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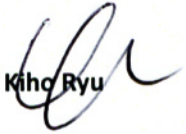


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MEMORANDUM- EXM-056-2012

November 08th 2012

To: Dr. Jin Seok Yi

From:  Pedro Alarcon /  Kiho Ryu

SUBJECT: San Matteo Exploratory Well

It is recommended to drill the exploratory well San Matteo (LO6-26XD) as part of the 2012 Drilling program in replacement of originally programmed exploratory well Punta Balcones-1X.

LO6-26XD well will be directionally drilled from existing platform LO6 and using Pepesa-40 drilling rig. This well is programmed to 9600' MD of total depth. Main objective is the Lower Basal Salina Sand, with expected resources of 4.4 MMBO (Pmean), an IPR of 900 BOPD, and a chance of success of 20%. Additionally, this well could also encounter the Upper Basal Salina with 1.8 MMBO of potential resources.

Total well cost is 5.4 MM\$, an ENPV of 11.1 MM\$, ROR > 100%, and a payout time of 1.2 years. Attached please find the Geological recommendation and economical evaluation for LO6-26XD (San Matteo) exploratory well.

Exploratory well Punta Balcones-1X has been postponed because G&G interpretation is being updated with results obtained in well Colan-1X. Seismic velocities in Colan-1X for the penetrated cretaceous section are higher than originally expected. The main objective for the Punta Balcones-1X is the naturally fractured reservoir of the Paleozoic, which was originally expected at 8500' MD. Using the new seismic velocities encountered in Colan-1X, the new expected top for the Paleozoic in well Punta Balcones-1X is now 11500' MD. With these new expected Paleozoic top, the major risk is the trap. We continue updating the seismic and geological interpretation in order to better define the trap and reduce the risk related to the Punta Balcones potential oil accumulation.

Kindly request your approval to move drilling rig Pepesa-40 to platform LO6, and drill exploratory well LO6-26XD using found initially considered for Punta Balcones-1X well.

Approved by.....

Jin Seok Yi

CC: J. Duarte, C. Kim, J. Garzon, R. Quintero

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**INTEROFFICE MEMORANDUM
EXM-055-2012**

To : P. Alarcon / Kiho Ryu
From : E. Borda / F. Palacios
Date : November 2012
Subject : L06-26XD (SAN MATTEO) Exploratory Well Drilling Recommendation

It is recommended to drill the exploratory well L06-26XD to test potential resources of 6.2 MMBO (4.4 MMBO in Lower Basal Salina and 1.8 MMBO in Upper Basal Salina reservoirs). The proposed well is located about 8.6 km from the coast and 1.2 kilometers northwest from L06-25 well of Lobitos field (figure 1) which tested 1878 BOPD, 33° API, 1740 psi WHP, 24/64" from Lower Basal Salina reservoir. The estimated drilling cost is 5.4 MM US\$ with AFE No. 1112835 (table 1). The well will be drilled from the existing L06 platform at 335 feet of water depth. The well is a deviated hole programmed to 9607' MD with a maximum inclination angle of 33.3° at the following WGS-84 target coordinates: 9'508,400 m North and 458,133 m East (figure 2 and 3).

The purpose of this well is to explore the hydrocarbon potential of the Lower and Upper Basal Salina reservoirs (figure 4) to the northwest of Lobitos field, considering the success of L013-13XD well that tested oil in a faulted block below the oil-water contact of the known area. Structural mapping is supported by reprocessed 3D seismic (Geomage PSTM), subsurface geology, and geochemical interpretations (figure 5, 6, and 7). The main objective is the Lower Basal Salina reservoir expected at 8690' MD (-7723' VSS), 98 feet lower than L06-25, with about 700 feet of gross interval and 187 feet of net sand.

The Lower Basal Salina reservoir is productive in the Lobitos field with a current cumulative production of 21.5 MMBO for Upper and Lower Basal Salina reservoirs. Sand distribution maps and sections indicate that there is a good chance that the good reservoir rocks extend to the northwest side of Lobitos field (figure 8 and 9). The Upper and Lower Basal Salina reservoirs consists of submarine fans with a regional depositional trend SE-NW. Based on 3D seismic interpretation and geological correlation the SAN MATTEO structure is defined as a faulted block that would be about 200 feet lower than L06-14 block. The shales of San Cristobal formation are expected to be the vertical seal for oil accumulation and the lateral seal would be a NW-SE normal fault that divides the L06-14 and L06-25 block (figures 10, 11 and 12). Secondary objective for this exploratory well are the sands of Upper Basal Salina reservoir, expected at 8110' MD (-7139' VSS), 41 feet higher than L06-23 original well that tested 788 BOPD, 5% WC, 640 psi WHP, 24/64" choke.

Structurally, the SAN MATTEO prospect is updip from Siches and Malacas kitchen that according to its oil generation, it migrated through the principal pathway (faults) and accumulated on the structure (figure 13).

Major risk for this prospect is the trapping and seal. Considering this, chance of success (COS) is 20.2% for the Lower Basal Salina reservoir (figure 14).

The economic valuation indicates an E (NPV) of 11.1 MMUS\$, a ROR higher than 100 % (P50) and payout time of 1.25 years (P50) (figures 15). An IPR for exploratory well LO6-26XD has been estimated in 900 BOPD. In case of successful results, the production will be reflected immediately, since all production facilities are in place.

A probabilistic economic valuation summary assuming 85 US\$/bbl and discount rate of 10.5% until the end of the Z-2B contract in 2023 is as follows:

	RESOURCES (MMBO)	CAPITAL (MMUS\$)	NPV (MMUS\$)	PIR	ROR (%)	PAY OUT (YRS)	Number of Wells
P10	7.8	98.3	191.7	2.43	>100	1.25	11
P50	2.5	34.7	63.1	2.16	>100	1.25	4
P90	0.8	14.9	16.4	1.3	>100	1.5	2

Att.: 15 figures

CC: J. Duarte	R. Quintero	H. Janampa	K. Valencia
J. Yi	J. Nevito	A. Agurto	E. Gonzales
C. Kim	J. Chuyes	O. Nieto	C. Hamann
J. Garzon	K. Ryu	S. Ko	Ch. Hwang

