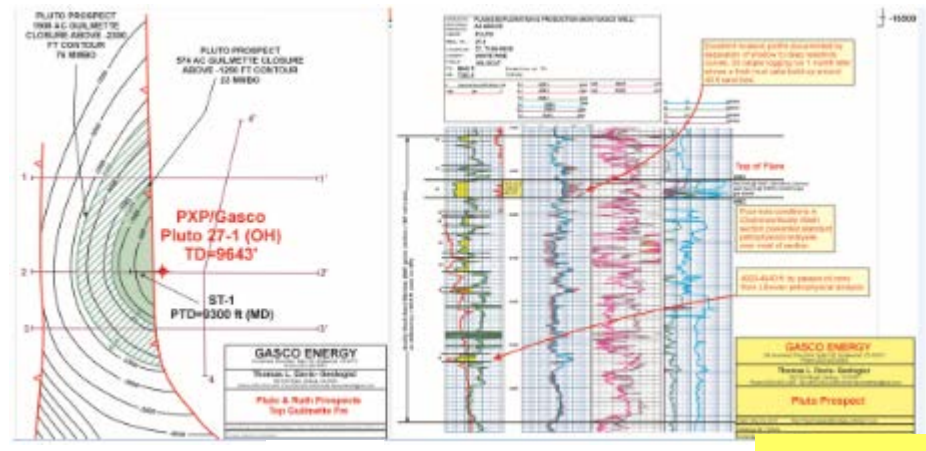
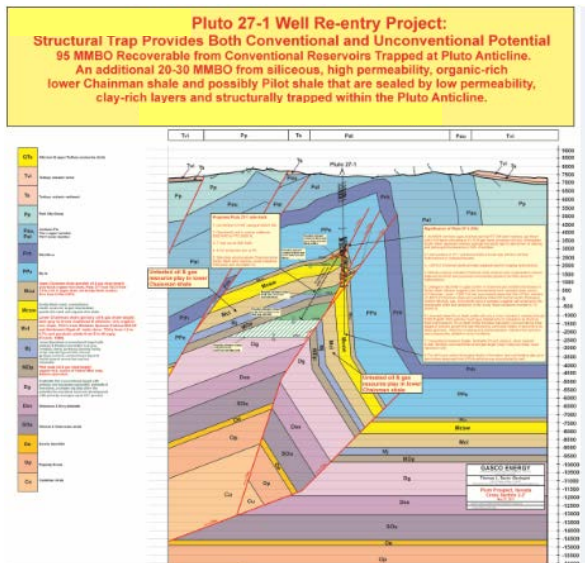


PLUTO 27-1 Re-entry Prospect

50 to 89 MMBO Recoverable

Fully Permitted

Anticline Structure
NW of Ely, Nevada



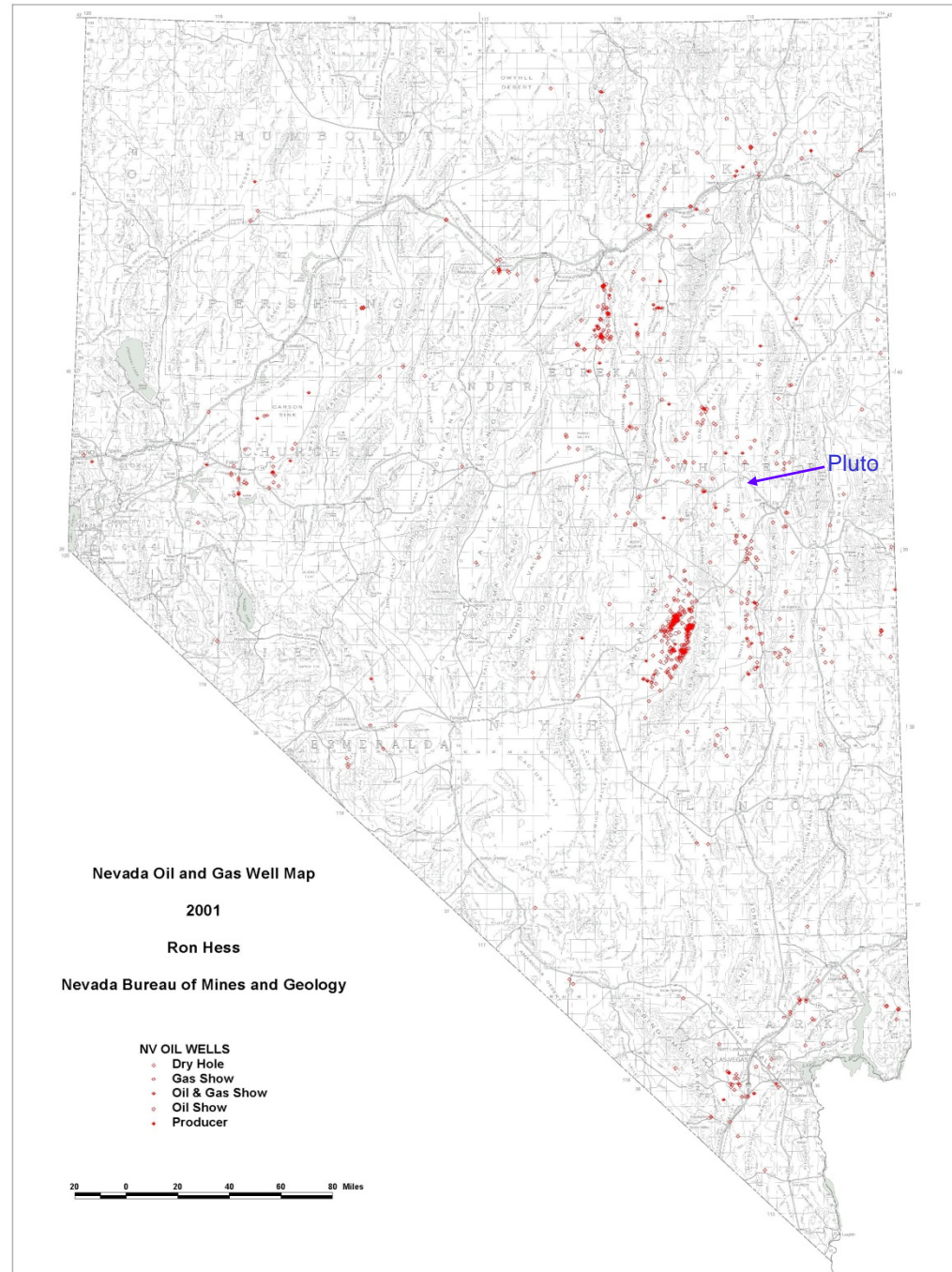
SAM OIL LLC
www.sam-oil.com

Allen Matzke
(719) 375-1372
allenmatzke@sam-oil.com

Todd Flaska
(303) 618-1769
toddflaska@sam-oil.com

Great Basin Nevada

- World Class Source Rock
- Huge potential
- Underexplored
- Biggest challenge is finding reservoirs with seals



