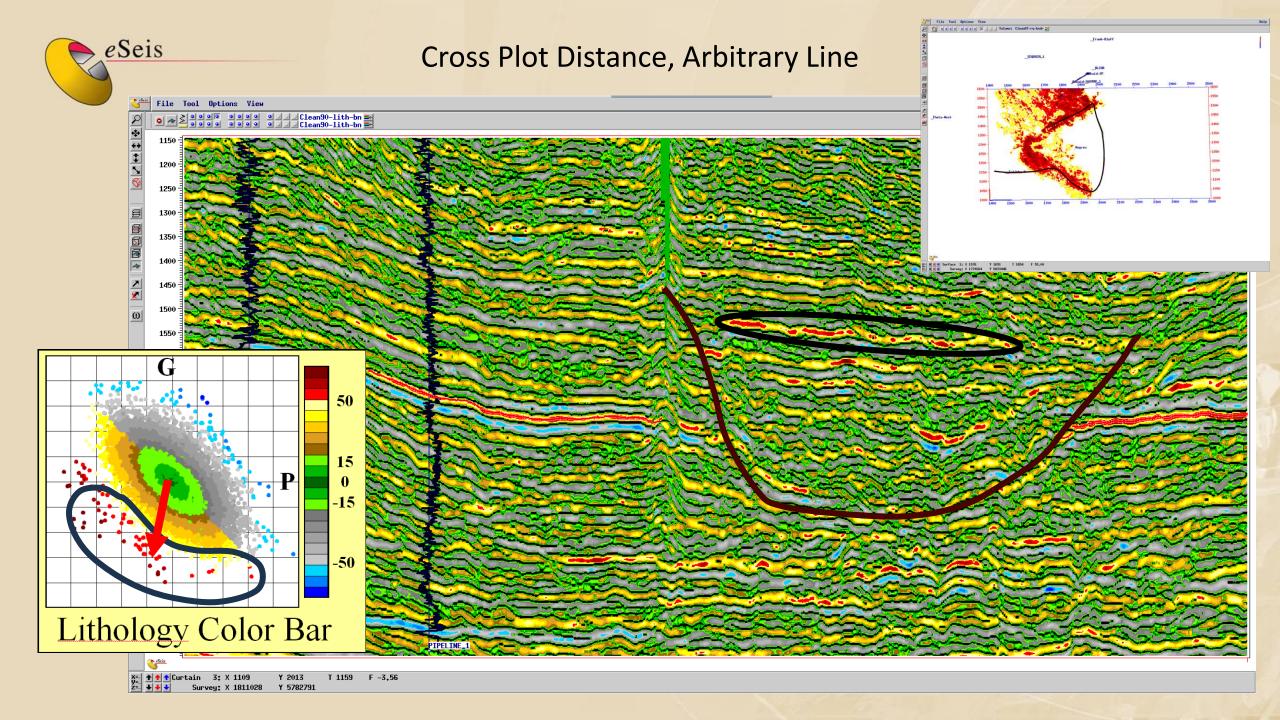


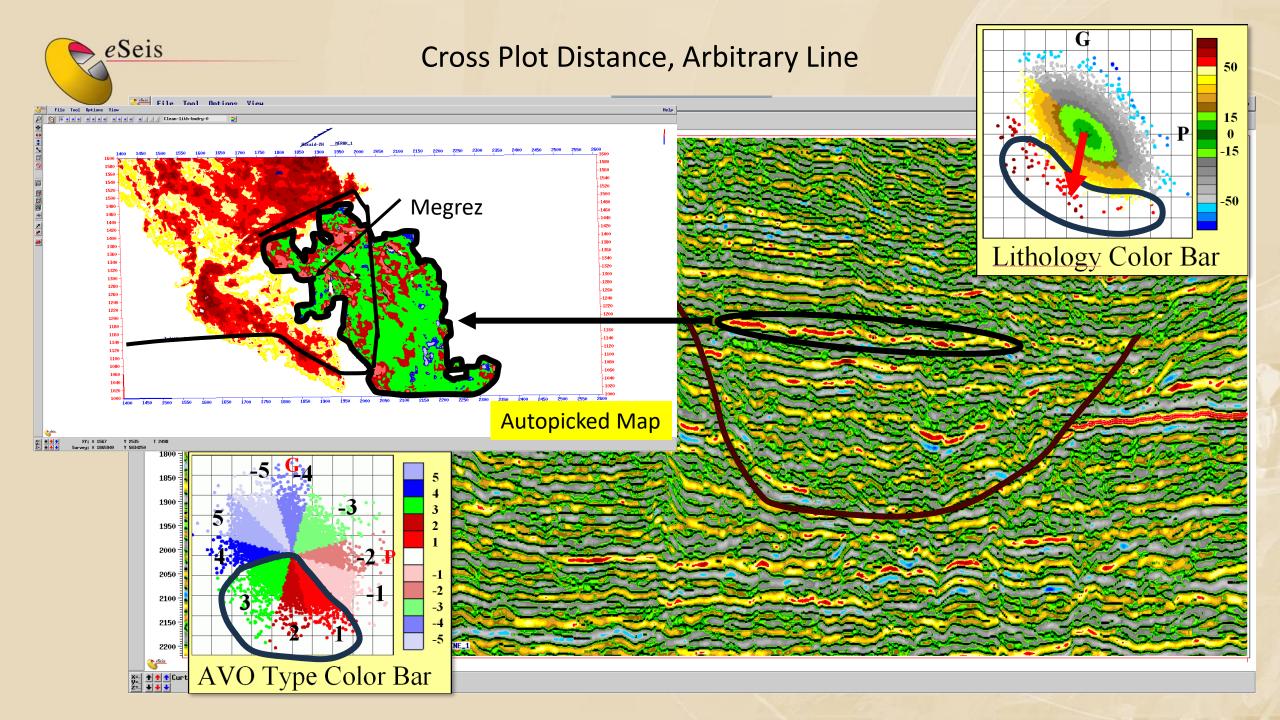


