

Day Break

Friday, 11 October 2019

Sector Update

E&P Reserves Data as at Jun-19

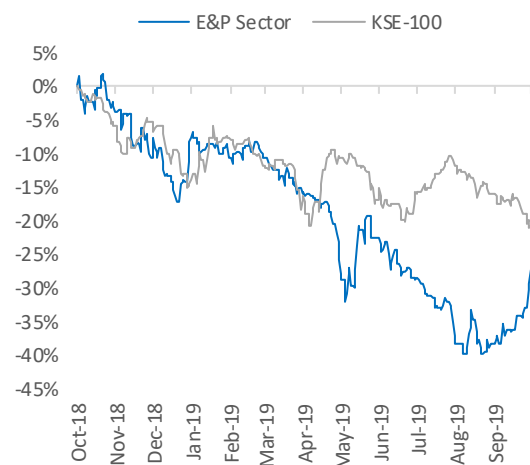
Oil Reserves as at Jun-19

mnbbls	Jun-19	Dec-18	Jun-18	YoY
OGDC	117.4	115.1	150.9	-22.2%
PPL	44.4	40.8	56.9	-22.0%
POL	47.6	46.5	47.9	-0.7%
MARI	1.1	1.2	1.0	8.5%
Total	568.4	282.2	347.9	63.4%

Gas Reserves as at Jun-19

bcf	Jun-19	Dec-18	Jun-18	YoY
OGDC	7,815	8,018	5,992	30.4%
PPL	2,839	2,891	2,862	-0.8%
POL	451	437	419	7.6%
MARI	5,009	5,132	4,962	0.9%
Total	21,446	21,896	19,542	9.7%

Relative Performance to KSE 100



Source: Bloomberg, PSX & IGI Research

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Oil & Gas Exploration Companies

Pakistan Oil reserves up by +63% while gas reserves ramp up by +10% by Jun-19 end; POL and MARI stand out as utmost beneficiary

- As per latest data published by Pakistan Petroleum Information Service (PPIS), Pakistan's total oil reserves are up by +63%YoY to 568mnbbls as at Jun-19 compared to 348mnbbls at Jun-18. Gas reserves are up by +10%YoY to 21.45tcf as at Jun-19 compared to 19.54tcf at Jun-18.
- Adhi field oil reserves have been revised upwards by +38%YoY in FY19 (+53% compared to Dec-18) to 26mnbbls,
- The primary reason for a two-fold jump in oil reserves over Dec-18 is the addition of Ayesha, Ayesha North, Aminah (Badin IV South) and Zainab (Badin IV North) cumulatively adding 282mnbbls,
- Nashpa oil field's reserve has been revised down by 58%YoY to 54mnbbls in FY19,
- Uch and Qadirpur gas field reserves have been revised upwards increasing by +72%YoY and +5%YoY to 3.3tcf and 1.2tcf respectively,
- MARI and PPL remain our top picks among IGI E&P Universe with our Dec-20 target prices of PKR 1,770.66/share and PKR 207.35/share offering +59% and +52% upside respectively, from last close. . We also have BUY stance on OGDC and POL with Dec-20 target price of PKR 186.01/share and PKR 503.72/share.

Pakistan Oil reserves skyrocketed by +63%YoY while gas reserves are up by +10%YoY as at Jun-19

As per latest data published by Pakistan Petroleum Information Service (PPIS), Pakistan's total oil reserves are up by +63%YoY to 568mnbbls as at Jun-19 compared to 348mnbbls at Jun-18. Gas reserves are up by +10%YoY to 21.45tcf as at Jun-19 compared to 19.54tcf at Jun-18. Compared to Dec-18, oil reserves are up by +2.1x owing to addition of 4 wells in Badin IV block – North/South (PEL operator) cumulatively adding 282mnbbls to Pakistan's Oil Reserves while Gas reserves are down 2% compared to 21.90tcf as at Dec-18.

