License Governance in subsurface resources development



Smart Solutions for Today's Geoscientist

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Sikandar Khan

VP EME LMKR

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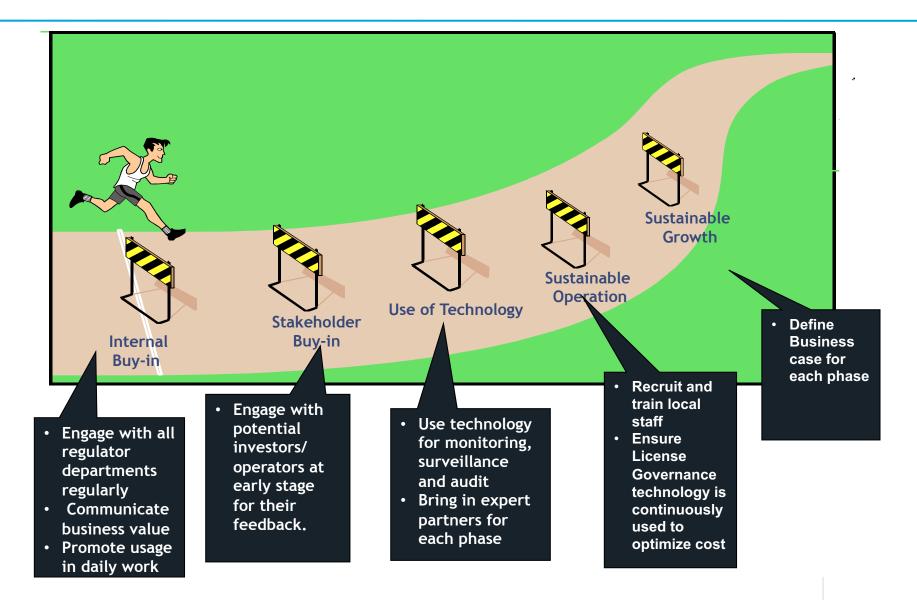


We will address

- Key challenges
- License governance framework
- Petroleum Supply Chain
- Concession Life Cycle
- Key Features of License Governance
- Data Based technology Go Digital
 - E&P Outlook for investors
 - Block Promotion Websites
 - Technical Write Ups
 - Virtual Data Rooms
 - Data Analytics Exploration Management Technology
 - Data Analytics Concession Management Technology
 - Data Insgihts Specialied studies data (QI, Reservoir Characterization)
 - □ CSR Local talent Development
- Value to Governments