SAN MATTEO PROSPECT LOCATION MAP

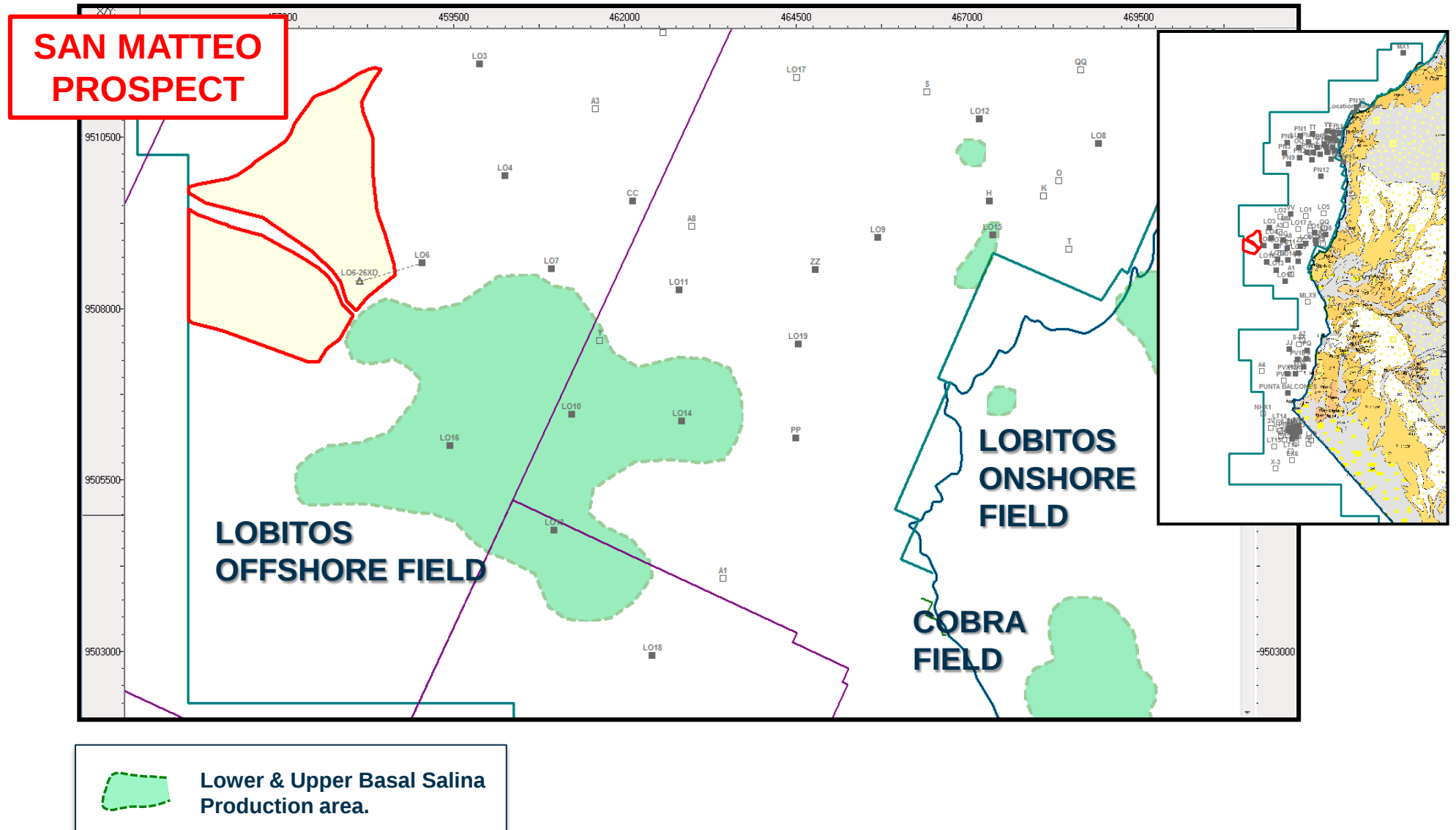
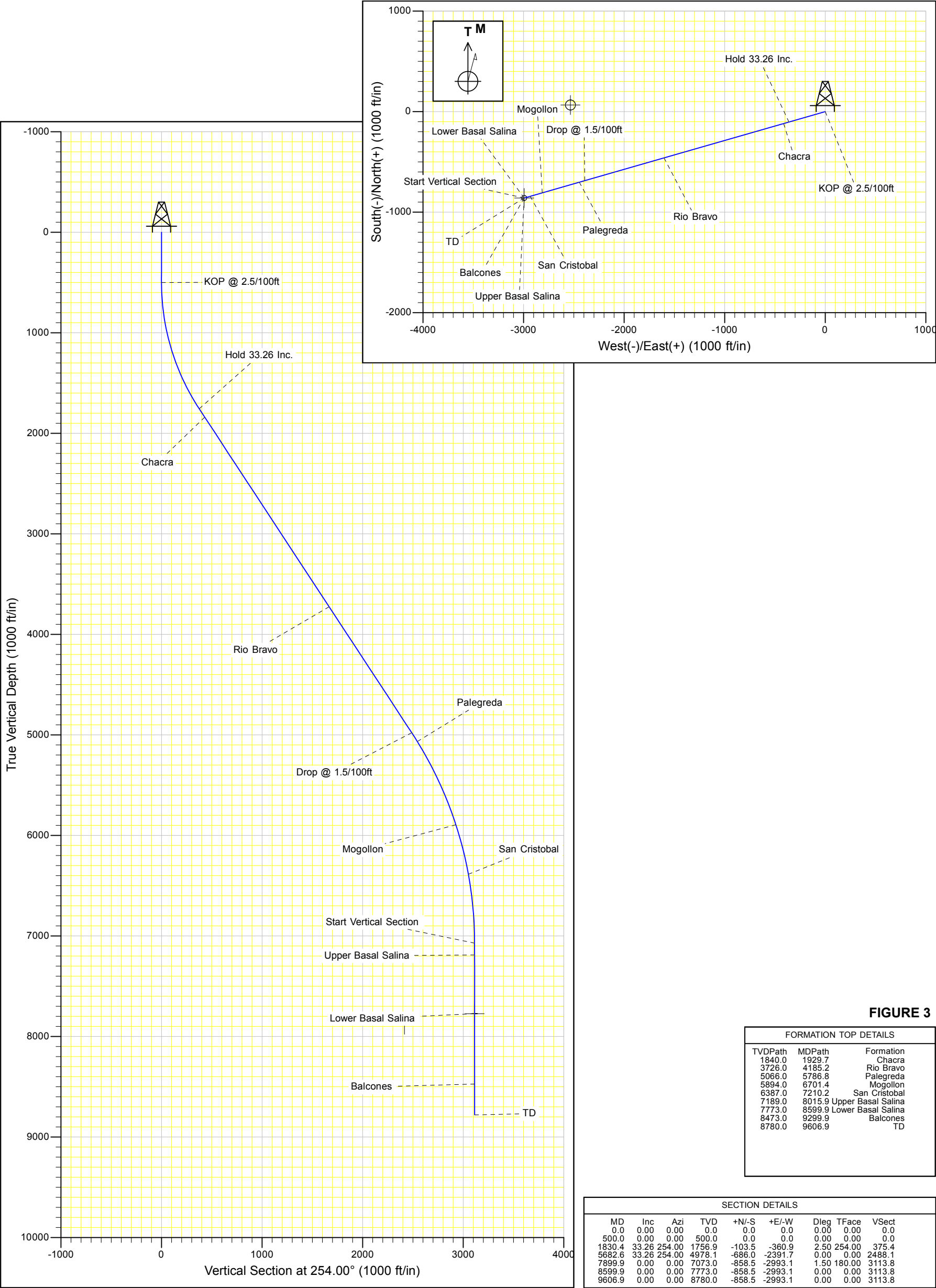