Earnings are Target prices revised to reflect FY19 financial accounts and Reserves data

Base on the revision in oil and gas reserves during FY19 and after incorporating FY19 financial statements we have revised upwards our earnings estimates on average for OGDC by +5-9%, whereas earnings are revised down for PPL, POL and MARI by 1-4%, 1-2% and 3-5% respectively. This bring our revised and rolled over (Dec-20) target prices of PKR 186.01/share (up +2%), PKR 207.35/share (up +1%), PKR 503.72/share (up +6%) and PKR 1,770.66/share (up +1%) respectively.

Major revision in reserves during FY19 included:

- 2HFY19-Addition of 282mnbbls of oil Reserves in Badin IV Block:** The primary reason for a two-fold jump in oil reserves over Dec-18 is the addition of Ayesha, Ayesha North, Aminah (Badin IV South) and Zainab (Badin IV North) cumulatively adding 282mnbbls. Pakistan Exploration Limited (PEL) as operator has 47.5% stake while Frontier Holding and Gulf Petroleum hold 27.5% and 25% stake respectively. Ayesha field was discovered in 2014 while Ayesha North and Aminah were discovered in 2016 whereas Zainab was discovered in 2017.
- 2HFY19-Adhi oil reserves revised upwards by +38%YoY in FY19:** Adhi field oil reserves have been revised upwards by +38%YoY in FY19 (+53% compared to Dec-18) to 26mnbbls. The increase in primarily attributable to inclusion of Adhi South reserves. PPL as operator holds 39% stake while OGDC and POL hold 50% and 11% stake respectively. Thus bringing Adhi oil reserve life up to 7.8yrs.
- 1HFY19-Nashpa oil reserves revised down by 58%YoY to 54mnbbls:** Nashpa oil field's reserve has been revised down by 58%YoY to 54mnbbls in FY19, which is the largest oil producing field in Pakistan. Pakistan Petroleum Limited (PPL) holds 28% stake while Oil & Gas Development Company Limited (OGDC) holds 57% stake

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being the operator of the block. Based on the revision, we estimate Nashpa fields reserve life to come down to 8.2yrs from previous 18.3yrs.

- **1HFY19-Mela oil reserves revised upwards by +5.8xYoY in FY19:** Mela oil field reserves have been revised upwards by +5.8xYoY to 21mnbbbls in FY19 which is located close to Nashpa field. We believe the reason behind increase in reserve base is on the back of development project undertaken by OGDC. OGDC holds 57% stake while PPL holds 28% stake in the field. To note, Mela reserves were revised upwards in 1HFY19. As a result, Mela oil field reserve life has increased to 37.5yrs from 7.8yrs previously.
- **1HFY19-Pasakhi/Pasakhi NE Reserves revised upwards while Kunar revised down:** Pasakhi/Pasakhi NE oil reserves have been revised upwards by +2.6xYoY to 12mn bbls in FY19 while Kunar reserves have been revised down by 39%YoY to 7mnbbbls. OGDC holds 100% stake in the field. Pasakhi/Pasakhi NE and Kunar contribute nearly 10% and 6% respectively to total oil reserves.
- **1HFY19-Uch and Qadirpur reserves up by +72%YoY and +5%YoY in FY19:** Uch and Qadirpur gas field reserves have been revised upwards increasing by +72%YoY and +5%YoY to 3.3tcf and 1.2tcf respectively. OGDC holds 100% stake in Uch while OGDC and PPL hold 57% and 28% stake in Qadirpur respectively. To note Uch and Qadirpur reserves were revised upwards during 1HFY19. This brings Uch and Qadirpur reserve life to 22.4yrs and 11.8yrs respectively.
- **1HFY19-Sui gas:** Sui gas reserves are down by 11%YoY to 1.14tcf. PPL holds 100% stake in Sui. The decline in reserves of 0.14tcf remained in line with FY19 production.
- **1HFY19-Mari gas field reserves up by +1%YoY:** Mari gas field reserves are up by +1%YoY to 4.9tcf in FY19 compared to 4.9tcf in FY18. The increase in reserves is primarily attributable to addition of Bhitai, Tipu, Shahbaz and Shaheen reserves cumulatively adding 0.27tcf while production was 0.25tcf in FY19. Mari Petroleum Company Limited (MARI) hold 100% stake in the field. This brings Mari field reserve life to 20.1yrs from previous 19.9yrs.
- **1H/2HFY19-Tal block oil reserves down to 30.3mnbbbls and gas reserves up to 0.73tcf in FY19:** A number of revisions took place in Tal Block oil and gas reserves during 1HFY19 and 2HFY19 leading to a net decrease in oil reserves by 3%YoY and a net increase of +32%YoY in gas reserves. During 1HFY19 oil reserves dropped by 9% on account of 29% downwards revision in Makori East reserves whereas during 2HFY19 oil reserves increased by +7% compared to Dec-18 owing to 63% and 13% incline in Mardankhel and Maramzai reserves. Gas reserves were up by 22% in 1HFY19 owing to +41% and 35% rise in Makori East and Maramzai reserves. During 2HFY19 gas reserves were further up by +9% compared to Dec-18 owing to +15% and 6% revision in Mardankhel and Makori East reserves. Thus Tal block oil reserve life is up marginally to 3.9yrs while gas reserve life is up to 6.2yrs.