How was Pluto site selected

- Large Anticline structure
 - Surface Geology
 - No surface breach of sealing layer
 - 4 way closure anticipated
 - Large reservoir targets
 - 3 pay zones (Scotty Wash, Joana, and Guilmette)
- High quality Source Rock
 - Chainman Shale has been compared to source rock in Saudi Arabia and Kuwait
- Adjacent and up-dip from an oil maturation pod

Executive Summary

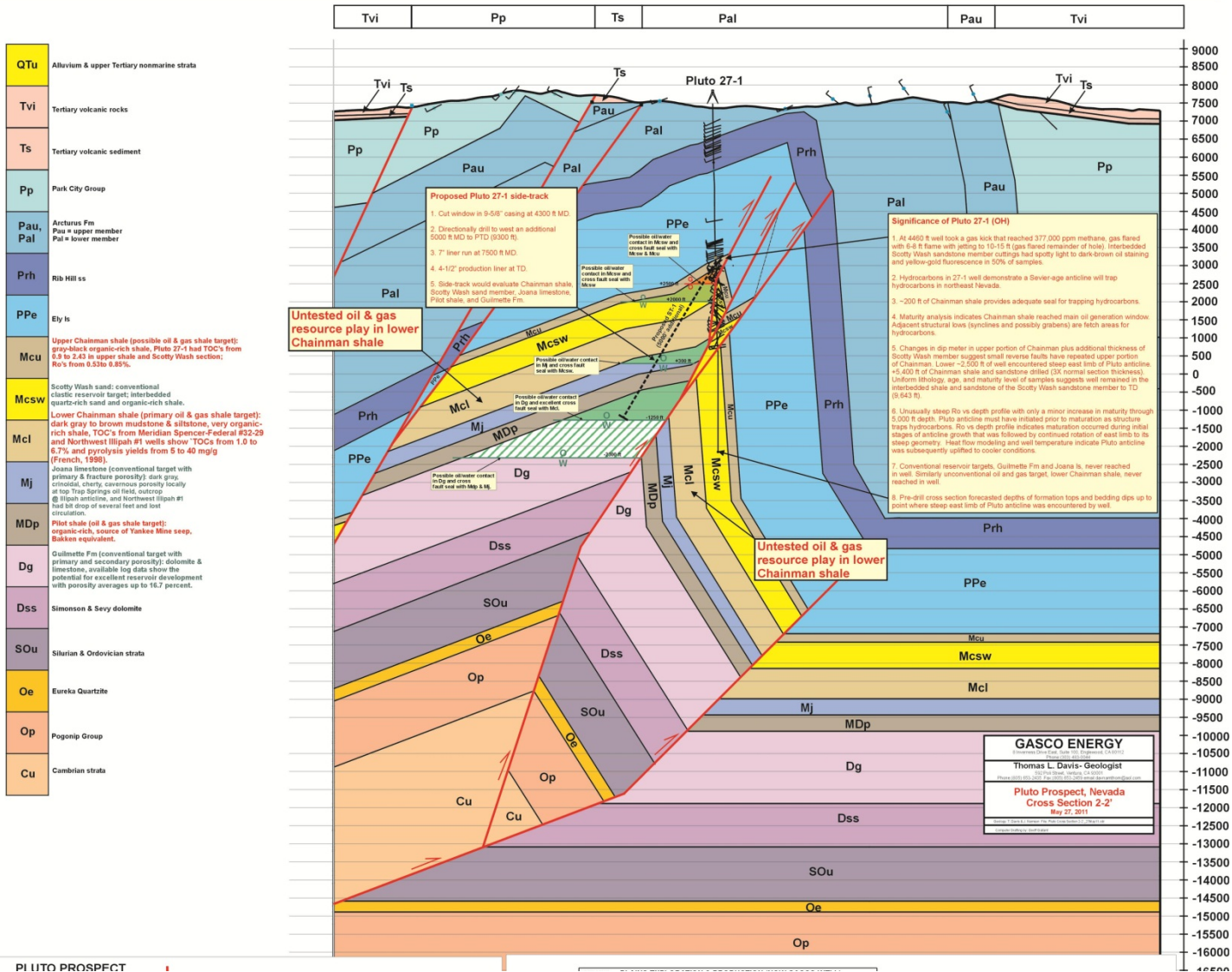
- Re-entry of the Pluto 27-1 well that was drilled in 2007 by Plains Exploration (PXP)/Gasco
- Pluto 27-1 has several very interesting features:
 - Gas kick at 4460 ft after drilling through 200 ft of upper chainman
 - 6-15 ft gas flare (first gasbuster was insufficient, required larger unit)
 - Possibly best gas show ever encountered in Nevada
 - Proves upper chainman is excellent seal in this vicinity
 - Oil shows from 4460 ft to 7950 ft
 - Missed the target structure...appears Pluto 27-1 was drilled in nearly vertical east flank of anticline
- Hole currently cased (9⁵/₈ to 4495 ft), minimal surface work needed to be drill ready.
- Prospect Plan
 - Sidetrack at 4550 ft 34⁰ to west to 9200 ft (Guilmette).
 - Reservoir formations expected: Scotty Wash sand, Joana limestone, Guilmette dolomite.

