

## ANNEXURE 'A'

### CONSERVATION OF ENERGY, TECHNOLOGY ABSORPTION, FOREIGN EXCHANGE EARNINGS AND OUTGO

#### A. ENERGY CONSERVATION

##### 1. Energy Conservation measures taken

- A comprehensive Energy Audit of 269 units was carried out including Audit of 62 units by Petroleum Conservation Research Association to determine efficient usage of energy.
- Two wind farms of 50 MW capacity each have been planned in Gujarat and Karnataka.
- "Oil & Gas conservation fortnight-06" celebrated at all locations to create awareness about energy conservation.
- Energy audit and Technical audit group conferred with ISO-9001-2000 accreditation.
- Petroleum Conservation Research Association (PCRA) has conducted a study between actual consumption of fuel vis-à-vis consumption as per norms for engines & turbines at different locations.
- Electricity energy tariff rate in Cauvery Asset has been changed from commercial category to industrial category.
- A concerted drive has been launched to reduce gas flaring and as a result of efforts flaring has been brought down to 0.49% in Rajhamundry Asset.
- At various locations, initiatives have been taken to upgrade energy distribution system, like Automatic Power Factor Correction, static MCCB's, LTXPLE cables, timers etc. thus reducing the energy consumption substantially.

##### 2. Energy Conservation measures taken earlier which are contributing to Energy Savings.

- Using Gas engines and turbines for power generation.
- Inter fuel substitution for proper capacity utilization of equipments.
- Reduction of contract demand & improvement of processing facilities.

##### 3. Impact of measures of above for reduction of energy consumption and consequent impact on the cost of the production of goods:

- Saving of Rs. 3 million (approximately) in 2005-06 in comparison to 2004-05 due to upgradation of Automatic Power Factor Correction Panel.
- The measures have resulted in reduction of significant quantity of fuel consumption (HSD, natural gas and electricity) valuing Rs 1460 million

#### B. RESEARCH & DEVELOPMENT

##### 1. Specific areas in which R & D was carried out :

- Application of Synthetic Aperture Radar (SAR) Interferometry.
- Effect of KCl-PHPA mud on resistivity, SP and GR logs.
- Prioritized 'Low Rank' coalfields of Gondwana basins and did detailed evaluation of Mand - Raigarh and Hasdo- Arand coalfields in terms of CBM resource.
- 4 D seismic of Balol Pilot area was carried out for the first time for monitoring thermal EOR process.
- Displacement studies were carried out in Jotana MU-I/MU-II sand using flue gas produced from Thermal EOR Projects of Mehsana Asset to enhance recovery from water flooded tight oil reservoirs.
- Field implementation of MEOR using S-2 Consortium.
- Development of field specific acid formulation and hydrofracturing.
- Development of emulsified acid system for carbonate reservoir.
- Multistage acid fracturing.
- Application of scale removal technique in wells.
- Development & application of biopolymer gel for water shut off.

##### 1.1 Gas Hydrates:

- Correlation of sea bed, BSR, Pseudo BSR and sediment thickness map.
- Prepared Protocol and Action Plan for natural gas hydrate coring/drilling program in Indian Offshore under NGHP.
- Establishment of Gas Hydrate Core Repository.
- Provisioning for gas hydrate core preservation & long term storage.
- Assessment of core length and estimation of infrastructure requirement for hydrate core transport and preservation.

##### 1.2 Geotechnical Engineering:

- Soil investigations for platform locations and Jackup Location.
- Jackup Analysis for locations.
- Pile drivability for RS series.
- JIP for pugmark interaction analysis.

##### 1.3 Structural Engineering:

- Dynamic analysis of deep water risers.
- Study and presentation to the enquiry committee on BHN accident concerning Risk and HAZOP Analysis, vessel collision criteria etc.

##### 1.4 Materials & Corrosion Engineering:

- Corrosivity evaluation of non-damaging KCl-PHPA-XCP-MCC mud system and remedial measures through chemical treatment.
- Corrosion audit of sub sea pipelines of SHP process complex.
- Guidelines for internal corrosion monitoring of pipelines through weight loss coupons and LPR/ER probes.
- Failure analysis of 18" HP pipeline (GGS to CPF Gandhar).
- Evaluation of corrosion protection methods being adopted in MR for sub sea pipelines.
- Issues of microbial induced corrosion (MIC) in oil & gas pipelines and equipments.

##### 1.5 Institute of Drilling Technology

- Techno-economic Study of Slant Rig for Application.
- Gas Migration Control and designing of gas tight cement slurries for safe completion of gas wells to prevent annular gas migration.
- Enhanced Performance Drill Pipe (EPDP) for using in Drilling Operation.
- Development of suitable cement slurries for loss control during drilling operations.
- Review of casing policy for introduction of NDDF against pay zones in Ankleshwar Asset.
- Design of suitable mud system for drilling caving prone BCS and sub-hydrostatic BMS together in Geleki / Lakwa drilling high angle, horizontal wells in pressure depleted Tipam sands and caving prone BCS sections in Geleki / Lakwa / RDS fields.
- Designing system/suggest practices drilling, flow regimes, hydraulics for drilling intermittent coal sections in pay zones of Kalol.
- Corrosivity of non-damaging KCl-XCP-PAC-Gel white mud system and remedial measures through chemical treatment.
- Development of high specific gravity (1.30-2.0) KCl-PHPA Polymer mud for drilling HTHP exploratory wells.
- Work over fluid for in-situ wells of Mehsana Asset.
- Formulation of cement slurries with enhanced properties without use of non-retarding fluid loss additives for production casing cementation of wells having low bottom hole temperature at Kavery Asset.
- Mud system for control of hole wash out / enlargement in future wells in Contai area.
- Long term Integrity of Deepwater Cement System Under Stress Compaction conditions.

