



AREAS ADVERTISEMENT 2022

**AREA WITH PRODUCTION RETURNED TO THE ANH
LLA98 (CURIARA) – COR68 (HURON) LLANOS BASIN**

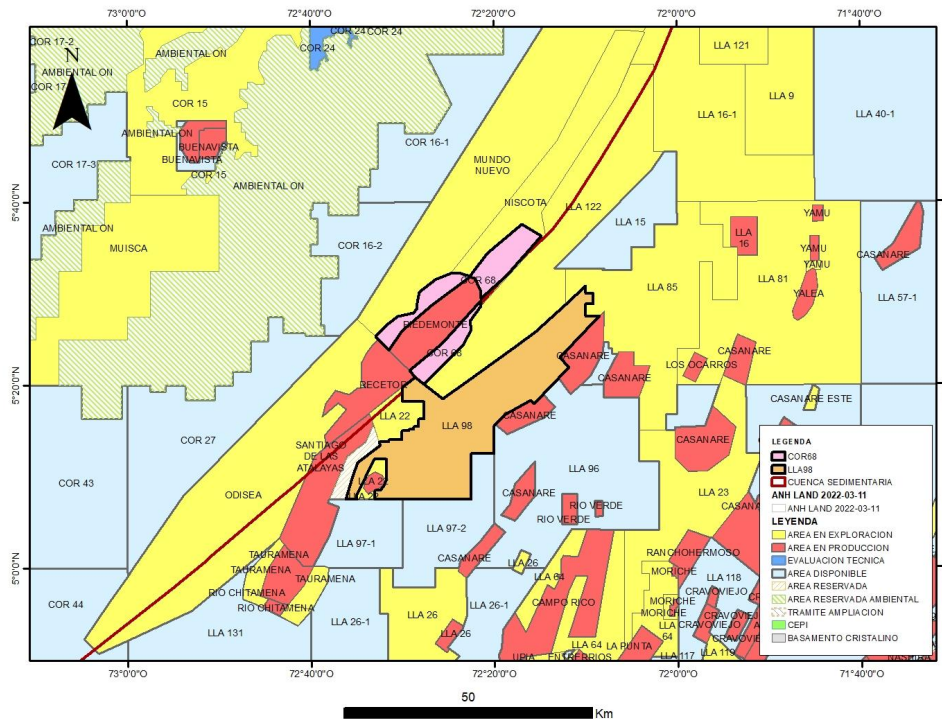
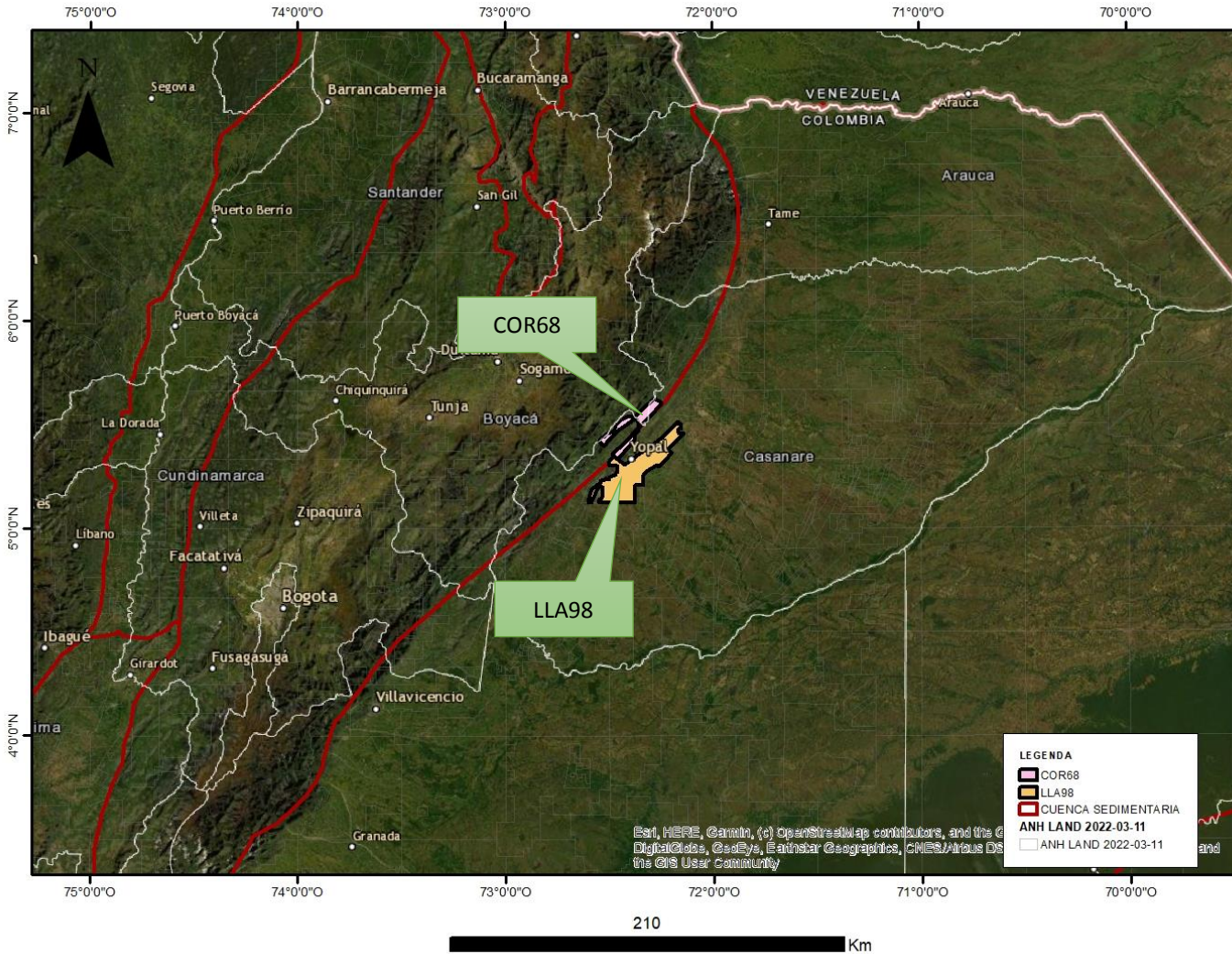
April 29th 2022

Content

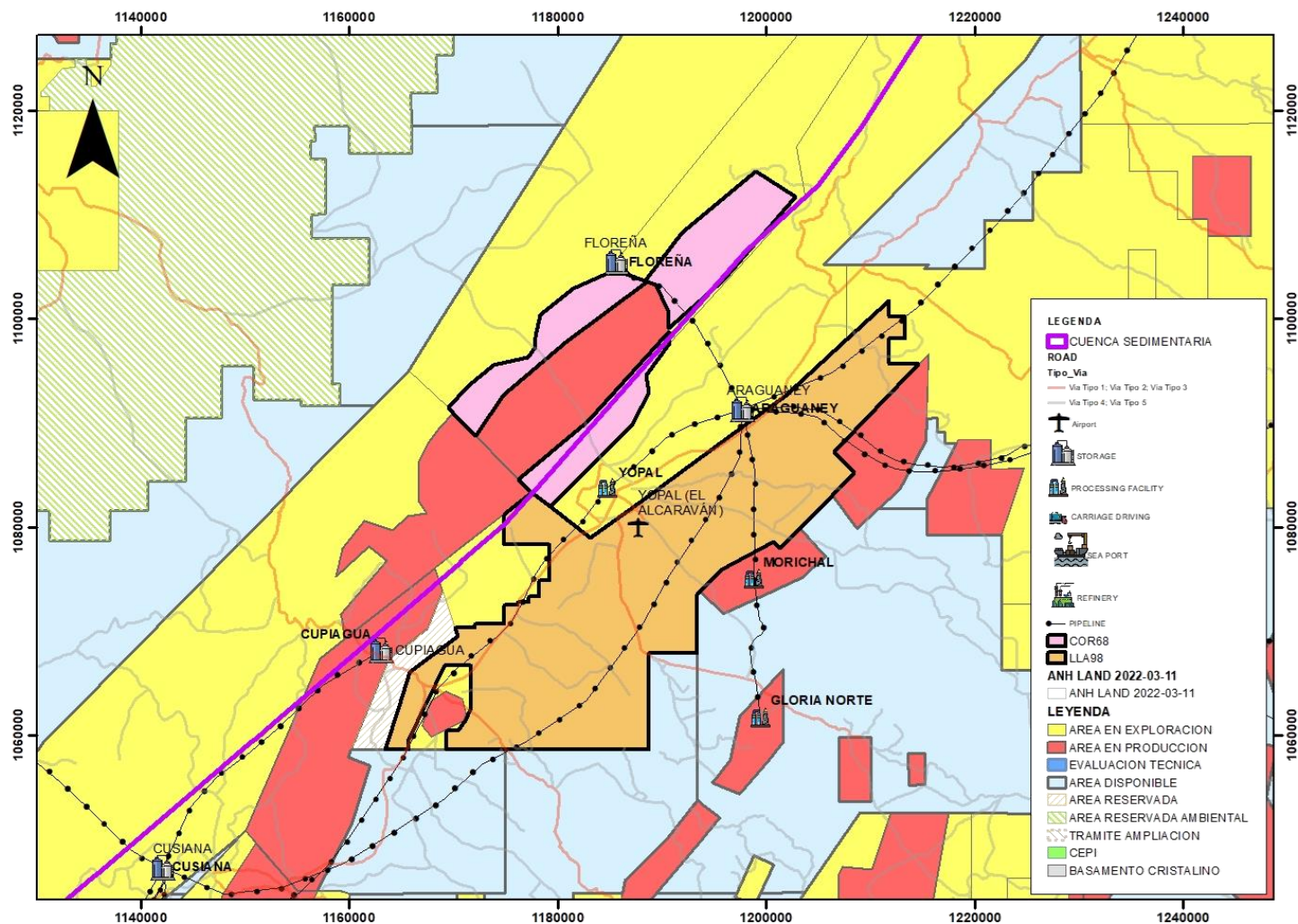
- Location
- Infrastructure
- Database – Available Information
- Geological Framework
- LLA 98 - Curiara Field
 - Generalities
 - Production
 - Well Correlation
 - Structural Maps & Volumetrics
- LLA98 Prospectivity
- COR68 –Huron Field
 - Generalities
 - Structural Model
 - Well Correlation
 - Structural Maps & Volumetrics
- Conclusions and Recomendations

Location

- LLA 98 and COR68 are located in the Casanare department, near to Yopal city.
- LLA98 Area: 67885 Ha
- COR68 Area: 20091 Ha

