Keys to opening the door to Mexico's E&P potential
Round 1 Appex Global 2016

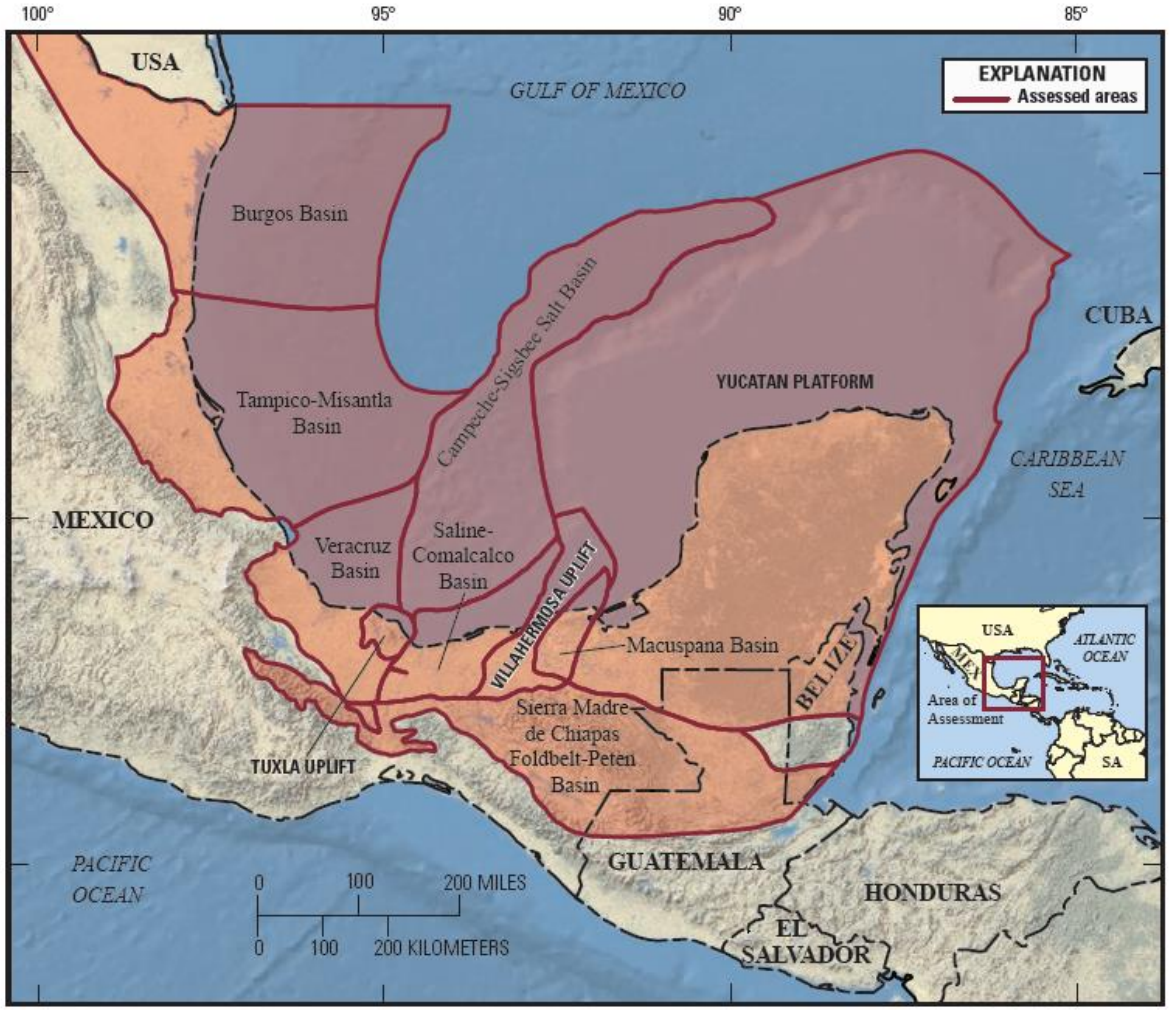


Figure 1. Locations of 10 priority geologic provinces of Mexico, Guatemala, and Belize assessed in this study of undiscovered, conventional oil and gas resources.

LR Senergy Mexico Team-Consulting Colin Clarke , Alberto Adriasola, Alan Wilson , Yoanna Siciliano, Rolmys Espinoza, Ewan Whyte
Steve Cossey Consultant

LR Energy Survey and Geotechnical
Gareth Grewcock

USGS 2012_Assessment of Undiscovered Conventional Oil and Gas Mexico Belize Guatemala

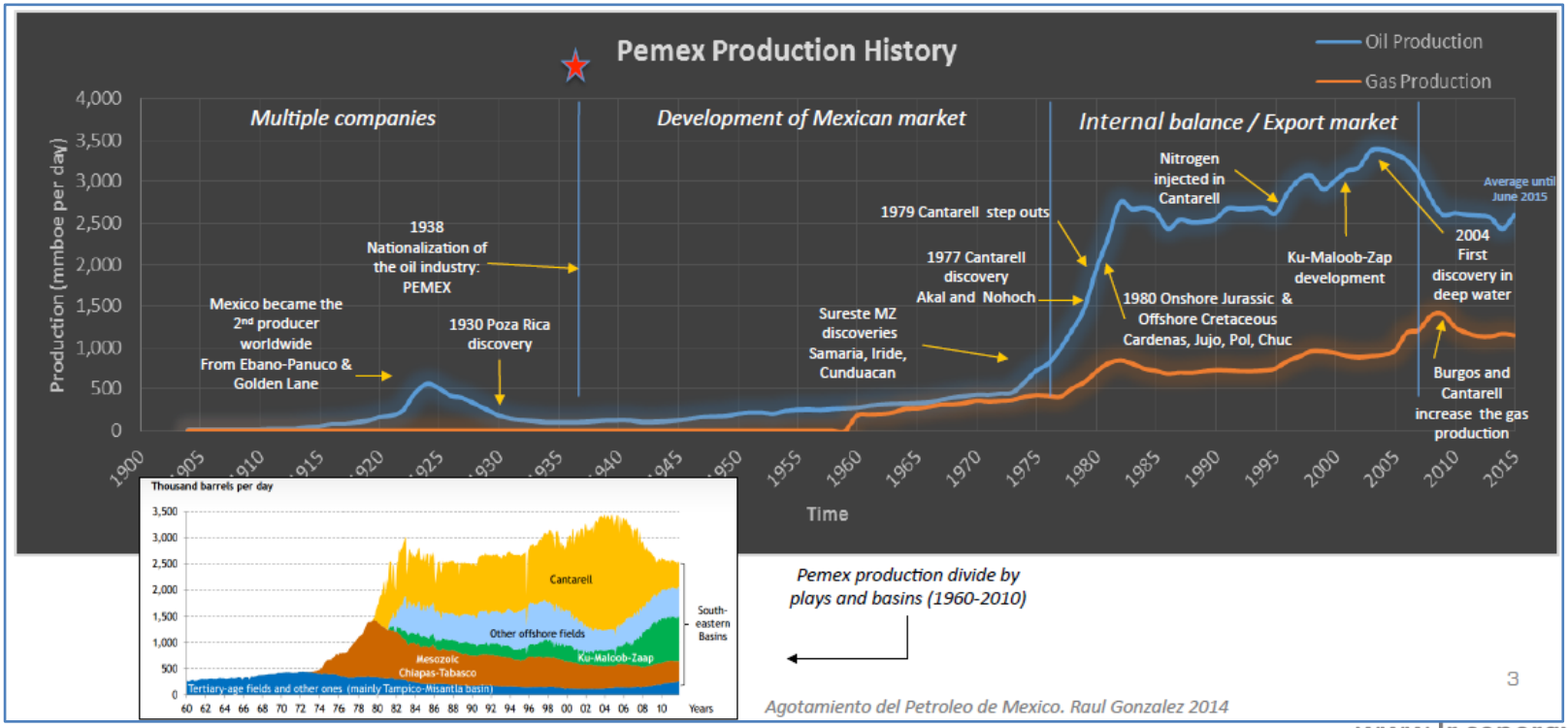
Outline

AIMS

- What makes Mexico unique
- Who are the players (runners and riders – first race winners and more)
- What are the challenges and opportunities
- Round 0 and Pemex
- What are the lessons learned Round 1

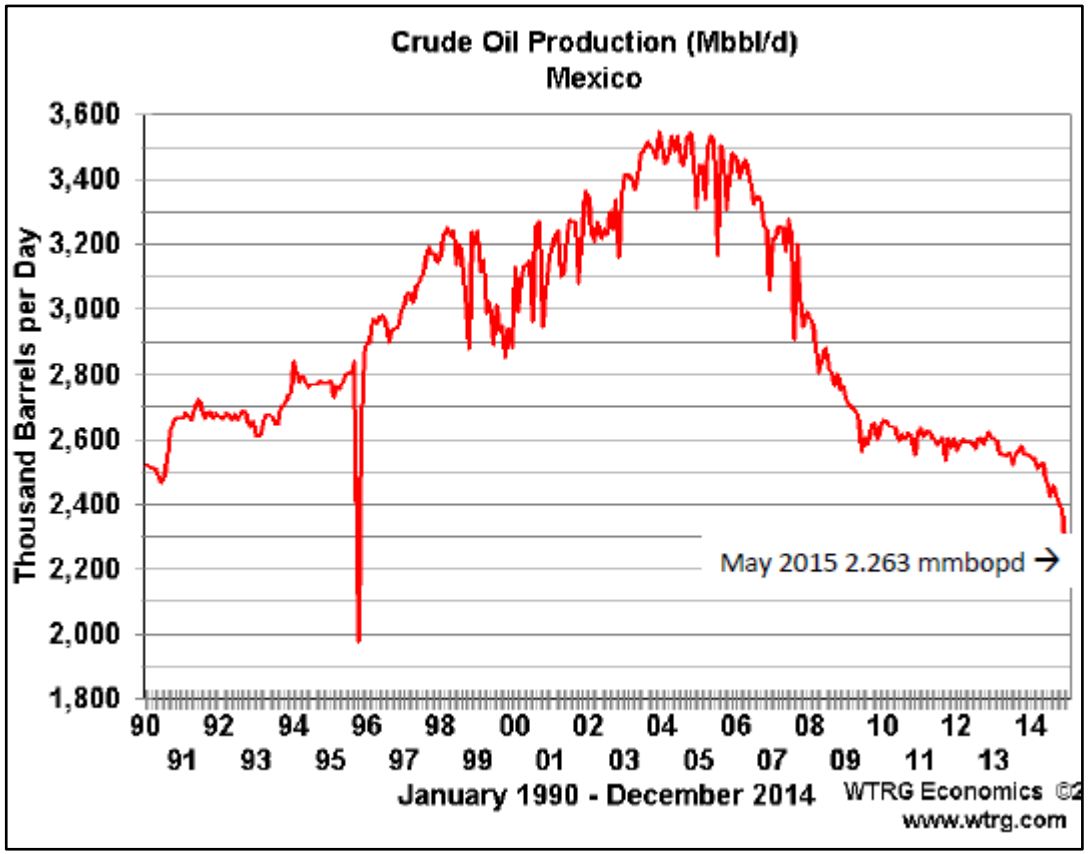
TECHNICAL

- Basins
- Petroleum Systems
- Exploration
- Extraction
- Round 1 Phases 1-4
- Rounds 2-5



HISTORICAL PRODUCTION

Importance to Mexico



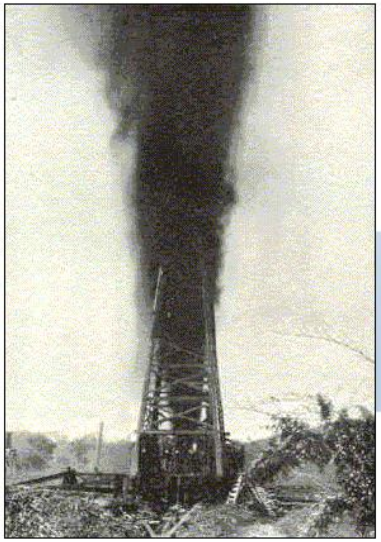
- Production has declined from a peak of 3.5 Mbbl/d in 2004 to 2.3 Mbbl/d in October 2015
- Down 3.7% in 2015
- Major opportunities in IOR, EOR
- Infill Drilling
- Application of technologies and new techniques to the country from the overseas O&G and service companies
- Offshore Exploration – MGOM under explored compared with USGOM
- Political alignment for change
- Opening of the market to overseas investors and markets
- Low oil price is a DRIVER not a BARRIER ?