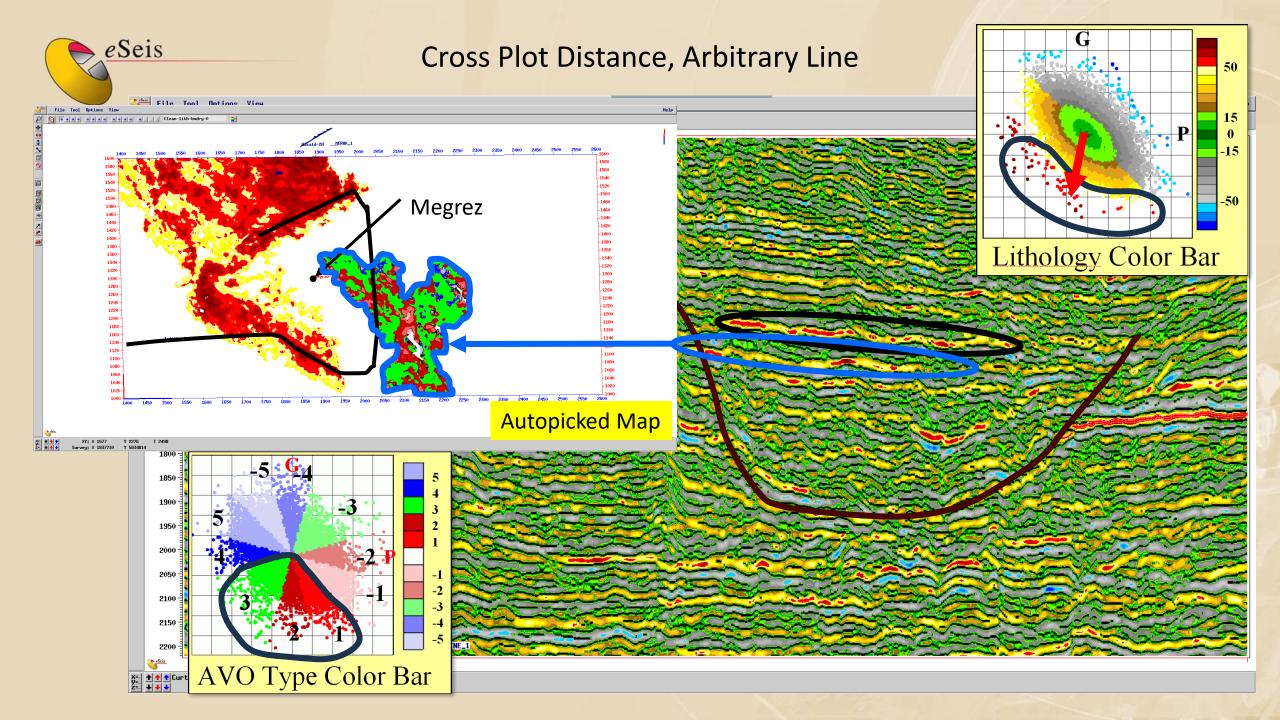


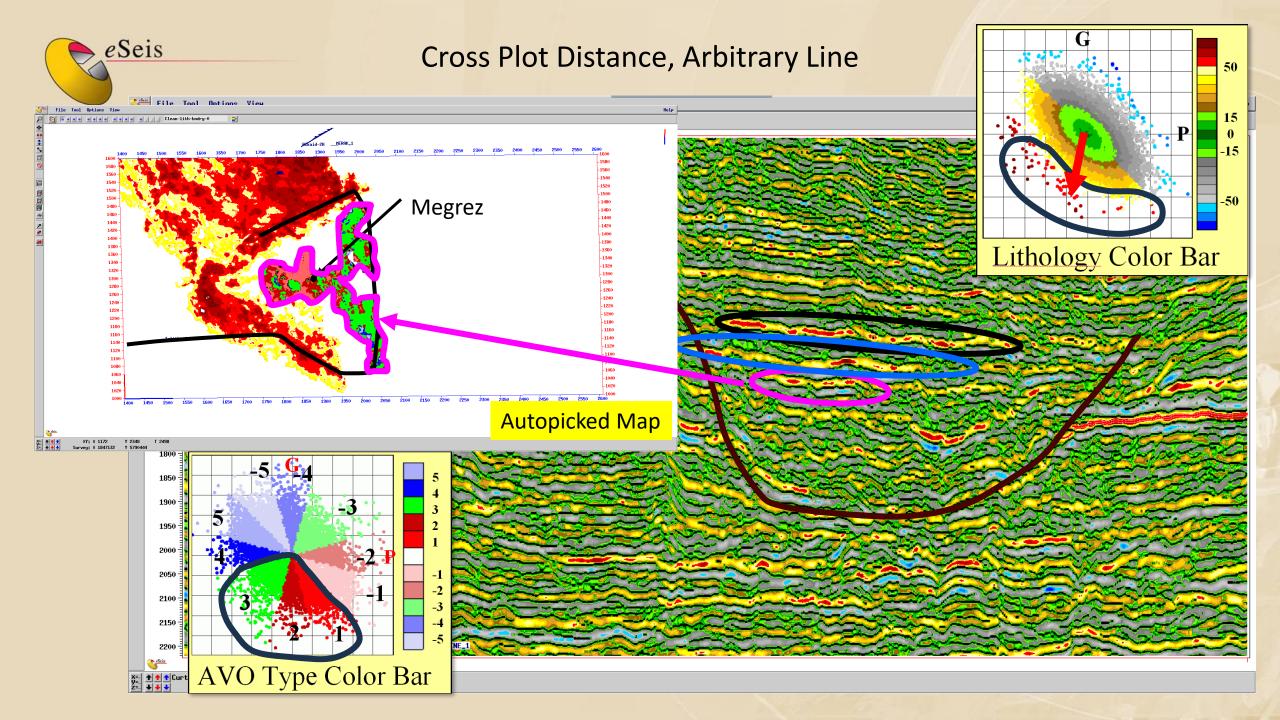