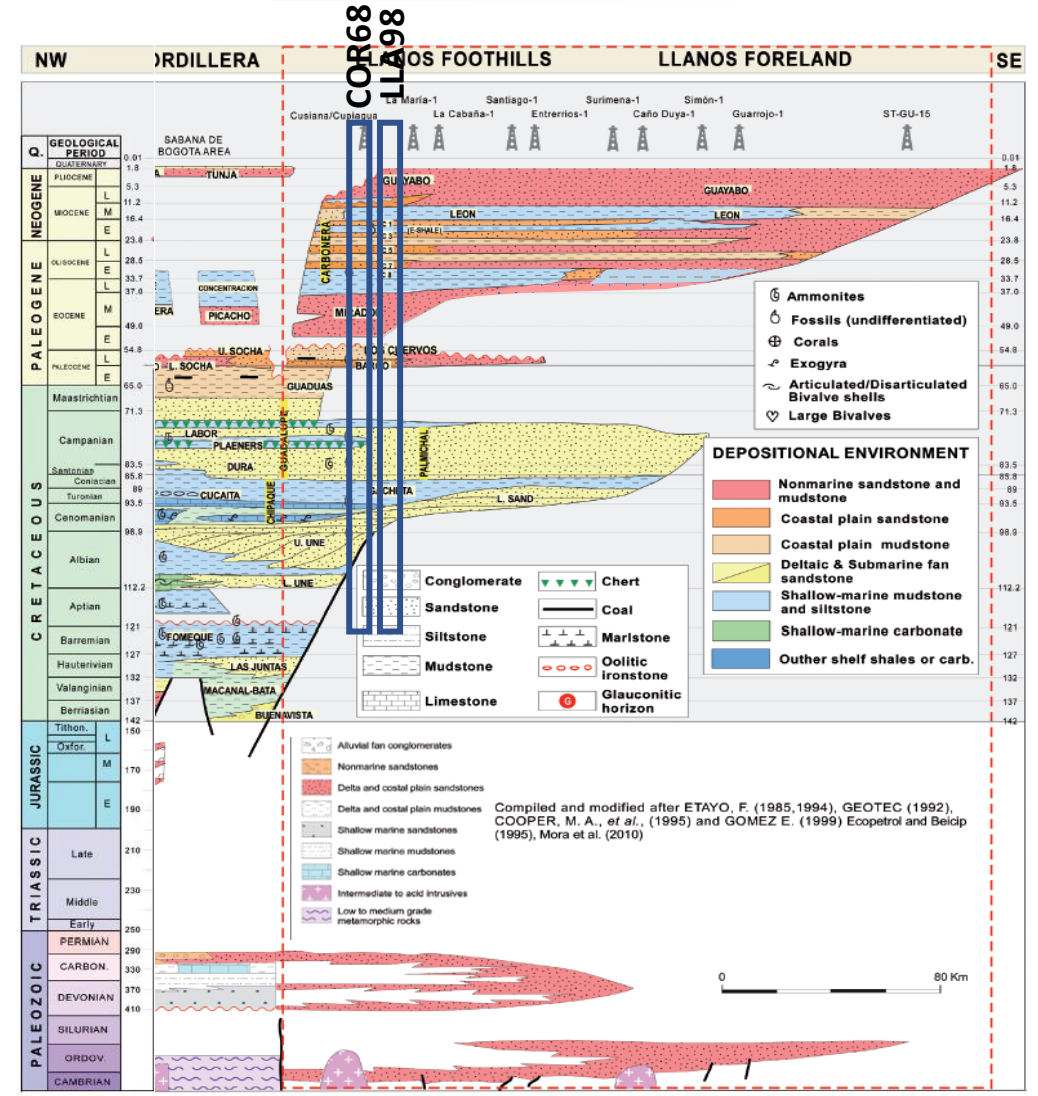
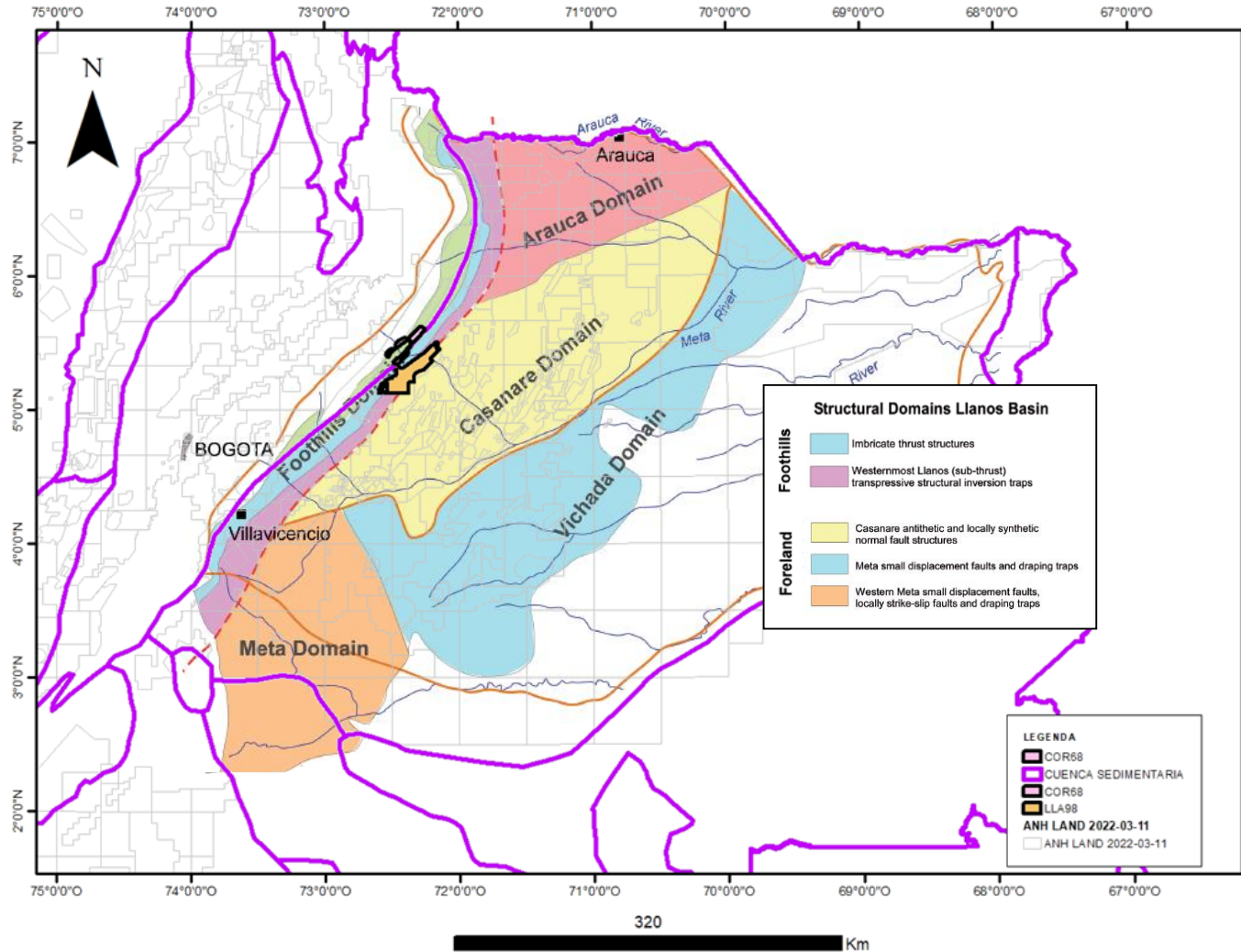


Infraestructure

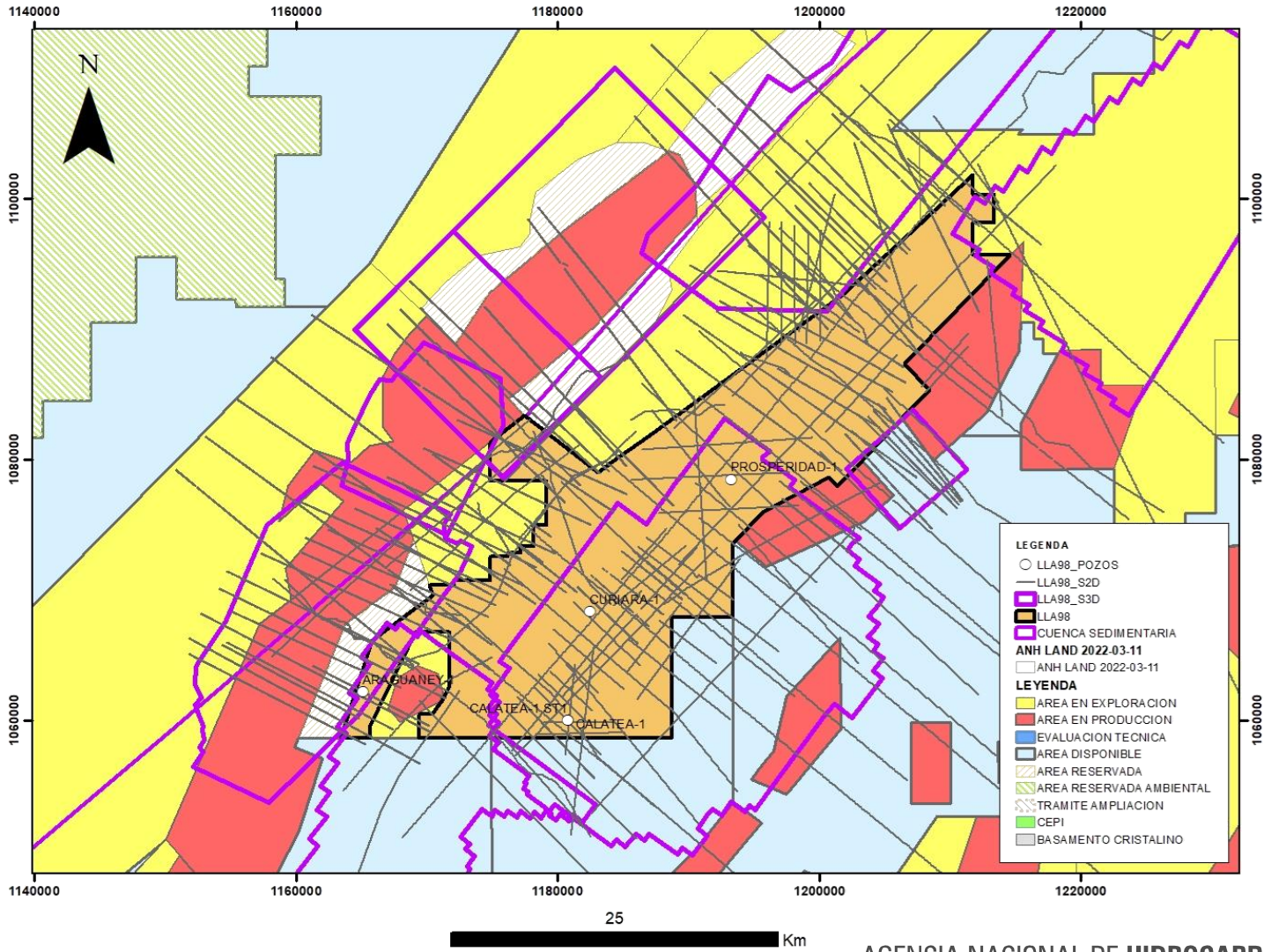


- The LLA98 block there are several paved roads that arrive to Yopal city and COR68 Block have some unpaved road that connect with Piedemonte block facilities.
- LLA98 Nearby facilities are:
 - Araguaney Storage
 - Yopal processing facility
 - Morichal oil field and facility
 - Tocaría Oil field
 - Ramiriqui oil field
- COR68 Nearby facilities are:
 - Floreña Storage
 - Pauto-Floreña oil facilities

Geological Framework



Database – LLA98 – Available Information



Wells

WELL_NAME	UWI	RTE	GLE	TD	TVD	WELL_SPUD	WELL_STATUS
CALATEA-1	CLTA0001	794	763	14579	14511	26/09/2010	PLUGGED & ABANDONED
CALATEA-1 ST1	CLTA0001ST1	794	763	16940	16820	17/12/2010	PLUGGED & ABANDONED
CURIARA-1	CURA0001	840	809	16330	16089	14/02/2013	PRODUCER
PROSPERIDAD-1	PROS0001	925	884	17040	16812	10/02/2019	PLUGGED & ABANDONED

