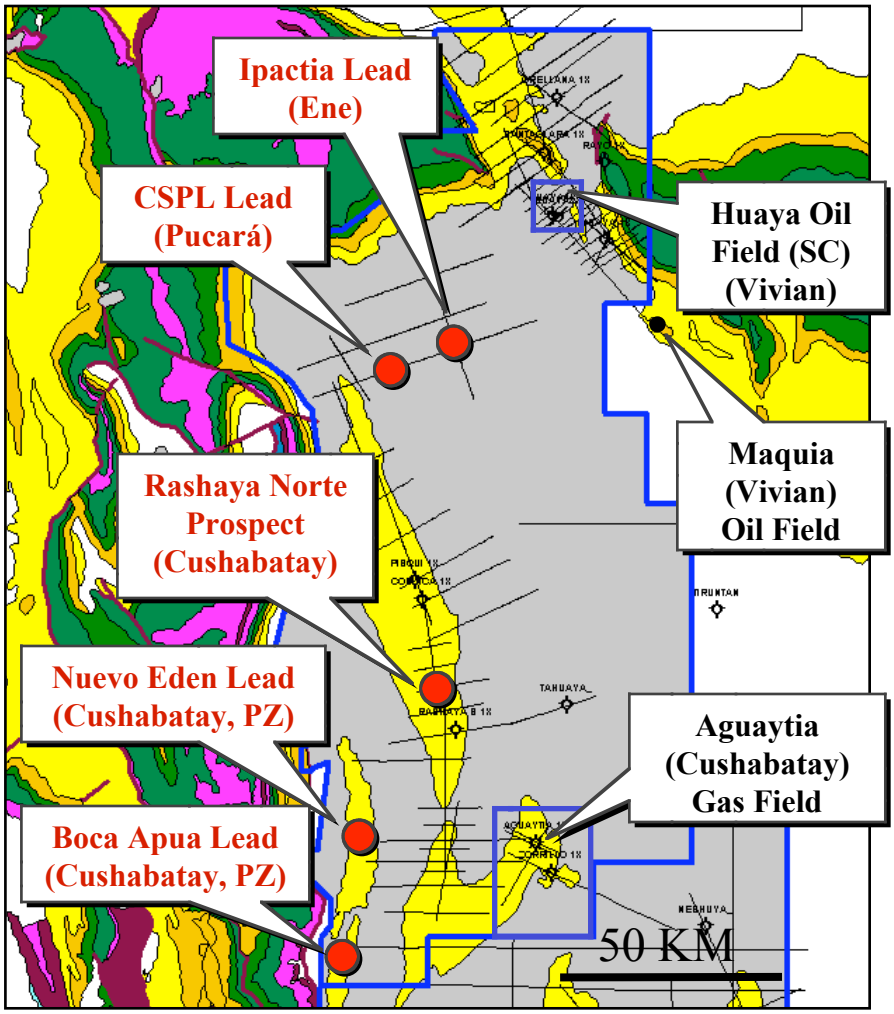
PERU
ONSHORE EXPLORATION OPPORTUNITIES IN THE UCAYALI BASIN

Ucayali A-04

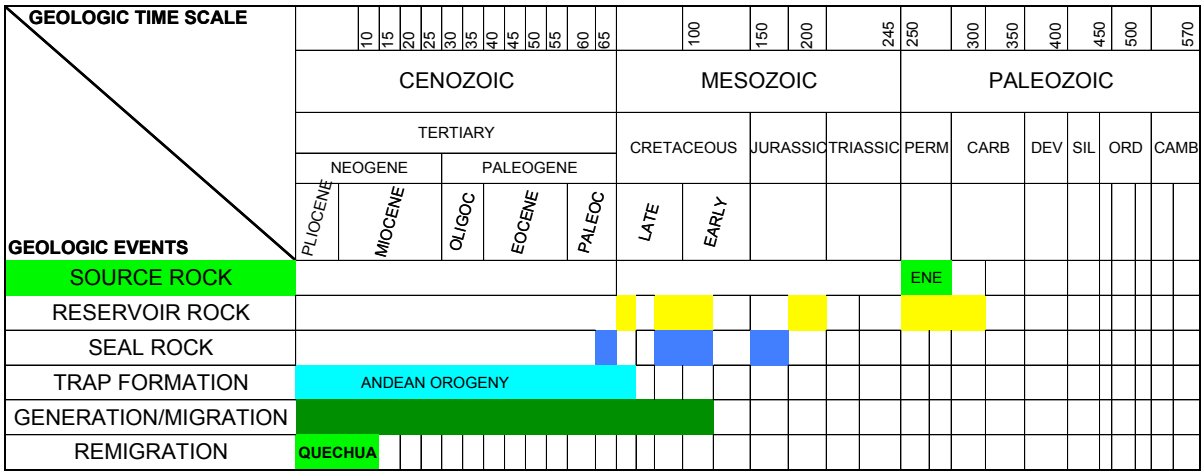
Block Location Map
(showing regional geology, available SEGY seismic and well locations)