##### 2. Benefits derived as a results of the above R&D

- Synthetic Aperture Radar (SAR) interferometry has the ability to image oil seeps that originate from oil and gas filled traps, thereby helps to identify / delineate prospective areas.
- Studies on effect of KCl-PHPA mud on resistivity, SP & GR log helped in recommending appropriate resistivity tools. SP log in high salinity KCl mud is found useful to identify low resistivity hydrocarbon bearing zones.
- A comprehensive understanding of coalfields of Indian Gondwana basins for CBM prospects is critical in evaluating the future acreages.
- The 4 D study in Balol revealed the extent of combustion and also their preferential direction of propagation from the size of 4-D anomalies.
- The correlation of sea bed, BSR, Pseudo BSR and sediment is to assess the maximum possible sediment thickness volume with gas hydrate saturation.
- Conceptualization and technical specifications of pipeline network. Basic engineering & Bid Package preparation for additional condensate recovery unit for LPG augmentation

##### 2.1 Institute of Drilling Technology

- Faster shallow well completion. Achievement of high drifts at shallower depth. Reduced torque and drag in directional wells.
- In house formulation of gas tight slurry that will result in safe completion of gas wells for preventing annular gas migration problem.

- Less complications and faster completion of well.
- Reduction of loss of rig days and successful completion of wells in loss prone areas.
- Use of Non-Damaging Drilling Fluid (NDDF) against pay zone shall enhance the productivity of the field.
- Smooth and trouble free drilling through BCS and BMS sections, environmental safety and stable hole.
- Complication free drilling in coal section in pay zones of Kalol
- Formulation of a KCl-XCP-PAC-Gel mud that is non-corrosive in nature.
- Extension of scope of application of KCl-PHPA mud system over a wide range of specific gravity for drilling of high pressure wells.
- Selection of right work over fluid for in-situ wells.
- To achieve good cementation in low temperature (40 - 70 °C) that will result in better zonal isolation and improved productivity in such wells.
- Hole stability and solution of hole wash out / hole enlargement.
- Help in formulating suitable slurry that will maintain hydraulic integrity throughout the producing life of well.

### 3. Future Plan of Action:

#### 3.1 Geology & Geophysics

- Standardisation of Calcareous Nanofossil Bio-stratigraphy in the Indian sedimentary basin for finer correlation and mapping of pay sands.
- Study of microbial / palynological / geochemical pyroxies for biogenic gas exploration.
- Basement exploration for hydrocarbon in Indian Basins.
- New seismic vessel having a dual source - six solid streamer vessel, "Sagar Samiksha" is being built. The vessel will be equipped with state of art acquisition and positioning system and will have onboard processing capability along with PSTM / PSDM facility.
- 14 new state-of-art telemetry data acquisition systems with higher number of ground electronics and having facility for mixed mode operation (Geophone + Hydrophone) to meet the increasing demand of higher productivity and much finer sampling i.e. smaller bin size.
- Capacity enhancement of already existing telemetry data acquisition system through purchase of additional ground electronics.
- Electromagnetic source (EM Pulse source) for seismic data acquisition is being attempted to image subsurface in sub-trappean environment.
- Seismic data acquisition using Accelerated Weight Drop (AWD) technique.
- A fast reconnaissance tool - Airborne Electro Magnetic (AEM) survey - for narrowing down the search for shallow gas is planned.
- A passive Electro Magnetic technique of generating logs in onshore areas, without drilling a well, called Virtual drilling Technology is planned to rank the prospects so as to minimize dry holes.
- The Multi Transient Electro Magnetic (MTEM) technique is planned, which can identify hydrocarbons before committing to costly drilling programmes.
- Two more Virtual Reality Centers (VRC) at GEOPIC, Dehradun and RCC, Jorhat.

#### 3.2 Enhanced Oil Recovery Projects

- Various technologies are being adopted in the following areas, so as to achieve further improvement in the development strategy of the fields and EOR schemes.
- Gas injection in tertiary stage.
- Microbial flooding and stimulation of in-situ-microbes for EOR
- Development of Reservoir management strategies.

#### 3.3 Coal Bed Methane

- Evaluation of coalfields as per prioritization is proposed to be continued so as to have a comprehensive understanding of the CBM prospects of Indian Gondwana basins and to create a pre-bid knowledge base of CBM acreages, that may be offered in the future.

#### 3.4 Gas Hydrate

- Resource estimates of methane in Gas Hydrate deposits.
- Drilling and coring of Gas Hydrate bearing sediments.

#### 3.5 Interpretation of G & G Data

- Application of hyper spectral imaging technique in detection of oil field signatures.
- Collaborative project with M/S Western GECO Seismic based pore pressure prediction.
- Multi-mineral Log Processing.
- 3D Genetic Basin Modeling-IES
- R&D project with IBM for Seismic image interpretation
- Project with C-DAC, Pune for Pre-stack inversion.