2D Seismic

SURVEY	LINES	LENGTH	LENGTH INSIDE	SURVEY	LINES	LENGTH	LENGTH INSIDE
ARAGUANEY-91	8	86.43	23.95	RECETORB-93	1	11.95	0.91
ARIMENA-72	2	78.31	1.05	RIO CHARTE-94	5	65.38	14.18
CHARTE-70	3	28.83	10.60	SANTIAGO ATALAY I-82	6	108.32	59.80
CHARTE-71	12	113.01	68.01	SANTIAGO ATALAYAS-86	7	52.38	46.81
CUPIAGUA II-93	1	15.27	0.88	SANTIAGO ATALAYAS-93	2	36.21	5.21
CUPIAGUA-92	3	58.69	12.09	SANTIAGO I-84	4	33.98	24.78
CUSIANA NORTE-91	2	39.83	5.20	SANTIAGO-85	17	128.21	98.79
LLANOS BLOQUE9-95	8	74.94	9.34	SECTOR 6-75	5	127.42	38.61
LLANOS CENTRAL-70	13	354.28	125.25	TOCARIA-81	5	42.34	9.66
LLANOS CENTRAL-78 WAI	1	14.05	0.65	TOCARIA-88	1	4.81	0.37
LLANOS NORTE-69	3	187.08	21.91	UNETE-75	2	27.29	4.59
LOS SAUCES 2D-2006	6	58.90	12.69	UNETE-89	7	99.07	29.94
PAUTO-90	1	21.16	0.50	UNETE-91	2	35.61	5.43
PAUTO-92	3	91.84	6.18	YOPAL-83	9	167.88	30.90
PIEDEMONTE-93	8	152.86	6.66	YOPAL-84	13	195.23	129.89
RECETOR-92	5	131.26	25.50	YOPAL-85	10	129.29	59.49
RECETOR-96	2	39.29	13.80	YOPAL-86	2	12.81	12.27

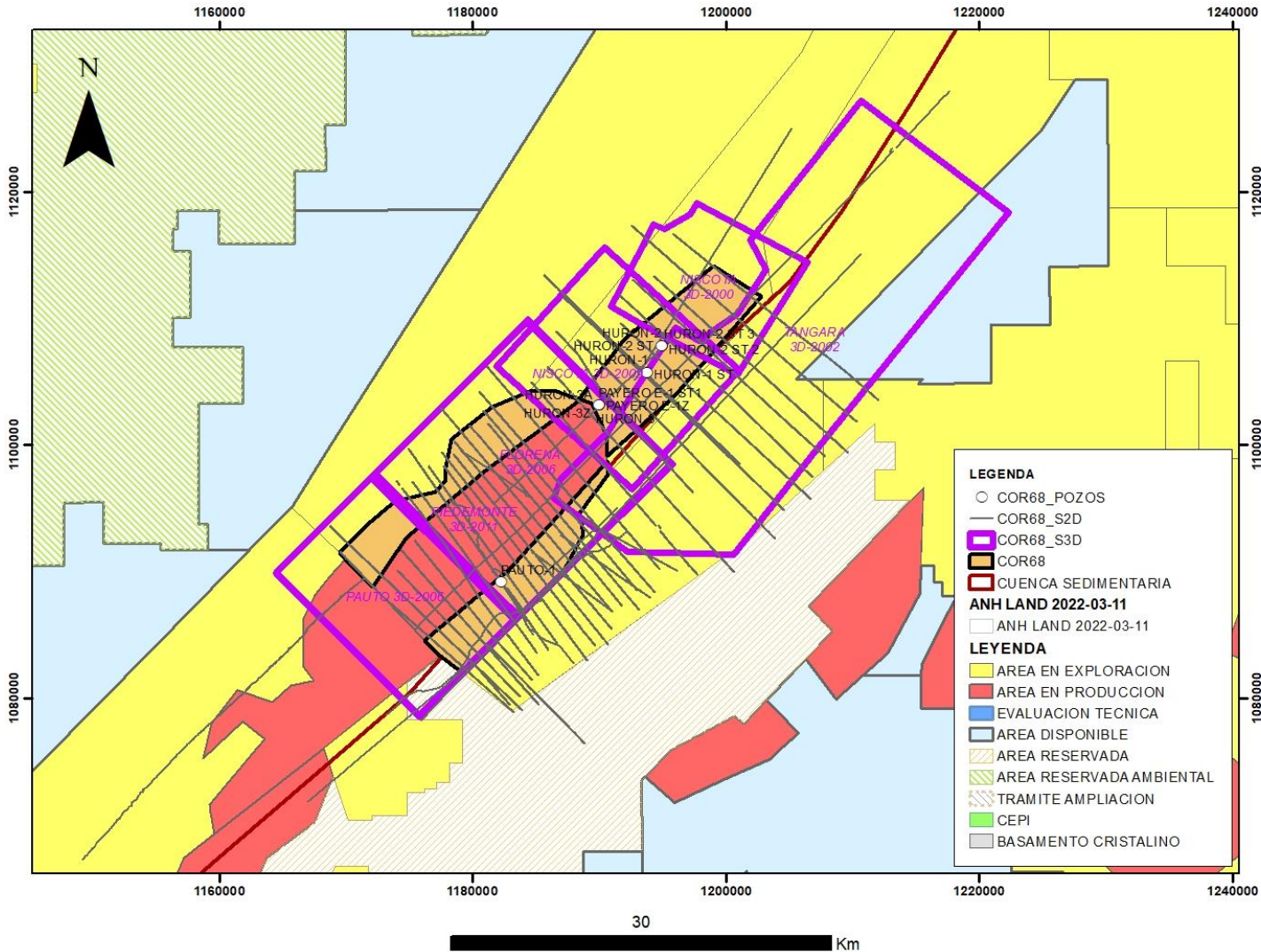
SURVEY	LINES	LENGTH	LENGTH INSIDE
Total general	179	2824.22	915.89

3D Seismic

SURVEY	AREA Km2	AREA_INSIDE Km2
CAUCHOS SUR 3D-2007	611.33	263.65
LLANOS22 3D-2009	273.39	43.66
CUPIAGUA 3D-1996	306.87	18.93
PIEDEMONTE 3D-2011	453.79	10.80
PAUTO 3D-2006	170.27	10.28
LLANOS19 B 3D-2010	41.55	0.96
TANGARA 3D-2002	533.57	0.24
LIRIA 3D-2001	116.80	0.17
SANCY 3D-2009	290.94	0.09

SURVEY	AREA INSIDE Km2
Total general	324.39

Database – COR68 – Available Information



Wells

WELL_NAME	UWI	RTE	GLE	TD	TVD	WELL_SPUD	WELL_STATUS
HURON-1	HURO0001	1966	1934	15649	15502	18/06/2008	PLUGGED & ABANDONED
HURON-1 ST	HURO0001ST	1966	1934	18275	18098	18/06/2008	PRODUCER
HURON-2	HURO0002	2223	2183	14859	14859	30/06/2011	PLUGGED & ABANDONED
HURON-2 ST	HURO0002ST	2223	2183	13784	13782	18/04/2012	PLUGGED & ABANDONED
HURON-2 ST 2	HURO0002ST2	2223	2183	16870	16869	03/06/2012	PLUGGED & ABANDONED
HURON-2 ST 3	HURO0002ST3	2223	2183	18395	18381	15/09/2012	SUSPENDED
HURON-3	HURO0003	1561	1525	12887	12711	12/08/2012	PLUGGED & ABANDONED
HURON-3Z	HURO0003Z	1561	1525	17474	17179	06/06/2012	SUSPENDED
PAYERO E-1	PAYE0001E	1567	1525	14948	13680.78	08/12/2015	PLUGGED & ABANDONED
PAYERO E-1Z	PAYE0001EZ	1567	1525	15726	14455.55	08/09/2016	SUSPENDED
PAYERO E-1 ST1	PAYE0001EST1	1567	1525	12390	10981.17	23/07/2018	DRY WELL

2D Seismic

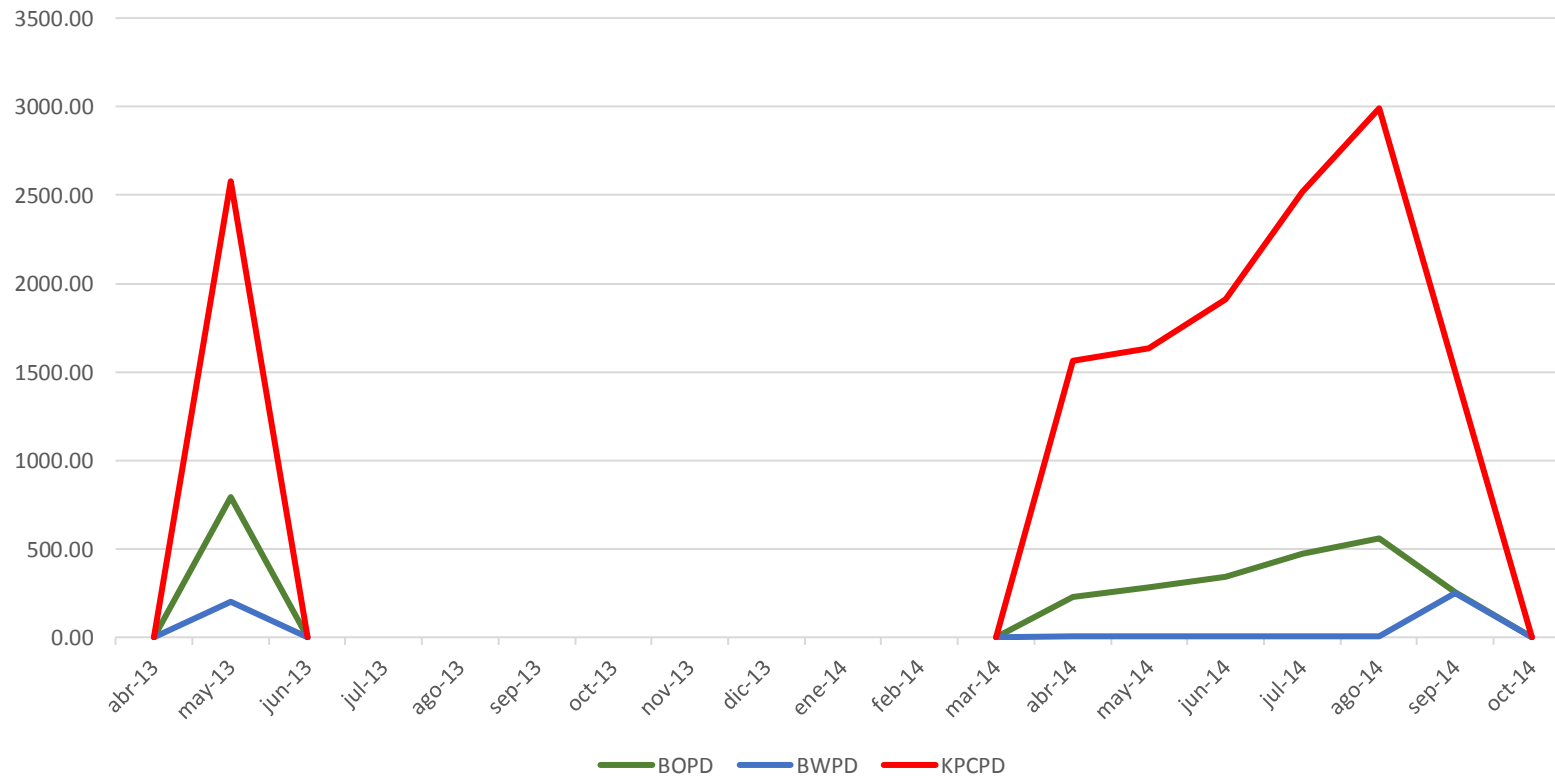
SURVEY	LINES	LENGTH	LENGTH INSIDE
ARAGUANAY-91	1	11.03	0.30
CHARTE-70	2	24.60	10.57
CHARTE-71	4	33.14	7.64
LLANOS CENTRAL-70	1	6.05	3.40
NISCOTA 2D-2007	1	29.34	8.87
PAUTO TAMARA-89	2	36.12	9.87
PAUTO-90	5	104.41	34.98
PAUTO-92	4	109.25	22.76
PIEDEMONTE SUR-93	9	152.53	46.07
PIEDEMONTE-93	16	366.25	92.08
RECETOR-96	1	18.29	0.03
RECETOR-97	1	34.15	0.02
RIO CHARTE-94	1	17.00	1.18
YOPAL-84 EXT	3	25.60	4.68
YOPAL-85	1	7.91	3.75
Total general	52	975.65	246.20