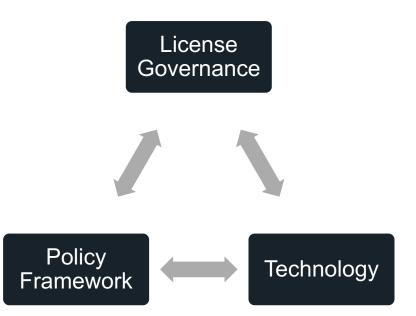
Key Challenges





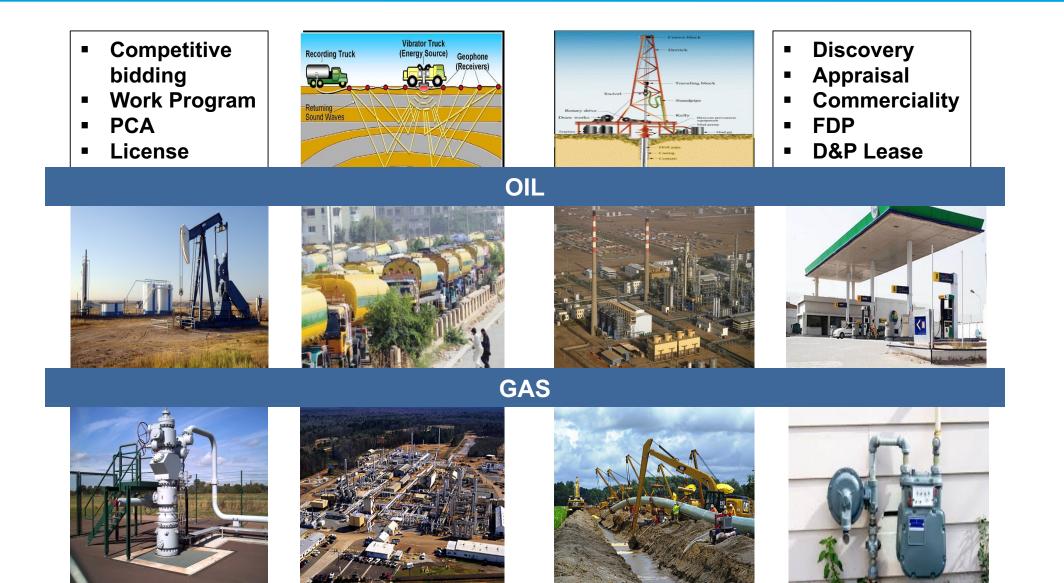
License Governance Framework

- Concession management: principles and policy definition
- Organizational accountabilities, roles and responsibilities
- Standards, Industry best practices
- Processes, events and procedures in the E&P life cycle
- Technology implementation





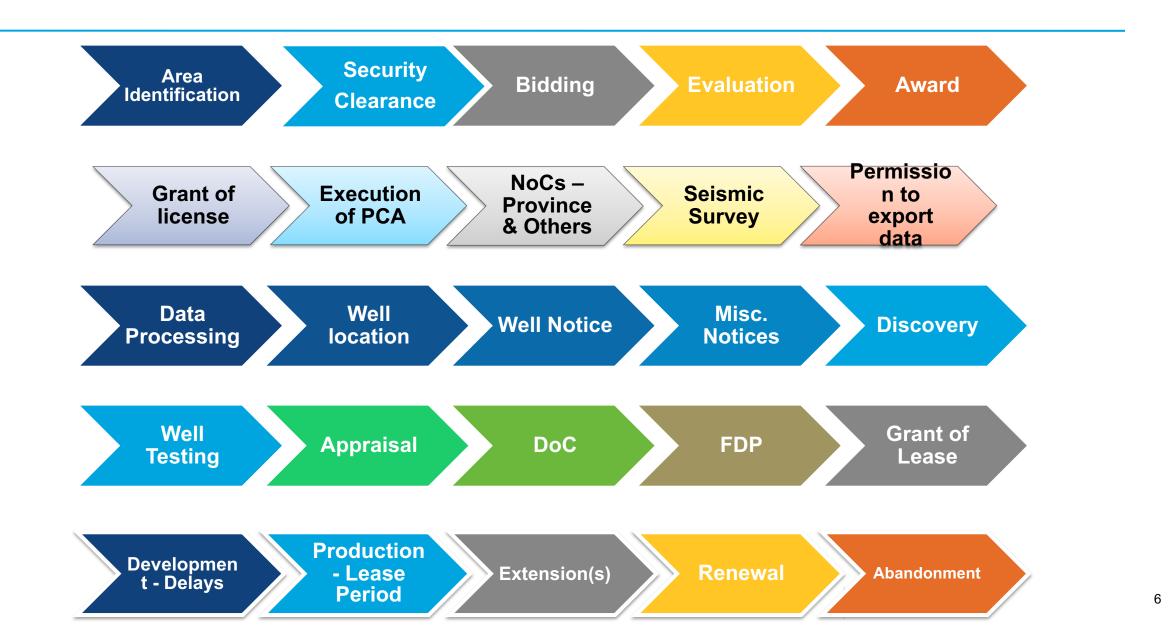
Petroleum Supply Chain





Generic Concession Life Cycle

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License Governance – Key Features

- Define and enforce Rules
- Define and enforce Standards
- Manage web-based user access by adopting technology
- Plan for growth; FDI