#### 3.6 Institute of Drilling Technology

- Feasibility of using mobile rig for drilling of shallow Hi-Tech wells in ONGC.
- Non damaging drilling fluid systems for different pressure and temperature regimes.
- A new approach for the development of portland cement - blast furnace slag blends to enhance the set cement properties for oil well cementing
- Bit policy for all ONGC onshore fields.
- Study of shale oil - world wide scenario.
- Study of underground coal gasification
- Coil tubing for drilling high tech wells.
- Feasibility study for carrying out under balanced drilling.
- Up gradation of IDMOL system
- Development of ester based drilling fluids
- Feasibility study for drilling substitute
- Review of well planning for Lapling area
- Well planning for Hi Tech wells
- Development of chrome free drilling fluids.
- Formulation of non-damaging fluids for drilling development wells
- Feasibility study of using NDDF in Agartala asset.
- Resource generation and design of K<sub>2</sub>So<sub>4</sub>-PHPA-KOH drilling fluid system as an alternative to KCl-PHPA for future use.

#### 3.7 Institute of Engineering and Ocean Technology

- Development of Electro-less Nickel Phosphorous (ENP) coating
- Composites application for 'bridge between platforms', helidecks and down hole tubulars.
- Laboratory testing of soil samples and interpretation of test results for deep water
- Feasibility study for use of composites for cladding on hot risers in splash zone
- Use of composites for fire retardants on escape routes in Offshore platforms
- Consequence of release of toxic substance in offshore platforms
- Assessment of Safety Integrity Level of oil & gas process plant
- Development of failure frequency database
- Risk based inspection of offshore & onshore process installations
- Reliability based inspection planning for fixed steel jackets
- Gas hydrate induced corrosivity analysis
- Analysis & Design of Deepwater Foundation Systems
- IEOT is pursuing with TIFAC, DST, Govt. of India for revision of Petroleum Rule 2002 to incorporate composites for hydrocarbon transportation pipelines

#### 3.8 Institute of Oil & Gas Production Technology

- Feasibility study for VAP from Condensate and Natural gas from G1 and GS-15 fields.
- Feasibility of extraction of butane from C<sub>2</sub>C<sub>3</sub> product at Uran.
- Re-vamping of surface facilities for 8 installations at Mehsana Asset.
- Down hole Stuffing Box.
- Conversant Divergent Choke
- Down Hole Water Sink technology.
- Preparedness for application of nanotechnology in upstream oil sector.
- Flow assurance studies for development of marginal fields.
- Vertical flow performance analysis of wells of sand to examine possibility of enhancement of gas and condensate production.

#### 4. Technology Absorption/Adaptation and Innovation

- Comprehensive formulation of specification of micronized calcium carbonate and analysis of return permeability.
- Composite material pipes being implemented for effluent/produced water, utility water, water injection and also in ETPs.
- GRE Piping installed on BPA, ICW, WIN, NQP, NLM, SHG, ICP, SA, NQQ, and SCA Platforms
- Composite material gratings installed on WI3 & SY platforms and in progress on offshore platforms
- Adoption of SAR (Synthetic Aperture Radar) technology: to detect offshore oil seepage.
- Polyglycol removal - technique for removal of polyglycol contamination from drill cuttings of deep water wells.
- GXT technology is focussed towards deep imaging
- Sea Bed Logging: Controlled Source Electro-magnetic Sounding (CSEM).
- Q-Marine technology: seismic technology which provides higher resolution imaging of sub surface
- Time lapse 3D Seismic: provides for reservoir monitoring and fluid flow in producing field.
- The following advanced technologies were introduced in offshore / onshore for better reservoir characterization and management: -
  - Rotary Side Wall Coring Tool
  - Modular Dynamic Tester Live Fluid Analyzer (MDT-LFA)
  - Production Logging in Horizontal Wells
  - On line data transmission in offshore
  - Cased Hole Formation Resistivity (CHFR) in Onshore
  - Cased Hole Formation Density (CHFD) and Cased Hole Formation Porosity (CHFP) in Offshore

#### Field Processing Units and Mobile Processing Units :

Field Processing Units and Mobile Processing Units with latest software for survey design and seismic Quality control and to reduce API cycle time.

- **Air Injections Setup:** New air injections setup to screen reservoir.

#### 4.1 Collaborative projects with Foreign Institutes/Domain Experts

- Fugro Robertson was given the consultancy for Kutch-Saurashtra basin modeling
- Hired services of Fugro Robertson Ltd. for Petroleum System analysis of Kutch- Saurashtra offshore.
- M/s Fugro Jason was given a consultancy for advance reservoir characterization for blocks KG-OS-DW-IV and KG-OS-DWN-98/2.
- Domain experts were hired for process validation of interpretation for various prospects in shallow and deep water such as:
  - Mr. Steve King for block MN-OSN-97/3, MN-DWN-98/3 and CY-OSN-2000/1
  - Mr. James V. C. Howes for blocks GS-OSN-2000/1, KG-DWN-98/4 and KG-DWN-98/5 blocks.
  - Mr. Octavian Cateneau for Sequence Stratigraphy studies of sedimentary basins.
  - Prof. Dr. Nicholas Christie Blick for Sequence Stratigraphy study of Proterozoic basins.
- BG, SHELL and ENI for exploration and development of blocks including CBM exploration.
- Institute of Petroleum Technology of Norwegian Institute of Science and Technology for reservoir modeling using Fractal Theory and 4D Seismic for Enhanced Oil Recovery (EOR).
- Agarkar Research Institute, Pune for development of Microbial system for enhanced oil recovery.
- IIT-Mumbai for studies in Physical and numerical modeling for unconventional flood patterns.
- Collaborative agreement with DDIT Nadiad on artificial intelligence for reservoir characterization.
- MS University Baroda for developing a bio-system producing microbial metabolites.
- TERI, New Delhi for development of thermophilic, microaerophilic, paraffin degrading bacterial consortium/biocatalyst.
- UNSW, Sydney, Australia for petrophysical studies, reservoir characterisation and simulation studies of Coal Bed reservoirs and establishing of CT-scanner and maintenance of Pore network modeling.
- University of Calgary, Canada for establishing a laboratory for investigation of Air Injection based on IOR process in heavy, medium and light oil reservoirs.