3D Seismic

SURVEY	AREA Km2	AREA INSIDE Km2
NISCOTA 3D-2000	117.68	34.05
TANGARA 3D-2002	533.57	36.83
FLORENA 3D-2006	271.20	81.94
PAUTO 3D-2006	170.27	41.23
NISCOTA 3D-2009	182.59	63.09
PIEDEMONTE 3D-2011	453.79	127.16
Total general	200.67	

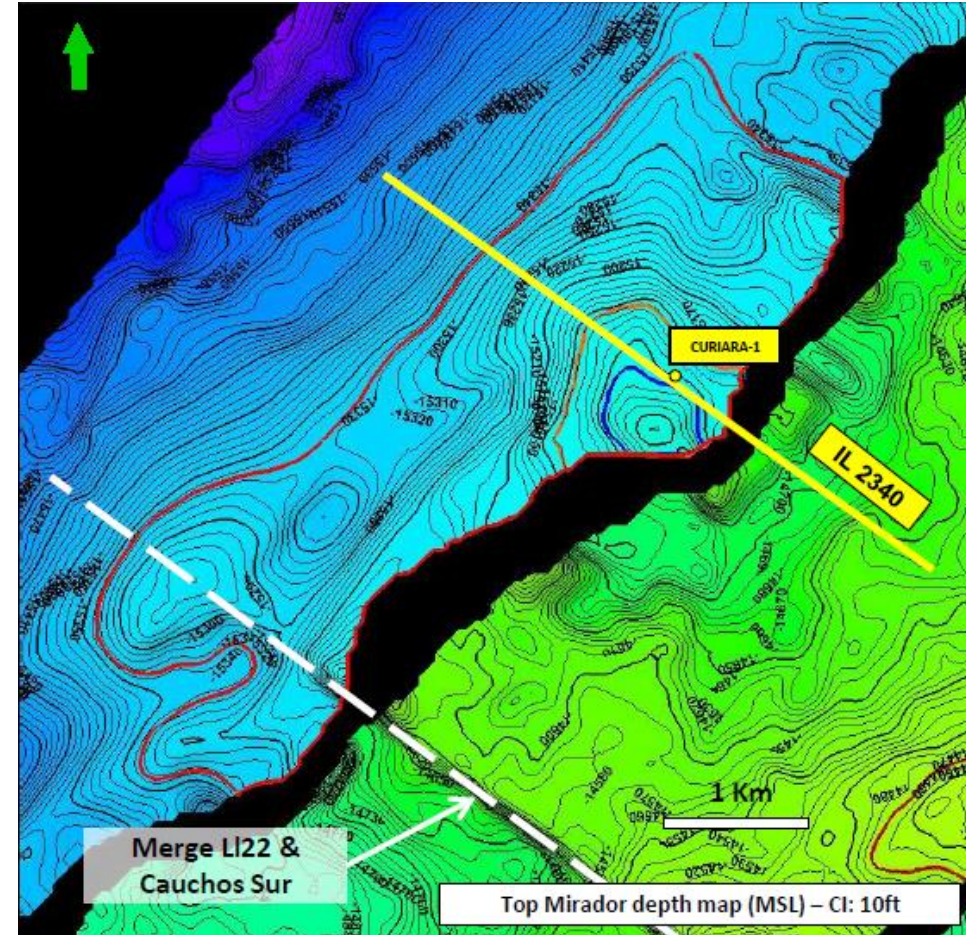
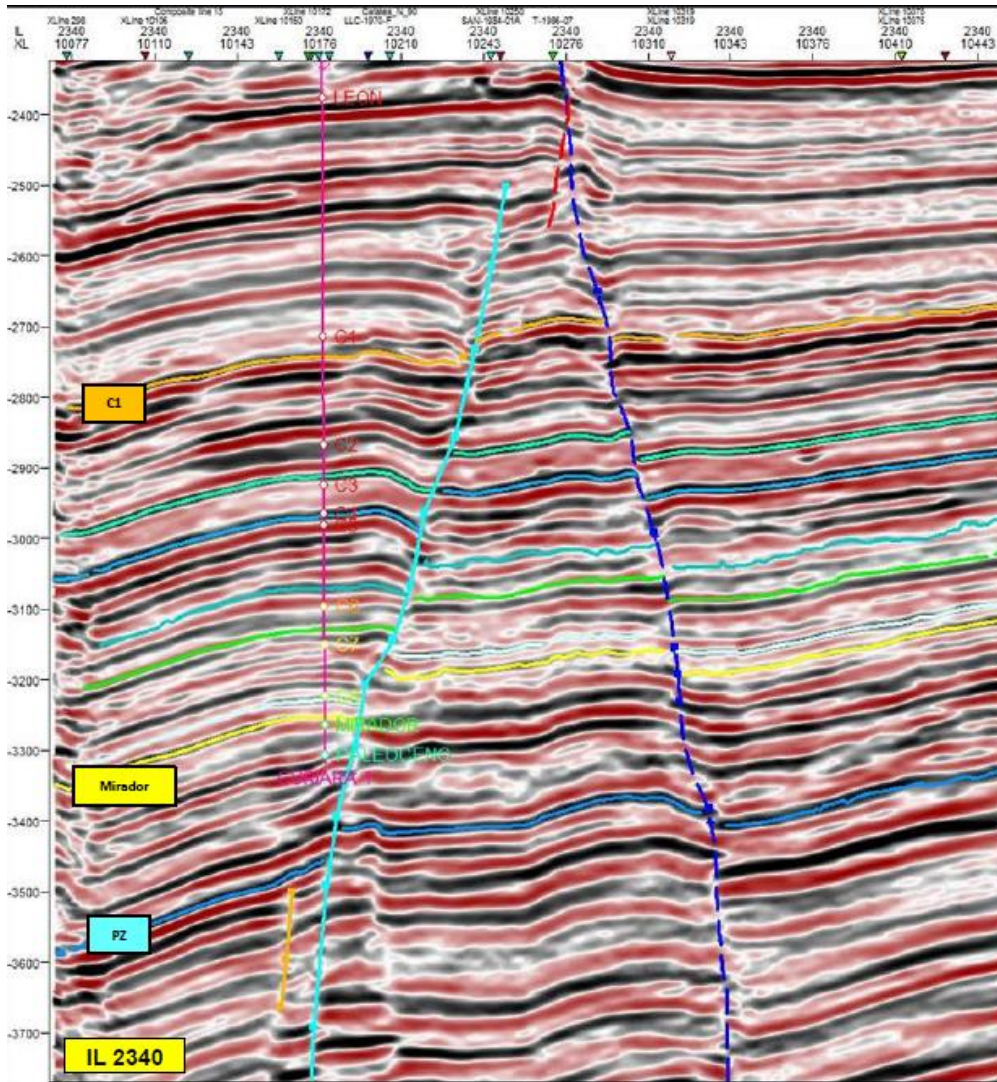
Curiara Structure - Generalities

CURIARA



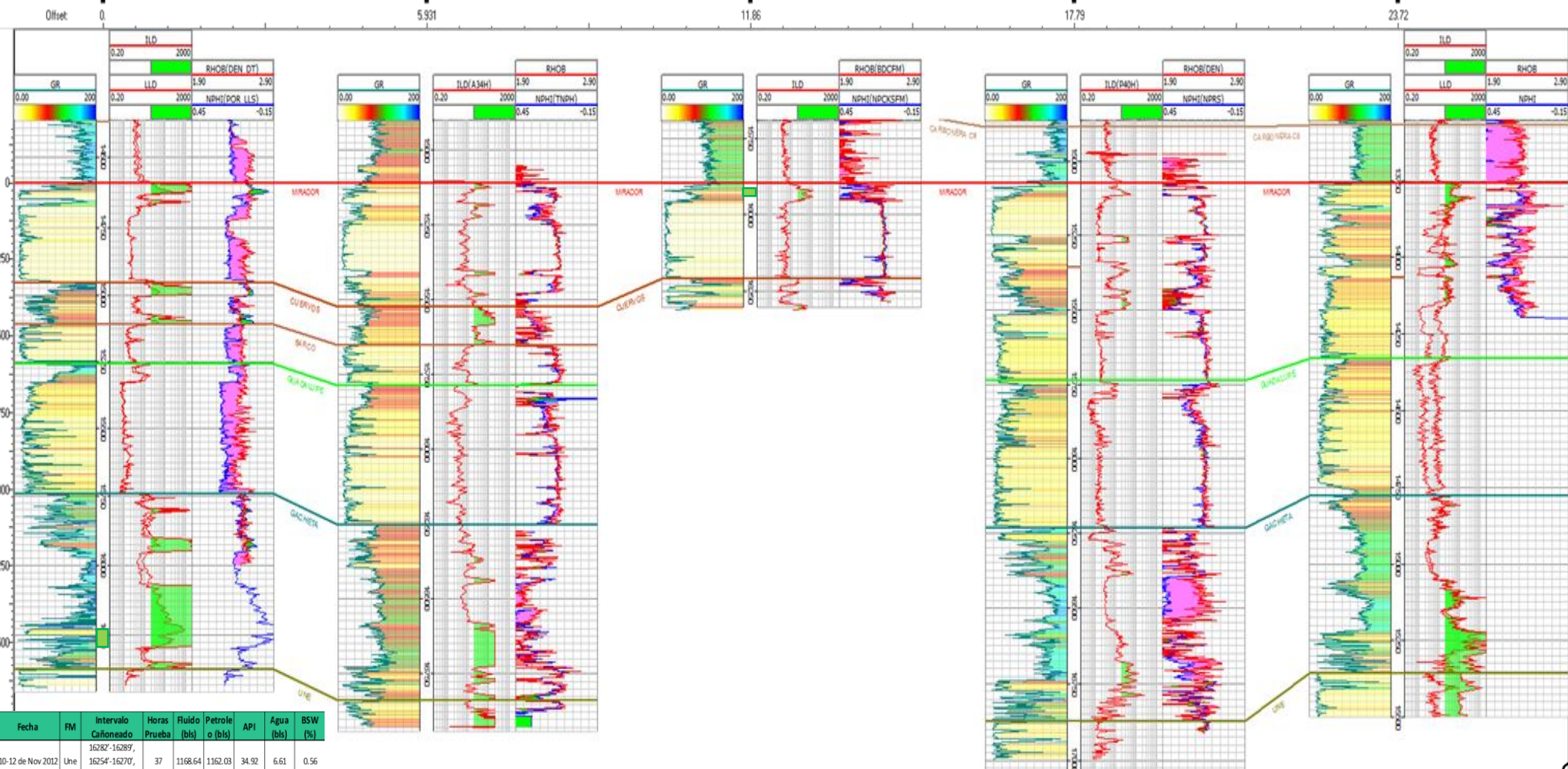
- The Curiara -1 well is an exploratory vertical well, drilled between February 14 and April 26, 2013, at a final depth of 16330 feet MD (-15846 TVDSS), located in the E&P El Portón Contract in the Llanos Basin. The well was intended to test the lateral closure of the sunken block in the Mirador Formation. DST was performed in this range, obtaining 410 BOPD of 43 ° API and 1.9 MMSCFD. Preliminary interpretation suggests a condensate gas reservoir with fluids of a GOR greater than 4000 scf/stb
- On April 5, 2014, the LTT began in the Mirador formation, with an average production of 250 BOPD, 1.5 MMSCFD, 1.3% of water cut and an API gravity of 40°.
- In mid-August, the ANH authorized an increase in gas burning in the Curiara-1 well, in order to evaluate the size of the reservoir, which allowed the well to be produced at a higher flow. At the end of August, the Curiara well1 presented a very high irruption of water, passing the water cut from 0.6% to 85%, with which it was possible to determine that the aquifer was very close to the deposit.
- The cumulative production of the curiara-1 well as of September 2014 is 64163 Barrels of Oil and 358816 thousand cubic feet of gas.
- Since September 9, 2014 the Curiara-1 well is closed due to economic unviability due to the increase in water cutoff.