Introduction

LR Senergy
Golden Lane

What makes Mexico unique

- A major developed oil and gas producer – close to major emerging markets
- Opportunities at every entry point of the oil and gas sector life cycle
- World class discovered fields- salt tectonics , unconventionals , carbonates and clastics – onshore and offshore
- Governmental support and requirement to change, develop and advance the market opportunities
- Large amount of knowledge PEMEX and others of the Mexican provinces, petroleum systems, plays, fields and exploration potential
- Long term commitment to current 5 year plan – new ministries, legislation and commitment to opening up the market
- Despite 2015 oil price challenges – time table progress



The Greatest Oil Well in History: Cerro Azul #4, Golden Lane trend, Mexico

The record flow rate for an oil well in the Gulf of Mexico basin, and likely the entire world, is held by the Cerro Azul #4 well in the Golden Lane trend of the Tampico-Misantla Basin of Mexico. Drilled with a cable tool rig by Pan American in 1915-16, the well blew out at a depth of 1,752 feet in karstic limestones of the Middle Cretaceous El Abra Formation. 205,000 BOPD !

Sureste Basins-Cantarell Complex

First Mexican Licensing Round

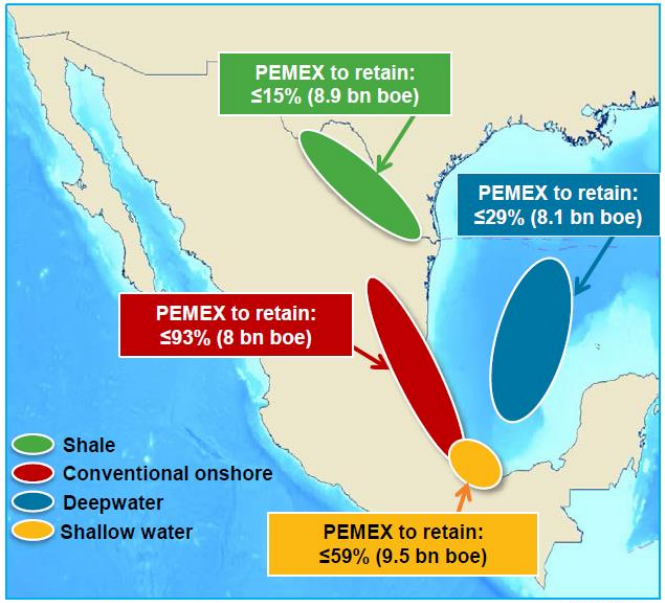
Pemex Pre-allocation ('Round Zero')

Licence allocation

- Riskier projects are good candidates for leverage with partners to provide technical expertise and risk capital.
- Ministry of Energy awarded Pemex 100% of it's requested 2P reserves (20.6 Bboe) – i.e. 83% of Mexico's total proved and probable hydrocarbon reserves
- Pemex was awarded a smaller 21% proportion (22.1 Bboe) of prospective resources versus Pemex's requested for 31% (34.5 Bboe) – i.e. 67% of it's request.
- Resources assigned to Pemex across all the plays

Migration Process

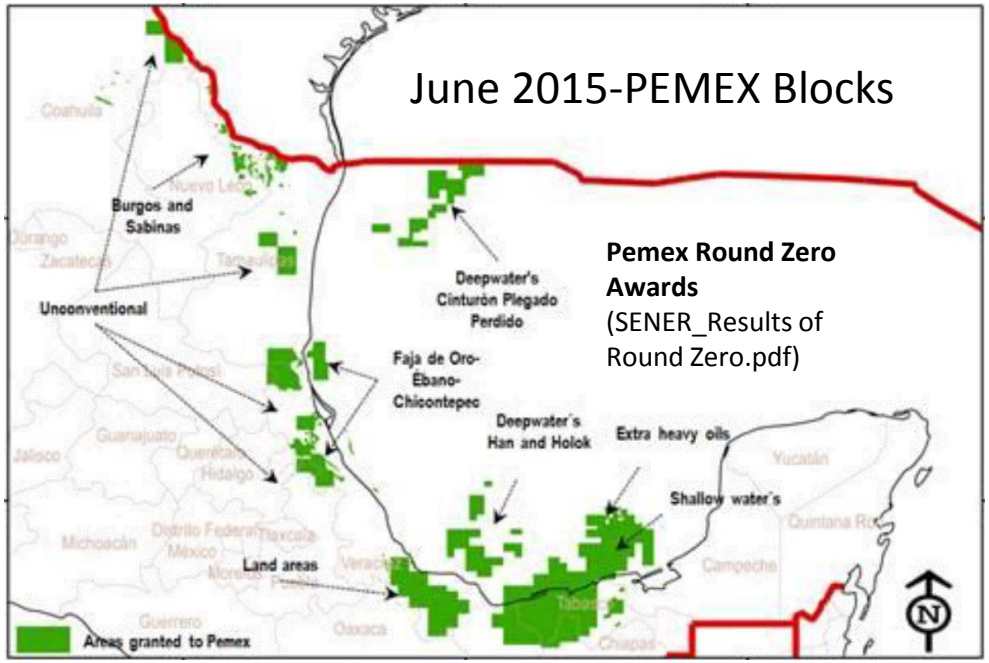
- Under the new scenario, Pemex has already identified a set of fields assigned that will be migrated into exploration & extraction contracts.
- The first stage comprised of existing service contracts and did not involve a public bidding process.
- The second stage, or farm out stage, will include mature fields, extra-heavy crude oil projects and, finally, fields in deepwater (natural gas and crude oil).
- **Sources:** Pemex/SENER presentation "Round Zero: Main Features", March 2014. Pemex Newsletter No. 3 "Round Zero Resolution & Round One Updates", Sept 2014. SENER , Round Zero Relevant Data Resolution, March 2014



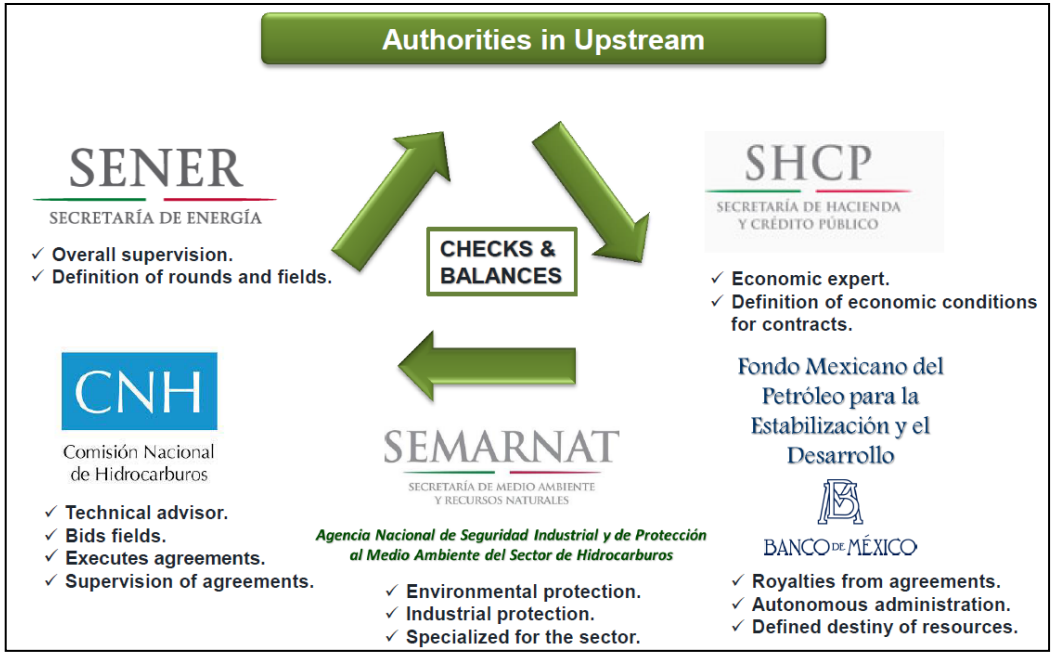
Source: PEMEX, SENER

© 2014 IHS

Results of Round Zero
Prospective reserves reserved by Pemex – demonstrated by play type (IHS, 2014).



First Mexican Licensing Round-Rond 1



- The state keeps ownership of sub-surface hydrocarbons
- Private ownership of hydrocarbons at well is allowed
- Four contract types: service ,profit sharing , production sharing and licences
- SENER (Ministry of Energy) will define areas to be tendered and create model contracts
- CNH (National Hydrocarbons Commission) will execute tender process and will manage contracts with bidders
- SHCP (Ministry of Finance) will define fiscal terms of contracts (royalties, tax rates , etc)
- PEMEX has budgetary autonomy
- Commitment to adhere to international best practices
- Greater freedom with regard to procurement

Round One Timeline

- **12th Aug 2014**, laws passed for constitutional energy reform and established a new legal framework for Mexico's energy industry.
- **13th Aug 2014:** SENER announced results of Round Zero and Round One announced - with first estimate of open blocks.
- **Feb 2015-January 2016**: Bidding terms and conditions sale and Opening of Data Rooms.
- **July-Sept-Dec 2015**: Awarding of contracts Phases 1-3 (CNH)

