

Investment Opportunities in KP Oil & Gas Sector

KHYBER PAKHTUNKWA OIL & GAS COMPANY LIMITED, PAKISTAN

(KPOGCL)

KP Government Fully Owned & Provincial Holding Company

In relentless pursuit for Energy Security of Pakistan

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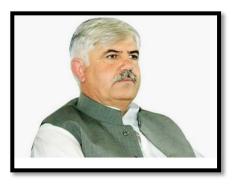
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MESSAGES



Mr. Mahmood Khan - Chief Minister, Government of Khyber Pakhtunkhwa, Pakistan

Khyber Pakhtunkhwa is energy rich Province producing more than 50% of National Crude Oil. Khyber Pakhtunkhwa has become center of Oil & Gas Exploration and Production. Recoverable Potential of KP is 2.2 Billion Barrels Oil and 46 Trillion Cubic feet Gas. Expected production in 2025 of oil is 135,000 barrels per day and 2000 Million Cubic Feet of Gas per day and LPG 2000 TPD. We expect investment of \$ 200 Million in oil & gas exploration at IRR of 20% and Revenue of over \$ 100 Million in Services companies. The Government of Khyber Pakhtunkhwa established a Technical Laboratory on commercial basis to accelerate E&P activities in the Province.

Minister/Advisor to Chief Minister on Energy & Power, Government of Khyber, Pakhtunkhwa, Pakistan

Khyber Pakhtunkhwa is rich in Oil and Gas reserves and huge deposits of oil & gas have been discovered in southern belt of the Province, including district Kohat, Karak & Hangu. Today KP is producing more than 50% of national crude oil, 15% Gas and 35% LPG of national production. Big discoveries are anticipated from Peshawar and Bannu Basins. Government of KP has signed MOUs with Chinese, Russian and Western companies to attract the international Oil companies for investment in Oil & Gas sector.





Mr. Naveed Kamran Baloch - Minister/Advisor to Chief Minister on Energy & Power, Government of Khyber, Pakhtunkhwa, Pakistan

Khyber Pakhtunkhwa is the new Geological Frontier where various national and multinational Exploration and Production Companies are working. The Petroleum Policy 2012 and all previous ones show much higher, well head price for Oil and Gas Zone-1 in Khyber Pakhtunkhwa which increase the returns on investment and lowers the risk. KP holds potential for new exciting discoveries, particularly in Kohat Basin which has become main area of focus after successful discoveries by OGDCL and MOL.



Mr. Muhammad Saleem Khan - Secretary, Energy & Power, Government of Khyber Pakhtunkhwa, Pakistan

The latest Petroleum Policy-2012, offers tremendous incentives and thus provides high returns to investors as operators and non-operators JV partners. For Example, the *gas well head price in Khyber Pakhtunkhwa is set at US\$ 6.60 per million BTU* when Crude Oil is US\$ 110/Barrel. The well head price of Crude Oil is bench marked with international Platts. LPG is linked with ARAMCO Contract Price (CP), thus, making well head price not only transparent and unambiguous without any government intervention but also US Dollar based. Repatriation of dividends is easy and quick. Pakistan is divided into 3 On-shore zones. KP lies in Zone-I, for which the well head price is the highest compared to Zone-II & III.

Muhammad Haneef - CEO KPOGCL

According to one estimate Khyber Pakhtunkhwa has huge Oil & Natural Gas recoverable reserves. Given the high success rate of drilling i.e. 1:2.8 gives the Exploration & Production an impetus to enter Khyber Pakhtunkhwa. The world average is 1:10 and that of Pakistan 1:3.5 thus, the Province offers low risk opportunity for Oil and gas exploration coupled with IRR in the vicinity of 20%. Out of 31 Blocks in KP, only 2 blocks (Nashpa & Tal Blocks) are producing more than 50% of total crude oil production of Pakistan. This gives good confidence to investors for investment in rest of the 29 blocks. KPOGCL invites your participation in Oil & Gas exploration and production in Khyber Pakhtunkhwa, Pakistan.



