

## Report

### Third Proficiency Course on Modern Practices in Petroleum Exploration - A report

A proficiency course was organized at Keshava Deva Malaviya Institute of Petroleum Exploration, ONGC, Dehradun between 24<sup>th</sup> and 28<sup>th</sup> September, 2007. Attended by thirty participants, the course was jointly conducted by Petrotech Society, New Delhi and ONGC, Dehradun. The participants hailed from the IITs of Mumbai, Roorkee and Kharagpur; UPES, Dehradun; BHU, Varanasi; ISM, Dhanbad; VJTI, Mumbai; Usmania University; GAIL; HPCL; Oil India Limited and BSIP, Lucknow. The course offered a unique opportunity to get the participants acquainted with different aspects of studies and technologies involved in hydrocarbon exploration. The proficiency course was organized combining the lectures on different themes related with upstream hydrocarbon exploration with the practical demonstration in various laboratories.

The course started with Inaugural Session at 1000 hrs on 24<sup>th</sup> September. Mr J.L. Raina, Secretary General and CEO, Petrotech Society delivered the Welcome Address. Objectives of the course were outlined by Mr Kuldeep Chandra, Former Executive Director (R & D), ONGC. Structure and outline of the programme was briefed by Dr Anil Bhandari, General Manager (Geology), KDMIPE, ONGC. Mr Jokhan Ram, Executive Director-Chief, KDMIPE, ONGC, addressed the participants explaining about the aims and objectives of the course. In the Inaugural Address, Mr D.K. Pande, Director (Exploration), ONGC strongly emphasized the need of a close interaction between the researchers and the oil industry personnel. The Inaugural Session ended with a vote of thanks by Mr G. Sarpal, Secretary, Petrotech Society.

The Proficiency Course was divided into Five Technical Sessions, four sessions devoted to visits to different laboratories of ONGC and the Valedictory Session. In the First Technical Session which started at 1130 hrs on 24<sup>th</sup> September, Mr Jokhan Ram very vividly explained all aspect of studies that play vital role in exploration of oil. Dr R.V. Marathe, GGM-Head, IRS, ONGC gave a talk on national and global

scenarios pertaining to development of Oil and Natural Gas fields, reservoir management and recovery maximization. Mr V.K. Jain, GGM-Head, IDT, ONGC, in his well-illustrated lecture, gave valuable information about drilling and oil cementation practices in oil industry.

The Second Technical Session started at 0930 hrs on 25<sup>th</sup> September. The first lecture in this session was delivered by Mr B.D. Singh, DGM (Production), Ahmedabad Asset, ONGC. He gave a very lucid account of onshore and offshore production practices adopted in oil and natural gas exploration. The first session devoted to the visit to different laboratories was conducted on the same day between 1130 and 1730 hrs. During this period the participants were taken to the Geology, Geophysics, Geochemistry and Palynology divisions of KDMIPE. Visits to these laboratories were very useful as it provided a chance to the participants to understand the fundamentals of these disciplines.

The Third Technical Session commenced at 0930 hrs on 26<sup>th</sup> September with the lecture of Mr P.K. Chandra, former Member, Exploration, ONGC. Mr Chandra stressed the need of right attitude and aptitude amongst the scholars working in different Academic institutions and the proper grooming of geologists and petroleum engineers so as to make them more suitable for working in modern petroleum industries. Mr P.K. Bhowmik, GGM Basin Studies, ONGC gave a talk on thrust areas of explorations and geological challenges for assuring efficient exploration effort in sedimentary basins of India. Developments in field of Petroleum Geochemistry and its potential in oil exploration were highlighted by Mr Kuldeep Chandra, Former Executive Director (R & D), KDMIPE ONGC. Mr Chandra apprised the participants of the latest research trends in the study of Petroleum Geochemistry. Mr Aditya Kumar, DGM Reservoir, KDMIPE, ONGC delivered a talk on modern developments in reservoir engineering. Technical details of Surface Geophysical Data Acquisition and its application in oil exploration were