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Exhibit:

Reserve Replacement Ratio (RRR) for FY19


Source: PPIS, IGI Research

POL oil reserves down by 1%YoY and gas reserves up by +8%YoY in FY19

POL's oil reserves are reported at 47.61mnbbbls down by 1%YoY while gas reserves are recorded at 0.45tcf, up by +8%YoY in FY19, compared to 47.94mnbbbls and 0.42tcf in FY18. The decline in oil reserves is primarily attributable to natural depletion and upward revision in Adhi, Maramzai and Mardankhel reserves while gas reserves are up owing to upward revision in Makori East, Mardankhel and Maramzai, up by +50%YoY, +8%YoY and +37%YoY respectively. This brings POL's estimated reserves life to 17.3yrs for oil and 13.8yrs for gas (total reserve life of 15.0yrs).

OGDC oil reserves down by 22%YoY and gas reserves up by +30%YoY in FY19

OGDC's oil reserves are reported at 117.41mnbbbls down by 22%YoY while gas reserves are recorded at 7.8tcf, up by +30%YoY in FY19, compared to 150.85mnbbbls and 6.0tcf in FY18. The decline in oil reserves is primarily attributable to 58%, 39% and 42% drop in Nashpa, Kunar and Makori East reserves which accounts for 26%, 6% and 2% of total oil reserves for OGDC. This drop in oil reserves is despite increase in Mela reserves by +5.8x and inclusion of Britism West, Chabaro, Gundanwari and Thal West cumulatively adding 0.86mnbbbls. Gas reserves are up substantially by +30%YoY on the back of +72%YoY and +5%YoY incline in Uch and Qadirpur reserves which contribute nearly 42% and 11% to total gas reserves. This brings OGDC's estimated reserves life to 8.0yrs for oil (down 20%YoY) and 18.1yrs for gas (up by +35%YoY) with total reserve life of 16.5yrs.

PPL oil reserves down by 22%YoY and gas reserves down by 1%YoY in FY19

PPL's oil reserves are reported at 44.37mnbbbls down by 22%YoY while gas reserves are recorded at 2.84tcf, down by 1%YoY in FY19, compared to 56.89mnbbbls and 2.86tcf in FY18. The decline in oil reserves is primarily attributable to 58% and 42% drop in Nashpa and Makori East reserves which accounts for 34% and 6% of total oil reserves for PPL. Gas reserves are marginally down by 1%YoY which after incorporating the full year production accounts for a net increase due to upward revision in Qadirpur, Makori East, Maramzai, Mardankhel and Adhi reserves. This brings PPL's estimated reserves life to 7.7yrs for oil (down 24%YoY) and 9.1yrs for gas (flat on yearly basis) with total reserve life of 8.97yrs.