Mexican Authorities

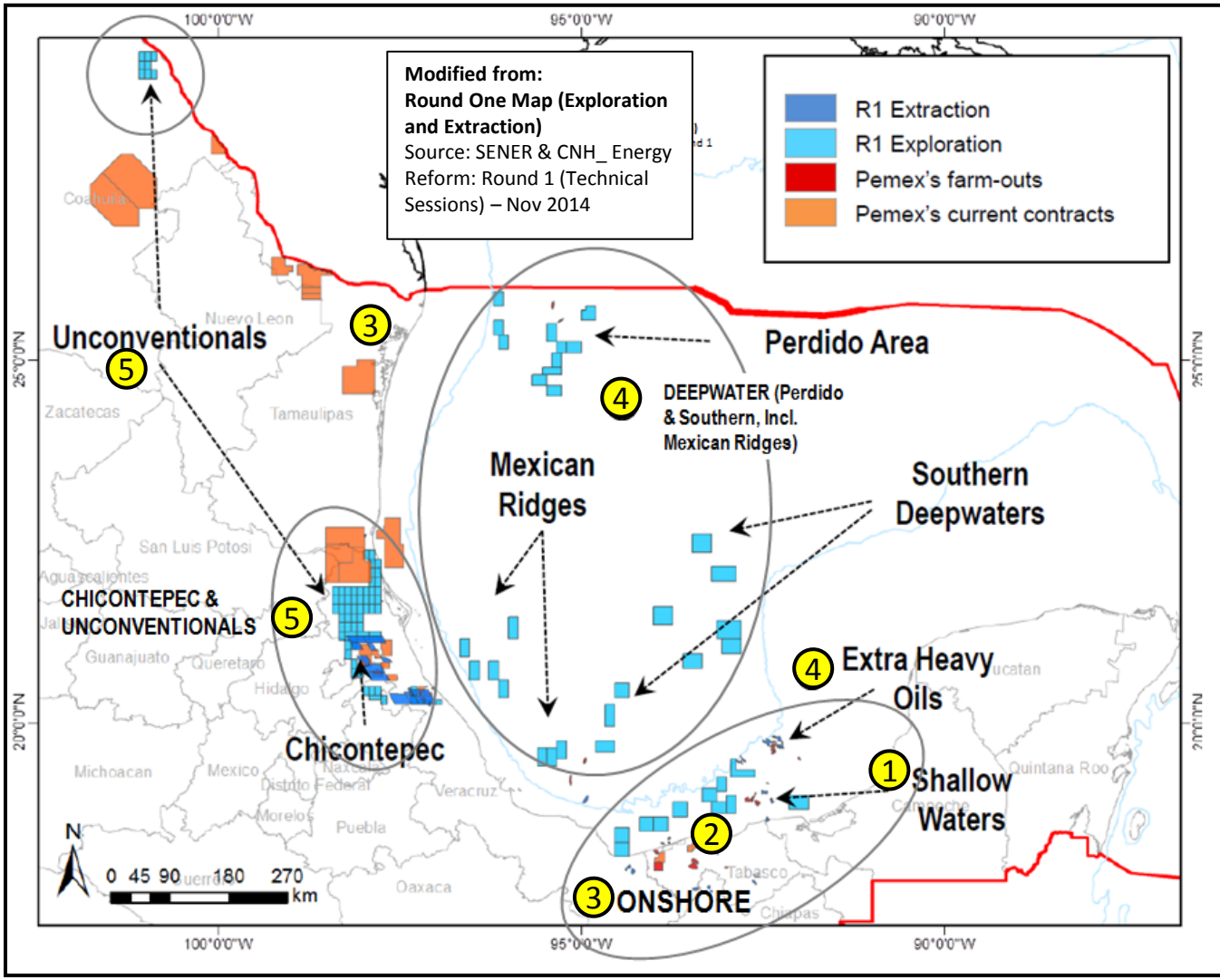
- SENER (Energy Ministry): http://www.sener.gob.mx
- SENER Energy Reform: http://www.energia.gob.mx
- SENER "SIE": Energy GIS website
- CNH (National Hydrocarbon Comission) – independent technical body, will determine bid winners): http://www.cnh.gob.mx
- CRE (Energy Regulatory Comission): http://www.cre.gob.mx
- SHCP (Finance Ministry) – will determine fiscal terms of contracts.
- Instituto Mexicano del Petroleo: http://www.imp.mx
- Pemex: http://www.Pemex.com
- Pemex Investor Relations: http://www.ri.Pemex.com
- Pemex PEP (Exploration and Production): http://www.pep.Pemex.com
- Pemex Institutional Database: http://ebdi.Pemex.com

Source: http://www.energia.gob.mx/webSener/rondauno_Ingles/9300.html

First Mexican Licensing - 5 phases

Round One

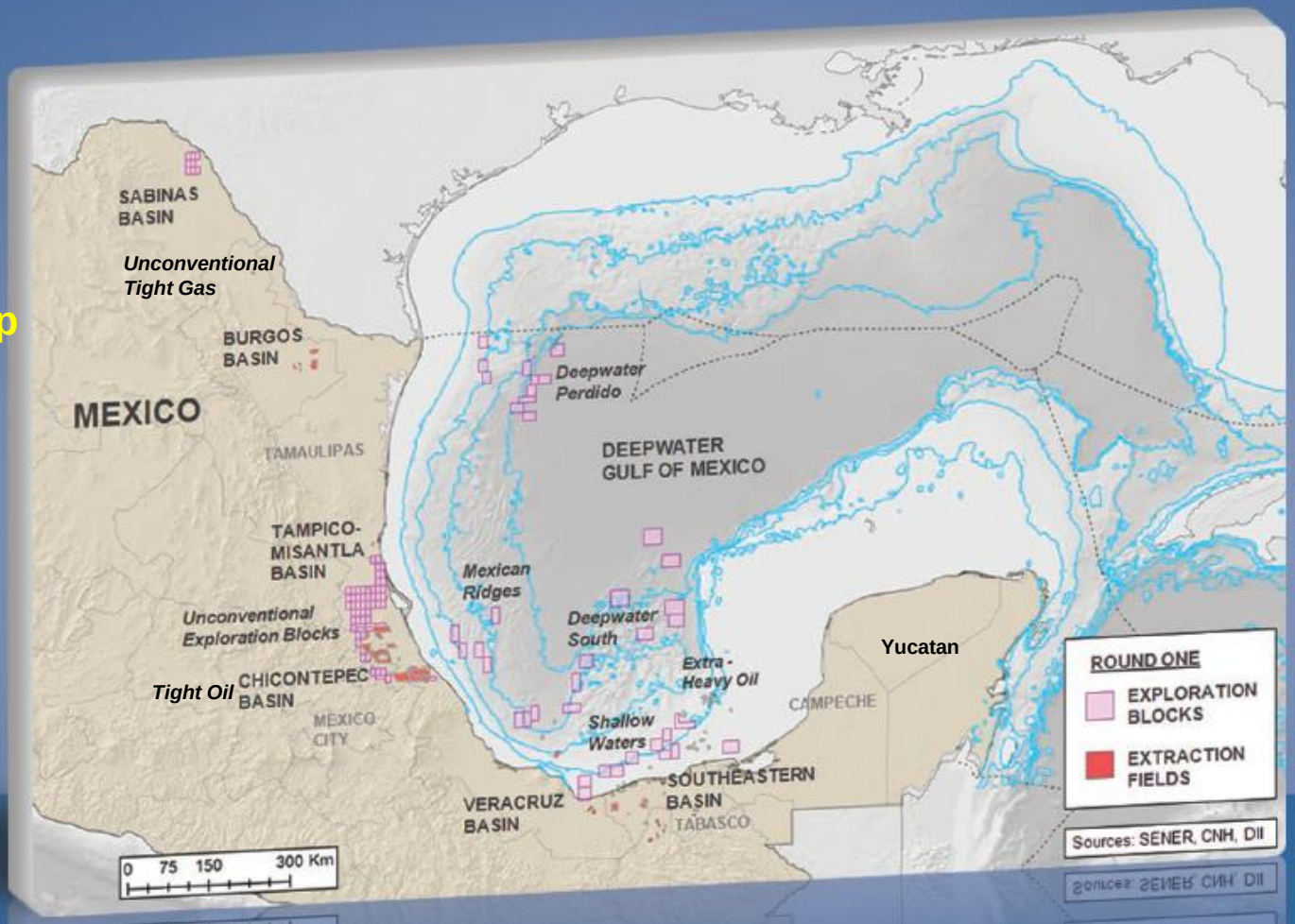
- **On 13th August 2014**, Mexican Govt announced 'first estimate of the areas and fields in Phases 1-5 of Round 1
- **Round One includes 169 blocks totalling 28,000 km2 - 109 exploration blocks and 60 production blocks. Including unconventionals**
- **SENER**: "Round One proposal consists of a balanced and diversified portfolio of blocks. It includes currently producing areas, relatively new or scarcely explored areas, and areas with conventional resources, as well as unconventional fields with high prospective potential."
- Phase 4 delayed until 2016
- Subsequently Heavy Oil Extraction and Unconventionals on hold
- **Sources:** SENER/CNH documents 2014: "Round One: An Overview" and "An Executive Summary"



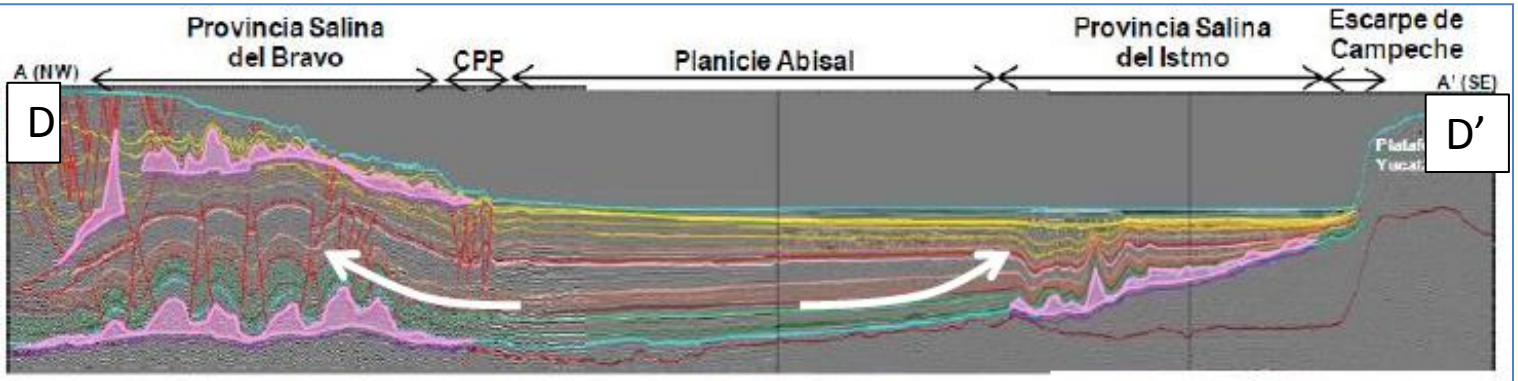
Round 1 Basins, over 500 opportunities

- 48 Geological Provinces
- 12 Proven Petroleum Systems
- 100+ shallow and deep offshore and onshore exploration blocks
- Service contracts
- Heavy oil extraction licenses
- EOR opportunities
- Shale oil and gas
- Tight oil

- World class source rocks
- Billion barrel fields
- Clastic and carbonate (breccia)



Basins transect – Example Mexican Fold Belt to Campeche



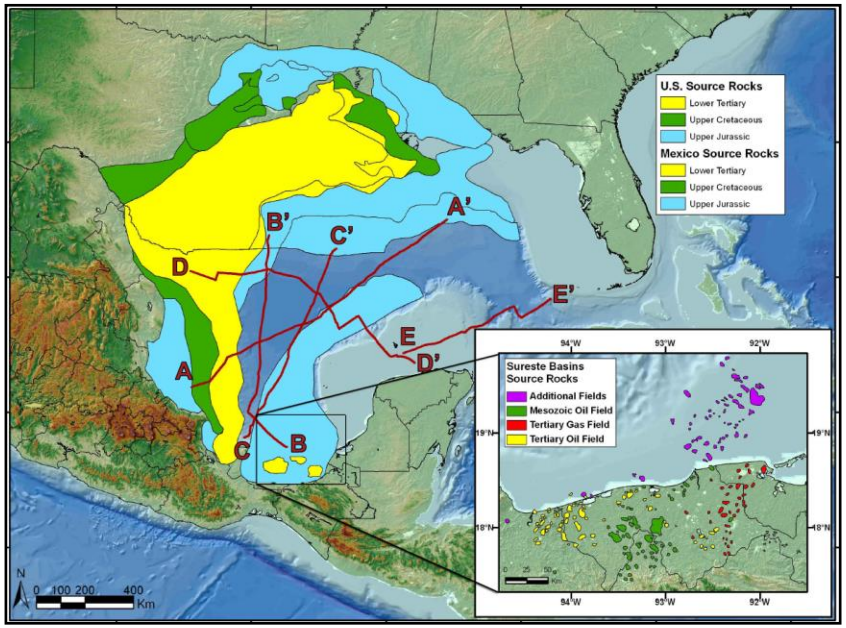
Geologic provinces of the Mexican part of the deep Gulf of Mexico. The section is an example of the structural styles of some of the provinces.