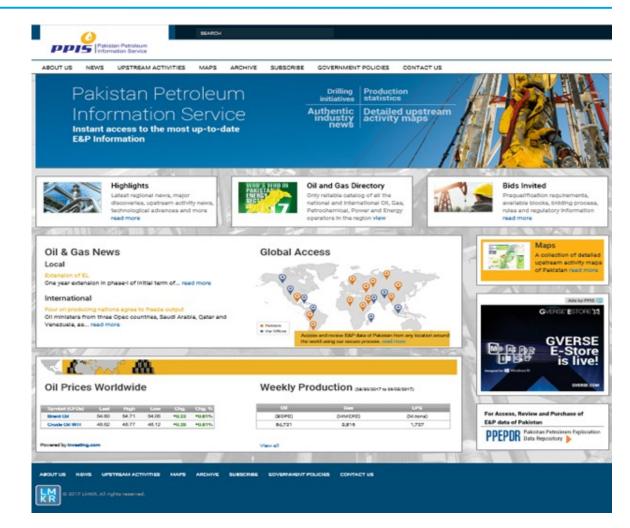
Post Policy/Governance Process

Go Digital



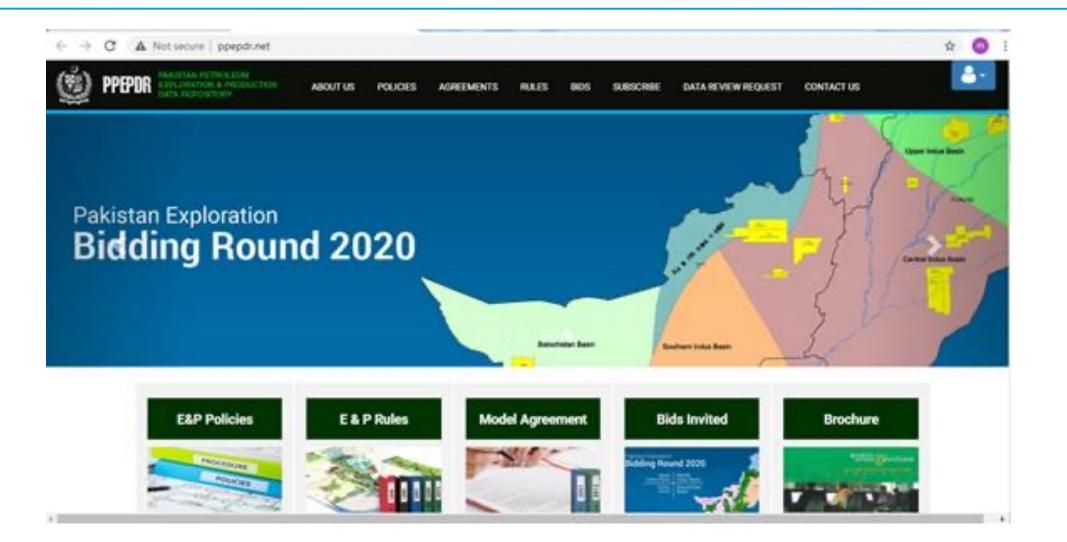
E&P outlook for Potential Investors

- Upstream Activity News
- Applications Details
- Bidding Details
- Exploration License/Lease Granted
- Seismic Acquisition
- Wells Drilling
- Field Wise Production
- Oil & Gas Directory
- Maps (Upstream Activity, Zone Map, Energy Infra-structure Map, Exploratory well Map, Joint Venture Maps





Block Promotion Websites

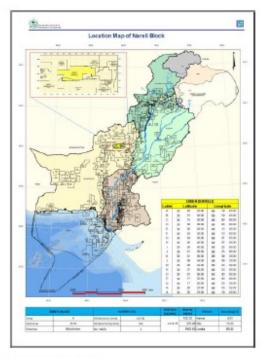




Technical write-ups For Promotion Of Licensing

Introduction

Nareli Block covers an area 2414.95 sq km and is located in Harnai, Sibi and Loralai districts of Balochistan Pakistan. Geologically, it lies in the Central Indus Platform Basin of Pakistan. The block falls in Prospectivity Zone II.



Geology and Tectonics

The Central Indus Platform Basin is divided into Sulaiman fore belt and Sulaiman fore deep. Sulaiman characterizes

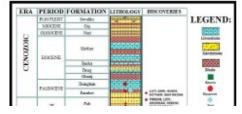
Geological Map (Modified after Ahmed et al, 1994)