Curiara Structure – Seismic Profile

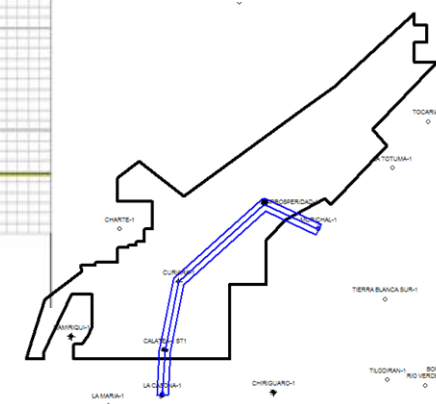


The well aimed to test the closure in 3 directions against synthetic fault at the level of the Mirador Fm.

Curiara Structure – Well Correlation



Fecha	FM	Intervalo Cañoneado	Horas Prueba	Fluido (bls)	Petroleo (bls)	API	Agua (bls)	BSW (%)
10-12 de Nov de 2012	Una	16282-16289, 16254-16270, 16234-16242	37	1168.64	1162.03	34.92	6.61	0.56
14 de Nov de 2012	Una	16282-16289	11	750.9	565.8	34.9	185.13	24.65



Curiara Structure– Initial Test

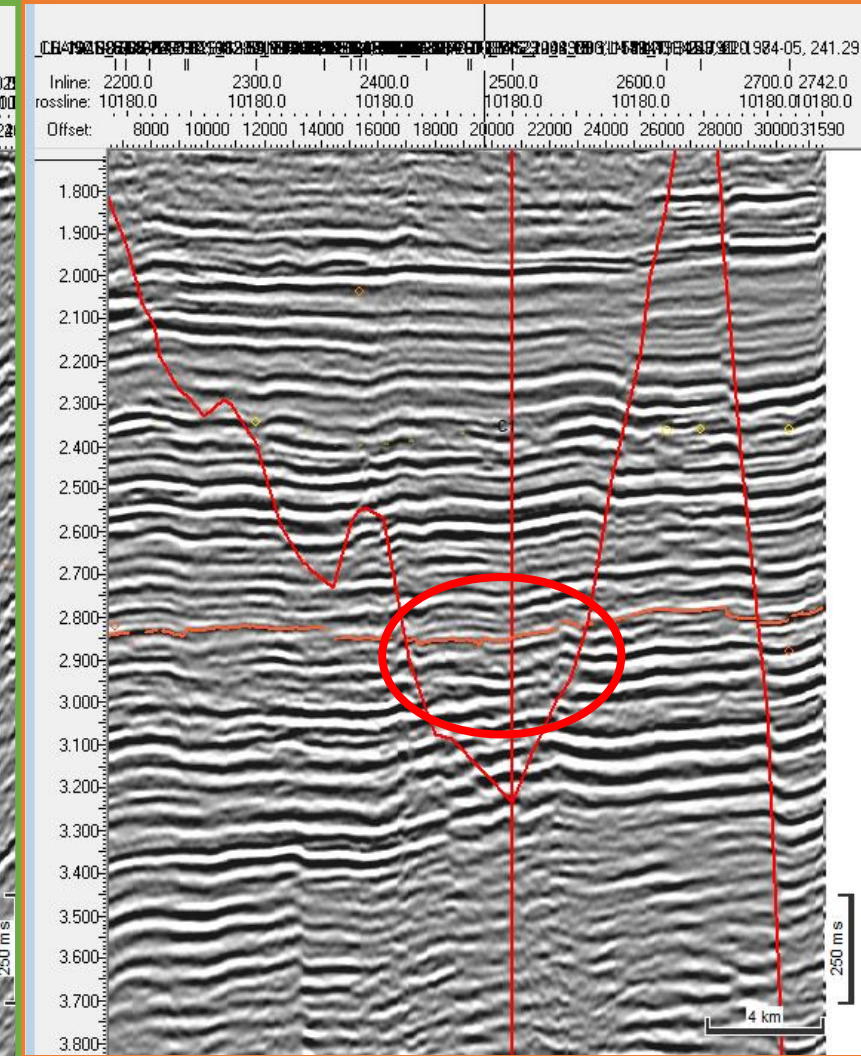
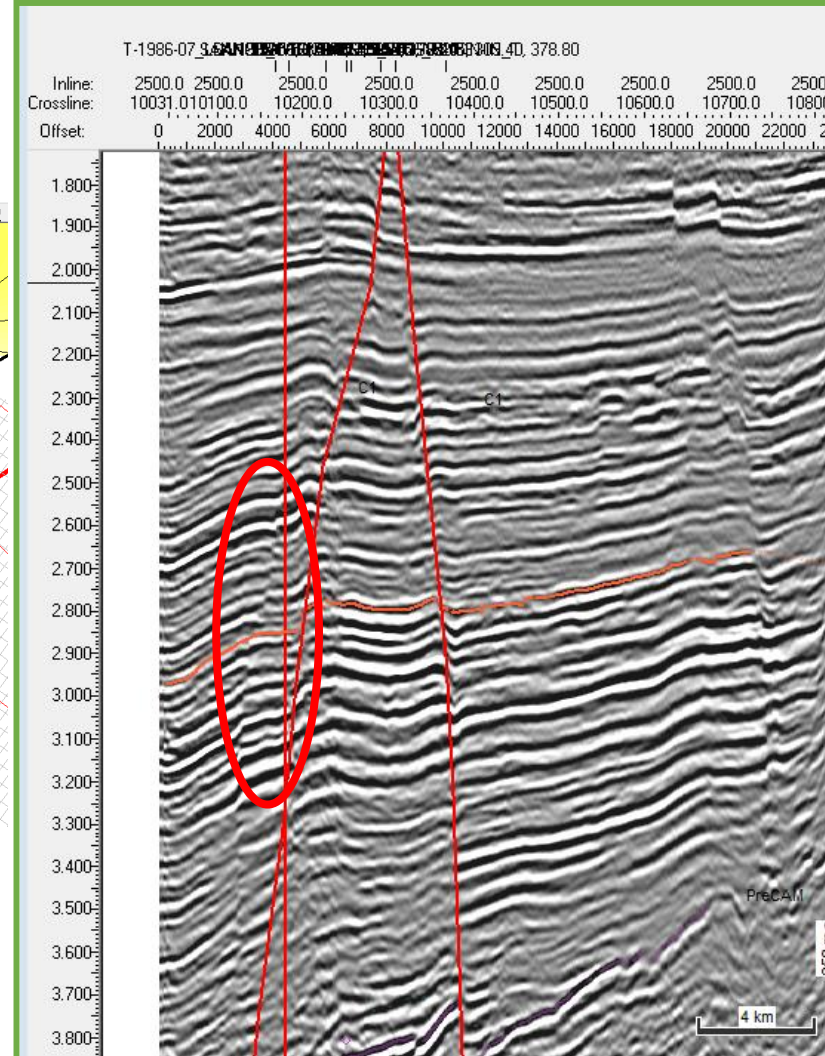
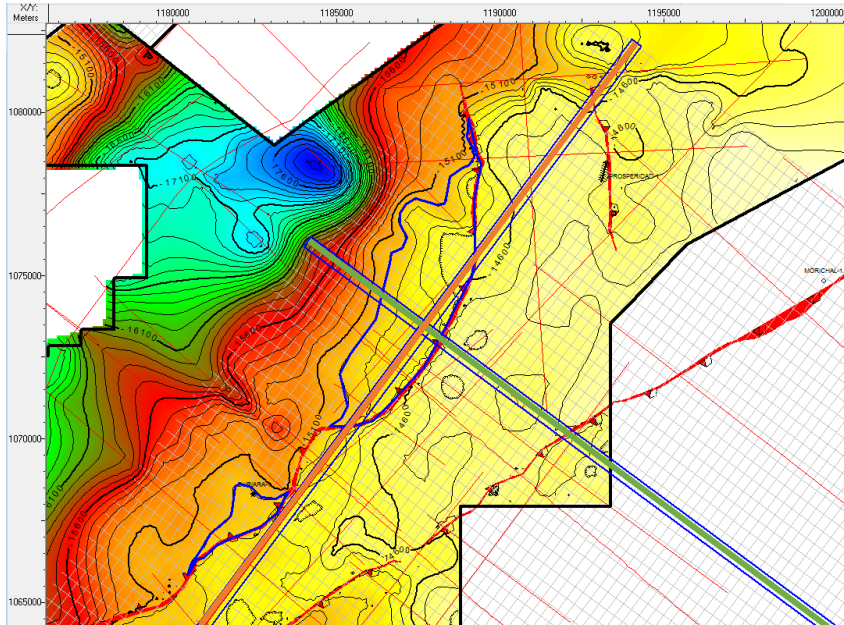
RESUMEN PRUEBAS DST POZO CURIARA-1			
		DST 1	
FORMACION	Mirador		
FECHA	18-22 de Mayo 2013		
INTERVALO PROBADO	15953-15958 MD		
DURACION FLUJO INICIAL	0 h 48 min		
DURACION PRIMER CIERRE	4 h 13 min		
FLUJO PRINCIPAL		FLUJO SECUNDARIO	
DURACION FLUJO PRINCIPAL	29 h 07 min	DURACION FLUJO SECUNDARIO	17 h 57 min
CHOKE FINAL	20/64"	CHOKE FINAL	12/64"
PRESION EN CABEZA	3282 PSI	PRESION EN CABEZA	791 PSI
CAUDAL PROMEDIO	822 BFPD	CAUDAL PROMEDIO	384 BFPD
CAUDAL DE PETROLEO PROMEDIO	818 BOPD	CAUDAL DE PETROLEO PROMEDIO	382 BOPD
CAUDAL DE GAS PROMEDIO	3.37 Mcf/d	CAUDAL DE GAS PROMEDIO	1.85 Mcf/d
BSW	0.50%	BSW	0.56%
FLUIDO DE FORMACION	Gas y Condensado	FLUIDO DE FORMACION	Gas y Condensado
API	40	API	40
GOR	4000 SCF/STB	GOR	4500 SCF/STB
PRESION SEPARADOR	232 PSI	PRESION SEPARADOR	241 PSI