Shallow water/onshore, deepwater and shale gas/oil.

Salt tectonics. Carbonate and clastic reservoirs. Gas , light oil and heavy oil.

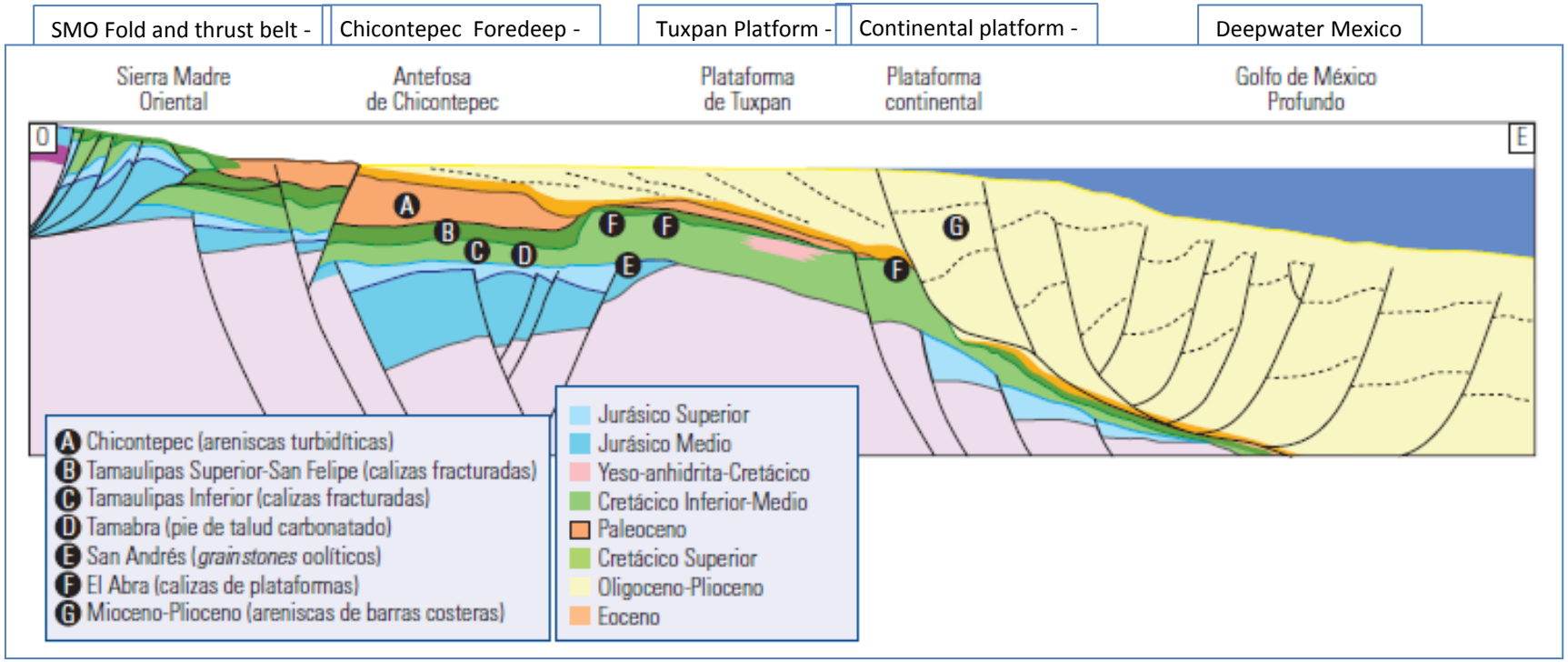
- **Basins**: Burgos, Perdido and Salinas deep water, Tampico-Misantla, Sureste basins-Veracruz, Villahermosa, Macuspana and Yucatan Platform.
- **Important deep water discoveries** in the Perdido foldbelt in the Mexican side represent continuation of the Lower Tertiary (Wilcox) trend, in which the US has several large developed fields.
- **Regional migration** trend for the hydrocarbons is probably from east to west, from the deepest GOM
- And north west to south east in the Campeche aree
- **Tithonian** age source rock is extent

Source Rocks of the US/Mexico



Source: Thesis Rodriguez 2012

Representative cross section central Mexico
Onshore north west – south east deep waters of GOM

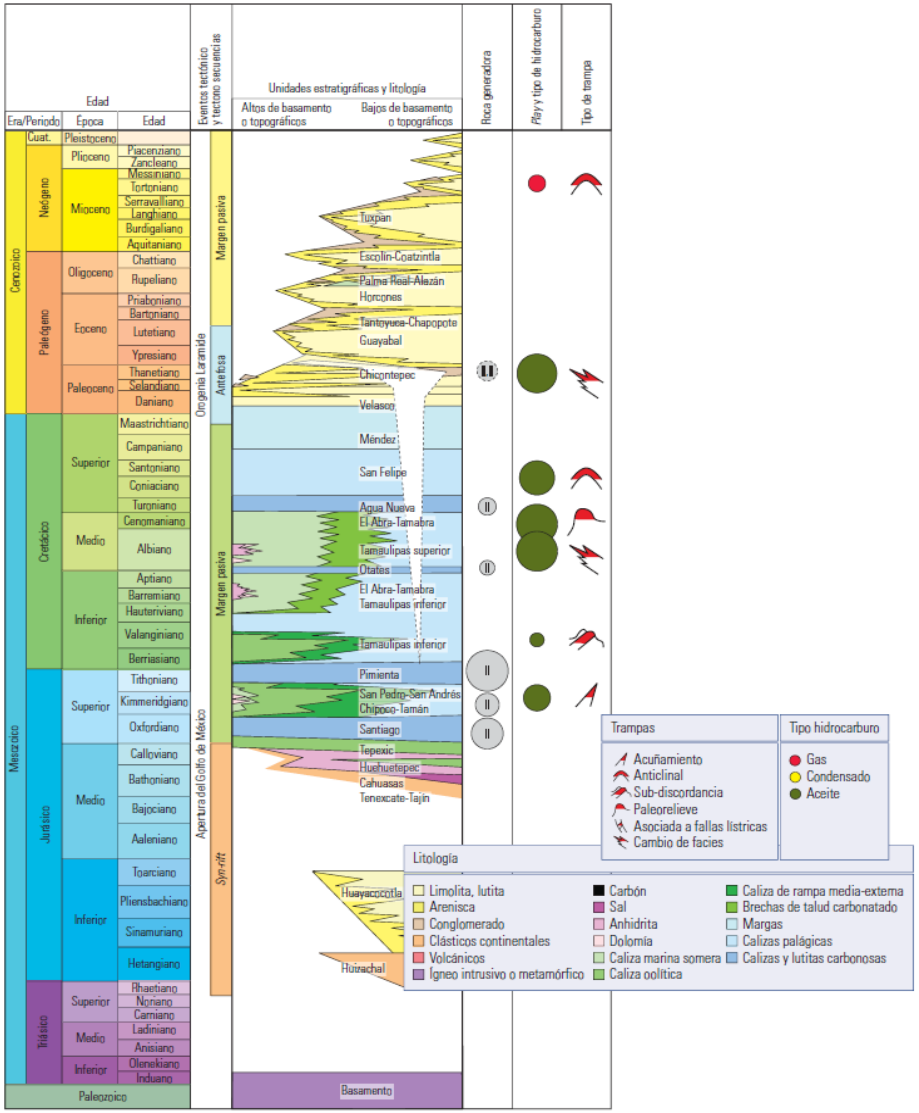


- Thrust and fold play and unconventionals in Sierra Madre
- Jurassic – fault block traps – fold and stratigraphic traps in Cretaceous
- Miocene fans in the offshore area
- Tithonian age source rock
- Absence of salt in northern half of the country – prevalent in Sureste basins and Mexican deep water

Source: Schlumberger WEC, 2010

Example - Tampico Misantla Basin

Regional stratigraphy's are understood – public domain and CNH data packages



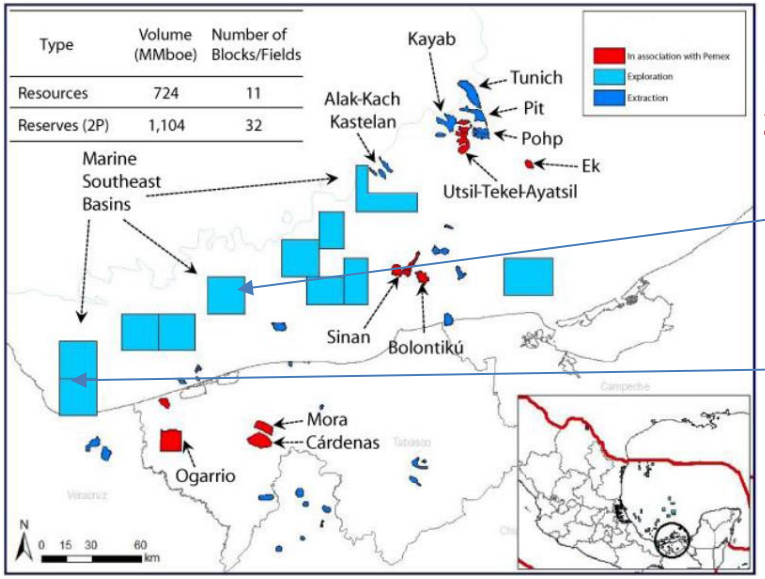
- **Upper Jurassic carbonate ramp** environment: argillaceous sandy limestones (**San Pedro Fm**) and **oolitic limestones** (**San Andres Fm**) in the internal parts and their equivalents in the external and mid ramp areas (**Chipoco Fm**), and basinal areas (**Taman Fm**). Maximum development in the Kimmeridgian, prograding towards the basin, following the lowering of the sea level. Lateral facies changes were abrupt. **RESERVOIRS**
- Widespread deposition of clay-rich limestones with basinal facies took place in the **Tithonian** (**Pimienta Fm**), while deposition of shallow water limestones prevailed in the Tuxpan high. **SOURCE ROCKS**
- Lower Cretaceous limestone sequence with internal ramp facies at the base, clay-rich with basinal facies at the middle, and clean- fossiliferous wackestones at the top (**Tamulipas Inferior Fm)**. At the same time, shallow water limestones were deposited in the Tuxpan High area (**El Abra and Tanambra Fm)**. **RESERVOIRS – Golden Lane**
- Transgressive event in the Aptian-Albian boundary recorded by mudstones and wackestones (**Ostates Horizon)**.
- Between Albian and Cenomanian **mudstones and wackestones** with intercalations of flintstone and planktonic foraminiferous beds were deposited in basinal areas (**Upper Tamulipas Fm)**. **SEALS**
- Shallow water conditions prevailed around the **Tuxpan High and a carbonate** atoll was formed (**El Abra Fm**). Erosion of this build-up caused deposition of slope apron deposits (**Tanambra Fm**).
- By the end of **Cenomanian** – platform began to subside and was drowned by deposition of pelagic limestones (**Agua Nueva Fm).** This was followed by bentonitic limestones (**San Felipe Fm**), and clay-rich limestones and shales (**Mendez Fm**)
- **Lower Paleocene** carbonaceous and bentonitic shales (**Velazco Fm**) derived from Laramide belt in the West and Tiziutlan Massif in the South, onset of alternating sequence of shales, sands and conglomerates (**Chicontepec Fm**). Facies of submarine fans, finer grained channel levees systems and submarine lobes. Deep incision valleys or paleo-canyon systems formed in Early Eocene (Bejuco-La Laja, Chicontepec-Nautla systems), cutting in places into Cretaceous and Jurassic
- **Mid Eocene** sequence of sands, shales and occasional conglomerate layers (**Tantoyuca, Chapapote-Guayabal Fms)**.
- **Upper Oligocene** -Lower Miocene sequence of sands, silts and shales of coastal environment of deposition, also shallow platform and fluvial.