PREFACE

The Province of Khyber Pakhtunkhwa is rich in Oil and Gas reserves and huge deposits of Oil & Gas have been discovered in southern belt of the Province, including district Kohat and Karak, Hangu, Lakki Marwat and D.I. Khan. Khyber Pakhtunkhwa has opened new avenues of economic development in the province through the exploration of its indigenous oil and gas reserves. Due to the enabling environment created by the Government of Khyber Pakhtunkhwa, the province has become the largest oil producer province in Pakistan. Today it is producing more than 50% of national crude oil, 15% Gas and 35% LPG of total Pakistan production. KP holds promise for new exciting discoveries, particularly in Kohat and Peshawar Basin, which has become main area of focus after successful discoveries by OGDCL and MOL. Most of the area of KP is still lying unexplored and therefore, there is a potential of future hydrocarbon prospects in the Province.

The presence of hydrocarbons provides various opportunities of investment in exploration, drilling, refineries, blending units and transportation. Given the high success rate of drilling i.e. 1:2.8 gives the Exploration & Production an impetus to enter Khyber Pakhtunkhwa. The world average is 1:10 and that of Pakistan 1:3. Thus, the Province offers low risk opportunity for Oil and gas exploration coupled with IRR in the vicinity of 20%. The Petroleum Policy 2012 and all previous ones give much higher Well head price for Oil and gas; which increases the return on investment and lowers the risk. The Federal Petroleum Policy 2012 is one of the most friendly policies in the region and developing countries. The Policy has attracted international oil companies to Pakistan.

Khyber Pakhtunkhwa covers an area of 74,521 sq.km, which consists of 9.4% of the total country area. An area of around 144,000 sq. km is under exploration for oil and gas throughout the country; out of which 19000 sq km i.e. 13.15% of the total is in Khyber Pakhtunkhwa and FATA. Several E&P companies are presently engaged in exploration and production activities in the Khyber Pakhtunkhwa and FATA.

WHY Invest in Khyber Pakhtunkhwa?

Khyber Pakhtunkhwa is the new geological frontier, the exploration success ratio is 1:2.8. The reservoirs are large with high calorific value. A number of international and national are working in Khyber Pakhtunkhwa, today Khyber Pakhtunkhwa is producing more than 50% of Crude Oil, 15% of Natural gas and 35% LPG. It provides great opportunities to the investors. As an incentive the Government of Pakistan has given very high well head price to the geological zone-1, in which Khyber Pakhtunkhwa is located. For example, at US\$ 110/barrel Platts price the well head gas price would be US\$ 6.6/MBTU.

This gives high ROE to the investors. Due to this pricing mechanism a number of new entrants have started investing in Khyber Pakhtunkhwa, including some international oil companies.

The Government of KP, determined to boost the province's economy, has already taken a step forward by improving Communication Infrastructure, unearthing the province's hidden treasure of huge reserves of Oil and Gas initially through the province's indigenous Institutions.

In order to remain attractive in highly competitive global exploration market, the Government of Khyber Pakhtunkhwa is making every possible effort to invite new players to the province, assist foreign and local E & P companies in their work, providing fool proof security cover in order to ensure the development of oil & gas resources of Khyber Pakhtunkhwa.

Opportunities for international and National Oil Companies

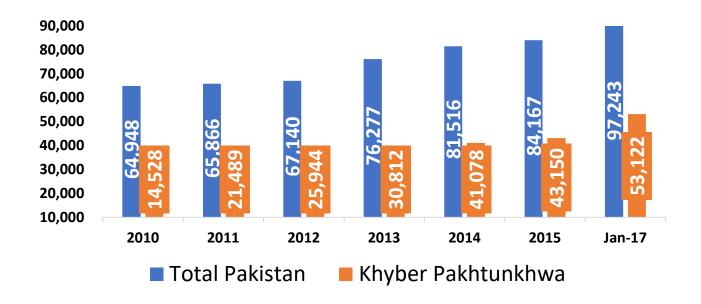
KP has a number of other prolific petroleum concession blocks. If an investor intends to apply as an operator i.e. wants to plan and execute the Exploration & Production activities on its own, then that option is also available. Apart from this, other prospective blocks are available for investment as non-operator, in case, the investor wants to have more (or less) JV share it can be tailored accordingly. KPOGCL can share preliminary information on geology, success expected and economics of Exploration& Production blocks in KP.