Pluto 27-1 Well Re-entry Project:

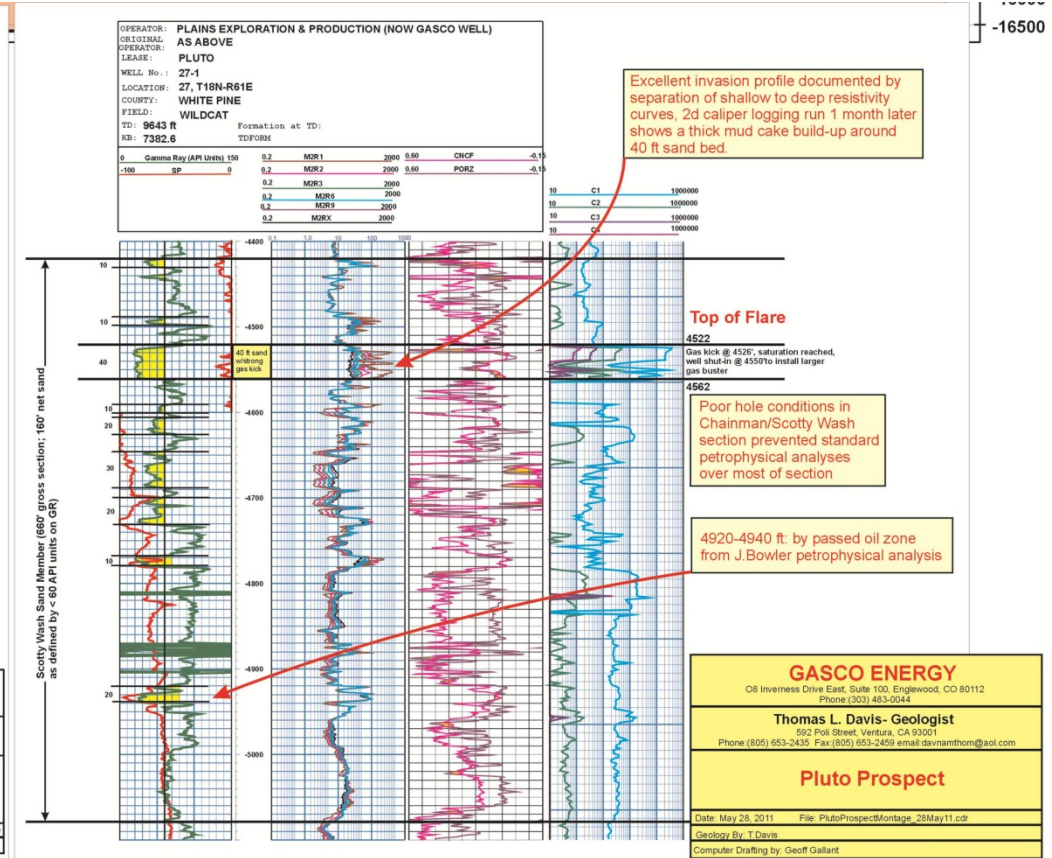
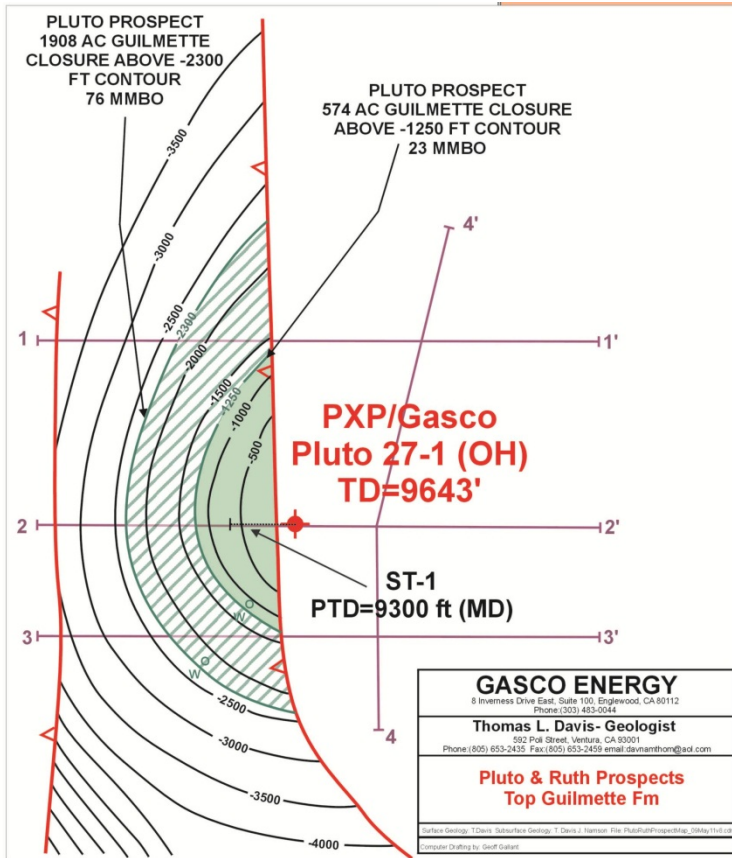
Structural Trap Provides Both Conventional and Unconventional Potential

95 MMBO Recoverable from Conventional Reservoirs Trapped at Pluto Anticline.

An additional 20-30 MMBO from siliceous, high permeability, organic-rich lower Chainman shale and possibly Pilot shale that are sealed by low permeability, clay-rich layers and structurally trapped within the Pluto Anticline.