(Adapted from WEC, 2010 Alberto Adriasola LR Senergy)

Results - South Eastern Area – Phase 1 and 2

- Oil and gas fields have been identified in shallow waters of the south east basins
- Pemex granted 11,374 MMboe of 2P reserves, 90% of the regions' total 2P reserves
- PEMEX also granted 7,472 MMboe of prospective resources
- The 14 proposed blocks varies between 313 and 630 km2, and the total prospective resource amounts to of 724 MMboe.
- No shallow waters' exploration areas were assigned in the Veracruz Basin.
- Pit, Pohp and Tson, Alak, Kach and Kastelan development, heavy oil extractions fields postponed.

Block	SENER-December 2014 - Prospective Resource (MMboe)
1	94
2	87
3	70
4	56
5	30
6	47
7	53
8	117
9	49
10	100
11	121
12	71
13	64
14	64



Results Phase 1
2 out of 14 awarded

Block 7 Sierra Oil and Gas , Talos Energy , Premier

Bidder Statoil , Hunt Overseas Oil , Eni International

Block 2 and 7 Sierra Oil and Gas , Talos Energy , Premier

Bidder Hunt Overseas Oil
http://ronda1.gob.mx

Round One – Open Blocks in SE area (SENER)

Results Phase 2

API of 12.5 – 42
2P Reserves of 18-122 mmboe
Xulum Heavy Oil

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Region	Field	Fluid Type	OOIP (MMbls)	OGIP (Bcf)	IP (MMbo	Area (km2)	1P Reserves, MMboe	2P Reserves, Mmboe	3P Reserves, Mmboe	Avg API	Drilled wells	Oil RF_calc
Shallow Mexican waters	Xulum	Oil and Gas	633.4	76	646	58.8	0	115.4	633.4	16.5	1	0%
Shallow Mexican waters	Mizton	Oil	284	219	321	7	29	70	86	33	0	0%
Shallow Mexican waters	Hokchi	Oil	419	198	452	27	21	67	93	26	2	0%
Shallow Mexican waters	Pokoch	Oil	122	174	151	9	30	46	46	30	1	0%
Shallow Mexican waters	Ichalkil	Oil	571	637	677	45	11	39	145	33	2	0%
Shallow Mexican waters	Nak	Oil	139	567	234	18	6	38	67	42	1	0%
Shallow Mexican waters	Amoca	Oil	284	109	302	17	27	34	48	27	1	0%
Shallow Mexican waters	Mison	Oil	126	106.8	144	12	11.9	26.1	35.9	41	1	0%
Shallow Mexican waters	Tecoalli	Oil and Gas	220.2	154.1	246	10	7.2	18.1	53.3	29	1	0%

Source: LR Senergy

Company	Data Room Authorized companies	Started Prequalificatio n Process
Atlantic Rim Mexico, S. de R.L. de C.V.	1	
BP Exploration Mexico, S.A. DE C.V.	2	
Casa Exploration, L.P.	3	
Chevron Energia de Mexico, S. de R.L. de C.V.	4	1
CNOOC International Limited	5	2
Compania Espanola de Petroleo, S.A. (CEPSA)	6	3
Diavaz Offshore, S.A.P.I. de C.V.	7	4
E&P Hidercarburos y Servicios, S.A. de C.V	8	
Ecopetrol, S.A.	9	
Eni International B.V.	10	
Hunt Overseas Oil Company	11	
LUKOIL Overseas Netherlands B.V.	12	5
Petroleos Mexicanos (PEMEX)	13	6
Premier Oil PLC	14	
PTT Exploration and Production Public Company Limited	15	
Sanchez OIl & Gas Corporation	16	
Shell Exploracion y Extraccion de Mexico, S.A. de C.V.	17	7
Sierra Oil & Gas, S. de R.L. de C.V.	18	8
Sinopec International Petroleum Exploration & Production Corporation	19	
Total, SA	20	

From SENER Rond 1

Wide range of companies
International , Shell, Total, CNOOC , Lukoil, Premier
Mid caps and Mexican conglomerate

3 out of the 5 blocks were awarded

ENI International BV (Block 1)
Panamerican Energy LLC and E&P Hidrocarburos y Servicios SA de CV (Block 2)
Fieldwood LLC and Petrobal SAPI de CV (Block 4)

Map retrieved from Ronda1 website. Last checked on 30/11/2015

Phase 3 Assets Gas-North, Tight Oil-Central, Oil and Gas and Gas Condensate South East-IOR/EOR/Near Field Exploration 25 assets all awarded – predominantly home grown market

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Round One, Tender Three: onshore mature fields										
Region	Contractural Area	Hydrocarbon Type	Original Volume		Cumulative Production		Rf Oil	Rf Gas	Oil	
			Oil (Mmbbl)	Gas (Bcf)	Oil (Mmbbl)	Gas (Bcf)	%	%	API	Area (km^2)
North Region (Burgos Fields)	Benavides	Dry gas	0.0	190.4	0.0	106.2	N/A	55.8%		135.5
	Calibrador		0.0	54.5	0.0	28.6	N/A	52.5%		16.1
	Carretas		0.0	100.9	0.0	59.0	N/A	58.5%		89.4
	Duna		0.0	67.2	0.0	33.4	N/A	49.7%		36.7
	Mareógrafo		0.0	85.1	0.0	40.8	N/A	47.9%		29.8
	Peña Blanca		0.0	189.8	0.0	106.4	N/A	56.1%		26.0
	Ricos		0.0	61.3	0.0	15.9	N/A	25.9%		23.7
	San Bernardo		0.0	48.3	0.0	20.6	N/A	42.7%		28.3
	Total		**0**	**798**	**0**	**411**	N/A	51.5%		
Centre Region (North Fields)	Barcodón*	Oil	165.5	48.3	14.6	9.6	8.8%	19.9%	18	11.0
	Pontón		7.3	6.1	0.8	1.9	11.0%	31.1%	23	11.8
	Tecolutla		7.8	8.8	1.9	1.7	24.4%	19.3%	28	7.2
	La Laja		1.7	0.9	0.1	0.1	5.9%	11.1%	30	10.2
	Paso de Oro		0.5	0.4	0.2	0.2	40.0%	50.0%	29	23.1
	Total		**183**	**65**	**18**	**14**	9.6%	20.9%		
South Region (South Fields)	Tajón*	Oil with associated gas	651.6	424.4	1.4	0.8	0.2%	0.2%	33	27.5
	Cuichapa-Poniente*		452.6	472.1	159.6	313.8	35.3%	66.5%	32	41.5
	Moloacán*		221.7	121.9	39.4	22.0	17.8%	18.0%	20	46.3
	Paraiso		77.6	42.7	0.1	0.1	0.1%	0.2%	35	17.0
	Topén		40.4	72.4	7.6	19.1	18.8%	26.4%	29	25.3
	Mayacaste		29.7	11.1	0.0	0.0	0.0%	0.0%	37	21.9
	Malva		13.2	85.8	2.8	25.7	21.2%	30.0%	35	21.2
	Secadero		6.9	17.3	2.7	4.9	39.1%	28.3%	36	9.8
	Calicanto		0.6	0.3	0.0	0.0	0.0%	0.0%	39	10.6
	Total		**1494**	**1248**	**214**	**386**	14.3%	31.0%		
	Mundo Nuevo	Gas and condensate	86.1	572.3	34.6	321.1	40.2%	56.1%	50	27.7
	Catedral		36.9	717.1	20.0	500.2	54.2%	69.8%	57	58.0
	Fortuna Nacional		7.3	62.1	2.1	18.0	28.8%	29.0%	53	22.0
	Total		**130**	**1352**	**57**	**839**	43.5%	62.1%		
		Totals	**1807**	**3462**	**288**	**1650**				

* Type 2 blocks

Phase 3 Results

- 25 fields awarded, mainly to Mexican companies and others from US, Canada and the Netherlands.

Notable Tender 3 results:

- London-based investor **MX Oil**, partnered with Mexican service provider GeoEstrada, won 4 of the 5 blocks they bid for in Veracruz (Tecolutla, Ponton, La Laja and Paso de Oro) – joint venture with Exploración y Producción, S.A.P.I. de C.V.

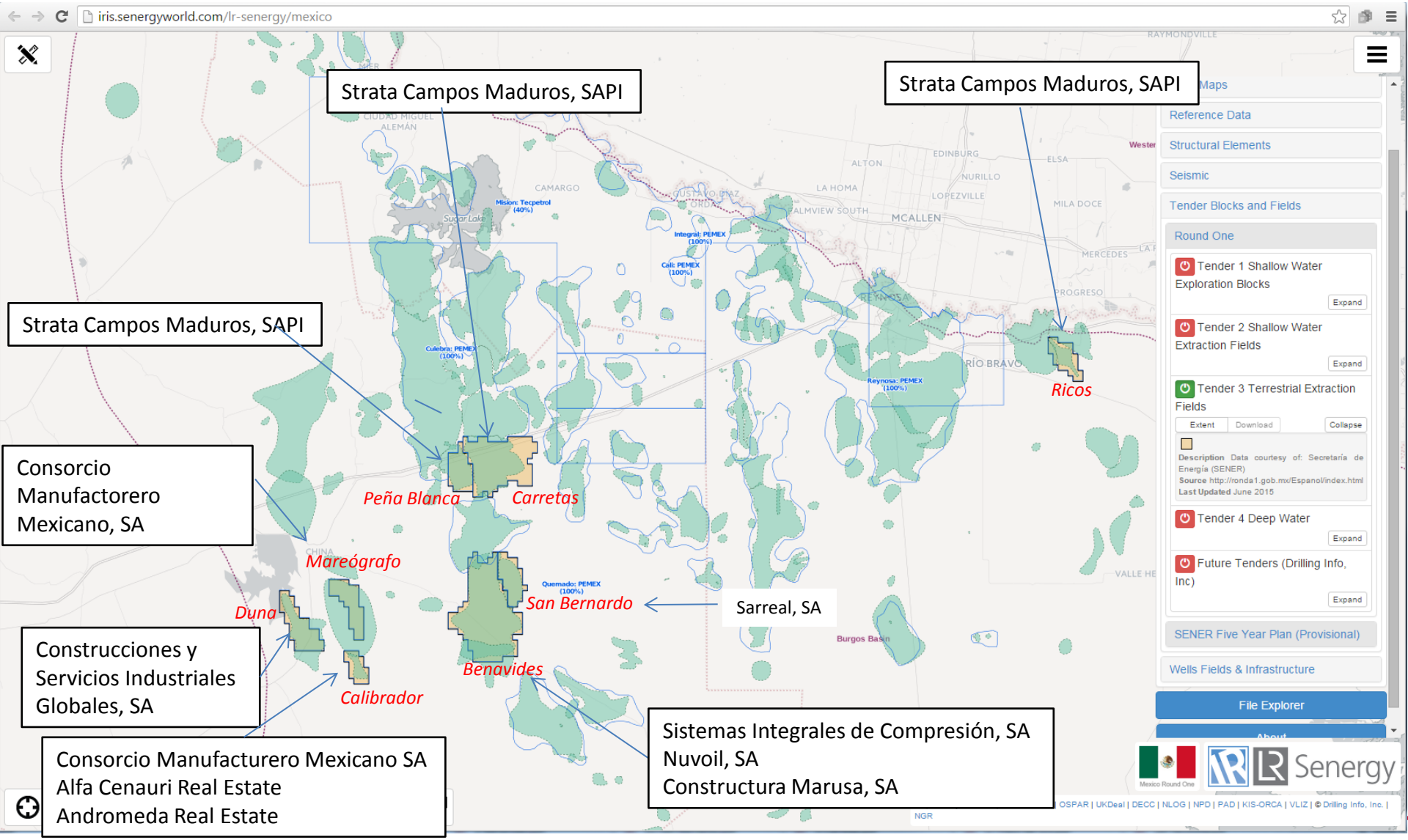
- **Canamex Dutch B.V.** (in consortium with Perfolat de México and American Oil Tools) won the large south-east Moloacán oil field, which was one of four 'Type 2' fields for which operators and consortia had to meet more demanding financial criteria (i.e. JVCo applicants must meet a threshold of $120m, as opposed to $3 for the other blocks). Dutch LUKOIL and Shell Exploracion y Extraccion, both registered, did not bid.