FIGURE 1

GEOLOGICAL PROGNOSIS

AREA LOBITOS - SAN MATTEO		OFFICIAL WELL NUMBER		SAVIA PERU N° LO6-26XD (SAN MATTEO)		TYPE OF WELL EXPLORATORY		RIG N°	
PRIMARY OBJECTIVE LOWER BASAL SALINA				SECONDARY OBJECTIVE UPPER BASAL SALINA					
SURFACE COORDINATES (UTM) 9°508,662.12 mN 459,045.17 mE ("A" Conductor)				TARGET COORDINATES (UTM) 9°508,400 mN 458,133 mE					
KB: 50 FT		DIRECTION OF DEVIATE WELL S 74° W		T DRILLED DEPTH 8600 FT		T ESTIMATED FINAL 9607 FT			
L WATER DEPTH 335 FT		E ANGLE CONDUCTOR VERTICAL		R VERTICAL DEPTH 7773 FT		O HORIZONTAL DRIFT 3113 FT			
V GROUND LEVEL ----- FT		L RECOMENDED DEPTH 500 FT		G HORIZONTAL DRIFT 3113 FT		D MAX. ANGLE 33.26 DEG			
T. BUILD UP ANGLE AT 2.5 DEG / 100 FT				T LIMITS (DIAMETER) TOP: 50 FT BASE: 50 FT					
GROUP / FORMATION / MEMBER				DRILLED TOP (MD/FT)		VERT. TOP (VD/FT)		SUBSEA TOP (SS/FT)	
TALARA								AT SURFACE	
CHACRA				1930		1840		-1790	
RIO BRAVO				4185		3726		-3676	
PALEGREDA				5787		5066		-5016	
MOGOLLON				6701		5894		-5844	
SAN CRISTOBAL				7210		6387		-6337	
UPPER BASAL SALINA				8016		7189		-7139	
LOWER BASAL SALINA				8600		7773		-7723	
BALCONES				9300		8473		-8423	
TOTAL DEPTH				9607		8780		-8730	
C BIT SAMPLES O TO BE TAKEN N RECOMMENDED T FOR R. PALEO-PALYNOLOGY				EVERY 30 FT. FROM SURFACE TO 5000 FT. EVERY 10 FT. FROM 5000 FT. TO TOTAL DEPTH PALEONTOLOGY EVERY 60 FT. THROUGHOUT THE WELL PALYNOLOGY AT REQUEST OF LIMA OFFICE				REMARKS BASAL SALINA & BALCONES TOPS WERE DEFINED BY 3D SEISMIC INTERPRETATION BY E. BORDA IT IS RECOMMENDED TO REACH 0 DEG OF INCLINATION BEFORE UPPER BASAL SALINA TOP AND HOLD TO TOTAL DEPTH	
L RECOMMENDED O OPEN HOLE G RECOMMENDED G AFTER CASING I NEARBY WELLS N FOR G CORRELATION				DLL-MSFL-FDC-CNL-GR, SONIC-DIPOLAR, DIPMETER-FMI, PRESSURE POINTS CHECKSHOT (OPTIONAL) NOT CONSIDERED LO6-25ST, LO6-23, LO6-9X, LO6-17					
E SIDEWALL V CORES A CONVENTIONAL L CORES U GAS A LOGGER T. FORMATION TESTING				IF NECESSARY AT REQUEST OF LIMA OFFICE NOT CONSIDERED USING A MUD LOGGING UNIT THROUGHOUT DRILLED SECTION IF NECESSARY AT REQUEST OF LIMA OFFICE					
RECOMMENDED BY EDGAR BORDA FRITZ PALACIOS		DATE: NOV 2012		REVISED BY ENRIQUE GONZALES		DATE: Nov. 8. 12		APPROVED BY PEDRO ALARCON	
								DATE: Nov. 12, 2012	

FIGURE 2





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CIA	ACD	BUDGET ITEM
06		

A F E No.
1112835

FU	WELL DESCRIPTION	OFICIAL NUMBER				MM / DD / AA
18	LO6-26XD (SAN MATTEO)					
TOTAL ESTIMATED DAYS						
FU	TYPE OF WELL	MOV / COND	DRILLING	COMPLETION	EST. FOOTAGE	A R E A
19	EXPLORATORY	18	30	18	9607	LOBITOS