Pluto Prospect

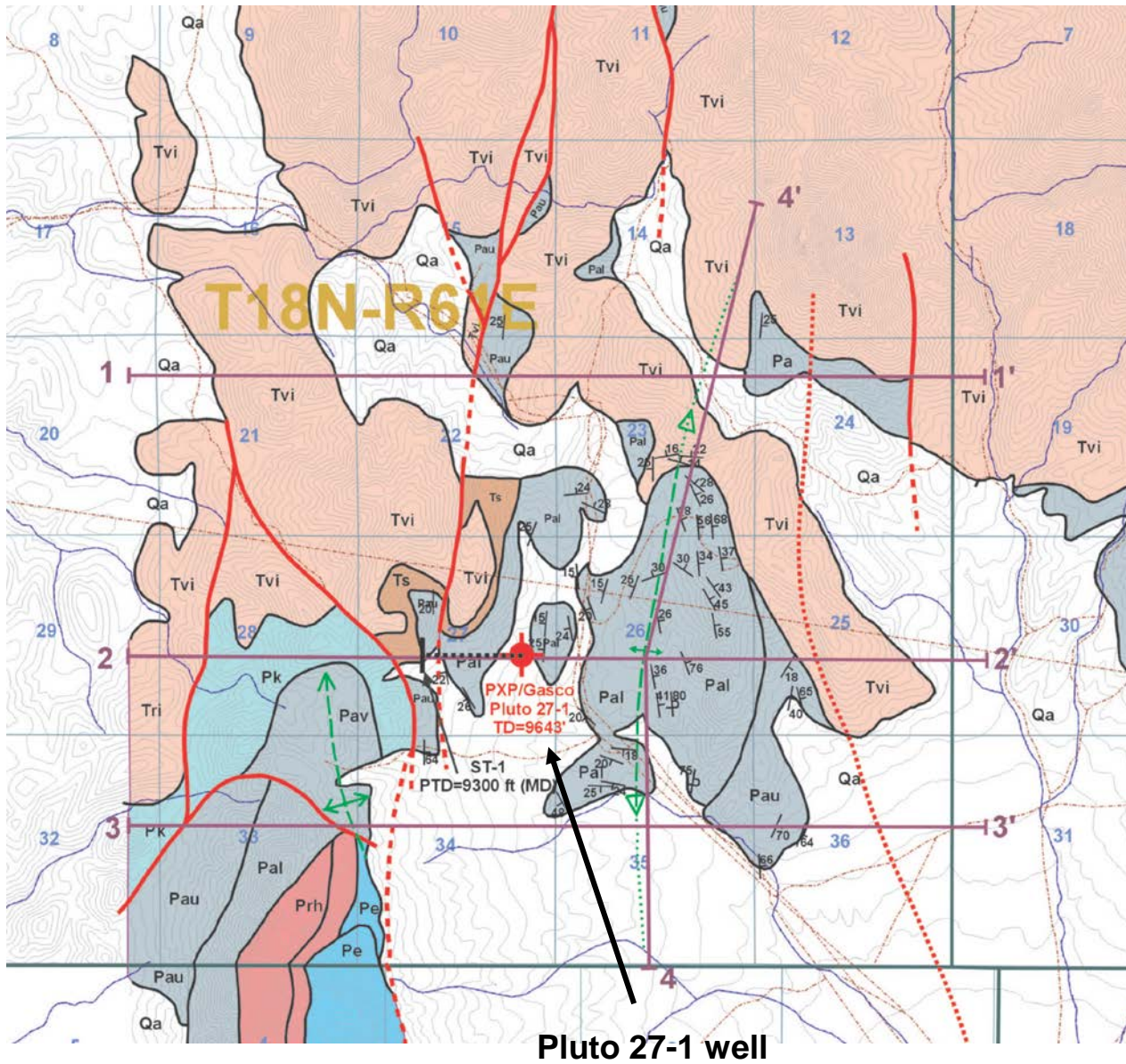


Pluto Prospect Reservoir Estimates

(Does not include potential recoverable reserves from lower Chainman)

	Guilmette	Joana	Scotty Wash (gas)	Scotty Wash (oil)
Pluto Prospect				
Oil Reservoir				
Acreage (maximum acres)	1450	1450		1450
Net thickness (feet)	200	100		100
Oil Yield (bbls/ac-ft)	200	50		115
Recoverable Oil/Reservoir (BO)=A*H*Y	58,000,000	7,250,000		16,875,000
Total Oil (BO) Builmette+Joana+Scotty Wash				81,925,000
Gas Reservoir (gas cap)				
Acreage (A, maximum acres)			689	
Net thickness (H, feet)			100	
Depth reservoir (MD-ft)			4500	
Water saturation (Sw)			0.25	
Porosity (P)			0.2	
Permeability (md)			200	
Gas compressibility (Z)			0.9	
Pressure gradient (normal)			0.433	
Reservoir Temp (T)-using 1.8 DegF/100'			213	
Bg-(35.35(.433*DL))/(z[T+460])			114	
IGIP (CFG) = 43580*A*H*P*(1-sw)*(CFG)			51,195,360,635	
RGIP/reservoir (CFG)=(IGIP*0.85)			43,516,056,540	
Oil Equivalent gas/reservoir (1BO:6000CFG)				7,252,676
Pluto Prospect-oil equivalent total (BO)				89,177,676

Pluto anticline surface map

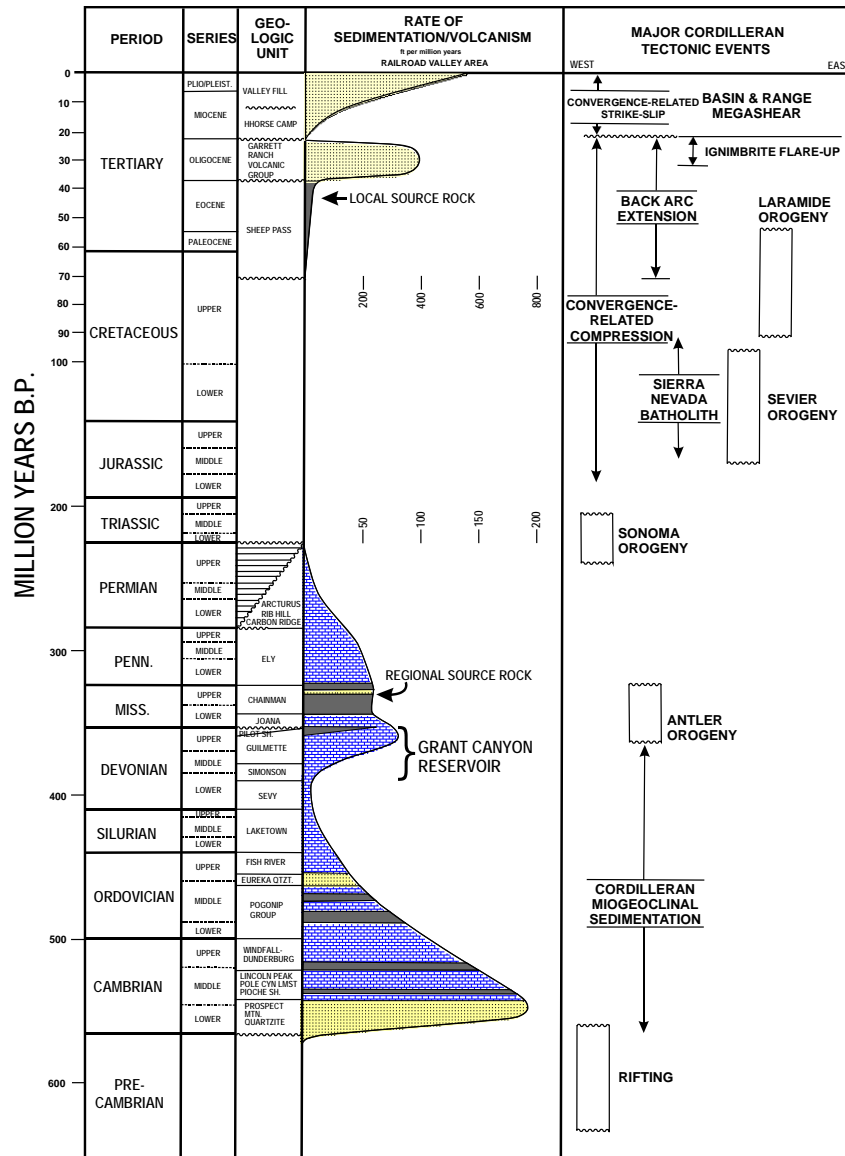


➤ **How do we use field mapping and cross sections effectively to evaluate surface anticlinal prospects in eastern Nevada?**