MARI oil and gas reserves up by +9%YoY and +1%YoY in FY19

MARI oil and gas reserves are reported at 1.09mnbbbls and 5.01tcf, up by +9%YoY and +1%YoY in FY19 respectively, compared to 1.0mnbbbls and 4.96tcf FY19. The incline in oil reserves is primarily attributable to +10%YoY rise in Halini reserves. Gas reserves are up by +1%YoY on the back of inclusion of Bhitai, Tipu, Shahbaz and Shaheen reserves under Mari field cumulatively adding 0.27tcf. This brings MARI's estimated reserves life to 3.87yrs for oil (up +13%YoY) and 18.5yrs for gas (down by 5%YoY) with total reserve life of 18.4yrs.

Recommendation

MARI and PPL remain our top picks among IGI E&P Universe with our Dec-20 target prices of PKR 1,770.66/share and PKR 207.35/share offering +59% and +52% upside respectively, from last close. To note PPL and MARI target prices are not adjusted for Bonus shares issued during 4QFY19. PPL and MARI are trading at FY20F P/E of 4.4x and 6.0x respectively. We also have BUY stance on OGDC and POL with Dec-20 target price of PKR 186.01/share and PKR 503.72/share offering 47% and 29% upside respectively from last close.

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Exhibit:
Oil & Gas 2P Reserves as at Jun-19

	Jun-19	Dec-18	% change	Jun-18	YoY	Jun-17	Jun-16	Reserve Life (Yrs)		Total Oil & gas Reserve Life (Yr)	
								FY18	FY19	FY18	FY19
Oil Reserves - mnbbbls											
OGDC	117.41	115.08	2%	150.85	-24%	159.86	171.00	10.05	8.03	12.83	16.50
PPL	44.37	40.81	9%	56.89	-28%	63.53	65.50	10.22	7.73	9.21	8.97
POL	47.61	46.53	2%	47.94	-3%	20.49	20.60	18.16	17.29	14.68	14.96
MARI	1.09	1.20	-9%	1.00	20%	1.35	1.80	3.42	3.87	19.35	18.41
Total	568.45	282.23	101%	347.90	-19%	332.20	350.60				

								FY18	FY19
Gas Reserves - bcf									
OGDC	7,815	8,018	-3%	5,992	34%	6,351	6,706	13.36	18.11
PPL	2,839	2,891	-2%	2,862	1%	3,541	3,340	9.11	9.10
POL	451	437	3%	419	4%	230	237	13.01	13.81
MARI	5,009	5,132	-2%	4,962	3%	5,209	3,251	19.46	18.50
Total	21,446	21,896	-2%	19,542	12%	20,794	22,422		