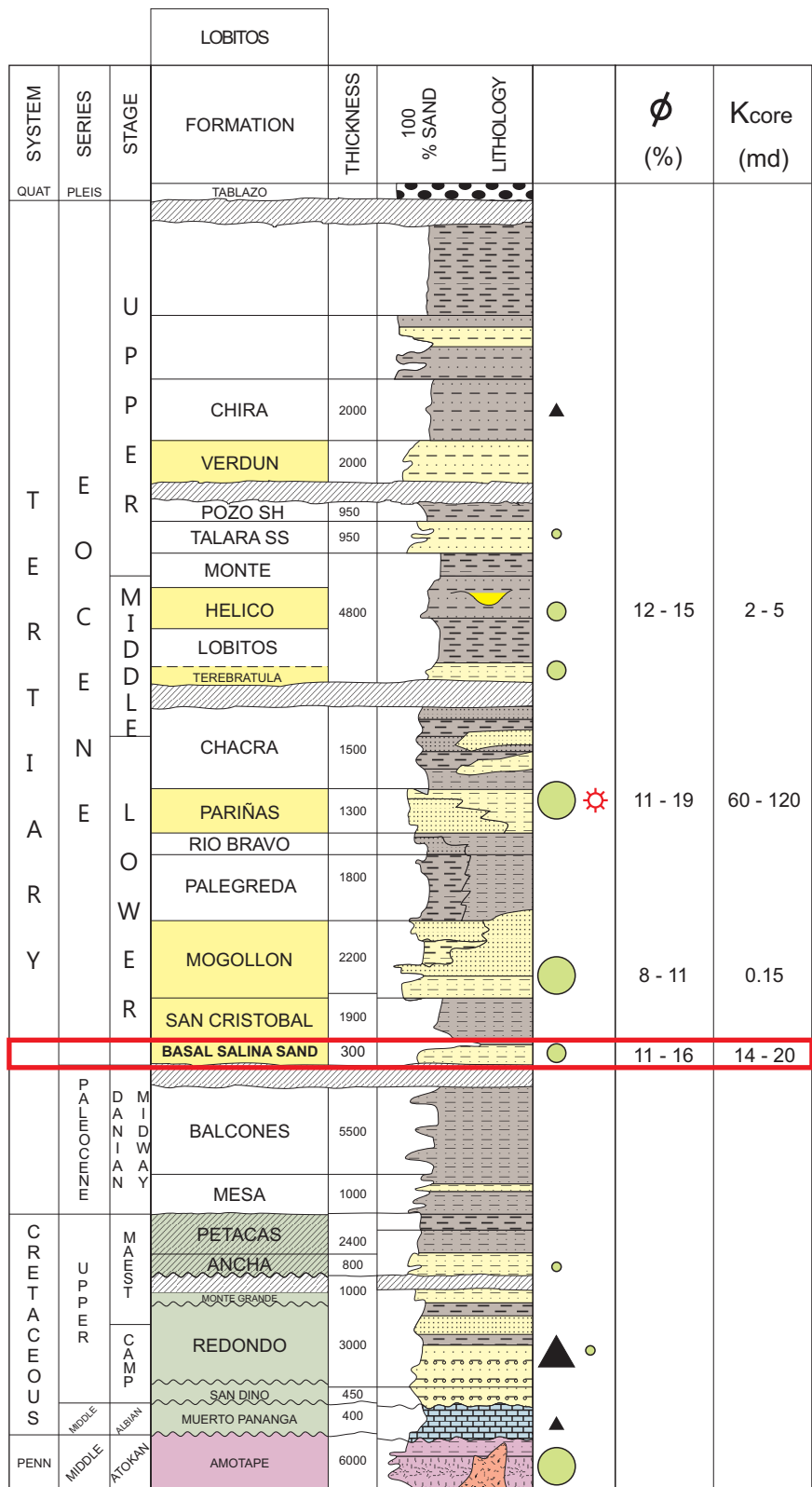
FU	GEN	CC	AREA
20		061	

WELL COST BREAKDOWN

SUB	DESCRIPTION	QUANTITY	UNIT COST	SUB-TOTAL	TOTAL US\$
OUTSIDE SERVICES:					
201	DRILLING RIG	36	30		1 383 000
203	DIRECTIONAL DRILLING				304 480
204	MUD LOGGING		33	2300	75 900
205	MUD ENGINEERING	34	14	1100 600	45 800
206	CEMENT CONDUCTOR				17 230
206	CEMENT. SURF. CSG				24 440
206	CEMENT. INTERM. CSG.				23 150
206	CEMENT. OTHERS				18 730
206	CEMENT 5.5" CSG.				25 360
206	CEMENT. 5" LINER				0
207	ELECTRIC LOGGING				320 250
208	PERFORATING				54 000
209	STIMULATION				35 000
211	TUBULAR INSPECTION				10 600
212	HYDRAULIC TONGS				98 160
213	DIVING				28 660
219	WELL TESTING				8 000
221	TOOL SERVICES				25 000
224	METALIC STRUCTURES CUT & WELD				12 000
228	MACHINE WORK				7 500
229	BARGE OPERATIONS				470 600
231	BOAT OPERATIONS				431 600
237	MATER. & EQUIP. TRANSP.				23 100
240	WATER SUPPLY				15 840
243	CHARTER				0
244	TOOLS RENTAL				123 000
248	CATERING				50 160
249	CONSULTING				82 500
252	ENVIRONMENTAL PROTECTION				16 500
TOTAL OUTSIDE SERVICES:					3 730 560
MATERIALS & SUPPLIES:					
301	FITTING SCREWED				200
303	VALVES AND PARTS				800
304	API FLANGES & RING GASKET				800
306	HARDWARE				900
325	BITS				171 640
326	TOOLS FOR DRILLING				63 770
327	COMPLETIONS				48 500
328	FLOATING EQUIPMENT - CMT.				23 050
329	PRODUCTION FACILITIES EQUIP.				1 520
335	OTHERS TUBULAR CONNECTIONS				7 500
336	STRUCTURAL CONST. MAT.				2 200
340	WELDING MATERIAL				400
341	MAT. CMT. CONDUCT.				3 000
341	MAT. CMT. SURF. CSG.				20 900
341	MAT. CMT. INTERM. CSG.				24 500
341	MAT. CMT. 5.5" CSG.				25 240
341	MAT. CMT. 5" LINER				0
341	MAT. CMT. OTHERS				7 050
342	STIMULATION MATERIAL				90 000
343	DRILLING / COMPLETION FLUIDS				168 680
344	CONDUCTORS	500	45.50		22 750
344	SURFACE CSG.	1900	40.00		76 000
344	INTERMED. CSG. (9 5/8")	5900	34.00		200 600
344	7" CSG.	0	20.00		0
344	5.5" CSG.	9607	19.00		182 530
344	5" LINER	0	28.00		0
344	2 7/8" TUBING	9107	5.50		50 090
346	DIESEL-FUEL				477 960
347	OIL & GRASES	1			1 600
TOTAL MATERIALS & SUPPLIES:					1 672 180
TOTAL PROJECT COST US \$					5 402 740

TABLE 1

STRATIGRAPHIC COLUMN



 OIL ZONE

 SOURCE ROCK

FIGURE 4

EP-12-011

SAN MATTEO PROSPECT TOP LOWER BASAL SALINA FM. - DEPTH STRUCTURE MAP

C.I. 100 ft

E. Borda

November 2012

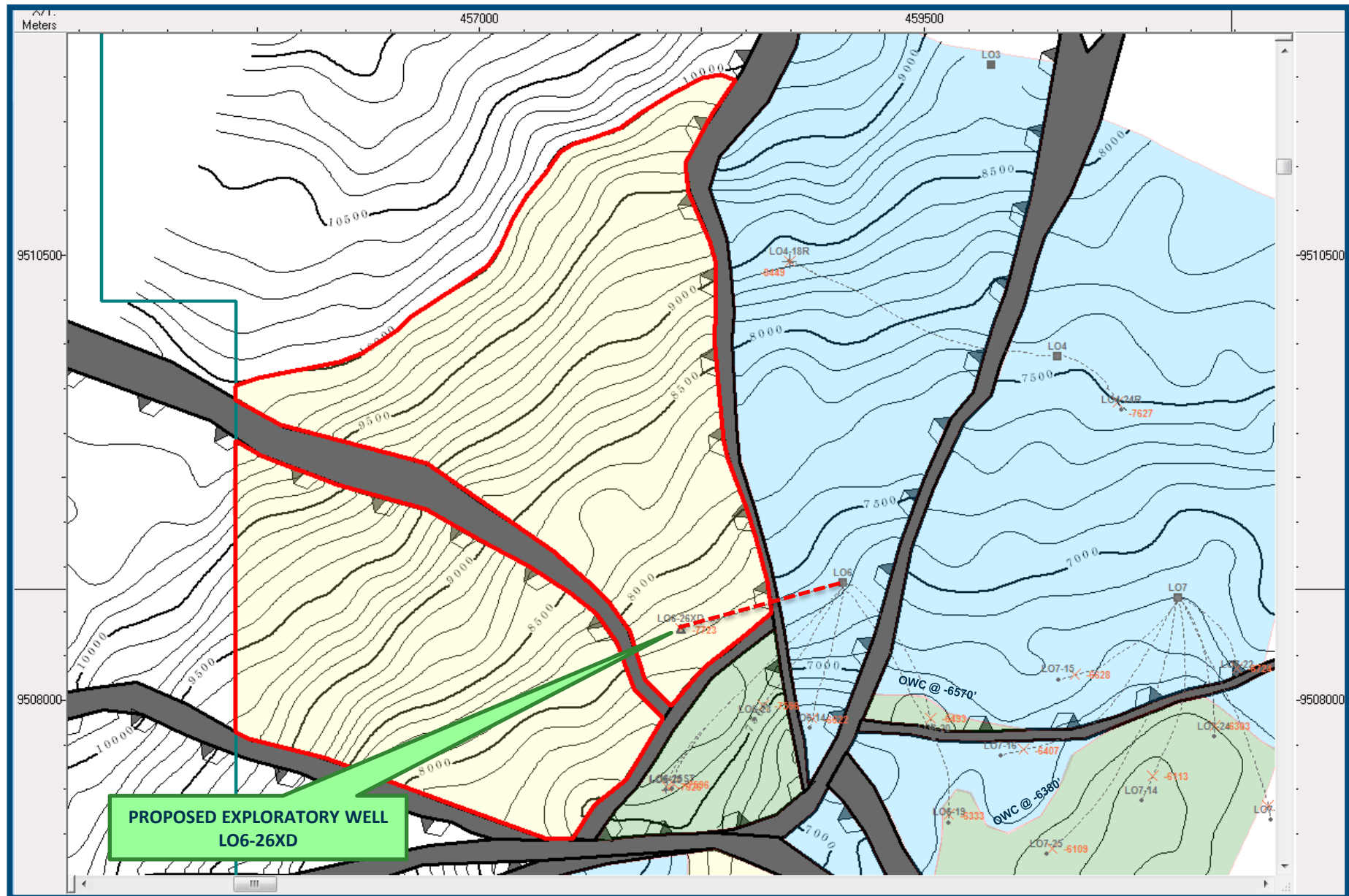
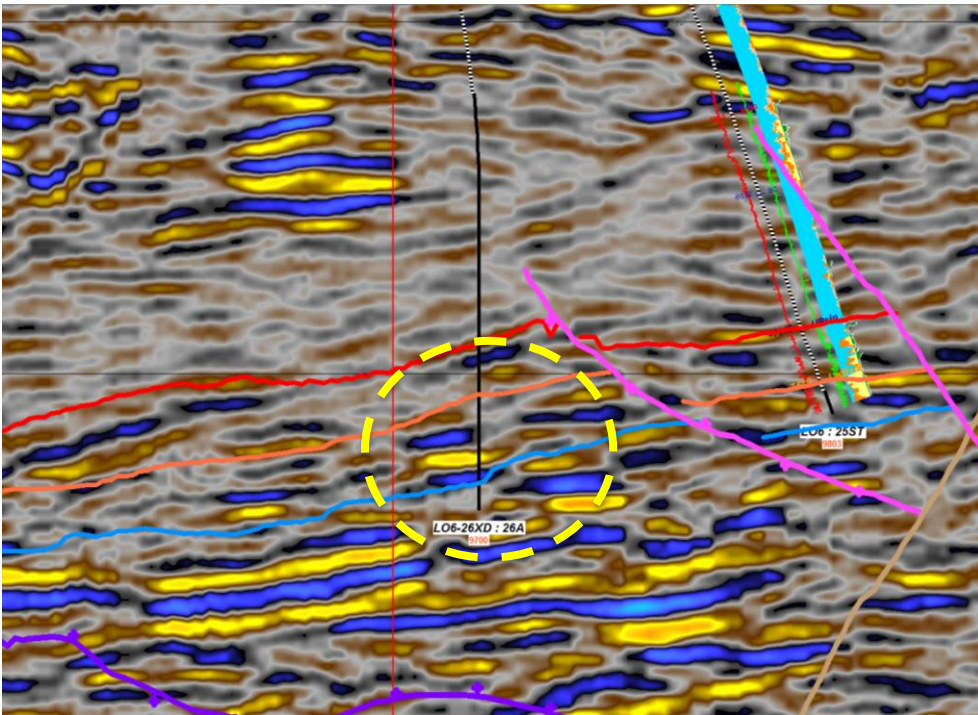