#### 5. Information regarding Imported Technology

##### Information regarding Imported Technology (Imported during the last five years from the beginning of the Financial year)

A	Technology Imported	Year of Import
(i)	<ul style="list-style-type: none"> <li>• GM SYS Professional of GEOSOFT, U.K.</li> <li>• NGS System from Canberra, Australia.</li> <li>• KEYPHI and CAPRI for determining petro-physical parameters.</li> <li>• Liquid scintillation system for low level counting of radioactive tracers.</li> <li>• RISC based computer system, Robotic tape library.</li> </ul>	2001-02
(ii)	<ul style="list-style-type: none"> <li>• Seismic Survey vessel M/V Sagar Sandhani upgraded to Dual Source, 2 streamer vessel and on board processing system.</li> <li>• Scanning electron microscope with energy dispersive spectrometer (SEM-EDX).</li> <li>• Acoustic Velocity (Compressional &amp; Shear Wave velocity) measurement system.</li> <li>• Existing VOXELGEO was upgraded to VOXELGEO-XV alongwith procurement of additional software with features like attribute calculator, 3D Propogater and Reservoir Navigator enabling to handle larger data volume and resolve geological complexities.</li> <li>• Additional licences for ELAN Plus.</li> <li>• Emerge Seismic reservoir characterization software from Hampson Russel.</li> </ul>	2002-03
(iii)	<ul style="list-style-type: none"> <li>• 3D Integrated Quantitative Inversion &amp; Modelling (My Bench software from M/S Jason Geosystems).</li> <li>• Network Enhancement Gigabit.</li> <li>• Two suits of Additional Licenses for G &amp; G application of M/s Landmark.</li> <li>• 18 TB RAID 5 Storage system, N/W &amp; RAM Upgradation of Origin 2000 server, Hard disk for octane workstations for processing and 5 TB RAID 1 Disk for INTEG.</li> <li>• RCCFA (Reservoir Condition Core Flow Apparatus).</li> <li>• Fully automated capillary pressure and resistivity system.</li> <li>• Mercury free PVT package.</li> <li>• SEM with EDX system, model 6460 LV.</li> <li>• SGI Origin 300 4 CPU Machine + Octane 2.</li> <li>• Network Access System (NAS).</li> <li>• Automated LTO Backup System.</li> <li>• New Layer 3 Switch for Network Upgradation.</li> <li>• Forgas Software.</li> <li>• PAL/ RAVE/ FZAIV RI-B Openvision and EMERGE - Software for Enhancing 2D/ 3D Interpretation and Reservoir Characterisation.</li> <li>• 3 Additional Licenses for Open Works of M/s Landmark Graphics.</li> <li>• 1 Additional License for ZMAP (Mapping) of Landmark Graphics.</li> <li>• Advanced drilling application software on well planning and under balanced drilling technology.</li> </ul>	2003-04
(iv)	<ul style="list-style-type: none"> <li>• 8 CPU based P690 server and 3590E tape drive with Robotic tape library - upgradation of Petrobank server.</li> <li>• SUN Fire 15K Unified interpretation Data server, 30 SUN Blade150 X Terminals, one SUN Blade 2000 &amp; one SUN Blade 2500.</li> <li>• GEOPROBE software from M/s Landmark Graphics.</li> <li>• 4 Suite of Licenses from M/s Landmark Graphics.</li> <li>• SGI-350 server and SGI TEZERO workstation OS-IRIX 6.5 with Landmark application software (Openworks, Seisworks 2D &amp; 3D and Earth Cube),</li> <li>• Stand Alone System (96 CPU) Regetta with time and depth domain processing software 'GEO-DEPTH'.</li> <li>• Stand Alone System (32 CPU) Regetta with time and depth domain processing software 'GEO-DEPTH'.</li> <li>• 64CPU cluster system having 4TB disk space and time and depth processing software for MV Sagar Sandhani.</li> <li>• 10 Nos of 408-UL seismic data acquisition systems.</li> <li>• 17 Field processing units for 3D field crew to monitor online data quality.</li> <li>• "DGPS-RTK Differential Global Positioning System" for accurate positioning in topographic surveys.</li> <li>• Use of advanced composite material for E&amp;P Applications in ONGC.</li> </ul>	2004-05
(v)	<ul style="list-style-type: none"> <li>• "StrataBug" software for Bio-stratigraphy.</li> <li>• Log data processing software - GEOFRAME containing ELAN PLUS, dip-meter, image processing and interpretation package along with hardware.</li> </ul>	2005-06