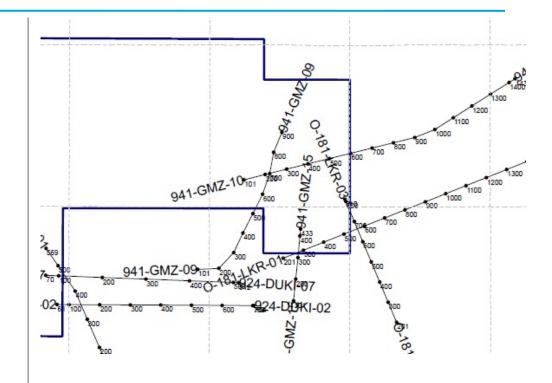


Stratigraphic Sequence

In this block area a thick cover of clastics and carbonates sediments are present, and probably the Cambrian succession is similar to the one that occurs in the Kohat-Potwar fold Belt. In southeast, the succession is younger as compared to northwest direction. In Permian and Jurassic there is a distinct break in the intraformational sediments, while there is regional unconformity in Cretaceous and Tertiary strata. Jurassic rocks are exposed in some parts of the basin because of intense erosion.

Generalized Stratigraphic Chart





Sr. No.	Survey name	Line segment name	3D Seismic Survey		
1	MGCL-HAR-2011	HAR11-14	No 3D present.		
2	OGDC-DUKI-1992	0-924-DUKI-02			
3	OGDC-DUKI-1992	O-924-DUKI-01			
4	OGDC-DUKI-1992	O-924-DUKI-07			
5	OGDC-GMZ-1994	O-941-GMZ-09			
6	OGDC-GMZ-1994	O-941-GMZ-10			
7	OGDC-GMZ-1994	O-941-GMZ-15			

Virtual Data Review Rooms

E Exploration Management System E&P Map View Utilities PPIS My EMS	
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Seismic Survey× Layer Explorer × • • • EMS Dashboard Seismic Survey Map View × • • • • • • • • • • • • • • • • • •	
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☑ Districts ☑ Provinces	SAROUT
Applications for Exploration	
Applications for Mining Lease Applications for Mining Lease Applications for Mining Lease	SUHIMIWALAU
Applications for RP	C V BUDHUANA01 V BOLD BACKADO AND
Exploration Licenses	
Mining Leases	
Reconnaissance Permits Reconnaissance Permits Prospective Zones	
Prospective Zones	
Rivers Seismic Lines	
Seismic Lines	
Current Seismic Lines	
Shot Points	MUZAFFARGARH
Wells Vells	
	MULTAN WEHARI
	BANGALAO1 20 km
Last Spatial Sync on 06-05-2021	Last Spatial Sync on 12-03-2019 Active Layer : Current Seismic Lines Lat : 30 26 28.6244 Long : 71 42 56.5410



Use of Technology - Data Analytics (Exploration)

EMS Dashboard provides insight of E&P Sector with set of interactive charts, tables and reports. The information which is available under EMS dashboard includes concessions, mining leases, applications, seismic navigation and wells.

- Well Drilling Status
- Well First Production
- Field & Well Production
- Planned vs Actual Wells
- Planned vs Actual Drilling
- Drilling Curve

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- Work program Compliance
- Weekly Drilling Report



© 2020 - Exploration Management System - Privacy

Use of Technology - Data Analytics (Concessions)