FIGURE 5

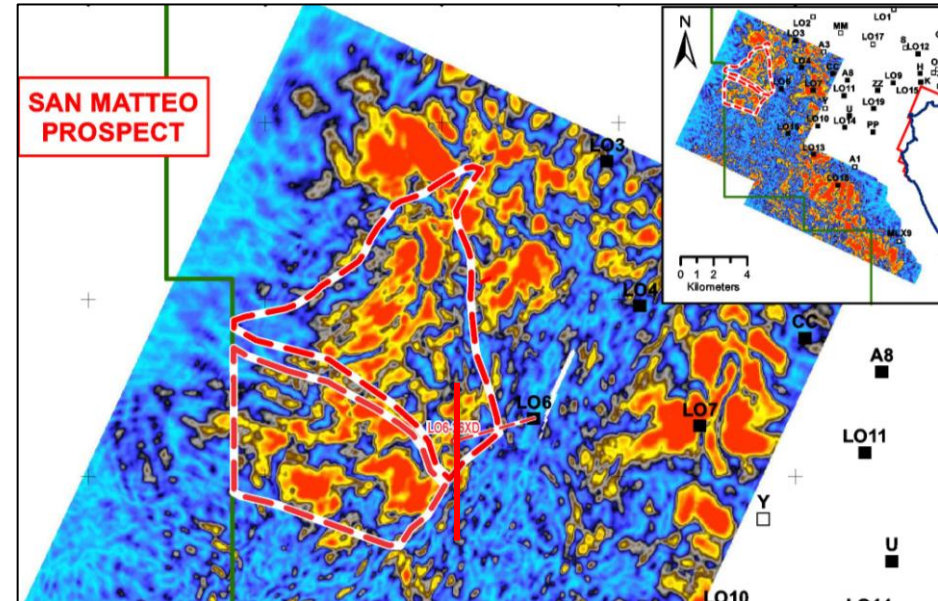


LO6-26XD

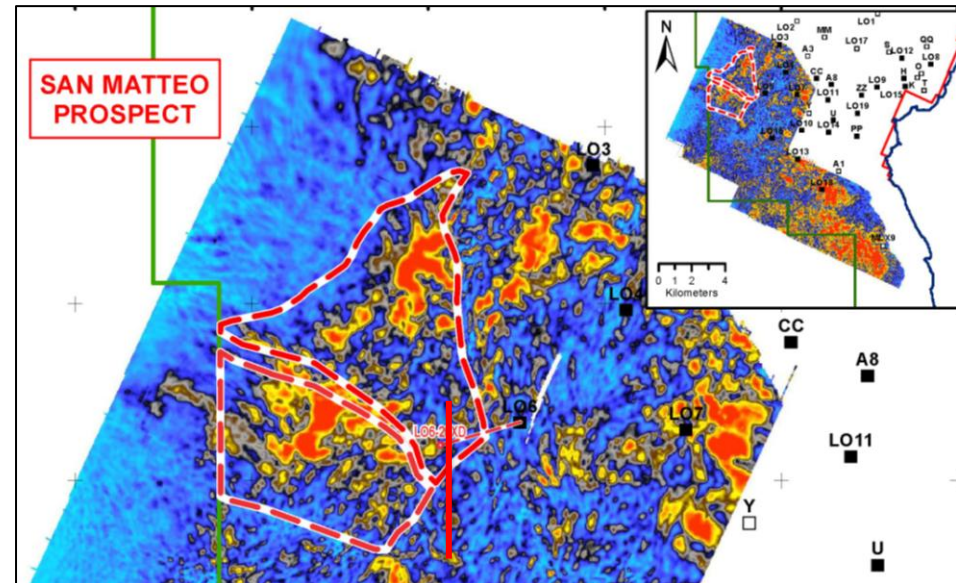
LO6-25ST



Arbitrary seismic line showing the high amplitude response over the proposed area highlighted in yellow dash circle, which resemble the amplitude anomaly over the RMS amplitude map. This attribute maps, on the right hand side, are showing a tendency which might represent some channelized independent sand.