➤ **Anticline Evaluation Criteria:**

- Anticline must lie in rich Chainman shale source trend (prodelta basin and flysch trough of Poole and Claypool, 1984).
- Anticline must have at least one of these reservoir targets at depth: Guilmette Fm, Simonson Doi, Scotty Wash ss, or Diamond Peak Fm, and lie within areas where these targets have favorable reservoir properties.
- Anticline must have >1,000 feet of seal rock overlying reservoir target. Generally this means that Chainman shale cannot be exposed along crest of anticline.
- Anticline must be large with subsurface projection methods showing > 1,000 AC structural closure at reservoir target. Reservoir targets are from 4,000 to 10,000 feet and anticline must be wide enough on surface that closure extends well below that depth.
- Anticline must show four-way closure and be free of complex faulting as shown by 1:24,000 scale surface mapping; eliminates most late Paleozoic anticlines along Roberts Mountains Thrust Front.
- Anticline must be adjacent and up-dip to an oil maturation pod; either Sevier-age deep syncline or thrust stack and/or a Basin & Range graben of sufficient depth to generate oil (>10,000 ft structural relief on Chainman shale).

Pluto anticlinal play based on key elements of the eastern Nevada petroleum system



Generalized stratigraphic column of rocks in Railroad Valley and the Grant Range. Column is correlated to regional tectonic events and rates of sedimentation. Compiled with data from Stewart (1980). Hyde and Hutter (1970), and Cebull (1970).

NE Nevada Petroleum System Elements

- Source rock intervals:
 - **Chainman shale*** (regional)
 - Sheep Pass Fm* (local)
 - Vinini & Woodruff Fms* (RMA)
 - **Possible Pilot sh source**
- Reservoir horizons:
 - **Devonian carbonate units***
 - **Joana Limestone**
 - **Chainman ss & Scotty Wash ss**
 - Tertiary volcanic rxs*
 - Tertiary sandstone
 - Potential reservoirs in other Paleozoic carbonate units
- Sealing units:
 - **Chainman shale***
 - Tertiary valley fill*
 - **Pilot shale**
- Trapping structures formed by:
 - Sevier fold & thrust belt**
 - **Basin & Range extension***
- Burial events and thermal maturity:
 - Basin & Range graben & valley fill*
 - **Permian-Pennsylvanian overburden**
 - Igneous intrusions*
 - **Sevier age thrust stacking and synorogenic deposits in synclines.**

*part of a commercial petroleum system today.

Bold font = element in SAM Oil play.

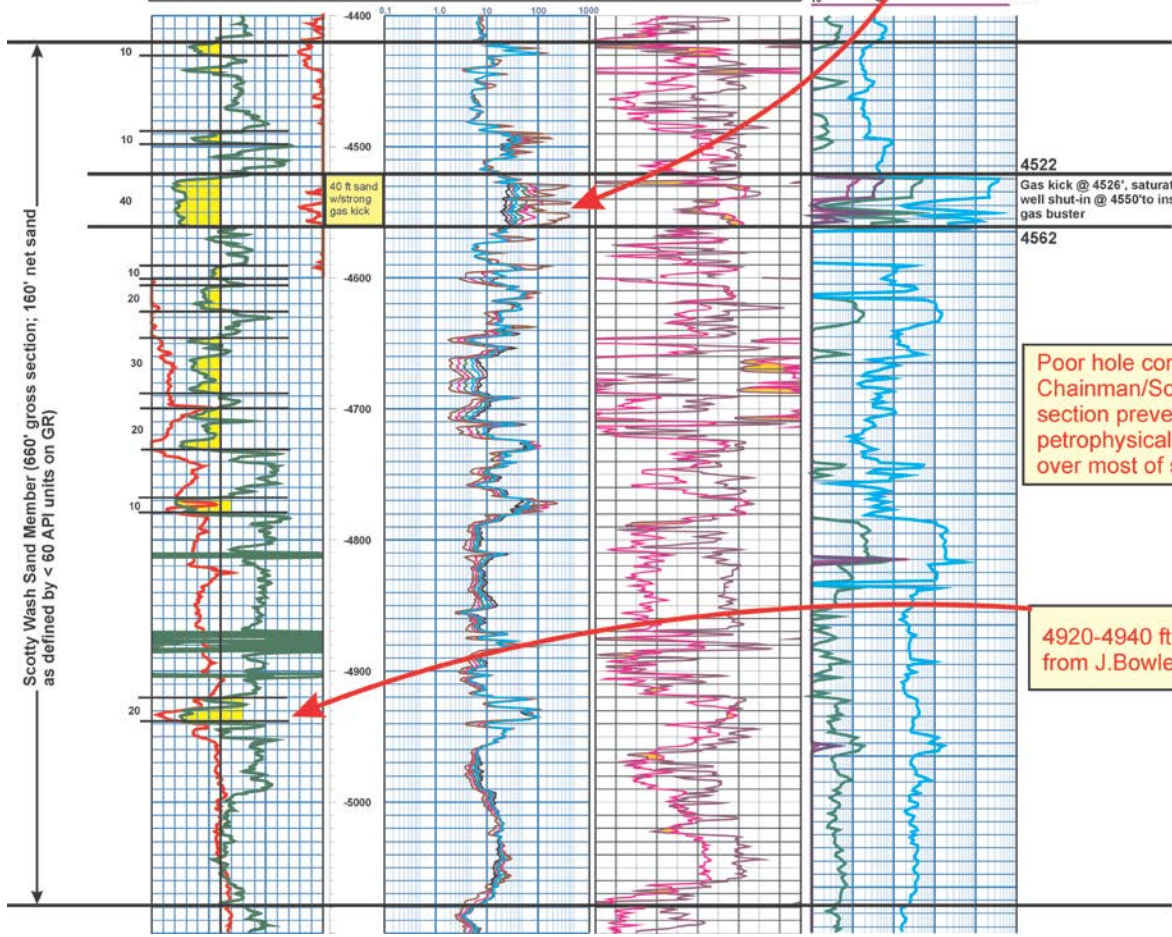
**In NE Nevada the Sevier event includes convergent structures formed during Jurassic and Cretaceous time.