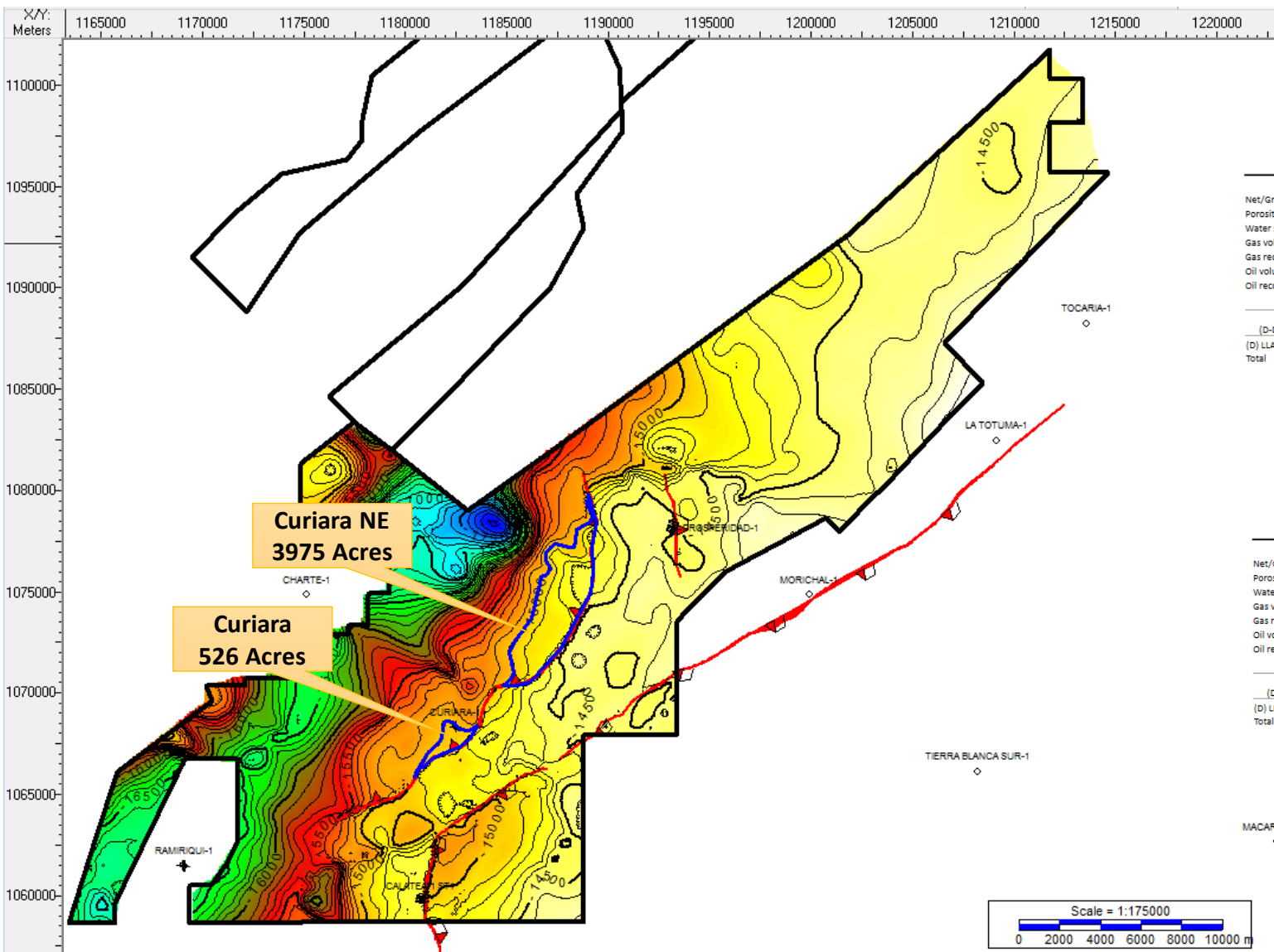
Tabla 1. Resultados Prueba DST Pozo Curiara-1 Bloque El Portón

The Curiara-1 well was cased in the 15953-15958 interval of the Upper Mirador Formation. During the DST test, two flow periods were performed and the results are presented in Table 1.

The production in the Curiara well.1 was condensed gas of an API quality of 40°, this production was in natural flow and a shock of 20/64" giving an oil flow of 822 BOPD, a water cut of 0.5%, a gas production of the order of 3.8 MMSCFD and a GOR of 4000 SCF/STB. The production data with a shock of 12/64" was 382 BOPD, 1.85 MMSCFD, 0.56% water cut and a GOR of 4500 SCF/STB.

LLA98 Seismic Interpretation





Curiara Structure – Volumetrics

CURIARA

Net/Gross (NTG):	1.00
Porosity (D):	0.28
Water saturation (Sw):	0.40
Gas volume factor (Bg):	4000.00
Gas recovery factor (GRF):	0.70
Oil volume factor (Bo):	1.10
Oil recovery factor (ORF):	0.40

MIRADOR

Result (D-Deterministic)	Polygon area (M2)	Gross (Meter2 Feet)	Net (Meter2 Feet)	Pore (Meter2 Feet)	HC Pore (Meter2 Feet)	In-Place (SCF)(STB)	Recoverable (SCF)(STB)
(D) LLA98_Curiara - Total	2.128 MM	19.705 MM	19.705 MM	5.517 MM	3.310 MM	4.987 MM	1.995 MM
(e)		17.027 MM	17.027 MM	4.768 MM	2.861 MM	19.359 B	13.552 B
(g)		2.677 MM	2.677 MM	749.666 M	449.800 M		

High Estimate 1.99MM Bbls – 13.55 BSCF

CURIARA NE

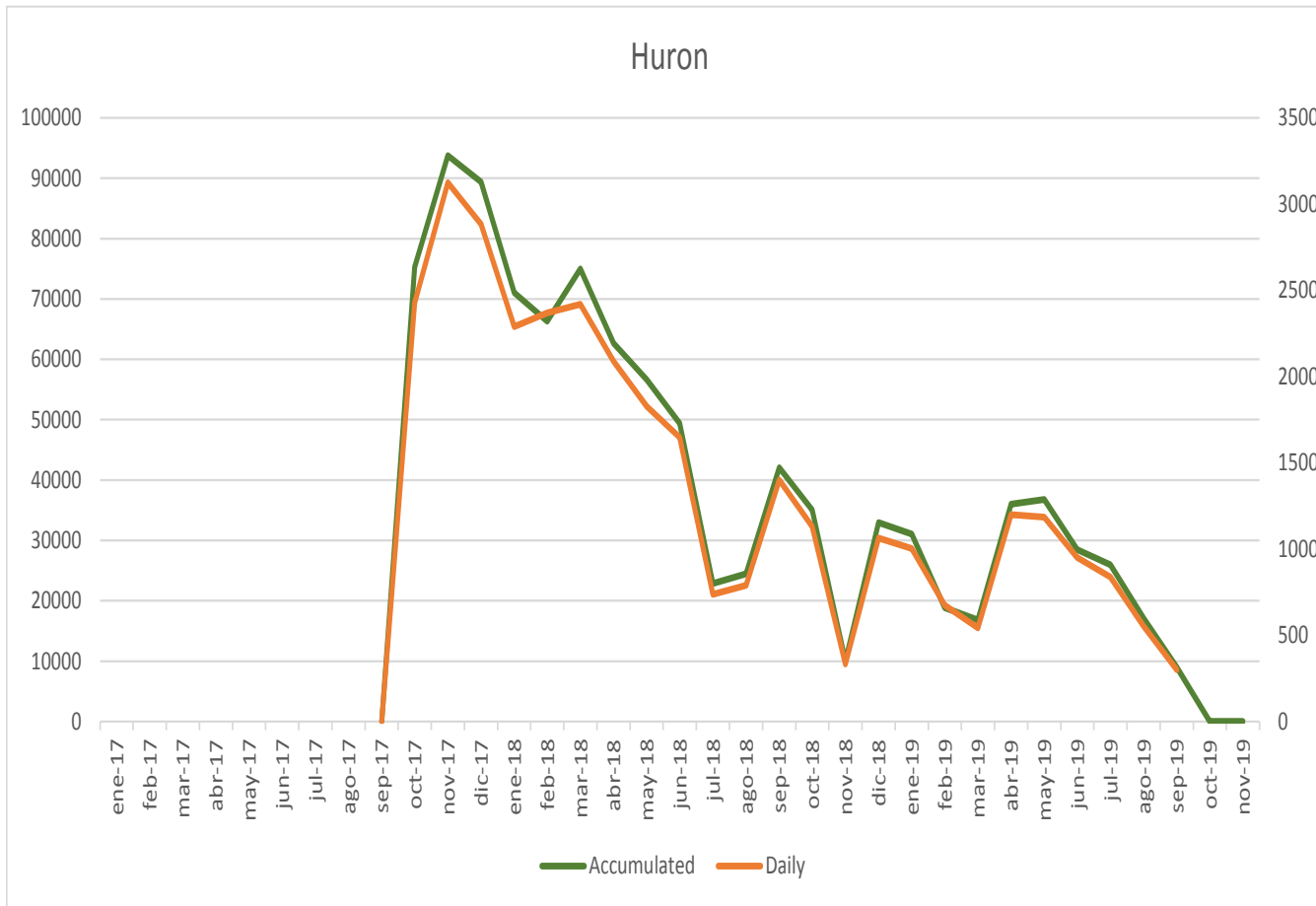
Net/Gross (NTG):	1.00
Porosity (D):	0.28
Water saturation (Sw):	0.40
Gas volume factor (Bg):	4000.00
Gas recovery factor (GRF):	0.70
Oil volume factor (Bo):	1.10
Oil recovery factor (ORF):	0.40