**ANNEXURE 'B'**

	<ul style="list-style-type: none"> <li>State of Art digital micro gravity meter, Proton Precision magnetometer together with DGPS, Total station and Auto level for topographical survey to meet the requirements of precision GM survey.</li> <li>ISO Prime GC-IRMS.</li> <li>Sun servers and work-stations for EPINET (Exploration &amp; Production Information Network).</li> <li>Suite of 2D/3D Move Software of Mid land valley.</li> <li>Three Numbers PC based software from Geographix.</li> <li>Geosec2D Paradigm software installed in F15K server.</li> <li>Configured five sun blade 150 systems with PCI cards and installed windows XP so as to work both as workstation and PC.</li> <li>IBM P690(8CPU) Petrobank server upgraded to 32 CPU for supplementing seismic data processing.</li> <li>3 Nos. of Mobile Processing Units (MPU) for reducing API cycle time.</li> <li>PC based Seismic Interpretation system.</li> <li>High temperature anaerobic bio-reactor.</li> <li>Microscope with image analyser.</li> <li>Refrigerated centrifuge.</li> <li>Incubated shaker.</li> <li>High temperature incubator.</li> <li>High precision metering pump.</li> <li>End Face grinder.</li> <li>Formation Damage Evaluation System (Core Flow apparatus).</li> <li>Differential Scanning Calorimeter.</li> <li>U.V/VIS Spectrometer.</li> <li>Non-linear dynamic Analysis of deepwater structures.</li> <li>Studies on advanced composite materials for hydrocarbon E&amp;P applications in Indian Offshore.</li> </ul>	
<b>B</b>	Has the technology been fully absorbed?	Yes
<b>C</b>	If not fully absorbed, areas where this has not taken place, reasons thereof, and future plans of action.	Not applicable

**6. Expenditure on Research & Development**

(Rs. in million)

Sl. No.	Heads	2005-06	2004-05
1.	Capital	173.81	105.41
2.	Recurring	1,083.70	947.29
3.	Total R&D Expenditure	1,257.51	1,052.70
4.	Total R&D Expenditure as a percentage of Total Turnover	0.25%	0.22%

**7. Information on Foreign Exchange Earnings and Outgo:**

(Rs. in million)

Sl. No.	Heads	2005-06	2004-05
1.	Foreign Exchange Earnings	26,093.83	12,104.88
2.	Foreign Exchange Outgo	81,029.41	66,679.80

**STATEMENT OF RESERVE RECOGNITION ACCOUNTING**

Standardised measure of discounted future net cash flows relating to proved oil and gas reserve quantities is as under :-

(Rs. in million)

Particulars	Gross Value as at		Present value (Discounted at 10%) as at	
	31 <sup>st</sup> March 2006	31 <sup>st</sup> March 2005	31 <sup>st</sup> March 2006	31 <sup>st</sup> March 2005
<b>REVENUES</b>				
Oil	5,623,256.00	5,375,154.93	2,953,505.22	2,399,459.88
Gas	939,490.56	877,217.12	463,711.87	396,038.93
<b>Total Revenues</b>	<b>6,562,746.56</b>	<b>6,252,372.05</b>	<b>3,417,217.09</b>	<b>2,795,498.81</b>
<b>COSTS</b>				
Operating, Selling & General	2,865,816.00	2,731,100.50	1,491,847.27	1,221,411.47
Corporate Tax	892,865.76	1,001,082.81	441,430.49	446,735.45
<b>Sub Total</b>	<b>3,758,681.76</b>	<b>3,732,183.31</b>	<b>1,933,277.76</b>	<b>1,668,146.92</b>
<b>Evaluated Cost of Acquisition of Assets and Development</b>				
a) Assets	226,222.84	137,272.70	169,475.24	127,967.41
b) Development	204,953.26	72,475.50	163,193.45	62,431.87
<b>Sub Total</b>	<b>431,176.10</b>	<b>209,748.20</b>	<b>332,668.69</b>	<b>190,399.28</b>
<b>Total Cost</b>	<b>4,189,857.86</b>	<b>3,941,931.51</b>	<b>2,265,946.45</b>	<b>1,858,546.20</b>
<b>Net future earnings from Proved Reserves</b>	<b>2,372,888.70</b>	<b>2,310,440.54</b>	<b>1,151,270.64</b>	<b>936,952.61</b>

**Notes:-**

- The Revenues on account of crude oil and gas have been worked out on the basis of average price for the year 2005-06. The average price for crude oil is net of Subsidy Discount.
- Expenditure on future Production (Operating), Development and Acquisition of capital assets related to future production has been considered on year-end basis without any escalation factor. Taxes and Levies have been considered at prevailing year end rates.
- The reserves have been estimated by ONGC's Reserve Estimates Committee following the standard international reservoir engineering practices.
- Only Proved reserves have been considered. Probable or Possible reserves have not been considered. These reserves exclude ONGC's share of foreign JV Assets.
- Both revenues and costs have been discounted to present value using 10% discounting factor. The Net future earnings, therefore, represent the net expected future cash inflows from production of recoverable reserves of crude oil and gas.
- However, neither the estimated net reserves nor the related present value should be taken as a forecast of future cash flows or value of these reserves because (a) future estimated production schedules used in the valuation process are subject to uncertainties, (b) up-gradation of Probable and Possible reserves would significantly affect the gross and net present value of the expected future cash inflows, (c) future crude oil and natural gas prices and (d) future expenditure on production (operating), development and acquisition cost of capital assets and rates of taxes and levies, which may be at variance from those assumed herein.