Field Wise Oil Reserves- mnbbbls	weights %								Stake %			
									OGDC	PPL	POL	MARI
Nashpa	9%	54	57	-5%	127	-58%	134	141	57%	28%	0%	0%
Mela	4%	21	21	-1%	4	488%	4	5	57%	28%	0%	0%
Adhi	5%	26	17	53%	19	38%	27	29	50%	39%	11%	0%
Jhandial	4%	24	24	0%	24	-1%	-	-	0%	0%	80%	0%
Joyamair	2%	13	13	0%	13	0%	0	-	0%	0%	100%	0%
Pasakhi/Pasakhi NE	2%	12	12	-5%	5	158%	6	7	100%	0%	0%	0%
Kunar	1%	7	7	-8%	11	-39%	6	8	100%	0%	0%	0%
Shahdadpur (Nasr/Wafiq/Sharf)	1%	3	3	-1%	4	-4%	3	1	0%	65%	0%	0%
Pindori	0%	2	2	-1%	2	-2%	1	1	50%	0%	35%	0%
Manzalai	0%	1	0	150%	0	25%	1	1	28%	28%	21%	0%
Mamikhel	0%	0	0	-33%	0	0%	-	-	28%	28%	21%	0%
Mardan Khel	2%	9	6	63%	6	47%	16	-	28%	28%	21%	0%
Maramzai	1%	7	6	13%	6	25%	3	4	28%	28%	21%	0%
Makori	0%	-	-	0%	-	0%	-	7	28%	28%	21%	0%
Makori Deep	1%	3	3	-6%	1	233%	1	-	28%	28%	21%	0%
Makori East	2%	10	13	-19%	18	-42%	22	27	28%	28%	21%	0%
Tolanj	0%	-	0	-100%	0	-100%	0	-	28%	28%	21%	0%
Tolanj West	0%	0	0	67%	0	92%	0	-	28%	28%	21%	0%
Ayesha	12%	67	-	0%	-	0%	-	-	0%	0%	0%	0%
Ayesha North	12%	69	-	0%	-	0%	-	-	0%	0%	0%	0%
Aminah	6%	36	-	0%	-	0%	-	-	0%	0%	0%	0%
Zainab	19%	110	-	0%	-	0%	-	-	0%	0%	0%	0%

Field Wise Gas Reserves-bcf	weights %								OGDC	PPL	POL	MARI
Mari	23%	4,942	5,060	-2%	4,885	1%	5,129	3,205	0%	0%	0%	100%
Uch	15%	3,274	3,352	-2%	1,901	72%	2,045	2,189	100%	0%	0%	0%
Kandhkot	3%	576	614	-6%	651	-12%	687	493	0%	100%	0%	0%
Sui	5%	1,137	1,205	-6%	1,277	-11%	1,835	1,997	0%	100%	0%	0%
Qadirpur	5%	1,167	1,215	-4%	1,109	5%	1,219	1,342	75%	7%	0%	0%
Kandra	9%	1,858	1,858	0%	1,858	0%	1,858	1,858	0%	0%	0%	0%
Zin	5%	1,132	1,132	0%	1,132	0%	1,132	1,132	83%	0%	0%	0%
Jhandial	1%	288	289	0%	290	-1%	-	-	0%	0%	80%	0%
Manzalai	0%	46	24	92%	38	21%	48	62	28%	28%	21%	0%
Mamikhel	0%	12	16	-25%	9	33%	8	10	28%	28%	21%	0%
Mardan Khel	1%	143	124	15%	132	8%	338	-	28%	28%	21%	0%
Maramzai	1%	277	273	1%	202	37%	180	209	28%	28%	21%	0%
Makori	0%	1	1	0%	1	0%	1	168	28%	28%	21%	0%
Makori Deep	0%	7	6	17%	3	133%	3	-	28%	28%	21%	0%
Makori East	1%	221	208	6%	147	50%	176	207	28%	28%	21%	0%
Tolanj	0%	2	1	100%	2	0%	9	-	0.28	0.28	21%	0%
Tolanj West	0%	21	19	11%	17	24%	63	-	28%	28%	21%	0%

Source: IGI Research, PPIS

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Buy	If target price on aforementioned security(ies) is more than 10%, from its last closing price(s)
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Time Horizon: Dec – 2019

Valuation Methodology: The analyst(s) has used following valuation methodology to arrive at the target price of the said security (ies):

(Reserve Based DCF Valuation)

Risk: Investment in securities are subject to economic risk, market risk, interest rate risks, currency risks, and credit risks, political and geopolitical risks. The performance of company (ies) covered herein might unfavorably be affected by multiple factors including, business, economic, and political conditions. Hence, there is no assurance or guarantee that estimates, recommendation, opinion, etc. given about the security (ies)/company (ies) in the report will be achieved.

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