Petroleum Systems Chart
(Pucará System)

GEOLOGIC TIME SCALE / GEOLOGIC EVENTS	10 15 20 25 30 35 40 45 50 55 60 65	100 150 200 245	250 300 350 400 450 500 570
	CENOZOIC	MESOZOIC	PALEOZOIC
	TERTIARY	CRETACEOUS / JURASSIC / TRIASSIC	PERM / CARB / DEV / SIL / ORD / CAMB
	NEOGENE / PALEOGENE		
	PLIOCENE / MIOCENE / OLIGOC / EOCENE / PALEOC	LATE / EARLY	LATE / MIDDLE / EARLY
SOURCE ROCK			PUC
RESERVOIR ROCK			
SEAL ROCK			
TRAP FORMATION	ANDEAN OROGENY		
GENERATION/MIGRATION		?	
REMIGRATION	QUECHUA		

Petroleum Systems Chart
(Ene System)



Prospects and Leads

PROSPECTS AND LEADS				15,000 KM2						
	Name	Description & Status	Area Km2	Petroleum System			PTD m.	Porosity	Cum Res Thickness m.	Net Pay m.
				Source Rock	Seal	Reservoir				
1	RASHAYA NORTE PROSPECT	Hangingwall and Footwall. 150ms higher than Rashaya Sur	HW 135 FW 17	Pucara, Ene & Ambo	Lower Tertiary, Vivian & Raya	Raya & Cushabatay	3400	15-20%	220	30
2	IPACTIA LEAD	Ene Outlier	135	Pucara, Ene & Ambo	Ene, Pucara	Ene		15-20%?	300+	30
3	CUSHABATAY SOUTH PUCARA LEAD	Strat play. High energy reef? carbonates deposited over old Copacabana high		Pucara, Ene & Ambo	Ene, Pucara	Pucara	N/A	12%	200	N/A
4	SANTA ANA LEAD	Cretaceous Lead over Pre-Cretaceous evaporites and flower structure. Review closure	30	Pucara, Ene & Ambo	Lower Tertiary, Vivian & Raya	Raya & Cushabatay	3700	15-20%	200	15
Frontal Thrust Leads										
5	NUEVO EDEN LEAD		210 Surf	Pucara, Ene & Ambo	Lower Tertiary, Vivian & Raya	Cretaceous & U. Paleozoic	N/A	15-20%	400	60
6	BOCA APUA LEAD	South of Nuevo Eden	82 Surf	Pucara, Ene & Ambo	Lower Tertiary, Vivian & Raya	Cretaceous & U. Paleozoic	N/A	15-20%	400	60
7	BLIND THRUSTS LEADS	Possible underthrust structures north of Nuevo Eden and west of Pisqui		Pucara, Ene & Ambo	Lower Tertiary, Vivian & Raya	Cretaceous & U. Paleozoic	N/A	15-20%	400	60

Block Overview

Block A-04 is 15,000 km^2 in size and is located in the northern most part of the Ucayali Basin, south and southeast of the Cushabatay High and west of the Contaya Arch. The seismic available on the Block is a collection of older reprocessed data from the 1970's and a more recent data set acquired in the north half of the Block by Coastal in the late 1990's. There are two oil fields, Maquia and Huaya (sub commercial) located near the northern portion of the Block and one gas-condensate field, Aguaytia, in the south. Maquia and Huaya have oil within the Upper Cretaceous reservoirs sourced from the Pucará Formation, and Aguaytia, is a field producing from the Lower Cretaceous Cushabatay reservoir. The gas in Aguaytia is believed to be sourced from the Pucará although a recent study by Occidental Petroleum concludes that the gas is sourced from the Ambo Formation.

Eight Wells have been drilled on the Block: Rayo 1X (El Oriente, 1947), Santa Clara 1X (Petrolera Fiscal, (1948), Coninca 1X (El Oriente, 1950), Tahuaya 1X (Mobil, 1967), Pisqui 1X (Mobil, 1967), Insaya 1X (Coastal, 1996), Orellana 1X (Coastal, 1997), Rashaya Sur 1X

(Pluspetrol, 1998). The earlier wells were drilled primarily on surface structures and the 1990 series of wells were drilled on well-defined seismic prospects.

The Block is located along the eastern edge of the Fold and Thrust Belt (FTB) and extends westward into the synclinal region of the Basin. The northernmost portion of the Block covers the structurally complex region between the Contaya Arch and the Cushabatay High, which separates the Ucayali from the northern Marañon Basin. The Block is dominated by two major structural trends, an older NE trend and a younger NW trend. The NE trend originated in the Paleozoic as a series of normal faults that sometimes have displacements of up to 1.5 seconds TWT. Often these faults have been reactivated in a reverse sense by later Andean tectonic events. The Aguaytia gas field is associated with such a fault. The other system of faults is the NW trending Late Tertiary Quechua system, which can be divided into two groups, the high angle reverse faults of the Ucayali foreland and the thin skinned detachment faults of the FTB.