Security Status for Exploration in KP

Owing to the needs of the province the law and order situation in the province has been much improved following the North Waziristan military operation. Confidence level has increased for international companies, too. The fear factor has reduced considerably, thus a number of E&P companies are now working in KP. A number of companies have opened offices in Peshawar and even a greater number are contemplating and will open offices soon.

- 1. Complete Range of Local Oil Exploration Services (Wide integration of Geology/Geophysics & Reservoir Engineering, Seismic, Drilling and Allied Services) in alliance with Local, Chinese, Western and other Alliances.
- 2. G&G Services for Conventional & Unconventional Oil & Gas
- 3. E&P investments in Exploration Blocks/Fields and Enhanced Oil Recovery and Field Development.

S.No	Total Production	2010	2011	2012	2013	Jan-17
1	Total Pakistan	64,948	65,866	67,140	76,277	97,243
2	Khyber Pakhtunkhwa	14,528	21,489	25,944	30,812	53,122
3	Khyber Pakhtunkhwa %	22	33	39	40	55



KPOGCL - COMPANY PROFILE

Government of Khyber Pakhtunkhwa, being cognizant of Oil & Gas Reserves and potential in the energy sector, established Khyber Pakhtunkhwa Oil & Gas Company Limited also known as KPOGCL. Incorporated in February 2013 as a corporate entity after the 18th Constitutional Amendment in Law, KPOGCL is entrusted with the responsibility of carrying out Oil & Gas Exploration & Production activities itself, but also to allure more foreign & local E&P Companies by ensuring them with the requisite logistics and technological support, thus paving path for fast track Exploration & Production activities in KP Province. KPOGCL, Being Provincial Governments patronized can very expediently act as an interface between the E&P Companies and all other government agencies.

Under the Petroleum Policy – 2012, KPOGCL is a "Provincial Holding Company" and it is a facilitator to different National & International E&P Companies working in KP Province. Furthermore, KPOGCL is also investing in Procurement of Technical Equipment that includes Drilling Rigs and Seismic Recorder for Data Acquisition – all aimed at reducing the energy deficit of Pakistan.

KPOGCL since inception is an active member of Pakistan Petroleum Exploration & Production Companies Association i.e. PPEPCA, Society of Petroleum Engineers i.e. SPE and Petroleum Institute of Pakistan i.e. PIP. KPOGCL is being managed by an independent Board of Directors, where the members are mostly experts from Private Sector with Mr. Muhammad Haneef as Chief Executive Officer who has hands on experience and assisted renowned local and international E&P companies to drill many success wells.

KPOGCL is determined to explore/ exploit the untapped Oil & Gas resources in the province through its own resources along with Farm Out/ Farm in Agreements in collaboration with other International & local E&P Companies.

Working Interest of KPOGCL in Joint Venture Blocks

SR#	Block Name	Operator		
1	Baratai Block	OGDCL		
2	Pezu Block	OGDCL		
3	Peshawar East Block	MPCL		
4	Kulachi Block	OGDCL		
5	Karak North Block	Tallahassee		
6	Paharpur Block	KUFPEC		

Services offered in Alliance with JVs



MAIN SERVICES LIST

- 1. Seismic Data Acquisition, Planning & Design and QC
- 2. Seismic/Well Data Management
- 3. Conventional and Innovative 2D/3D Seismic Data Processing
- 4. 2D/3D Seismic Data Pre-stack Time and Depth Imaging
- 5. Detailed Structural Interpretation
- 6. Prediction/Description Of Lithological (Hidden) Reservoirs
- 7. Pre-Stack Seismic Inversion for Elastic Parameters
- 8. Seismic Hybrid Inversion without Well Constraint
- 9. AVO/FVO Analysis For Fluid and Hydrocarbon Detection
- 10. Reservoir Spectral Imaging and Fluid Detection
- 11. Reservoir Simulation
- 12. Enhanced Oil Recovery and Analysis
- 13. Reserve Estimation
- 14. Exploration Planning
- 15. Field Development and Planning
- 16. Well(s) Planning, Drilling and allied Services etc.