  http://eleconomista.com.mx/industrias/2015/12/15/canamex-dutch-se-lleva-moloacan-area-contractual-14

Full results in Spanish are published on the revamped website http://ronda1.gob.mx/

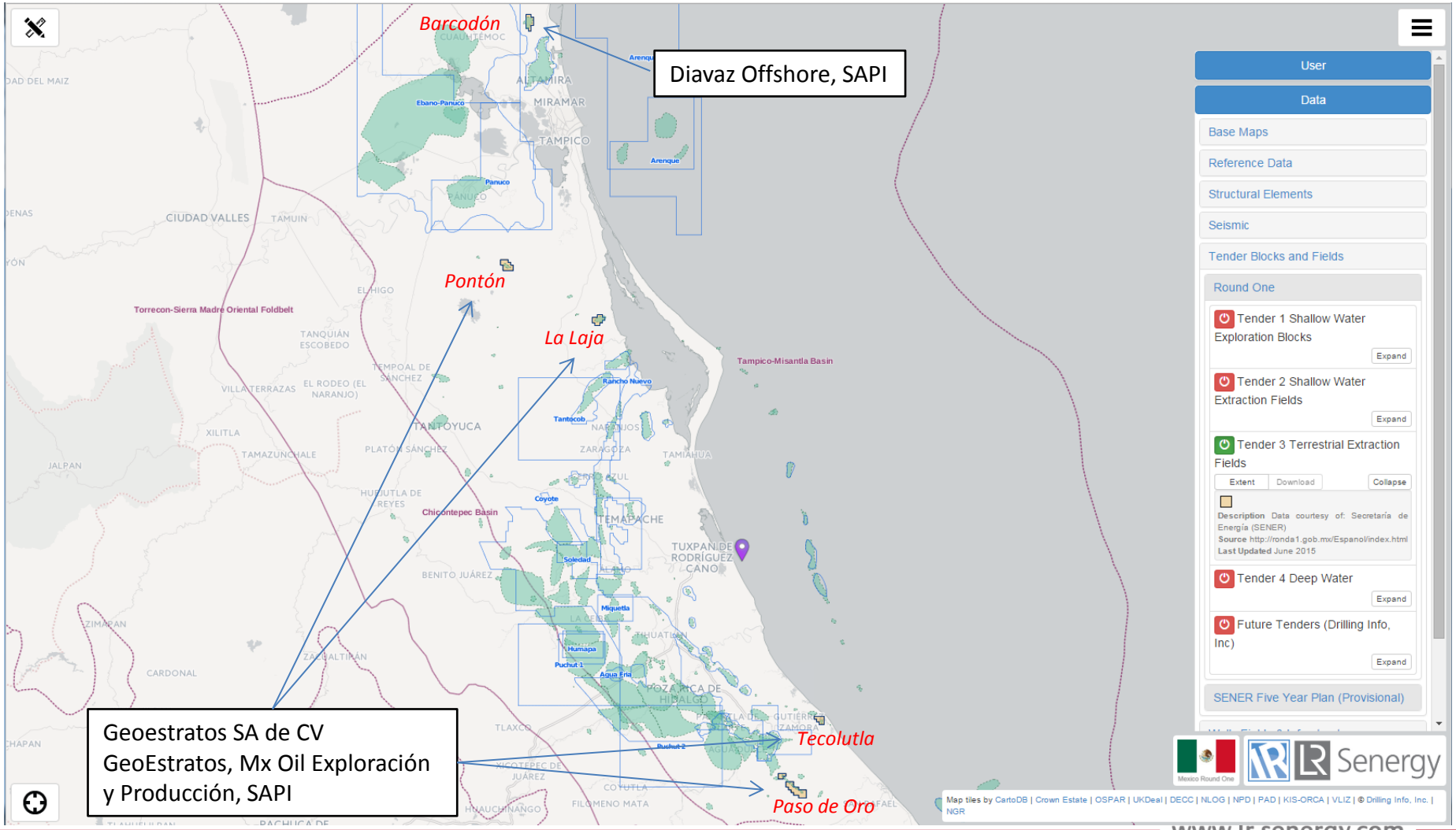
Mexico Round 1, Tender 3 Awarded December 2015