RMS Seismic attribute map near Lower Basal Salina



RMS Seismic attribute map near Upper Basal Salina

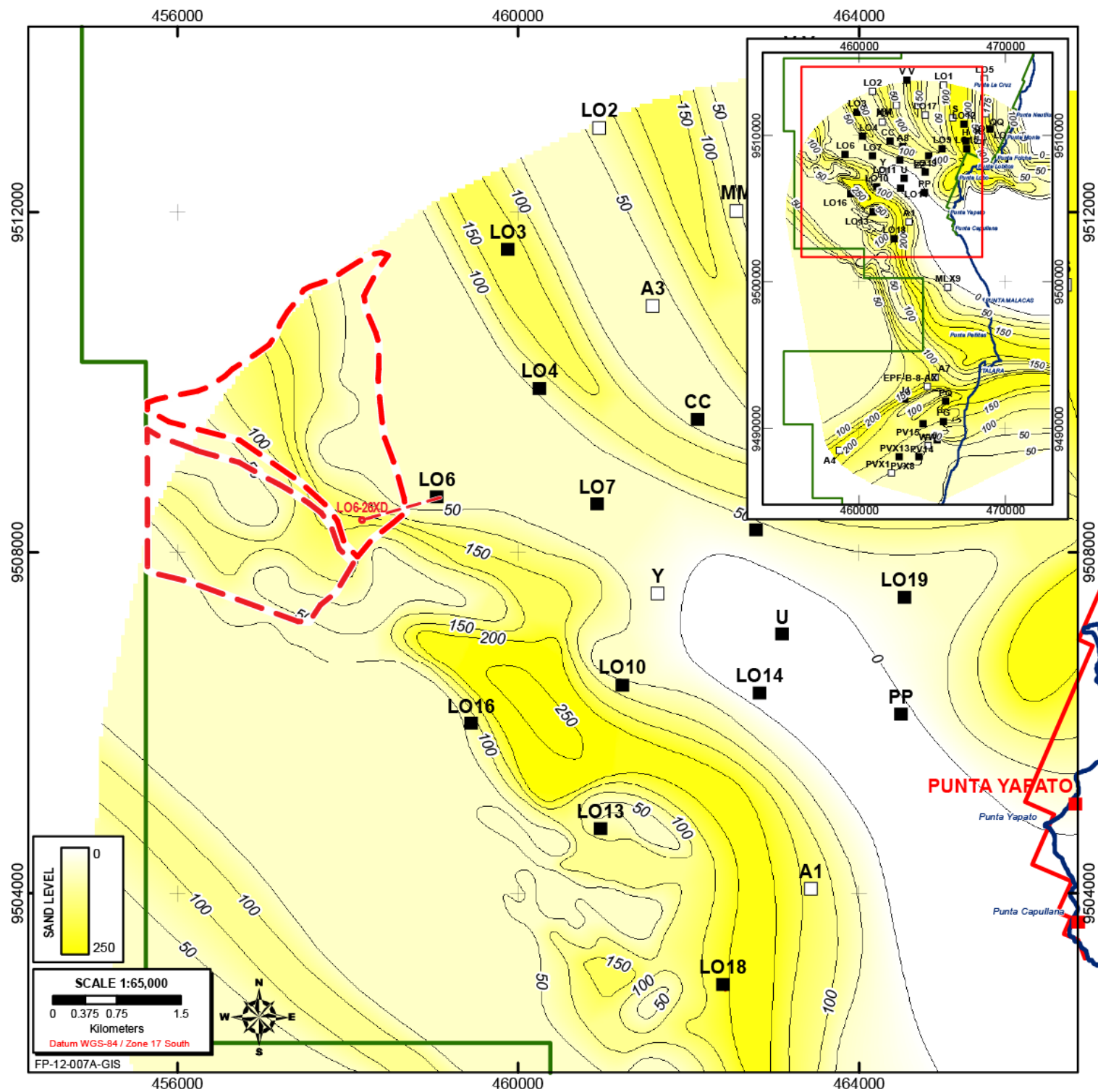


FIGURE 8

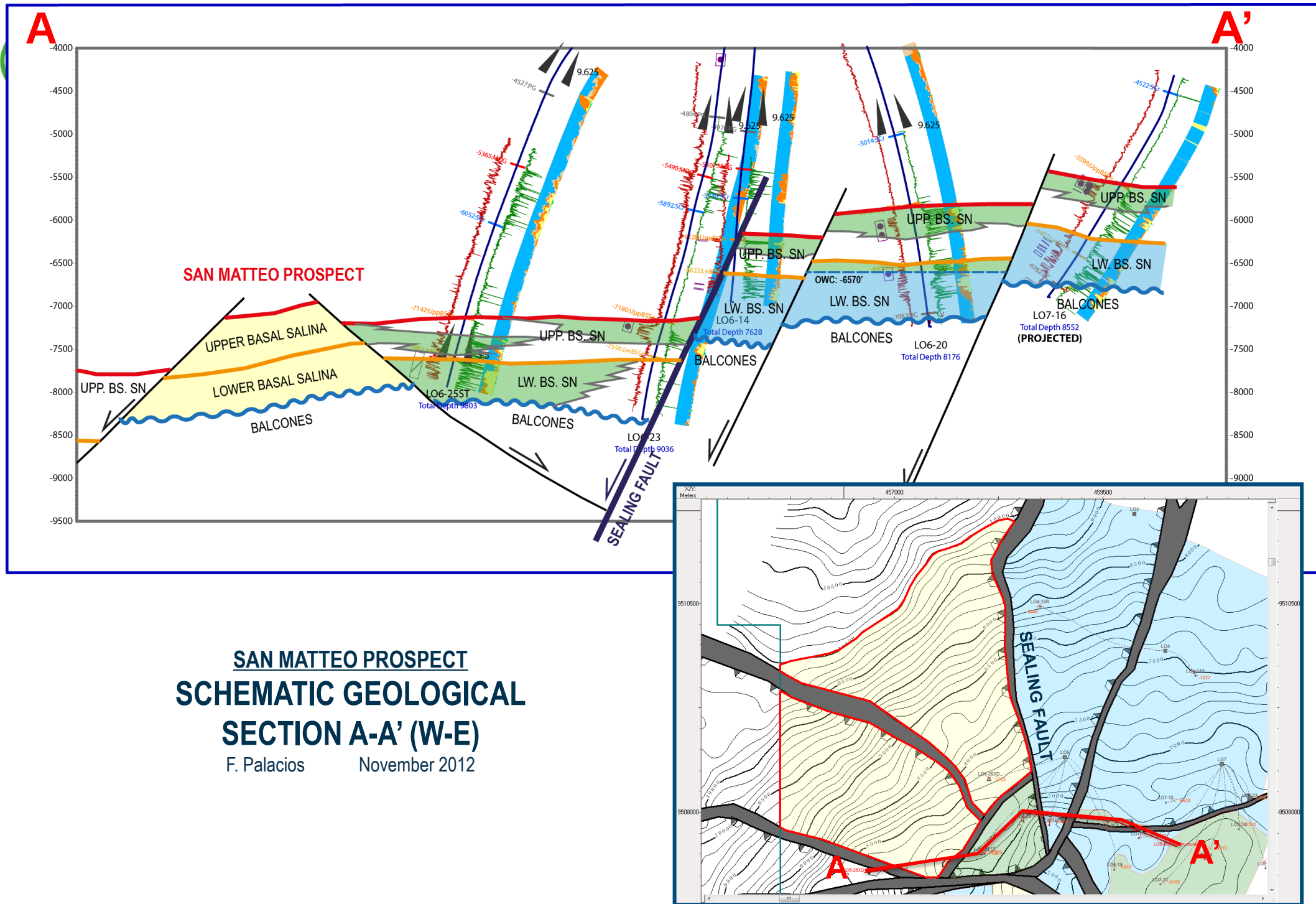


FIGURE 10

SAN MATTEO PROSPECT ARBITRARY SEISMIC LINE PSTM – LO6-26XD WELL

E. Borda

November 2012

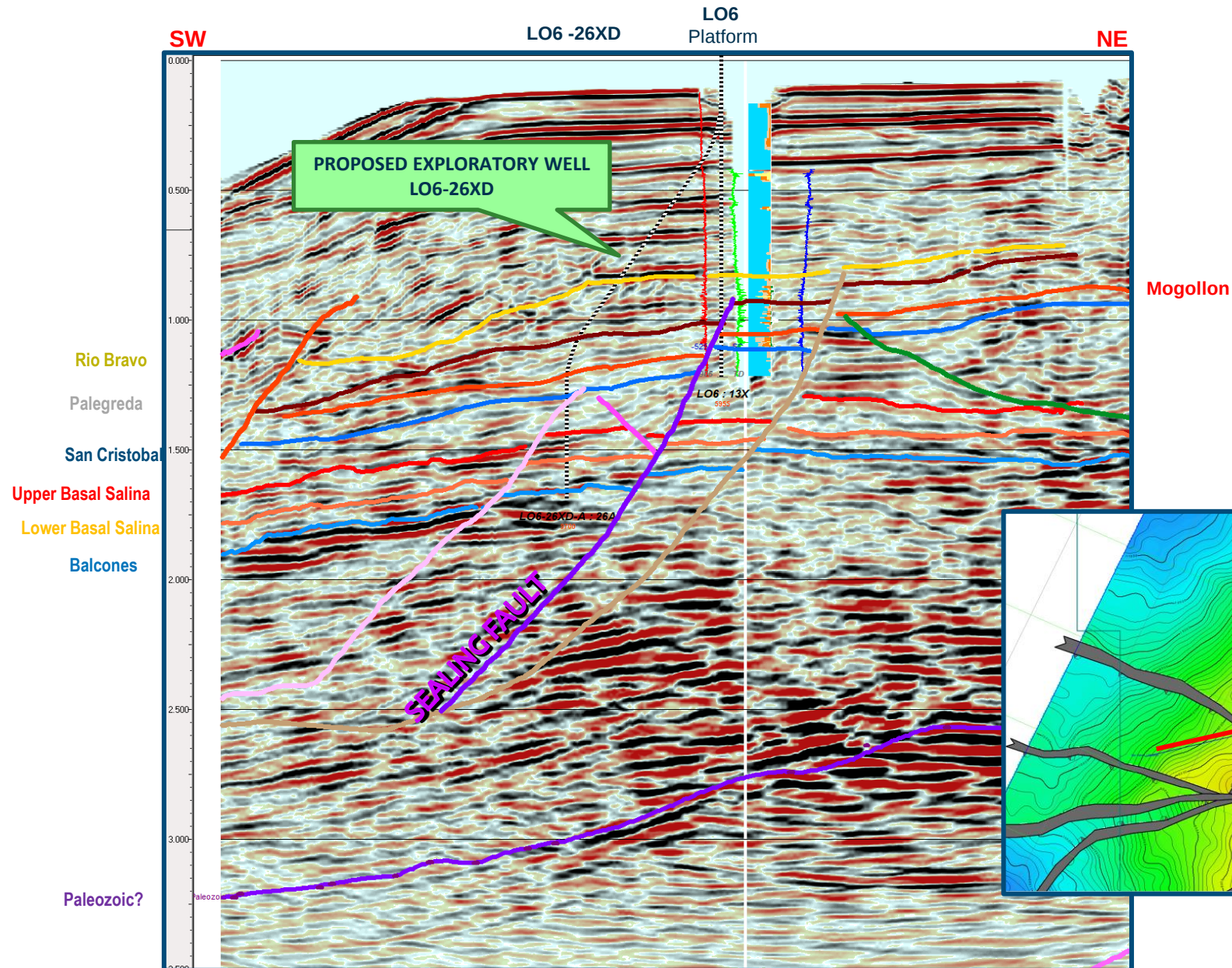


FIGURE 12

SAN MATTEO PROSPECT GEOCHEMICAL PLAY MAP

F. Palacios December 2011
(Modified from E. Gonzales – July 2007)

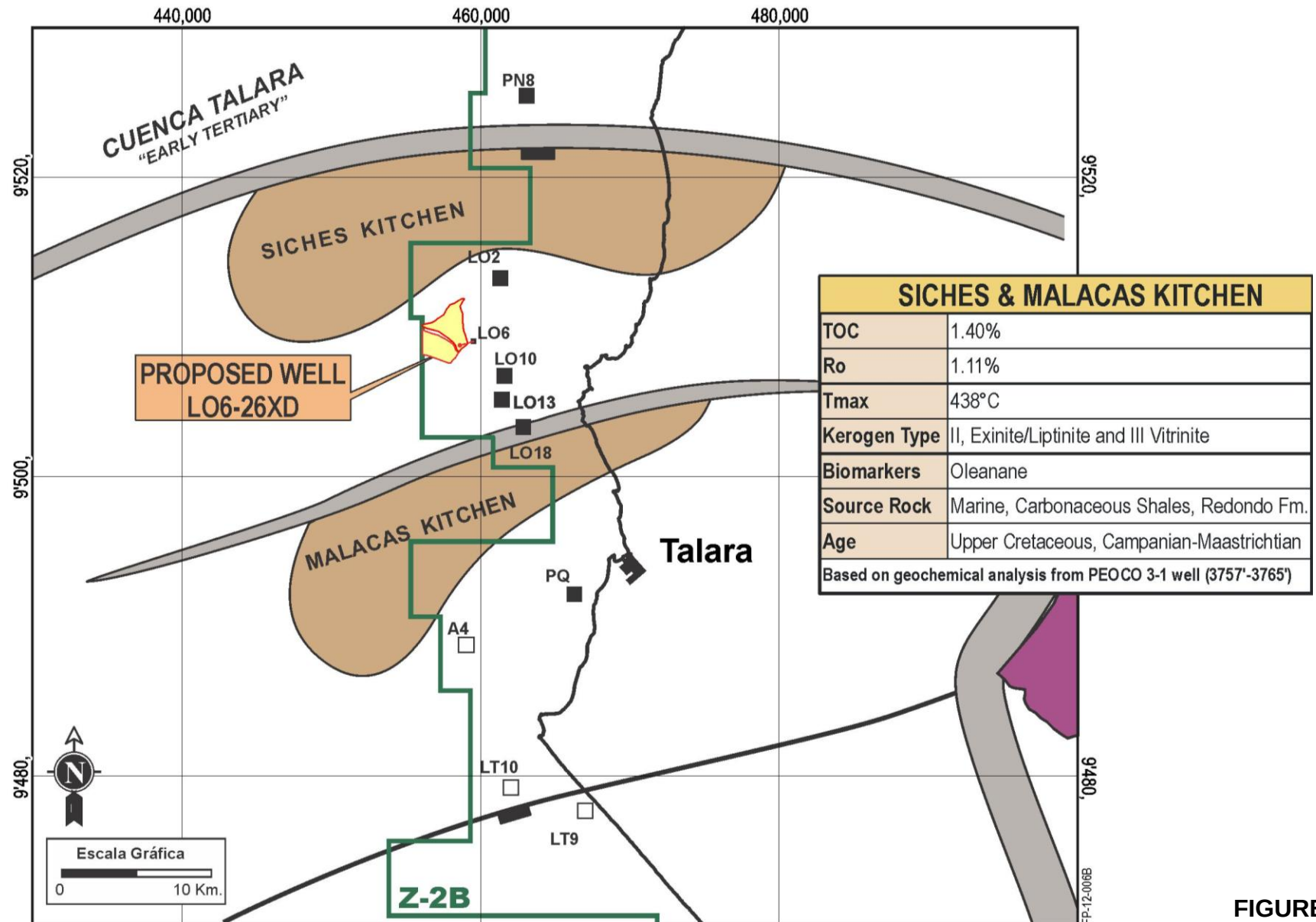


FIGURE 13

SAN MATTEO Prospect

LOWER BASAL SALINA PROBABILISTIC RESOURCES VALUATION

Risk Analysis

CALCULO DE RECURSOS DEL PROSPECTO SAN MATEO						
FORMACIÓN LOWER BASAL SALINA						
PARÁMETROS	P99	P90	P50	P10	P1	P Mean
Vol Roca Promedio	6.88	23.36	99.88	417.86	1,389.13	142
Area -Hcs	57.76	132.13	353.56	933.27	2,137.73	473
Espesor Gross	119.05	176.77	282.50	447.74	649.82	300
Espesor Neto	40	82	177	347	547	187