MIRADOR

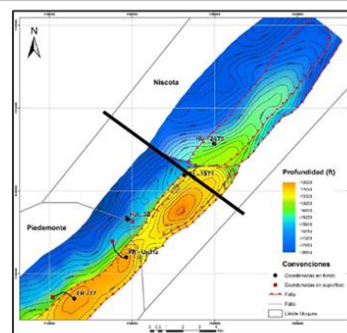
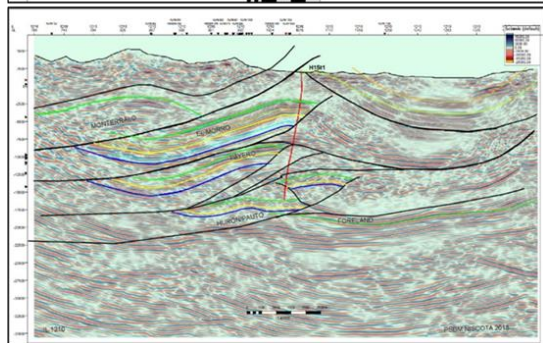
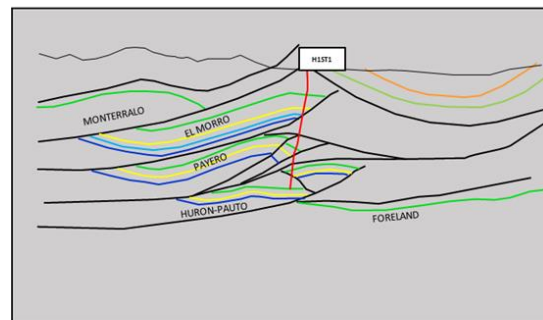
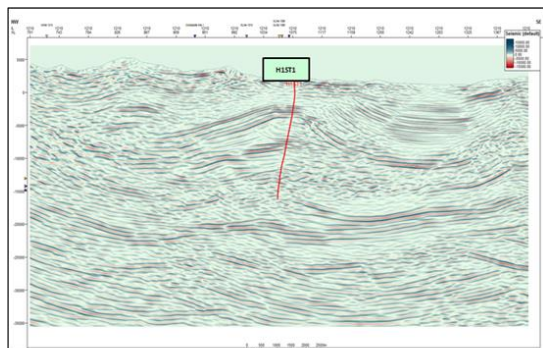
Result (D-Deterministic)	Polygon area (M2)	Gross (Meter2 Feet)	Net (Meter2 Feet)	Pore (Meter2 Feet)	HC Pore (Meter2 Feet)	In-Place (SCF)(STB)	Recoverable (SCF)(STB)
(D) LLA98_Curiara_NE - Total	16.087 MM	129.735 MM	129.735 MM	36.326 MM	21.795 MM	6.406 MM	2.562 MM
(e)		21.874 MM	21.874 MM	6.125 MM	3.675 MM	779.914 B	545.940 B
(g)		107.861 MM	107.861 MM	30.201 MM	18.121 MM		

High Estimate 2.56MM Bbls – 545.9 BSCF

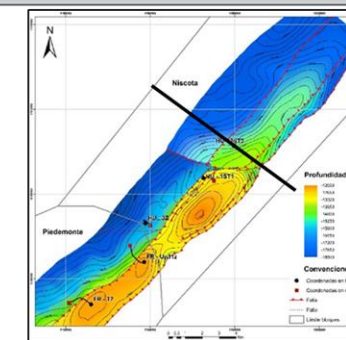
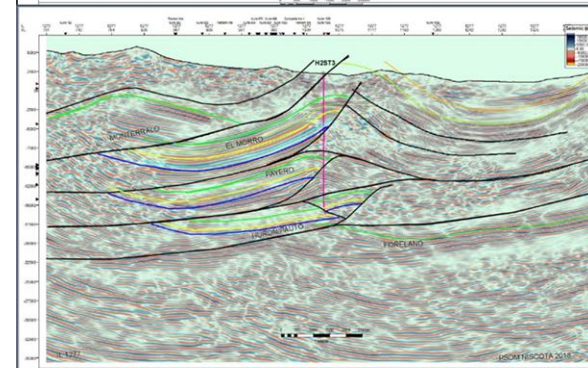
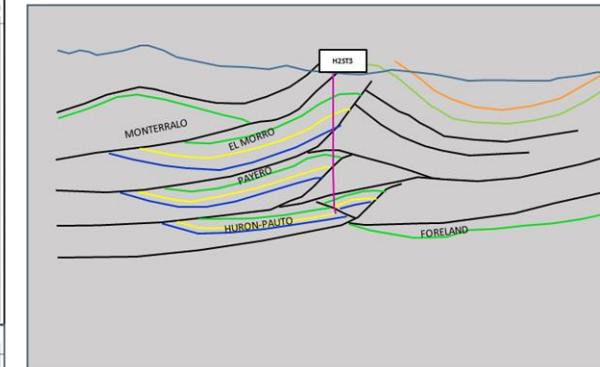
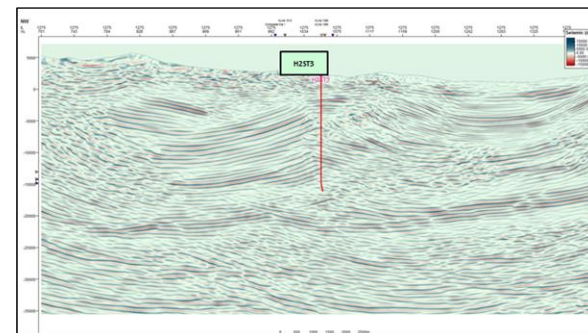
COR68 Huron Structure - Generalities



- Drilling of 3 wells, two being declared as producers (Hurón-1ST and Hurón 2ST3), finding two structures (Hurón Structure and El Orzo structure) with proven production of gaseous hydrocarbons and connected to each other and to the Pauto Complex field of the Piedemonte block. (Annexes 1, 2 and 3)
- Drilling of the Payero E-1Z well, recognizing a structure called Payero but whose target reservoir was found in water. Subsequently, the Exploratory Payero E-1ST1 well was drilled with the result of a dry well, which was plugged and abandoned.
- Two structures have been found (Huron and El Orzo Structures) in which the presence of condensed gas, accumulated in the Mirador Formation, has been confirmed.
- The most likely gas-to-water contact for fields open to production is estimated at 15,350 TVDss feet.
- The original calculated on-site volumes are 458 GPC and 70 MBIs for the Hurón structure and 410 GPC and 30 MBIs for the El Orzo structure.
- The two structures were initially separated hydraulically, as they initially had different pressure and fluid regimes.
- Initial tests gave production rate of 2,865 bpd and 17.44 Mpcgd with a THP of 1,172 psi for Ferret 1ST and 1,635 Bpd and 21.7Mpcgd and a THP of 1,234 psi for Ferret-2ST3



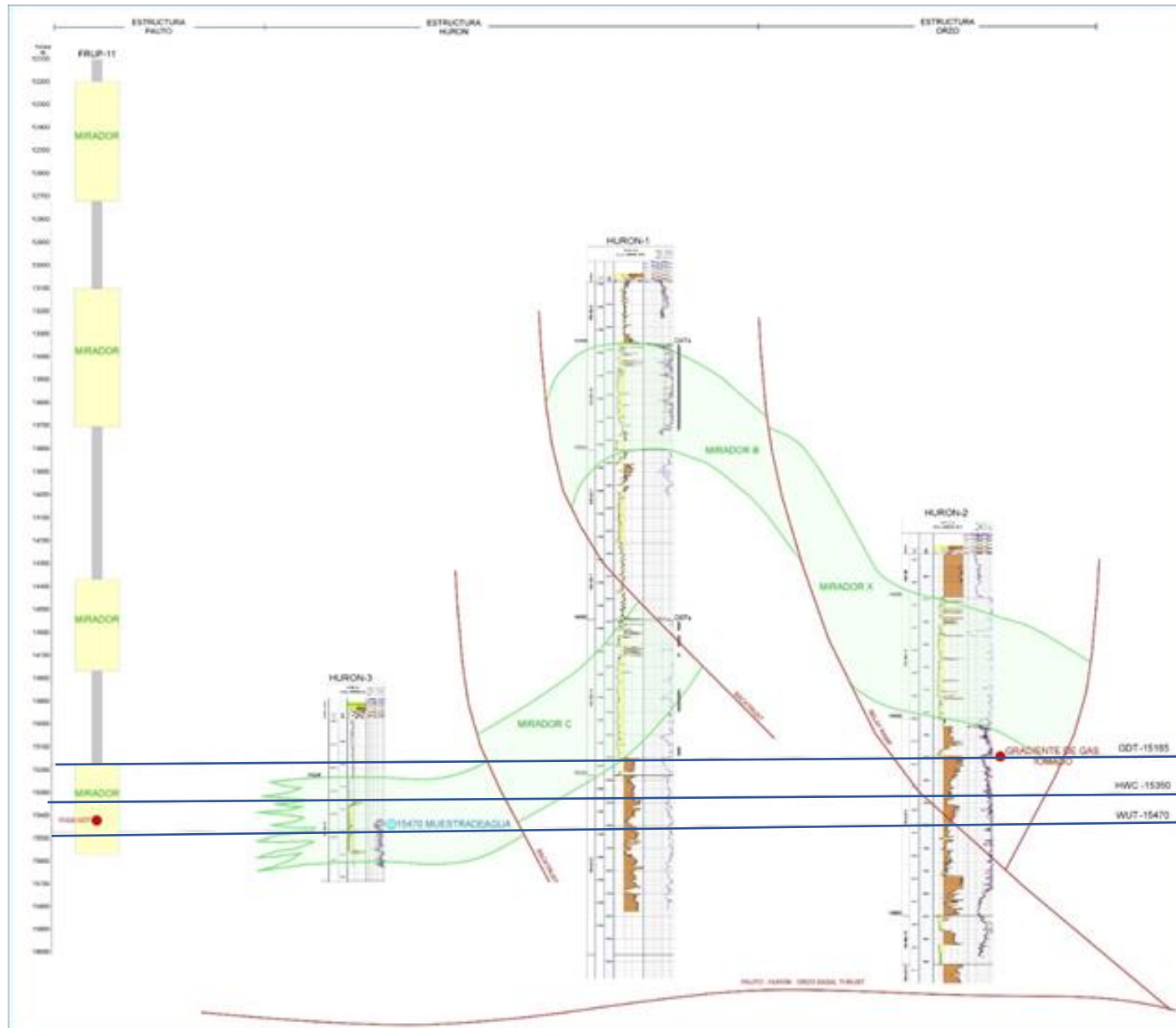
Seismic Section (Dip) 1210 interpreted and uninterpreted, along with structural section on the Huron 1ST well