Blocks Awarded in Northern Sector – Burgos Basin



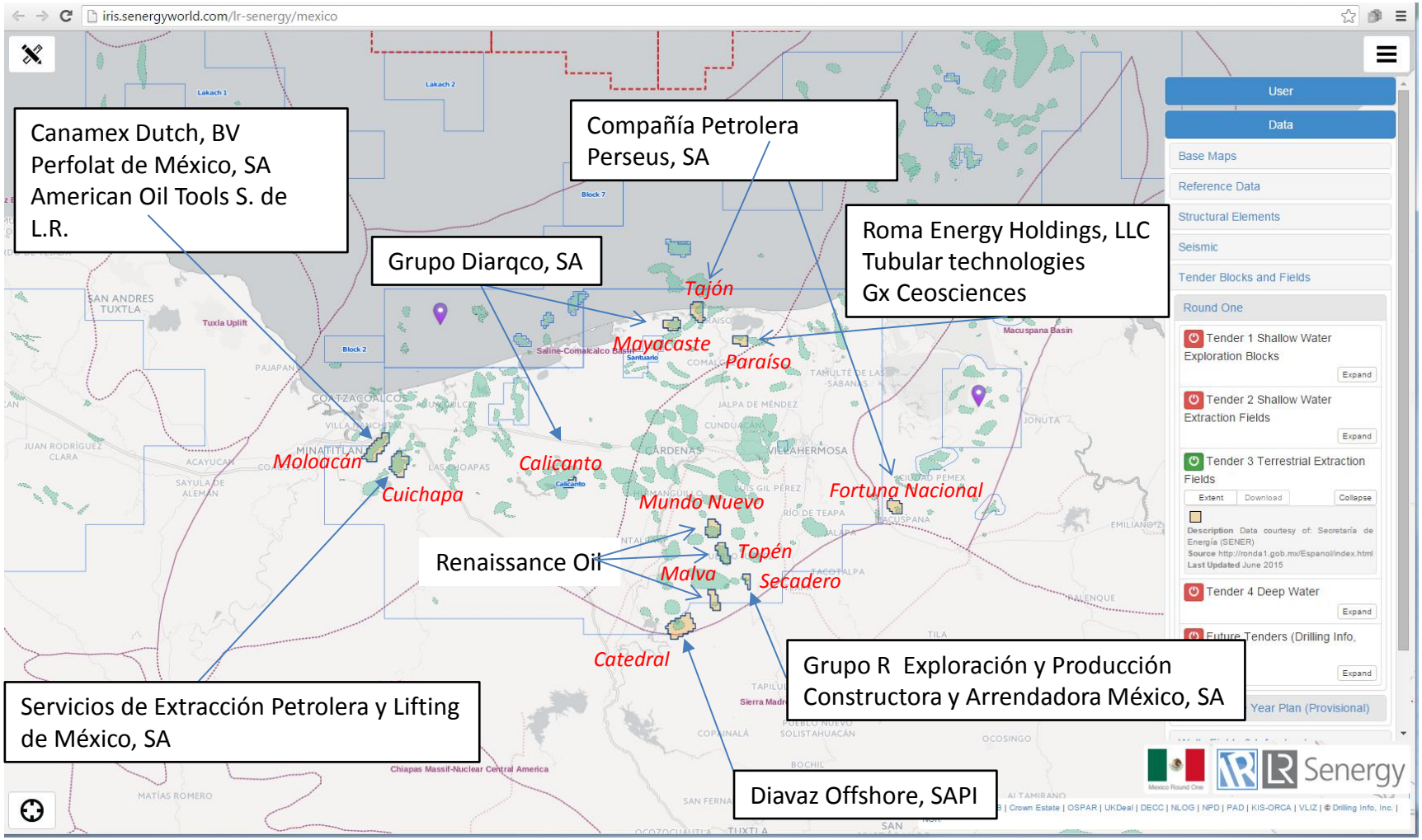
Mexico Round 1, Tender 3

Blocks Awarded in Central Sector- Tampico-Misantla and Veracruz

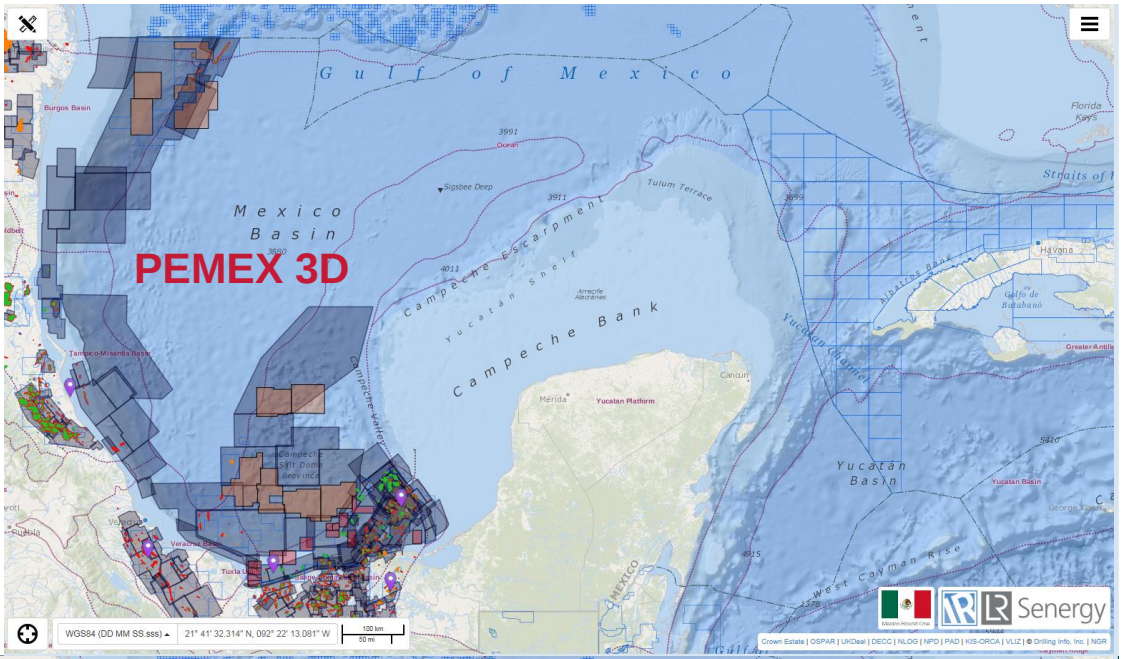


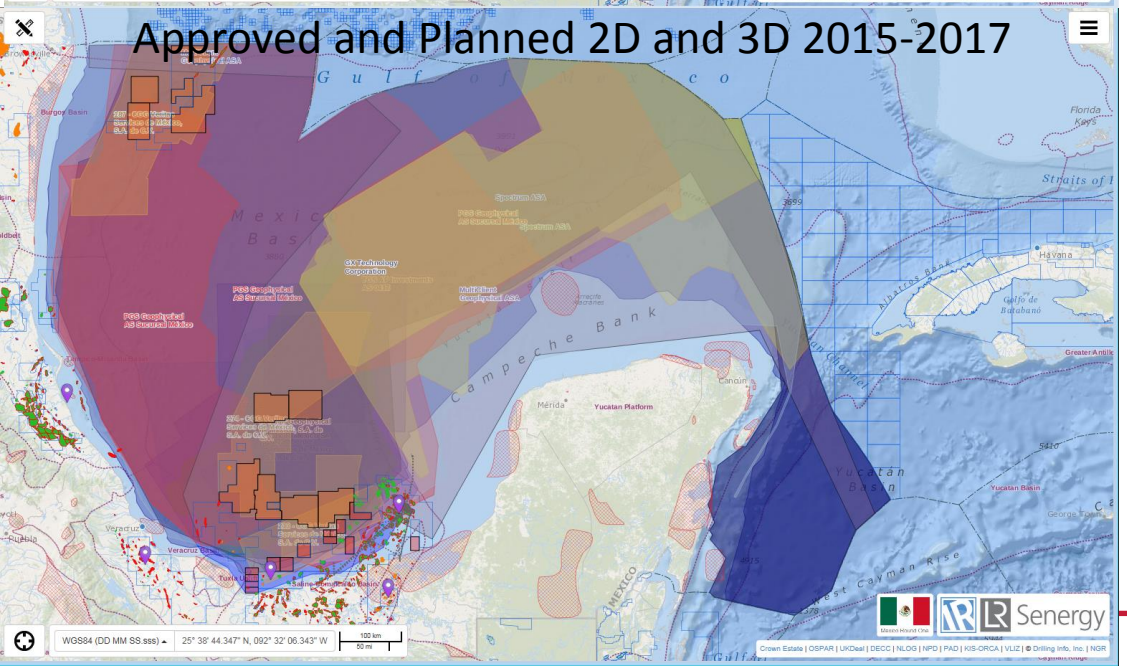
Mexico Round 1, Tender 3

Blocks Awarded in Southern Province



Exploration-existing and new seismic planned and in progress





PEMEX 3D Coverage

- There are 26 planned surveys 2D and 3D planned and approved for the MGOM in 2016-2016

- Regional 2D
- Mexico Span
- Local 3D swaths
- All major seismic contractors
- Multi client and Spec Surveys

GOM Recent Deepwater Discoveries (US & Mexico)

Senergy

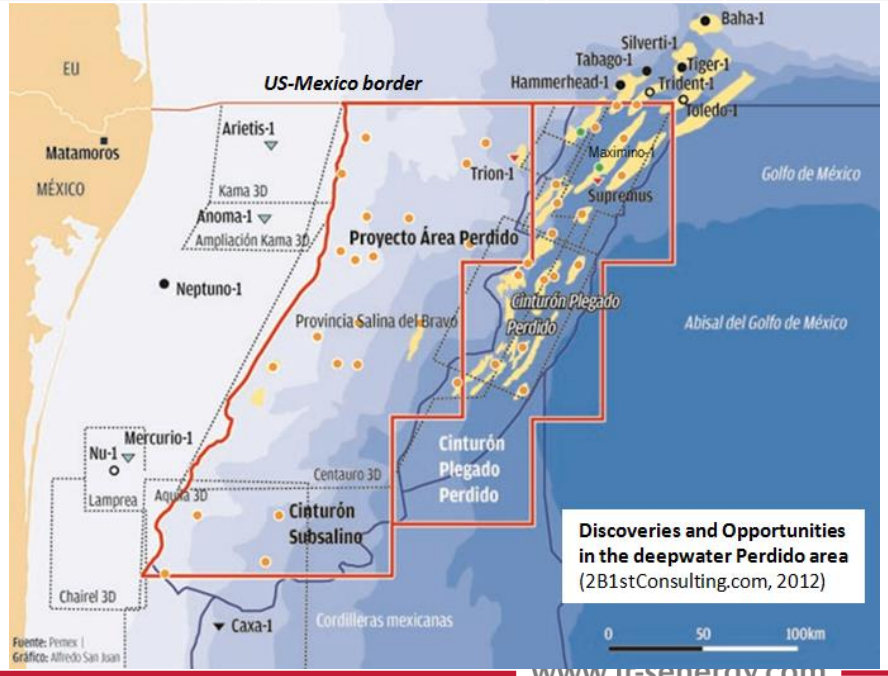
USGOM

US - Field	Block	Year of Discovery	Water depth	TD (MD)	Operator
Baha	AC 600	1996	7620 ft	NA	Shell
Gotcha	AC 856	2006	7800 ft	15,625 ft	Shell
Great White	**AC 857**	**2002**	**8009** ft	**19705** ft	**Shell**
Silvertip	**AC 815**	**2004**	**9226** ft	**14778** ft	**Shell**
Tobago	**AC 859**	**2004**	**9627** ft	**18510** ft	**Shell**
Tiger	AC 818	2004	9004 ft	15231 ft	Chevron
Trident	AC 903	2002	9687 ft	20500 ft	Chevron

MGOM

Mexico - Discovery	Year of Discovery	Discovery	Water Depth	TD (MD)	Initial estimates
Trion-1	Aug 2012	Light oil	8300 ft/2535 m	16115 ft/4911 m	250-500 MMboe
Supremus-1	Sept 2012	Light oil	9515 ft/2890 m	13123 ft/4000 m	75-125 Mmboe (3P)
Maximino-1	May 2013	Light oil	9680 ft/2950 m		tbc
Vespa-1	2013	Light oil		11213 ft/3418 m	
PEP-1	*2013*	*Dry*	*9646 ft/2940 m*		*Unproductive*
Exploratus-1	2013	Light oil		11811 ft/3600 m	150 – 200 MMboe

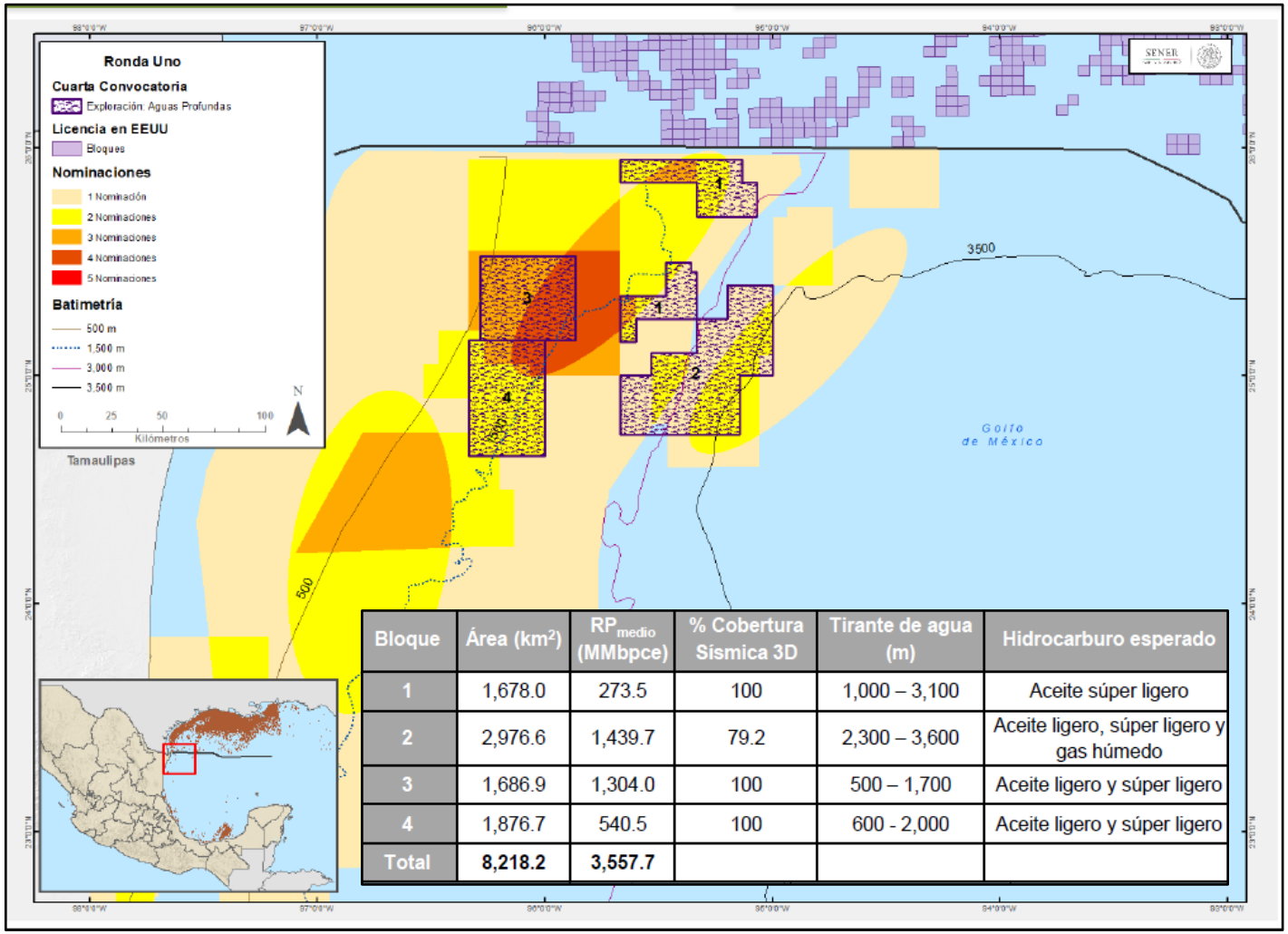
- Pemex have made recent discoveries on the southern continuation of the Lower Tertiary trend which has proven prolific in the US.
- Deepwater GOM expected to become a major region of future hydrocarbon discoveries for Mexico time frame?
- Pemex considering options to develop deepwater – including the option of linking to the Shell's US Perdido Development.
- **PEMEX Deepwater activities: invested 3.6 bn USD between 2002-2011, acquired 90,000km2 of 3D seismic, drilled 18 wells – 10 of which were producers, 3P reserves of 790 MMBoe, commercial success rate of 44%.**



Discoveries and Opportunities in the deepwater Perdido area (2B1stConsulting.com, 2012)