NTG	34%	46%	63%	78%	84%	62%
Factor Geométrico	74%	77%	80%	83%	85%	80%
Porosidad	5%	7%	10%	12%	14%	10%
So	52%	55%	59%	64%	68%	60%
	0	0	0	0	0	0
Bo	1.3704	1.3710	1.3720	1.3730	1.3737	1.3720
	0%	0%	0%	0%	0%	0%
FR Crudo	11%	15%	20%	25%	29%	20%
OOIP	1.85	4.70	15.12	47.63	117.22	21.95
RECURSOS CRUDO	0.35	0.90	2.98	9.53	23.96	4.39
	0.00	0.00	0.00	0.00	0.00	0.00
RECURSOS EQUIVALENTES	0.35	0.90	2.98	9.53	23.96	4.39

Elementos Geológicos	I / D	LW. BS. SN
Roca Fuente	D	95%
Reservorio	I	78%
Migracion	D	70%
Trampa	D	65%
Sello*	I	60%
COS		20.2%

FIGURE 14

INVESTMENT UNIT: SAN MATTEO PROSPECT

ECONOMICS (Probabilistic Method)

	NPV (MMUS\$)	CAPITAL (MMUS\$)	PIR	ROR (%)	PAY OUT (YRS)	Number Of Wells
P10	191.7	98.3	2.43	>100	1.25	11
P50	63.1	34.7	2.16	>100	1.25	4
P90	16.4	14.9	1.3	>100	1.5	2

COS: 20.0 % **ROYALTY: 16 % (R. factor)**
E-NPV: 11.1 MMUS\$ **Starting Drilling Year: 2012**
NPV FAILURE: -7.7 **Starting Production Year: 2013**