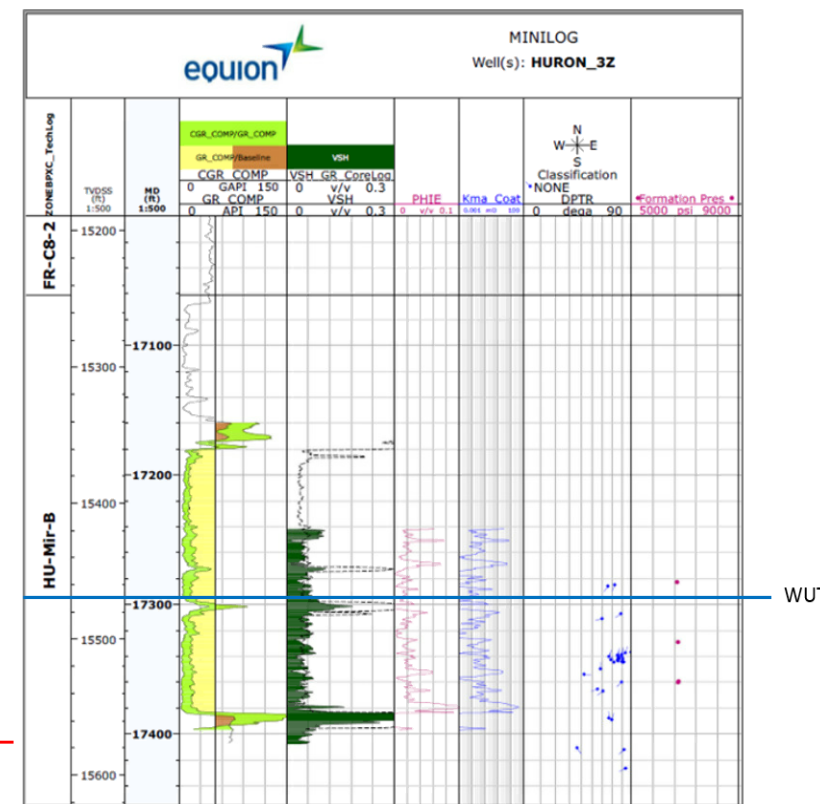
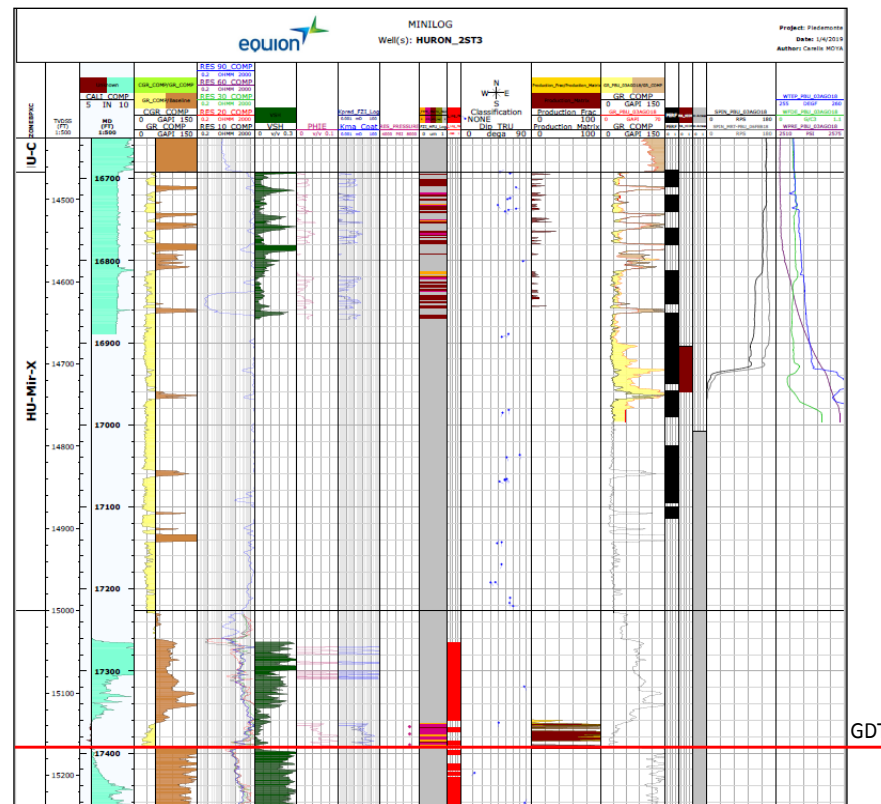
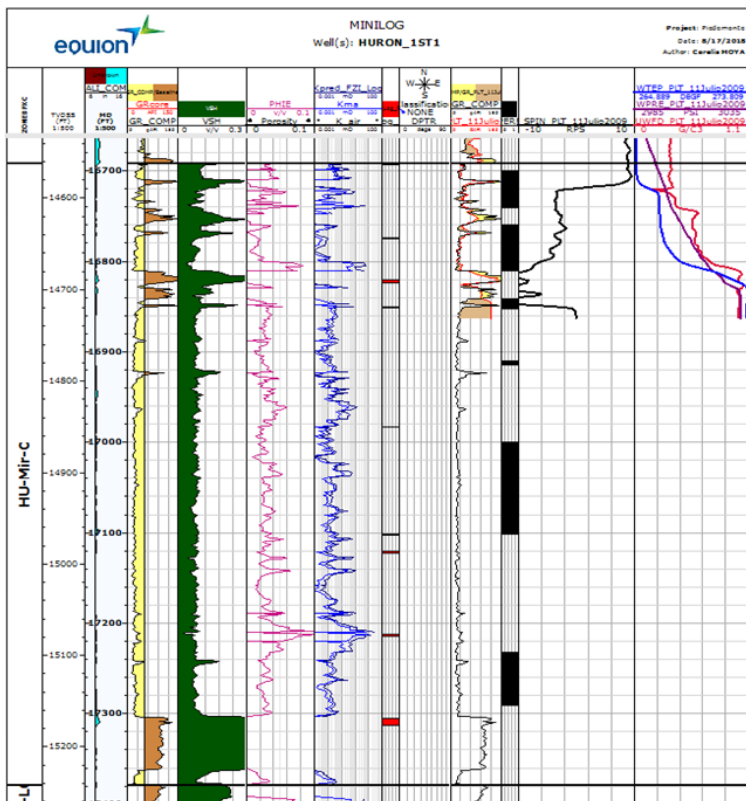
Seismic Section (Dip) 1277 interpreted and uninterpreted, along with structural section on the Huron 2ST3 well

According to the operator, the repetitions of the Mirador unit are due to a backthrust fault system. Due to the quality of the seismic, the model was created from the information of deviations from the wells.

COR68 – Huron – Structural Well Correlation



COR68 - Huron – Well Petrophysics Evaluation



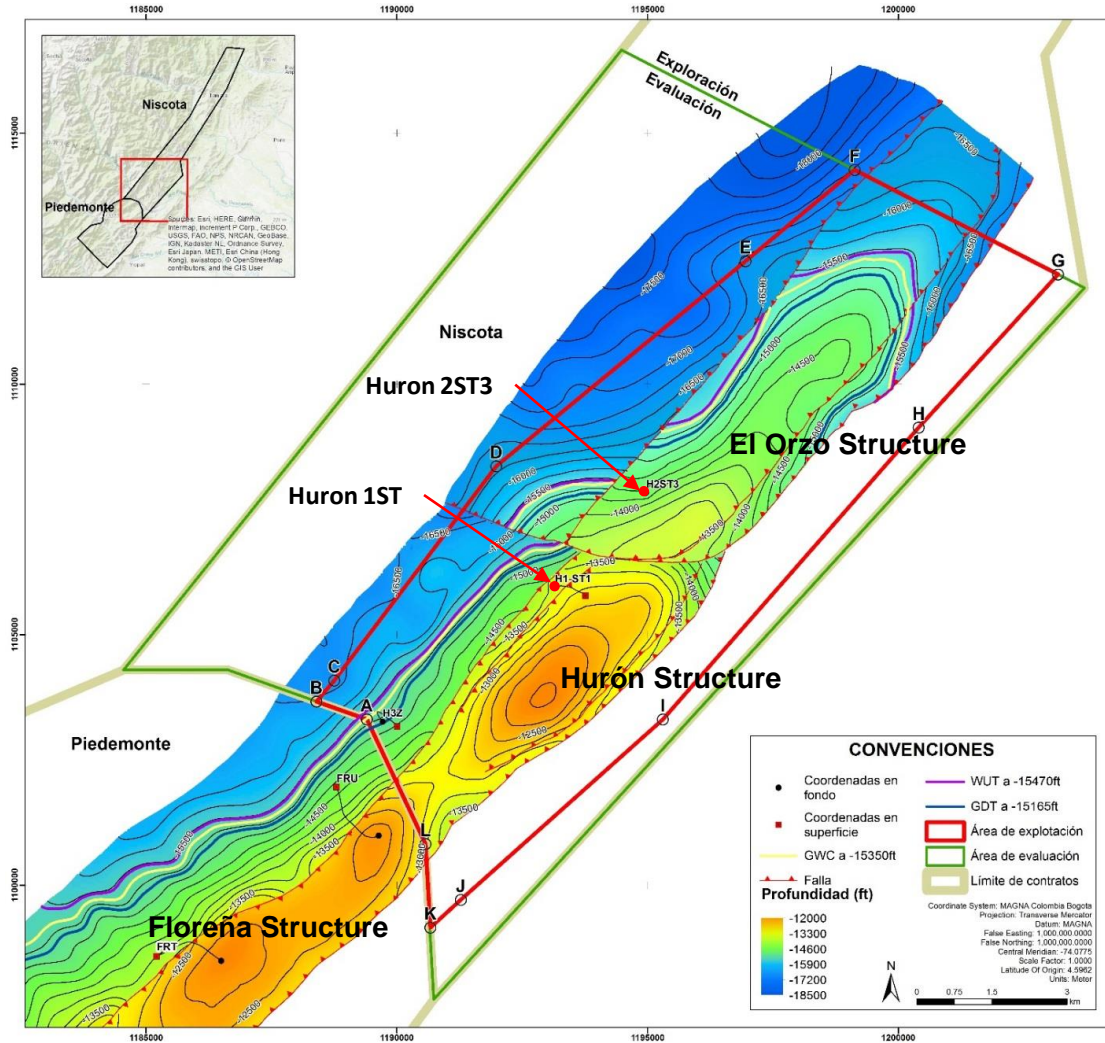
MIRADOR B:
Net sand thickness (NTG) of 60% with average Vsh values of 5.3%, effective porosity around 3.8% and matrix permeability of 0.09 mD.

MIRADOR C:
Net sand thickness (NTG) of 21% with average Vsh values of 8.7%, effective porosity around 3.4% and matrix permeability of 0.07 mD.

MIRADOR X:
Hollow conditions limited the acquisition of records. As a result, the assessment of rock quality was carried out from operational data and potential (rock quality) was identified in the upper and intermediate section of the formation.

MIRADOR B:
By hollow conditions, the petrophysical evaluation was partial of the formation with mean Vsh around 5.7%, effective porosity of 1.6% and matrix permeability approximate to 0.02 mD.

COR68 – Huron -Structural Maps & Volumetrics



Accumulated Production (2017-2019)

Huron-1 ST	Huron-2 ST3	Huron - TOTAL
Mirador Formation	Mirador Formation	Mirador Formation
197.419 Bbls Oil	876.078 Bbls Oil	1.073.497 Bbls Oil
39.561 Bbls Water	27.978 Bbls Water	67.540 Bbls Water
2.437.603 Kcf Gas	9.982.357 Kcf Gas	12.419.961 Kcf Gas

RESOURCES AND RESERVES

	Estructura Huron Mirador B y Mirador C	Estructura El Orzo Mirador X	Campo Huron
GOES (Gpc)	458	410	868
POES (Mbls)	70	30	100

For the year 2018 a recovery factor is estimated of 2,3 %

The hydrocarbon in the Huron area is light oil, whose characteristics are similar to those of the liquid hydrocarbon produced in the Floreña-Pauto Complex fields with an API gravity of 44° and a sulfur content of 0.02%/wt.

Conclusions and Recommendations

- The LLA98 block has drilled 4 wells, of which only Curiara-1 was an oil producer, with a cumulative of 64163 Barrels of Oil an API gravity of 40° and 358816 thousand cubic feet of gas in extensive testing.
- The structures observed in the LLA98 block correspond to anticlines against normal synthetic faults.
- The main reservoir in the area is the upper part of the Fm. Mirador, although it may have potential in the sandstones of the Fm. Gacheta, as observed in the oil fields of the Casanare association.
- Volumes were calculated for the two structures in a High Estimated sum of 11.4 MM Bbls OOIP and a recovery factor of 40% observed in the Curiara well.
- The depth of the reservoirs is 16000 feet (Mirador) and 16800 (Gacheta) TVD
- The COR68 block has drilled 11 wells, 2 of these producers, which constitute the Huron field
- Initial production was close to 3100 BOPD, dropping to 1200 BOPD in 18 months.
- The Huron field is made up of compartments in a backthrust fault system, very similar to the Pauto-Floreña fields.
- The two producing wells (Huron-1ST and Huron-2ST3) tested two different compartments from the same field, this was demonstrated by differences in pressures.
- The depth of the Mirador reservoir is between 15300 feet and 17000 feet TVD
- The porosities of the Mirador for the field range between 3.4% and 3.6%
- The operator estimated that the field has 100MM Bbls OOIP and 868 GCF OGIP with a calculated recovery factor of 2.3%

Thanks