**ANNEXURE 'C'**

**ADDENDUM TO THE DIRECTORS' REPORT**  
(Management Replies to the comments in the Auditors' Report)

AUDITORS' REPORT PARA NO.(S)	MANAGEMENT'S REPLIES
7. Attention is invited to Note 11 of Schedule 28 of the financial statements regarding accounting treatment of side tracking costs in respect of abandoned portion of wells.	The opinion from the Institute of Chartered Accountants of India (ICAI) in respect of treatment in accounts regarding abandoned portion of wells during side tracking was issued only on 31.05.2006 (based on the reference made by ONGC on 21.11.2005) i.e. after the closing of the accounting period. No accounting adjustment could be made for want of certain specific clarifications required and sought subsequently from the ICAI. Hence the impact is also not ascertainable at this stage.

**COMMENTS OF THE COMPTROLLER & AUDITOR GENERAL OF INDIA UNDER SECTION 619(4) OF THE COMPANIES ACT 1956 ON THE ACCOUNTS OF OIL AND NATURAL GAS CORPORATION LIMITED FOR THE YEAR ENDED 31<sup>ST</sup> MARCH, 2006 AND MANAGEMENT REPLIES.**

**ANNEXURE 'D'**

**BALANCE SHEET**

**Producing Properties - Rs 560896.49 million**

1. The producing properties are understated (net) by Rs 615.34 million due to

(Rs.in million)

Sl. No	Particulars	Overstated	Under stated
i	Inclusion of the cost of an incomplete development well, in contravention of stated Accounting Policy 2.2.3.	194.29	
ii	Non inclusion of the abandonment provision in respect of 15 'non flowing wells' in Panna-Mukta & Tapti Joint Venture fields.		472.37
iii	Non-inclusion of the facilities, of 3 wells, 1 flare jacket and 2 Mooring Buoys for calculation of abandonment provision		337.26
	<b>Total</b>	194.29	809.63

**Current Liabilities-Rs.65270.11 million**

2. The above is understated by Rs 221.04 million as under:

(Rs. in million)

Sl. No	Particulars	Amount
i	Non provision for the job carried out by M/s EMGS for sea bed logging for the area KG-OS-DW-IV.	61.04
ii	Non provision for committed liability towards setting up of Hydrogen Corpus Fund being operated by Oil Industry Development Board	160.00
	<b>Total</b>	221.04

**PROFIT AND LOSS ACCOUNT**

**Depreciation, Depletion and Amortisation-Rs.83021.72 million**

3. This is overstated (net) by Rs 202.19 million due to

(Rs. in million)

SI. No	Particulars	Overstated	Understated
i	a) Allocation of rig movement cost of rig CE Thornton to original (earlier) well (dry well) instead of the target(next) well (exploratory well in progress) in deviation of Accounting Policy no-18	30.63	
ii	Non-charging of the cost incurred in respect of two exploratory wells in Tapti field which were declared dry		30.90
iii	Depreciation charged on three Gas feeder/Collector lines under Mumbai Uran Trunk line Project at 100 percent instead of 13.91 percent as per Note 6 of Schedule XIV of Companies Act, as these lines are laid 'above the ground'	268.42	
iv	Inclusion of Single Buoy Mooring of Ratna field (impaired property) in Heera field		65.96
	<b>Total</b>	<b>299.05</b>	<b>96.86</b>

4. The above comments have a net impact of overstatement of profit by Rs. 179.19 million as below:

(Rs. in million)

Comment No.	Particulars	Overstated	Understated
1	Undercharge of depletion	160.34	
2	Non-provision of current liabilities	221.04	
3	Over- provision of depreciation/ depletion		202.19
	<b>Total</b>	<b>381.38</b>	<b>202.19</b>

Date : 9<sup>th</sup> August, 2006  
Place : Mumbai

Sd/-  
(Revathy Iyer)  
**Principal Director Of Commercial Audit  
& ex-officio Member Audit Board II, Mumbai**

**Management Replies:**

While appreciating the endeavor of C&AG Audit in pointing out certain omissions, it is felt that the financial impact of these comments is not very material considering the size of operations of the Company.

In respect of comment 2 (ii) it is stated that the MoP&NG had decided to set up a Hydrogen Corpus Fund to facilitate Research, Development and Demonstration activities in Hydrogen with a corpus fund of Rs. 100 Crore to be shared by OIIB and other public sector enterprises viz. IOC, ONGC, GAIL, BPCL and HPCL. As per funding pattern approved by OIIB Board, ONGC's share worked out to Rs. 16 Crore. The said liability was not provided since the project scope has not been defined and action plan with responsibilities and time frame have not been firm up so far. The parameters set-up by the Board as a precondition is being attended to, for crystallizing the liability and accordingly provisions shall be made.

Accounting adjustments in respect of all other comments will be carried out in 2006-07.

Considering the above and as per management perception, the impact of C&AG Comments on profits of ONGC for the year 2005-06 works out to Rs.19.19 million only, as overstatement of Profit Before Tax.