Mexico Round 1-Tender 4 North 4 Blocks

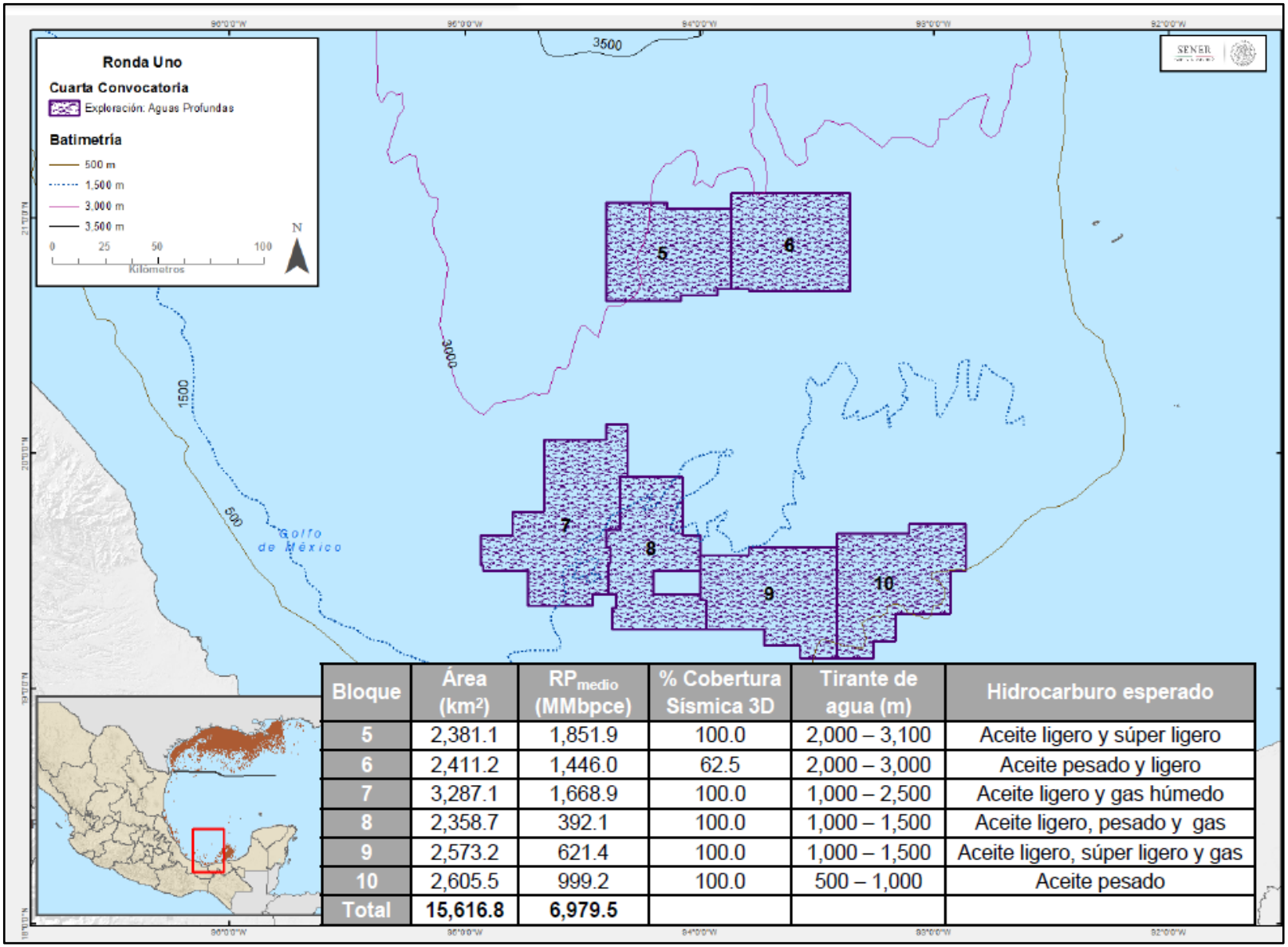
Revised Exploration Blocks in Perdido area following nominations received by CNH-SENER 5 year plan



Bloque	Área (km²)	RP_{medio} (MMbpce)	% Cobertura Sísmica 3D	Tirante de agua (m)	Hidrocarburo esperado
1	1,678.0	273.5	100	1,000 – 3,100	Aceite súper ligero
2	2,976.6	1,439.7	79.2	2,300 – 3,600	Aceite ligero, súper ligero y gas húmedo
3	1,686.9	1,304.0	100	500 – 1,700	Aceite ligero y súper ligero
4	1,876.7	540.5	100	600 - 2,000	Aceite ligero y súper ligero
Total	**8,218.2**	**3,557.7**			

Source: http://ronda1.go.mex/ ; R01L04-Presentacion-Aguas-Profundas-Ultra-Profundas.pdf

Mexico Round 1- Deepwater South –Salina Basin 6 Blocks



Bloque	Área (km²)	RP_{medio} (MMbpce)	% Cobertura Sísmica 3D	Tirante de agua (m)	Hidrocarburo esperado
5	2,381.1	1,851.9	100.0	2,000 – 3,100	Aceite ligero y súper ligero
6	2,411.2	1,446.0	62.5	2,000 – 3,000	Aceite pesado y ligero
7	3,287.1	1,668.9	100.0	1,000 – 2,500	Aceite ligero y gas húmedo
8	2,358.7	392.1	100.0	1,000 – 1,500	Aceite ligero, pesado y gas
9	2,573.2	621.4	100.0	1,000 – 1,500	Aceite ligero, súper ligero y gas
10	2,605.5	999.2	100.0	500 – 1,000	Aceite pesado
Total	**15,616.8**	**6,979.5**			

Source: http://ronda1.go.mex/ ; R01L04-Presentacion-Aguas-Profundas-Ultra-Profundas.pdf

First race winner- Phase 1 Sierra Oil and Gas Key messages

Senergy

CHALLENGES & OPPORTUNITIES AHEAD

	CHALLENGES	OPPORTUNITIES / MITIGATIONS
Timing / Low Oil Price	Tight Budgets / less bidders	Low contractor costs
First time under new management	Complex contracts	CNH flexible , Highly committed CNH team
Data Release	Incomplete data packs	CNH addendums to data on request
Staying Ahead of the data packages	43,000 wells, 1,200 pools	Dedicated Quilt Maker team
Language	Spanish	Requires base in-country
Security	Local unstable areas	Asset Choice

(Presented Sierra Oil and Gas – Finding Petroleum 'Mexico Focus' Geological Society, London 17th September 2015))

Lessons and what comes next

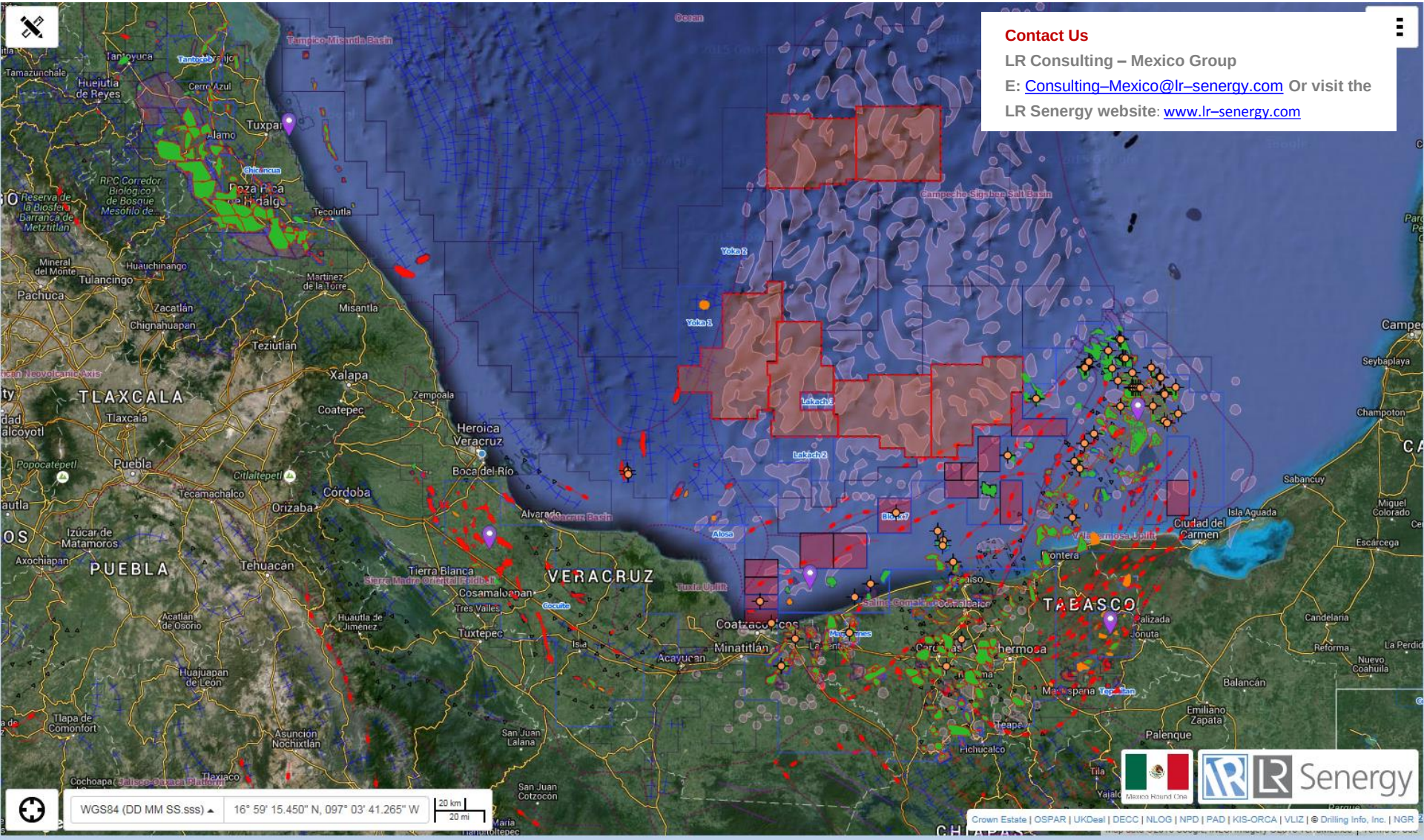
- **UKTI and UK and Mexican Embassy – Pro Mexico Agency based in London actively committed to assist**
- Phase 1 winner-Premier, Talos, **Sierra Oil and Gas** (**Private Equity)** backed good links with Mexico authorities and PEMEX and processes) and Talos Oil and Gas has considerable in country representation
- **Mexican authorities are receptive to the market feedback so areas, assets and terms and conditions have and could change further**
- **Targeted entry EOR, known fields with known solutions , extraction and add on exploration strategy is key**
- Form **alliances with phase winners**, the winning companies who would benefit from outside expertise
- Detailed **2015/2016 seismic acquisition** program in the offshore – improvements and completion of PEMEX data set
- **Results of the exploration well/s Premier/Sierra/Palos 2017 will be key for the Shallow Water and Round 2-5 in Sureste**
- Experience/s of companies in the Phase 2 development of three successfully won shallow extraction fields important
- New technologies for in country winners in Phase 3 required
- New seismic data availability 2016 and beyond from ongoing multiclient and contractor spec surveys
- **Phase 4 Deep Water – 10 Large Blocks during 2016**
- **SENER/CNH no longer replicating materials with English translations**
- **Ongoing Phases 2-5 2017 - beyond – new areas published**

26-02-2016 New president of PEMEX Jose Antonio Gonzales Anaya former Finance Minister – focus on debt, costs, new technologies, partnership, opening up infrastructure

Thank You

Colin Clarke , Alberto Adriasola, Alan Wilson , Yoanna Siciliano
Rolmys Espinoza , Chris Priddis LR Mexico Team-Consulting
Gareth Grewcock , LR Energy Survey and Geotechnical

LR Senergy



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LR Senergy-Consulting and Products

PRODUCT	DESCRIPTION	DELIVERABLES
Introduction	Mexico Round One Overview Flyer	Flyers (PDF) available **free** on LR Senergy website and via interactive Iris map
	Tenders 1 - 5 Overview Flyers	
	Round One Fiscal and Licence Terms Flyer	
Fact Sheets	Series of fact sheets presenting technical updates relating to Round One, reflecting LR Senergy's ongoing market research in Mexico	Flyers (PDF) available **free** on LR Senergy website and via interactive Iris map
Interactive Map (Iris)	GIS project containing key public domain geospatial data and LR Senergy shapefiles	Available via Iris, LR Senergy's web-based **interactive mapping tool**. **Free** access for limited time period, prior to subscription.
Reports	Multi-discipline technical evaluation reports, detailing the opportunities within each of Tenders 1 - 5	**Written reports** (PDF) available by subscription with accompanying slide packs
Slide Packs	Tenders 1 - 5: Comprehensive Summary Slide Packs compiled from LR Senergy's extensive studies of public domain data	**PowerPoint slide packs** (PDF) available by subscription. Relevant slide pack is included with each purchased report.
Economic Study	Study of key economic, fiscal and licence terms for the various Tenders of Round One	**Written report** (PDF) via subscription, with accompanying Slide Packs

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