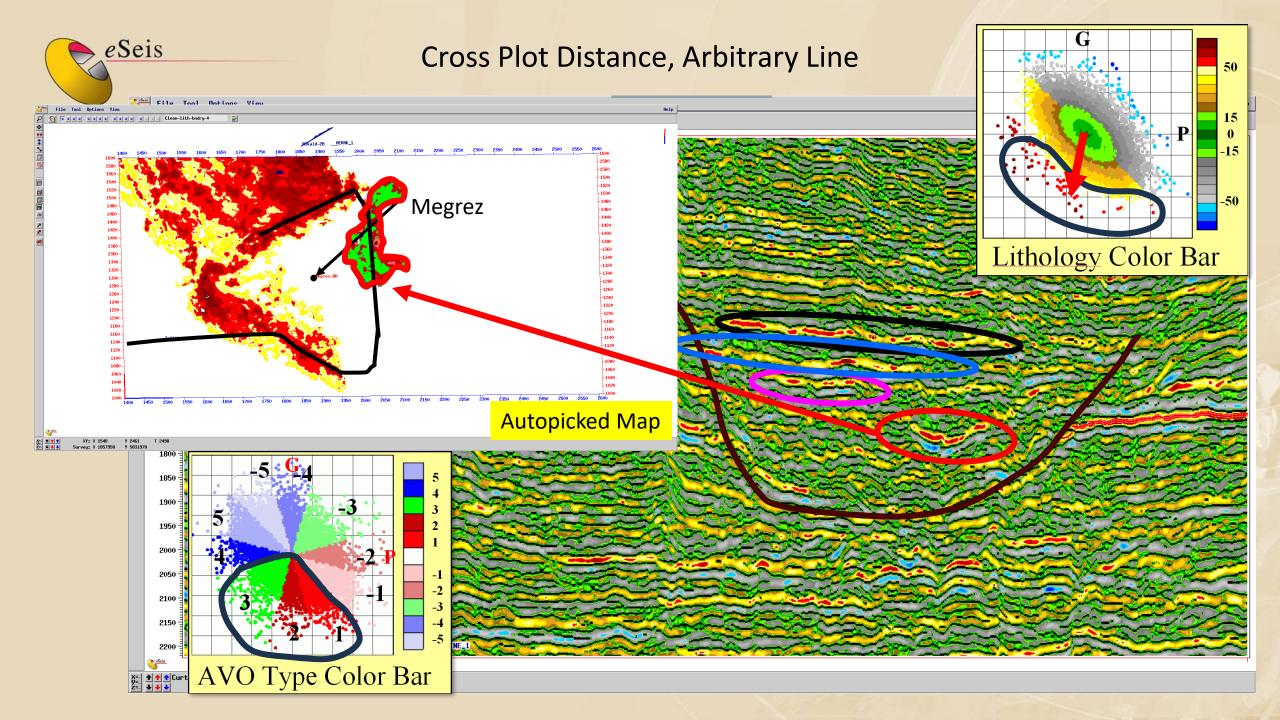


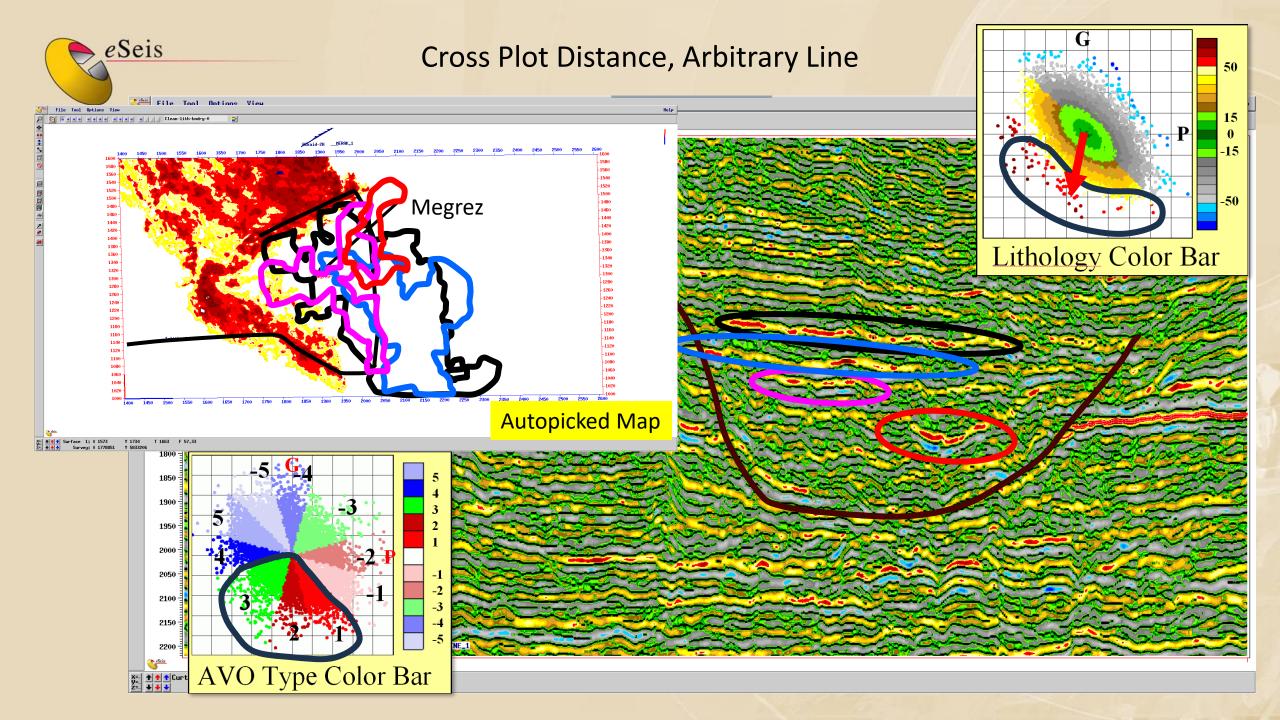