Pluto 27-1 log analyses Chainman shale and Scotty Wash sand

OPERATOR: PLAINS EXPLORATION & PRODUCTION	
ORIGINAL OPERATOR: AS ABOVE	
LEASE: PLUTO	
WELL No.: 27-1	
LOCATION: 27, T18N-R61E	
COUNTY: WHITE PINE	
FIELD: WILDCAT	
TD: 9643 ft	Formation at TD:
KB: 7382.6	TDFORM

0	Gamma Ray (API Units)	150	0.2	M2R1	2000	0.60	CNCF	-0.15
-100	SP	0	0.2	M2R2	2000	0.60	PORZ	-0.15
			0.2	M2R3	2000			
			0.2	M2R6	2000			
			0.2	M2R9	2000			
			0.2	M2RX	2000			

Excellent invasion profile documented by separation of shallow to deep resistivity curves, 2d caliper logging run 1 month later shows a thick mud cake build-up around 40 ft sand bed.



4522
Gas kick @ 4526', saturation reached, well shut-in @ 4550' to install larger gas buster
4562

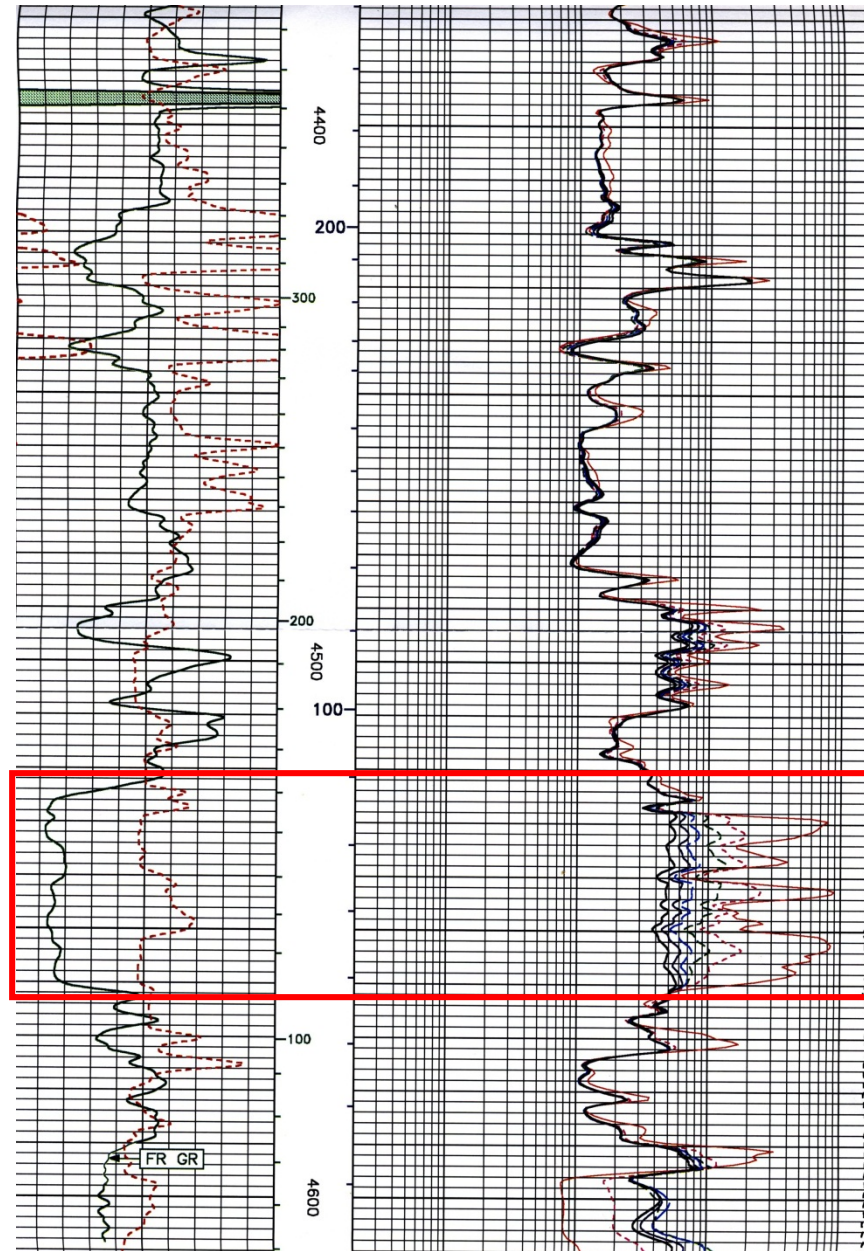
Poor hole conditions in Chainman/Scotty Wash section prevented standard petrophysical analyses over most of section

4920-4940 ft: by passed oil zone from J.Bowler petrophysical analysis

Scotty Wash Sand Member (660' gross section; 160' net sand as defined by < 60 API units on GR)