There are few services companies in Pakistan, but there is always a room/opportunity for new/innovative technology and services provider to meet the challenges.

ENP investments in Exploration Blocks/Fields (Blocks from Government/Private companies).

- **Farm-In:** Get good block shares from major E&P companies like POL, MPCL, PPL, OGDCL, Others.
- Talk to ministry for direct G2G award of blocks, fields, depleted/close to depleted fields with some hidden pockets, deeper prospects.
- Apply to DGPC for new Block, New Bid Round expected soon in couple of months.

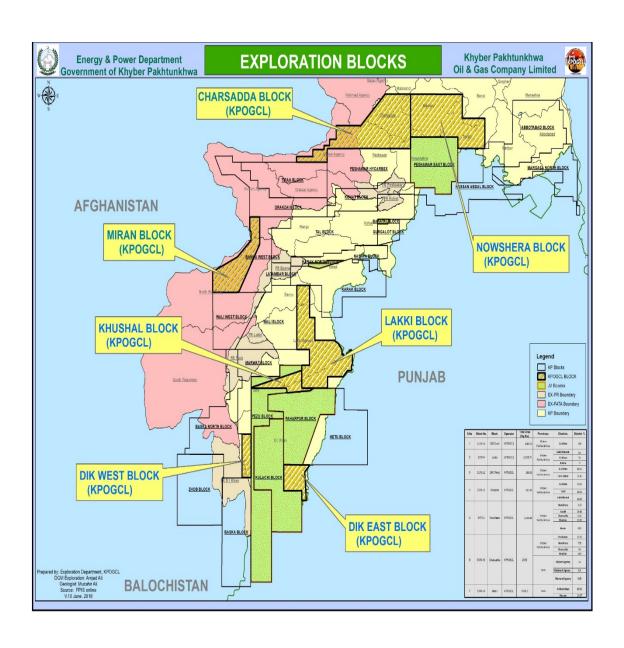
KPOGCL is available to help support locally for O&M (Local Operations and Management) as required for mutually agreed project(s), services setup and Investments.

INCENTIVES & ASSISTANCE BY GOVERNEMENT OF PAKISTAN

As briefly stated above, the latest Petroleum Policy-2012, a one window facility, offers tremendous incentives hence provides high returns to investors as operators and/or non-operators JV partners. For Example, the gas well head price in Khyber Pakhtunkhwa is set at US\$ 6.60 per million BTU when Crude Oil is US\$ 110/Barrel along with the well head price of Crude Oil is benchmarked with international Platt's. LPG is linked with ARAMCO Contract Price (CP), thus, making well head not only transparent and unambiguous without any government intervention but also US Dollar based.

The Government of Khyber Pakhtunkhwa being cognizant of the opportunities in Oil and Gas Exploration and Production sectors has developed systems to facilitate foreign investment in Khyber Pakhtunkhwa. It has formed an Energy Apex Committee (EAC) chaired by Honorable Chief Minister, Government of Khyber Pakhtunkhwa. This high powered committee irons out any and all impediments that a foreign investor may encounter. The provincial government has gone one step further by establishing Khyber Pakhtunkhwa Oil & Gas Company Ltd (KPOGCL) which has been involved in Exploration as well as facilitating investors in Geological & Geophysical studies, feasibilities, data processing, interpretation, seismic data acquisition planning and design etc.