**R.S.Sharma**  
**Chairman & Managing Director**

16<sup>th</sup> August, 2006

**ANNEXURE 'E'**
**ANNEXURE 'F'**
**HUMAN RESOURCE IN ONGC**

 Employees as on 31<sup>st</sup> March, 2006

(Numbers)

Employee Group	Age Distribution				Total	
	<31	31-40	41-50	51-60	2005-06	2004-05
<b>(A) Technical</b>						
Executive	459	2,443	10,965	4,817	<b>18,684</b>	18,361
Non-Executive	103	1,384	3,157	550	<b>5,194</b>	6,368
<b>Total (A)</b>	<b>562</b>	<b>3,827</b>	<b>14,122</b>	<b>5,367</b>	<b>23,878</b>	24,729
<b>(B) Non-Technical</b>						
Executive	179	440	2,296	1,559	<b>4,474</b>	4,451
Non-Executive	204	1,219	3,237	1,710	<b>6,370</b>	7,005
<b>Total (B)</b>	<b>383</b>	<b>1,659</b>	<b>5,533</b>	<b>3,269</b>	<b>10,844</b>	11,456
<b>Grand Total (A+B)</b>	<b>945</b>	<b>5,486</b>	<b>19,655</b>	<b>8,636</b>	<b>34,722</b>	36,185

Note: Whole-time Directors excluded.

 Valuation as on 31<sup>st</sup> March, 2006

(Rs. in million)

Employee Group	Age Distribution				Total	Value per employee	
	<31	31-40	41-50	51-60		2005-06	2004-05
<b>(A) Technical</b>							
Executive	6,972.4	32,867.5	105,183.3	23,062.7	168,085.9	<b>9.0</b>	7.8
Non-Executive	907.9	11,345.3	21,974.4	1,883.0	36,110.6	<b>7.0</b>	5.8
<b>Total (A)</b>	<b>7,880.3</b>	<b>44,212.8</b>	<b>127,157.6</b>	<b>24,945.7</b>	<b>204,196.5</b>	<b>8.6</b>	7.2
<b>(B) Non-Technical</b>							
Executive	2,636.3	5,818.9	20,218.6	7,063.5	35,737.2	<b>8.0</b>	6.8
Non-Executive	1,725.0	9,150.4	19,312.2	4,853.2	35,040.7	<b>5.5</b>	4.5
<b>Total (B)</b>	<b>4,361.3</b>	<b>14,969.3</b>	<b>39,530.7</b>	<b>11,916.7</b>	<b>70,777.9</b>	<b>6.5</b>	5.4
<b>Grand Total (A+B)</b>	<b>12,241.6</b>	<b>59,182.1</b>	<b>166,688.4</b>	<b>36,862.4</b>	<b>274,974.4</b>	<b>7.9</b>	<b>6.6</b>

\* Valuation based on most widely used "Lev &amp; Schwartz" model.

\* Aggregate future earnings during remaining employment period of employees, discounted @ 8% p.a., provides present valuation

\* Future earnings based on current emoluments with normal incremental profile.

**RECOGNITIONS, AWARDS AND ACCREDITATIONS**
**1. Global Rankings/Recognitions**

- **Ranked 402<sup>nd</sup>** in Fortune Global 500 list for the year 2006, up from 454<sup>th</sup> last year, **based on revenues**. ONGC is ranked 115<sup>th</sup> in the new list, based on profits - leading all the Indian Corporates.
- **Topped** the list of six Indian companies figured in the Business Week's first annual ranking of Asia's 50 best-performing listed companies, drawn from a list of 625 Asian firms. ONGC was ranked **'third'** among the **50 best Asian companies**. The new Business Week ranking is drawn from the Standard & Poor's/ Citigroup/ Pan Asia Index, which is made up of major companies listed on established regional exchanges (October 2005).
- **Ranked 158<sup>th</sup>** among the **world's largest companies** as per market capitalization on 31<sup>st</sup> March 2006 (**ranked no. 1 among Indian Companies**) in 10th annual Financial Times Global 500 listing (June 2006).
- **Leads** the list of Indian corporate titans, in the **Forbes Global 2000** with **256<sup>th</sup>** ranking in the list of 2000 business entities (which has 33 Indian firms) based on Sales, Profits, Assets and Market Valuation during the last fiscal (March 2006).
- **Ranked 26<sup>th</sup>** in the **Platts Top 250** Global Energy Company Ranking 2006. This fourth annual survey of global energy companies by Platts measures companies' financial performance using **five metrics: asset, revenue, profit, earning per share, and return on invested capital (ROIC)** (March 2006).
- **Sole Indian entry into the UNCTAD's top 50** non-financial TNCs (Transnational Corporations) from the developing countries ranked by foreign assets in 2003. ONGC was ranked **27<sup>th</sup>** among the 50 TNCs with a total asset base of USD 15.24 Billion of which foreign asset amounted to USD 2.32 Billion dollars. ONGC ranked **49<sup>th</sup>** in terms of TNI which is the average of three ratios: foreign asset to total assets, foreign sales to total sales and foreign employment to total employment (September 2005).
- **Ranked 18<sup>th</sup>** among 50 publicly traded **global companies in the oil and gas industry** based on year-end (31.12.2005) market capitalization and 15<sup>th</sup> among 27 listed integrated oil and gas company with market value of USD 37.2 Billion. In the calendar year 2005, **ONGC has grown faster than ExxonMobil, British Petroleum, Royal Dutch Shell, Chevron and Total**, considering improvements in share price on Year-on-Year (YoY) basis. **ONGC, with a 45.7% growth, appears at the sixth slot among the leaders, several notches above BP, ExxonMobil and Chevron** (January 2006).
- ONGC has been conferred the **'Golden Peacock Global Award for Corporate Governance'**, during the 7<sup>th</sup> International Conference on Corporate Governance held at London. The award was presented by former Prime Minister of Canada Rt. Hon'ble Joe Clark (May 2006).