Pluto 27-1 HD Induction, GR, Cal

4522-4562 ft:
gas show
in Scotty Wash
sand bed



61E

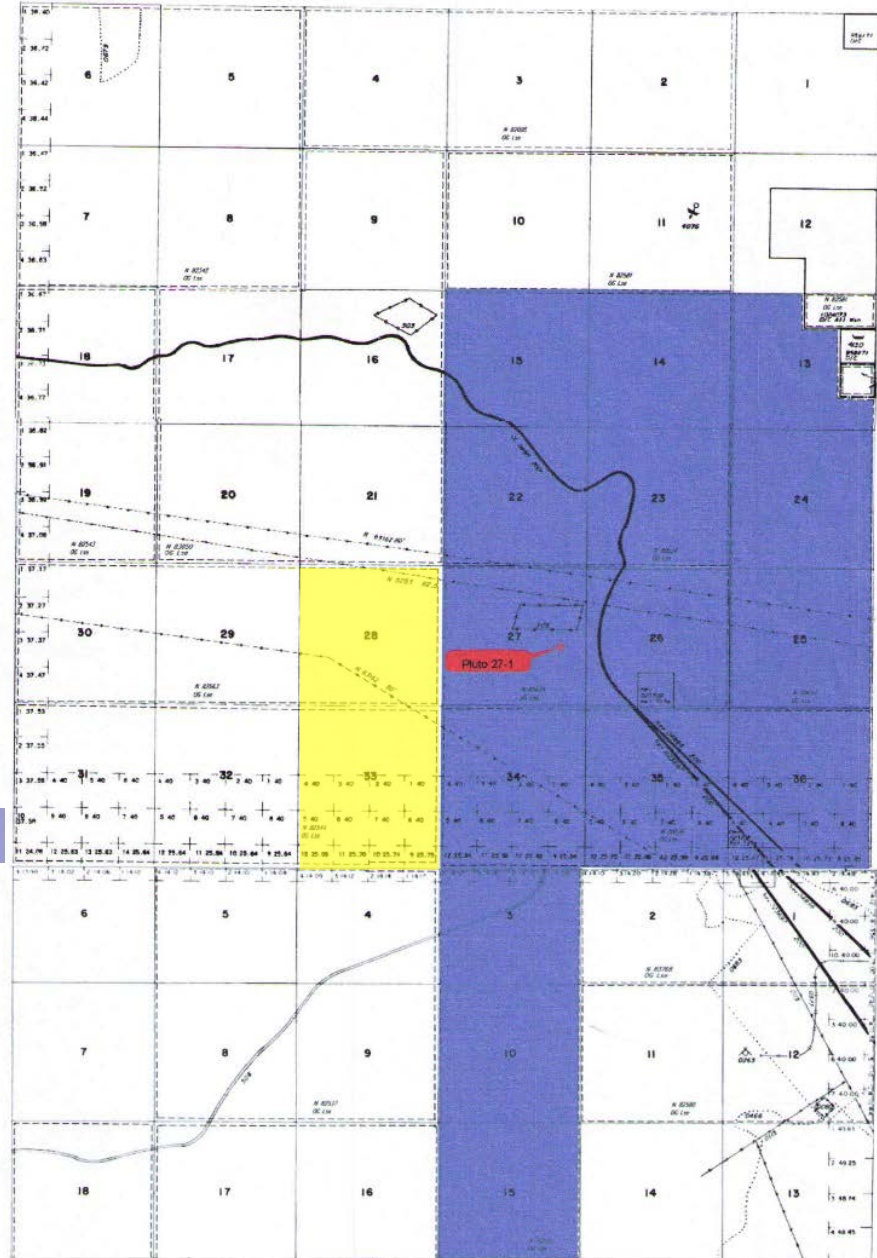
Pluto leases 9646 Acres near Ely NV

18N

9646 Leased Acres

1280 Option Acres

17N



624840.21
1716593.39

PLUTO PROSPECT
1908 AC GUILMETTE CLOSURE
ABOVE -2300 FT CONTOUR
76 MMBO

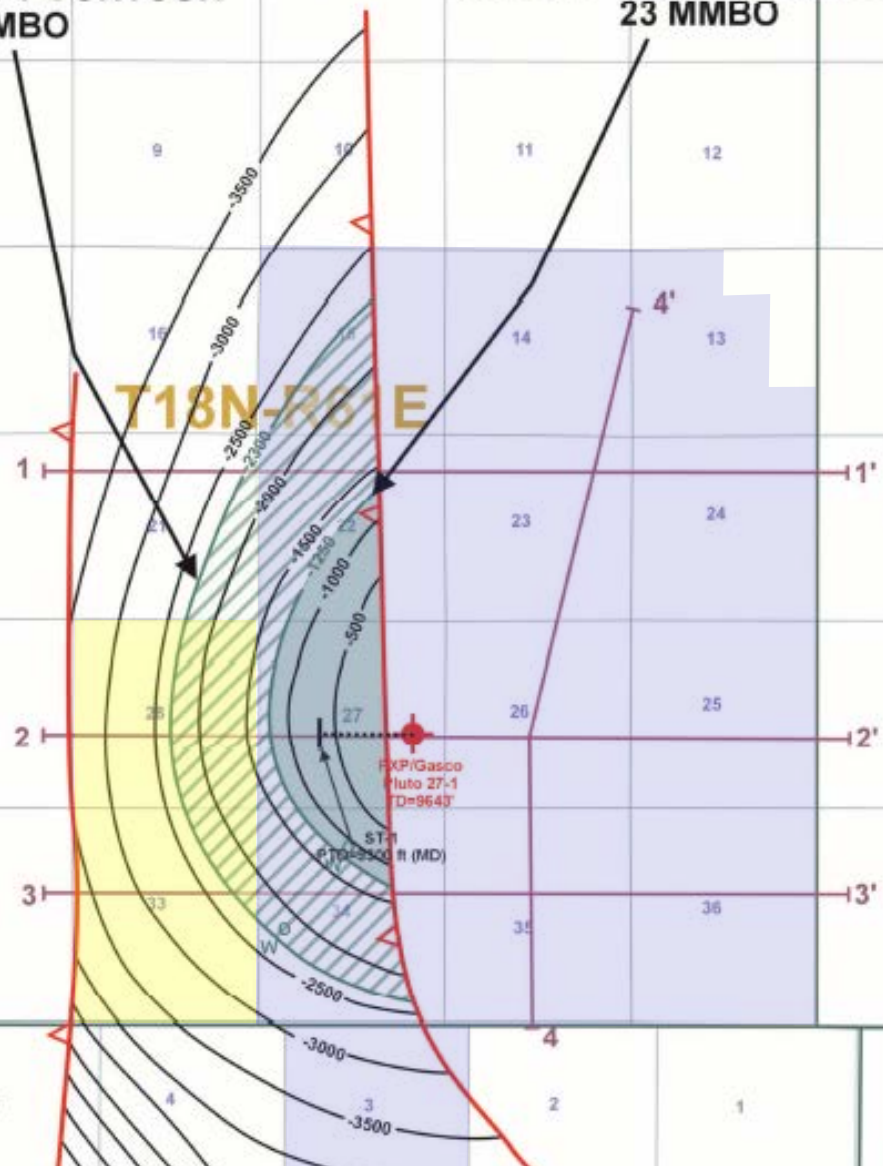
PLUTO PROSPECT
574 AC GUILMETTE CLOSURE
ABOVE -1250 FT CONTOUR
23 MMBO

T18N-R63E

T18N-R62E

BCP/Gasco
Pluto 27-1
TD=9640'

ST-1
9700-9850 ft (MD)



COST ESTIMATE & AUTHORITY FOR EXPENDITURE

DATE: Feb 1, 2013

OPERATOR: SAM Oil LLC

LEASE & WELL NO. Pluto No. 27-1 Reentry	FIELD OR	White Pine
AREA:		

LOCATION: Section 27, T 18N, R 61W,

COUNTY: White Pine County	STATE: Nevada	PROJECTED TD: 9300' MD
---------------------------	---------------	------------------------

Type: Reentry. Directionally drill to 9300' MD below the existing of 9-5/8" casing at 4495'.