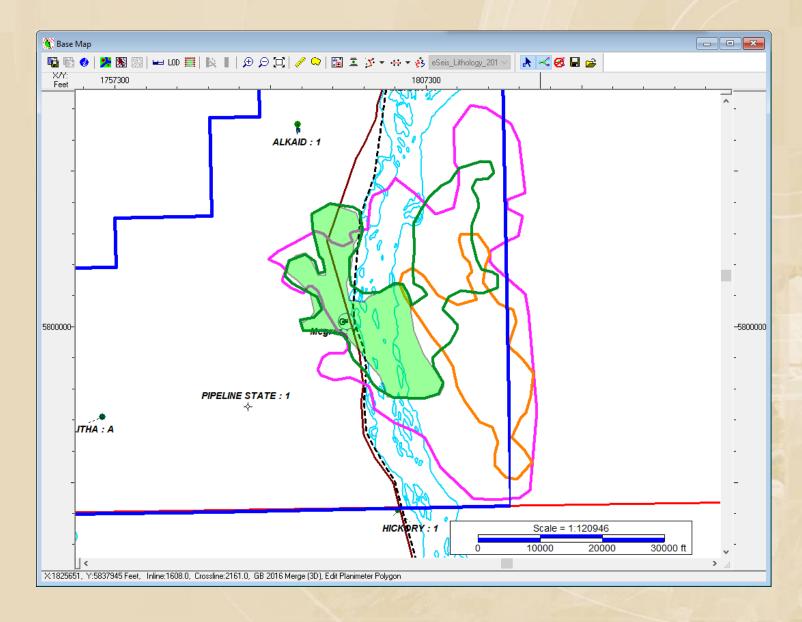






Management Estimate: 609 mmbbl & 3.3 TCF gas 2U Prospective Resource

## **Prospective Reserves**



# Q&A