KPOGCL EXPLORATION BLOCKS



POGCL EXPLORATION BLOCKS FARM OUT PROPOSALS

Blocks	CAPEX Planned US\$ Million	Farm Out Share %	IRR % Forecast	
Lakki Block	55	49 %	29	
Nowshera Block	42 49 %		27	
DIK East Block	41	49 %	28	
DIK West Block	40	49 %	27	
Miran Block	45	49 %	29	
Khushal Block	49	49 %	25	
Charsadda Block	47	49 %	25	



KHYBER PAKHTUNKHWA OIL & GAS COMPANY LIMITED





(KP Government Fully Owned & Provincial Holding Company)

<u>Exploration Blocks Advertised for Bidding Round by Ministry of Energy (Petroleum Division), Islamabad:</u>

Upper Indus Basin	Middle Indus Basin	Lower Indus Basin	Balochistan Basin	Pashin Basin
1.Abotababd	1. Block 28 North	1. Baran	1.Desert	1. Changai
2. Hasan Abdal	2. Cholistan	2. Khuzdar South	2. Ladgasht	2. Huramzai
3. Hazro	3. Islam Garh	3. Taung		3. Lugai
4. Jhelum	4. Kalchas South			4. Multanai
5.Lilla	5. Khangarh			5. Murgha Faqirzai
6.North Dhurnal	6. Kingri			6. Shaigalu
7.Nurpur	7. Musakhel			7. South Pishin
8.Wali West	8. Noor South			8. Tanishpa
	9. Okara			9. Killa Saifullah
	10. Punjab			10. Sharam
	11. Rukhanpur			
	12. Shakarganj West			
	13. Sorah			
	14. Sulemain			
	15. Sutlej			
	16. Vehari			
	17. Yazman			

Source: http://www.ppisonline.com/Bids-Invited

POLICY FOCUS

Investment Protection & Mechanism in place to ensure consistency

The Government of Pakistan has adopted consistent Policies & Rules, aimed at promoting foreign investment in upstream petroleum sector, with the view to exploit indigenous hydrocarbon resources in an optimal manner with lucrative incentives for the investors as specified in the following Petroleum Policies.

- Pakistan Petroleum Policy 1991 to 2012
- Pakistan Onshore Petroleum Exploration & Production Rules 2009 & 2013.

Foreign investment is fully protected under foreign investment protection law of 1976 passed by the Parliament, under which the Government guarantees full security to foreign investors in Pakistan. The Governments have been providing policy package of liberal incentives to enhance exploration activities in the country, the latest of which was introduced in 2012.

Policy Incentives offered by Government of Pakistan

The country has been divided into zones based on their relative prospect and Geological risk. Onshore areas are sub-divided in three zones; ZONE-I high risk - high cost areas, ZONE-II medium risk - high to medium cost areas and ZONE-III low risk - low cost areas.

Moreover, the following policies are in place to incentivize the investors in special circumstances.

- Low BTU Gas Pricing Policy 2012
- Tight Gas (Exploration & Production) Policy 2011
- Marginal/ Stranded Gas Fields: Gas Pricing & Criteria and Guidelines 2013

Facilitation offered by Government of Khyber Pakhtunkhwa via KPOGCL

- Coordination and Execution of Concession and JV Agreements
- Provision of Petroleum Technical Data (access to Data Rooms)
- Office setup and Manning in Pakistan
- Hiring of G&G, Seismic and Drilling Rig Services

MANAGEMENT TEAM

Muhammad Haneef Chief Executive Officer (CEO) & Sr GM

Experienced Geoscientist

- 1. **M.Sc. Geophysics (1987-1989)** QAU (Quaid I Azam University Islamabad Pakistan)
- 2. Professional Certificate Course in Computer Applications (1989 QAU)
- 3. 2-Year on Job Trainings at OGTI (1992-1994) OGDCL
- 4. Attended/Arranged Various Trainings/Workshops for Technical/Management skills
- 5. **Proven success track record:** for many success Oil & Gas Wells for renowned local and International E&P Companies.
- 6. **Author for Technical Publications** and Awards Holder.
- 7. Active member of PAPG/SPE & Society of Exploration Geophysicist (SEG)