UNIT COSTS (SUCCESS) P10 P50 P90
Lifting cost (USD/bbl): 4.3 0.86 1.32
Find & Development cost (USD/bbl): 12.6 13.8 19.6

**Platform Cost
(WD = 350 ft) (MMUS\$) 14.9***
**Explo Well Cost +
Testing (MMUS\$) 7.7**
Variable OpEx (US\$/BI) 0.33
**Fixed OpEx per well
(MUS\$/Year) 20.7**
**Fixed OpEx per
Platform MMUS\$/Year 1.7**
Oil Price (US\$/BI) 85.0
Discount Rate (%) 10.5

PRODUCTION (Until end of Z-2B contract in 2023)

PROSPECTIVE RESOURCES

(MMBO)⁽¹⁾

SW MEAN RESOURCES: 3.6 MMBO

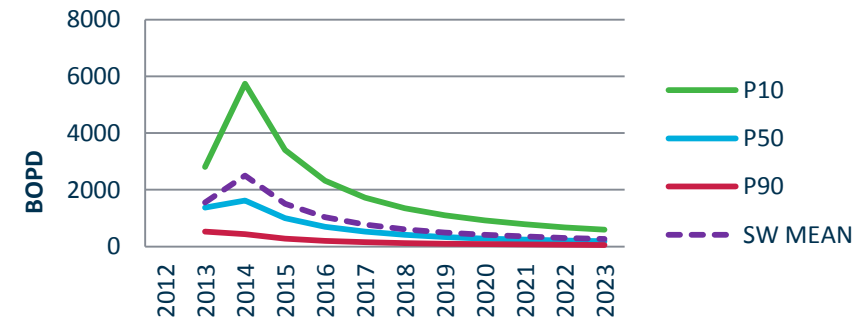
RISKED RESOURCES: 0.7 MMBO

P90 SUCCESS : 0.8

P50 SUCCESS : 2.5

P10 SUCCESS : 7.8

SUCCESS PRODUCTION RATE (BOPD)



(*) Platform cost of 14.9 MMUS\$ has been considered to development if the P10 case (7.8 MMBO) of Potential Resources are encountered.

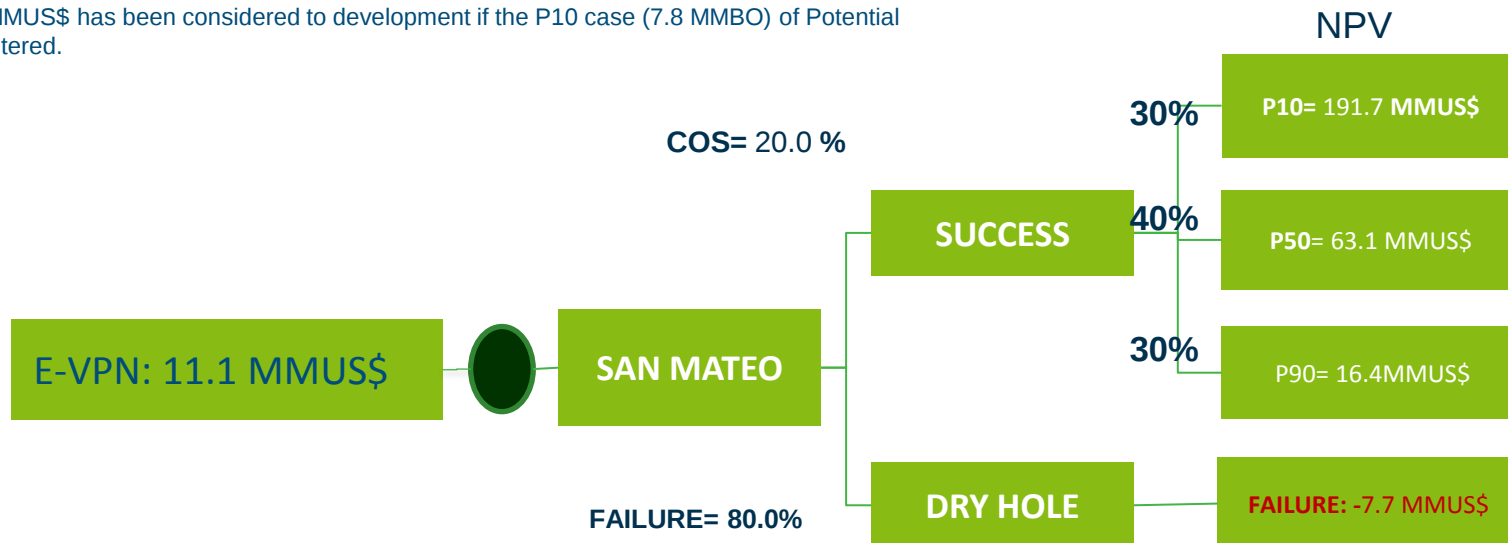


FIGURE 15

(1) Expected values affected by risk, percentiles P90, P50 and P10 reported by PEEP.