Category: Oil and Gas Well

THIS IS AN ESTIMATE ONLY AND THERE IS NO GUARANTEE, EITHER EXPRESS OR IMPLIED, THAT THE ACTUAL COSTS WILL BE EQUAL

TO, LESS OR GREATER THAN THOSE ESTIMATED.

TANGIBLE LEASE & WELL EQUIP.

	DRILLING	COMPLETION	TOTAL	REMARKS
1. Surface Csg. & Cond.			\$0	
2. Inter. Liner	\$120,000		\$120,000	3000' of 7-5/8", 29.7#, L-80
3. Production Casing		\$200,000	\$200,000	9300' of 5", 15#, J-55
4. Tubing		\$63,000	\$63,000	9300' of 2-7/8", 6.5#, N-80, EUE
5. Wellhead	\$2,000	\$18,000	\$20,000	5000# WP
6. Flow Line			\$0	
7. Process & Storage Equip.		\$50,000	\$50,000	Heater/Separator/Tanks
8. Tubing hardware		\$10,000	\$10,000	
Total Lease & Well Equip.	\$122,000	\$341,000	\$463,000	

Intangibles

1. a. Footage ft. @ \$			\$0	
b. Mobilization & Demobilization	\$393,000	\$20,000	\$413,000	
c. Daywork 32 Days @ \$21000/day	\$693,000	\$50,000	\$743,000	Including Per Deim
d. Rig Sound Proofing			\$0	
e. Water	\$20,000	\$2,000	\$22,000	
g. Mud Conditioning	\$35,000	\$2,000	\$37,000	
2. a. Operator's Overhead			\$0	
b. Engineering Supervision	\$70,000	\$20,000	\$90,000	24 hrs/day plus consulting
c. Engineering Management			\$0	
d. Wireline Surveys	\$120,000	\$30,000	\$150,000	DIL/GR/NL/Density/Sp; CBL/Cast
e. Permitting/title/insurance	\$35,000		\$35,000	
f. Mud Logging	\$75,000		\$75,000	
g. Testing/cores/analysis	\$115,000		\$115,000	
3. a. Cement & Service	\$80,000	\$60,000	\$140,000	
b. ECP & Misc.			\$0	
c. Welding	\$5,000	\$50,000	\$55,000	
d. Handling Csg. & D. P.	\$20,000	\$35,000	\$55,000	
4. Fuel	\$90,000		\$90,000	
5. a. Location (cellar, rat&mouse hole)	\$30,000	\$10,000	\$40,000	
b. Transp. & Freight	\$200,000	\$40,000	\$240,000	Including mud disposal
c. Roustabout Labor	\$20,000	\$5,000	\$25,000	
d. Site Work	\$50,000		\$50,000	
e. Reclamation work	\$15,000		\$15,000	
6. a. Bits, Stabilizers, Underreamer	\$50,000		\$50,000	
b. Rental Tools	\$130,000	\$10,000	\$140,000	Including drill pipe rental
c. Directional	\$400,000		\$400,000	
d. Contingencies	\$200,000	\$60,000	\$260,000	
Total Intangibles	\$3,046,000	\$414,000	\$3,460,000	
Total	\$3,168,000	\$755,000	\$3,923,000	

Grand Total =\$3,923,000 flowing to tanks.

Note: AFE includes \$500K for 7 5/8" casing in the event that it is required to maintain hole integrity.

Pluto Prospect Terms

Plan: Re-entry of Pluto 27-1. Sidetrack at 4550 plug. Drill to west ½ mile at approximately 34 degrees to 9200ft (sufficient to test Guilmette).

AMI: Township 17 and 18 North Range 61 East, White Pine county NV.

Leasehold: Federal leases: 80833, 80834, 80835, 80836 and 82579. 9646.28 acres.
100% Working Interest = 80% Net Revenue Interest.

Prospect Fee: \$975,000. Covers 9646.28 acres of federal leasehold and existing Pluto 27-1 well bore cased to 4495ft with 9 5/8 casing. Minimal drill site/ access work required. SAM Oil is selling 85% of the working interest for 100% of the drilling, testing and completion costs, to “the tanks” on the first well (re-entry). The 15% carry only applies to the first well (7.5% Gasco/ 7.5% SAM Oil) on the prospect acreage.

Estimated dry hole drilling cost: \$3,168,000. Estimated completion costs: \$755,000.
Prospect fee due at time of sale. Drilling and completion funds will be “cash called” as per operational/expenditure requirements.

Operations: SAM Oil is planning to operate, but is open to alternatives.

Projected Spud Date: Summer 2014

Working Interest Examples	5% (4% NRI)	10% (8% NRI)	20% (16% NRI)	25% (20% NRI)
Est. Drilling (15% Carry)	\$186,000	\$372,000	\$744,000	\$930,000
Prospect fee	\$49,000	\$98,000	\$195,000	\$244,000
Dry Hole Cost	\$235,000	\$470,000	\$939,000	\$1,174,000
Est. Completion	\$44,000	\$89,000	\$178,000	\$222,000

Working Interest Examples	5%	10%	20%	25%
	(4% NRI)	(8% NRI)	(16% NRI)	(20% NRI)
Est. Drilling (15% Carry)	\$186,000	\$372,000	\$744,000	\$930,000
Prospect fee	\$49,000	\$98,000	\$195,000	\$244,000
Dry Hole Cost	\$235,000	\$470,000	\$939,000	\$1,174,000
Est. Completion	\$44,000	\$89,000	\$178,000	\$222,000

<u>Reserve Interest (Millions of Barrels)</u>				
	<u>5%</u>	<u>10%</u>	<u>20%</u>	<u>25%</u>
20 MM BOE Discovery	0.8	1.6	3.2	4
40 MM BOE Discovery	1.6	3.4	6.4	8
60 MM BOE Discovery	2.4	4.8	9.6	12
80 MM BOE Discovery	3.2	6.4	12.8	16
100 MM BOE Discovery	4	8	16	20