+25 years of versatile experience in oil & gas exploration, Services/ Operations. +20 Years of Experience on key management positions. Setup, Supervised and Worked on several oil exploration Services Projects for local and International E& P Companies in Pakistan, Iraq, Iran, Egypt, Saudi Arabia, Nigeria, UK & UAE. Worked with OGDCL, LMKR, Landmark Graphics, Halliburton, Hampson & Russell, TGS/Guide, Spectrum Geo UK, Fecto-LPEB/CNPC China, POL Pakistan and KJO Saudi Arabia for Project Management, seismic services setup/operations. Key Expertise include: Seismic Data Processing, Data Acquisition, Data Management, Interpretation, E&P Blocks Evaluations, Prospect Generation, Advisory role, QA & QC, etc. He is an accomplished team player with successful proven track record at offices/ fields and at remote projects while managing multi-tasking teams. Help almost all E&P companies in Pakistan for many success wells.

MR. SADAQAT SAID GM RESERVOIR MANAGEMENT DEPARTMENT & DRILLING DEPARTMENT

Masters in Petroleum Engineering from University of Calgary. Petroleum Engineer with over 18 years of diverse experience in oil and gas exploration & operations. Conducted reservoir engineering analysis on oil and gas pools, including reserve management, production forecasting and enhanced recovery optimization. Knowledge of reservoir engineering, proficient with CMG/Eclipse Reservoir Simulation, Petrel RE and RTA. Performed Reservoir characterization and modeling of Canadian unconventional (shale/tight gas and oil) reservoirs, simulation of commingled gas production and multi stage hydraulic fracture from various tight horizons using

CMG, Petrel RE and Eclipse. Recommended strategies for depletion or enhanced oil recovery for conventional/unconventional hydrocarbon reservoirs. Strong communication skills, with extensive technical report writing and presentation experience. Strong analytical and problem solving skills developed through education, training and professional experience. Demonstrate ability to build positive collaborative relation with other professionals in a multi-cultural environment. Completed different software courses for solving problems specifically in the oil and gas industry. APEGA registered member Professional Engineer (P.Eng.) in Alberta Canada.

Amjad Ali DGM Exploration - (PG)-Geologist

Master degree in Geology from University of Peshawar, Pakistan -1998. More than 16 years of experience in oil & gas industry and worked for RDC International Islamabad. Mineral Testing Laboratory, Nativus Resources Islamabad, Petro-services Islamabad, Ministry of Petroleum & Natural Resources, Islamabad, Integrated Petroleum Consultant Islamabad. He had been team leader of a group of G & G experts while working for PAIGE in Pashin Basin. He has also worked as Operations / Wellsite geologist for Couple of years with OGDCL. He is a successful negotiator regarding Oil and Gas Exploration Business. Well experienced in Government affairs and concession management. Experienced in HSE related matters in field operations.

Nasir Riaz (DGM Exploration G&G, Seismic)-Geologist

Master degree in Geology from University of Azad Jammu & Kashmir – 2002 and MS in Energy Management from COMSAT University, Islamabad, Pakistan. More than +16 years' of experience in national & international companies in upstream oil & gas Industry. He worked with Petroleum Research Exploration Group in HDIP and Director Technical/Marketing with leading British Mining Company.. He involved in different Basin evaluation projects of Hydrocarbon Development Institute of Pakistan- Ministry of Energy, Pakistan. He has good experience in company polices and corporate affairs.

Hamid Hussain (Manager Field Geology) - Geologist

Master degree in Geology from University of Peshawar, Pakistan- 2002. More than 14 years of experience in upstream Oil & Gas Industry (Yemen, Iraq & UAE). He has also worked in leading Oil & Gas industry companies in Pakistan.

CONTACT US

For further information, please contact: Muhammad Haneef CEO

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Please visit our website for more information