The Cretaceous stratigraphy is quite uniform across the Block and is characterized by the Cushabatay to Vivian succession as found in the Marañon Basin to the north. The Lower Mesozoic sequences, the Sarayaquillo, Jurassic evaporites, Pucará, and Mitu Formations, however are quite variable. These sequences thicken considerably within the grabens developed on the faulted Paleozoic platform. Conversely this succession thins dramatically or is not present at all across the Paleozoic highs. Generally the Lower Mesozoic thickens from east to west. The Paleozoic sequences are quite uniform and their thickness depends upon the amount of erosion that has taken place beneath either the Base Mitu unconformity or the Base Cretaceous unconformity, whichever forms the top of the Paleozoic. The uppermost formations such as the Ene are most affected by erosional removal and consequently are typically found as isolated erosional outliers.

The principal source rock for the Block is the Pucará Formation, although the Ambo (possibly the source of gas at Aguaytia) and the Ene Formations (the source of oil in the Agua Caliente Field, 45 km southeast of the Block) offer the potential of secondary sources. The primary reservoir in the southern half of the Block is anticipated to be the Cushabatay Formation and the seals, the shales of the Raya Formation. In the north, the Upper Cretaceous reservoirs as at Huaya and Maquia, are also considered targets. Additionally, prospects have been defined on the Block within the Ene Formation which is productive in the Camisea Field of the southern Ucayali Basin and the Pucará Formation which tested gas in the Shanusi well of the southern Marañon Basin. Other secondary targets are the Carboniferous Copacabana carbonates and the Green Sandstone.

The prospects and leads fall into three categories on the Block, a) Foreland Structures, b) Fold and Thrust Belt Structures and c) Stratigraphic Leads.

a) Foreland Structures:

   From the Coninca well and northward, the Cretaceous reservoirs are completely fresh water flushed. South of this well, flushing is limited to the Agua Caliente and younger sands while the deeper Cushabatay is separated from the Agua Caliente by the Raya shales, and remains unaffected. As a result, a large number of the structures mapped in the northern regions of the Basin are probably completely flushed of hydrocarbons as evidenced by the negative well results. However, Maquia is a significant exception and an oil column is found overlying a fresh water column. This at least proves structures in this part of the Basin can be productive in spite of the flushing issue.

The Rashaya Norte prospect is located in the region where the Cushabatay is protected from flushing as evidenced by the Rashaya Sur well. This well tested high gravity crudes from the Cushabatay and also from sand stringers in the Raya Formation on a Late Tertiary NW trending structure. Updip and on a separate fault block associated with a reactivated inverted Paleozoic structure is the Rashaya Norte prospect. What makes Rashaya Norte a particularly attractive target is that it has similar characteristics to the productive Aguaytia structure in that the critical closure is set up by a reactivated SW to NE trending Paleozoic fault, an inverted graben. Rashaya Sur on the other hand has characteristics similar to the unproductive NW trending Andean aged structures tested by Pisqui and Zorrillo wells.

b) Fold and Thrust Belt Structures:

Two surface anticlines have been identified proximal and parallel to the major uplift associated with the thrust belt, Nuevo Eden and Boca Apua. Only one seismic line comes close to either of these two features, Nuevo Eden. One interpretation at the westernmost end of this line, indicates that the structure may have been formed by thin-skinned detachment faults. Should this be the case, these two structures are very much different that those currently drilled on the Block and have characteristics more in line with the frontal thrust faults associated with giant Camisea area fields. Additional seismic is required to further define these two leads. Additionally, other such features may also exist north of this area but there is unfortunately no seismic in this potentially prospective region.

c) Stratigraphic Leads:

Two stratigraphic leads have been identified on the Block, the Ipactia Lead and the Cushabatay South Pucará Lead (CSPL). The Ipactia lead is an Ene erosional outlier associated with an inverted Paleozoic fault. Two seismic lines define the zero edge of the Ene and the mapped Ene interval is the only occurrence of the Formation in the immediate area. The Ene is productive at Camisea and due to its rare occurrence in this area the specific lithology of the Formation at this location is unknown. The second stratigraphic lead is a Pucará play that has characteristics analogous to the gas bearing porous Pucará tested by the Shanusi well in the southern Marañon Basin. The CSPL lead has the Pucará in a position in which it was deposited over a Paleozoic erosional high associated with a series of half grabens that developed on the Paleozoic surface. The concept is that high-energy carbonate deposition occurred over this high that resulted in the development of a porous carbonate similar to what was intersected in the Shanusi well. Off of the high within the paleo-half grabens, the Pucará is anticipated to have affinities associated with deeper water carbonate deposition and consequently a non-reservoir facies. This facies would then act as the updip and lateral seal to the CSPL play. The only difference between this play and the Shanusi feature is that lack of a present day structure. What makes this play attractive is that source, seal and reservoir are all self contained within the Pucará.