Exploration and Production activities

- Field wise daily & monthly production
- Well wise production

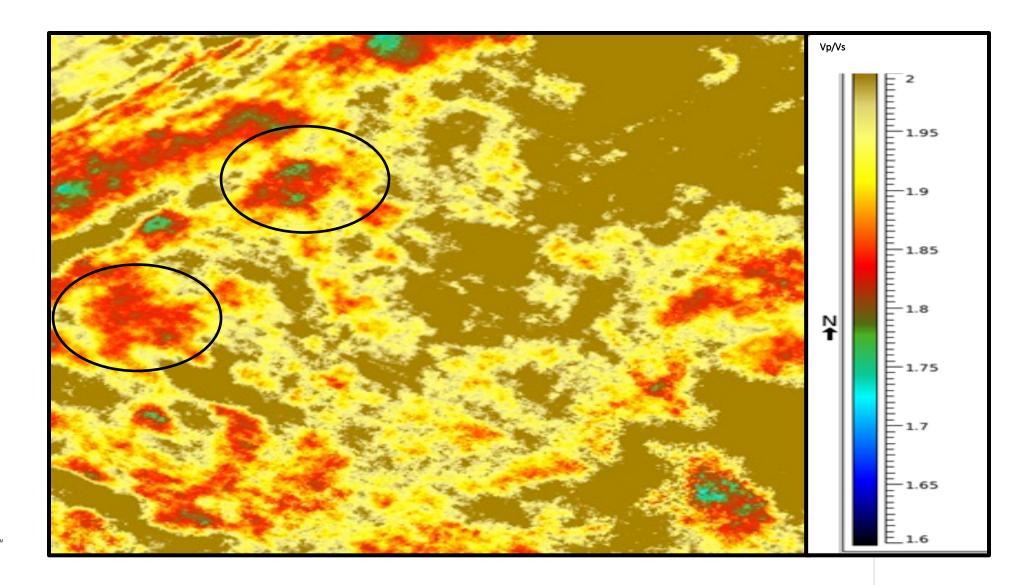
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		()				KR				
	Setup Work Program Mar	age Report Mail Box	Help							
DGPC	➡ List of PCAs/PSAs									
admin [Administrator]	Filter									
Home	Province Default	Province Default v Apply								
→ PCA/PSA	Create New	E Create New								
Fields										
Lease	PCA/PSA 🔽	Operator 🔽	Status 🔽	Stage/Term 🔽	Province 🔽	Actions				
Daily Production	2264-1 (Offshore Indus-W)	UEPL	SURRENDERED	INITIAL	N/A					
Monthly Production	2265-1 (Offshore Indus-G)	Eni	ACTIVE	FIRST_RENEWAL	N/A					
Production Bonus	2265-4 (Offshore Indus-V)	UEPL	SURRENDERED	INITIAL	N/A	R				
Production Bonus Social Welfare										
	2266-4 (Offshore Indus J)	PEL	ACTIVE	INITIAL	N/A	🦻 😫				
Social Welfare		PEL	ACTIVE SURRENDERED	INITIAL	N/A N/A	2 B				
Social Welfare Training Funds	2266-4 (Offshore Indus J)									
Social Welfare Training Funds Marine Research Fee	2266-4 (Offshore Indus J) 2266-7 (Offshore Indus-O) 2266-8 (Offshore Indus-S)	PEL	SURRENDERED	INITIAL	N/A	2 Bt 2 Bt	-			
Social Welfare Training Funds Marine Research Fee PCA/PSA Yearly Rent	2266-4 (Offshore Indus J) 2266-7 (Offshore Indus-O)	PEL UEPL	SURRENDERED ACTIVE	INITIAL	N/A N/A	2 🖹				

Financial Obligations

- Rentals
- Training Obligations
- Social Welfare obligations
- Marine Research Fee
- Royalty
- Production Bonus
- Exploration & Production Expenditures

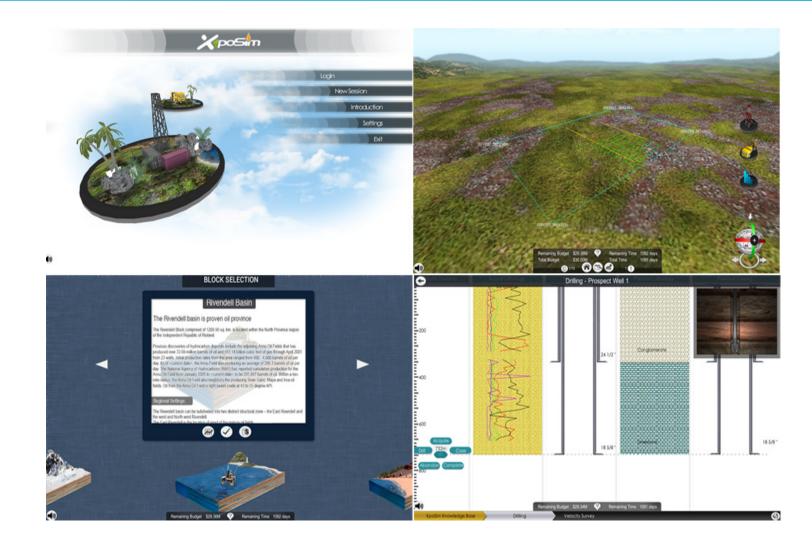


Use of Technology - Data Insights (Advanced Studies)





Use of Technology – Local Talent Development





License Governance - VALUE TO GOVERNMENTS

- e-Governance
- Attract FDI
- Increase exploration activity
- Revenue generation (data trading)
- Online license management







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