provided by A.G Pramanik, Former Executive Director-Chief, Geophysical Services, ONGC. Mr S.K. Das, Executive Director-Head, GEOPIC educated the participants about seismic data processing and computing. He also dealt with its potential use in India. Recent advances in biostratigraphic studies in different Indian basins and their application in petroleum exploration were discussed by Dr Anil Bhandari, GM Geology-Head-ERG. Modern techniques employed in well-logging and its potential use in India were elaborated by Mr P.P. Verma, GM Well-logging, KDMIPE, ONGC. Significant points related with the exploration, economics and principles of exploration planning in national context were explained in detail by Mr Surendra Sahai, Former GM and Head, Basin Studies and Exploration, KDMIPE, ONGC. With this lecture the third technical session came to an end.

The second session devoted to the laboratory visits was conducted from 1430 to 1730 hrs on 26<sup>th</sup> September. During this session participants visited the GEOPIC. Third session of laboratory visit was conducted on 27<sup>th</sup> September between 0930 and 1300 hrs. During this period participants visited various laboratories of the KDMIPE and the Institute of Drilling Technology. This session was very educative as it provided the participants a good insight in to the working and facilities available in these institutes.

Theme of the Fourth Technical Session was "International learning on Geoscientific and Engineering aspects of Petroleum Exploration". It was conducted between 1400 and 1700 hrs on 27<sup>th</sup> Septembr. First lecture in this session was given by Mr Pramod Seth, Executive Director-Chief, PMBC, ONGC. In his talk Mr Seth discussed about the thrust areas of modern aspects of engineering education imparted to B. Tech. and M. Tech. students. The second lecture of this session was delivered by Mr V.K. Jain, GGM-Head, Institute of Drilling Technology. In his talk Mr Jain highlighted the developments in Drilling Economics and Drilling Technology Informatics. Significant information about onshore and offshore exploration, production and management was provided by Mr S.K. Saini, GM-Head, CEDC, ONGC and Mr Alok Nandan, DGM (P), ONGC respectively. Mr J.G Chaturvedi, Executive Director and Asset Manager, Assam gave an account

of the challenges in redevelopment of old oil field for maximizing the value of assets. Dr K.L. Goyal, Former GM and Director IMD, ONGC, gave a well illustrated talk covering various aspects of hydrocarbon exploration like – reservoir engineering, enhanced oil recovery and underground coal gasification. Mr P.K. Johri, Executive Director, Corporate Engineering Services (Mumbai), ONGC highlighted the efforts and successes achieved by ONGC in oil and gas production. The need of regular training and education programmes for the Executives of ONGC was emphasized by Mrs Preeti Mathur, GGM, Chemistry and Head ONGC Academy. She advocated that such activities are essential to sustain and upgrade the temper of professionalism among the executives. The Forth Technical Session came to an end with this interesting talk.

Two very informative lectures were delivered in the Fifth Technical Session which was conducted between 1000 and 1330 hrs on 28<sup>th</sup> September. Of these, the first lecture was given by Mr Ravi Misra, Suptdg. Geologist, KDMIPE, ONGC. Mr Misra very vividly explained thrust areas of Research and Development in the field of petroleum exploration and development. Dr James Peters, GM (Geology), ONGC, in the second lecture of this session, elaborated the various aspects of hydrocarbon exploration in frontier basins of India.

The Valedictory Session started at 1430 hrs and was chaired by Mr Jokhan Ram, ED-Chief, KDMIPE. Other members present in the session were Mr S.K. Das, ED-Head GEOPIC; Mr V.K. Jain, GGM-Head IDT; Mr Kuldeep Chandra, Former ED (R & D), ONGC; Mr J.L. Raina, Secretary General and CEO, Petrotech. It was a very well conducted session and it provided an opportunity to the participants to express their views concerning the proficiency course. Expressing their complacency over the successful completion of the course, participants laid emphasis on usefulness of such courses. I attended this course as a nominated participant from BSIP. I thankfully acknowledge my nomination.

**S.K.M. Tripathi**