**2. Indian Rankings/Recognitions**

- **Bagged** the prestigious NDTV Profit Business Leadership Award, in the oil and gas category. The Hon'ble Prime Minister, Dr. Manmohan Singh, gave away the Award which was received by the C&MD on 28<sup>th</sup> July 2006.
- **Ranked 11<sup>th</sup> position in Economic Times 500** ranking, though having highest Market Capitalization and Net Profit, mainly due to its lower P/E ratio (ranked 390) and Return on Net Worth (RoNW) with a rank of 124 (February 2006).
- **Topped the Business Today** list of **most valuable companies in India** for the second year in a row. In the ranking, ONGC has topped in all three key categories i.e., **Market Capitalization, Net Profit and Net Worth** for 2005 (November 2005).
- **Topped the Business India's Super 100**, 2005 list of Indian companies. The ranking is based on a weighted average of several parameters, including Market Capitalisation, Profit After Tax (PAT), Net Fixed Assets and Net Sales. ONGC topped not only the overall ranking but also the separate lists for all three key parameters **Market Capitalisation, Profit After Tax (PAT) and Net Fixed Assets** (November 2005).
- **Ranked 3<sup>rd</sup> in The BW Real 500 survey**, by the Business World magazine (March 2006).

- Ranked as the **most respected company in PSU category** in the 2006 Business World survey released in Business World Magazine (June 2006).
- 'India's Most Respected Companies' is a peer perception survey of senior managers organized by Business World (June 2006).

### 3. Awards & Accreditations

- “**Best deals of the year 2004**” trophy by **Asiamoney**, Asia's leading capital market publication, in recognition for successful placement of Rs. 10,694 crore worth of secondary shares (April 2005).
- '**Business Superbrand**' award by the Business Superbrands Council (November 2005).
- “**ICWAI National Award**” for **Excellence in Cost Management** for 2005 under the category “**Good Performance Award, Public Sector Manufacturing**” (December 2005).
- “**Golden Peacock Award**” for '**Excellence in Corporate Governance**' for the year 2005 by the Institute of Directors (IOD) during the inaugural session of the 16<sup>th</sup> World Congress on Total Quality at New Delhi (January 2006).
- “**Amity Corporate Excellence Award**” during 8<sup>th</sup> International Business Summit, International Business Horizon (INBUSH) 2006, organized by the Amity Business School, New Delhi to recognize the **best practices of leading** companies in India (February 2006).
- ONGC was adjudged as the “**Biggest Wealth Creator**” for the period 2000-2005 in Indian Capital Markets by Motilal Securities Limited in its 10<sup>th</sup> Wealth Creation Study. This is for the **third consecutive time** that the organization has been bestowed with this prestigious honor (November 2005).
- **TERI Corporate Award** for Corporate Social Responsibility in recognition of its **corporate leadership for good corporate citizenship and sustainable initiatives** and particularly in bringing socio-economic development in the north-eastern state of Tripura (June 2005).
- The Indian Institution of Industrial Engineers (IIIE), a professional body of Industrial Engineers, has conferred **Gold Enterprise Excellence Award** for the year 2004-05 to ONGC for financial & operational strength during its 9<sup>th</sup> CEOs Conference (May 2006).
- **Uttaranchal-IT 2006 Institutional Award, “Best IT Ratna**” in the “Software Applications” category. Mr. Jairam Ramesh, Hon'ble Union Minister of State for Commerce and Mr. N.D. Tiwari, Hon'ble Chief Minister of Uttaranchal presented the award to Dr. A.K.Balyan, Director (HR) (June 2006).
- **First “People's Award for Excellence in Business & Economy**” under PSU category instituted by Planman Media, the publisher of the magazine - Business & Economy on the occasion of first anniversary of PLANMAN MEDIA magazine of Business and Economy. The award was handed over by Mr. Vasant Sathe to C&MD at New Delhi (June 2006).
- All India Public Sector Sports Promotion Board adjudged ONGC as the **best sports promoter among all PSUs**. Mr. K.Ramalingam, President of the Board & C&MD Airport Authority of India presented the award to Dr. A.K.Balyan, Director (HR) and Shri A.K.Hazarika, Director (Onshore) at Bangalore (June 2006).

### 4. Awards to ONGC's Business Units

- “**Golden Peacock Award**” for '**Innovation in Products/Services**' for the year 2005 for innovation exhibited by ONGC's Ahmedabad Asset in making Wells Speak by the Institute of Directors (IOD) during the inaugural session of the 16<sup>th</sup> World Congress on Total Quality at New Delhi (January 2006).
- “**Golden Peacock Award 2005**” to the Institute of Drilling Technology (IDT), third time in a row under the category of **Exploration Technology** (June 2005).
- “**Golden Peacock Eco-Innovation award 2005**” to Ahmedabad Asset by World Environment Foundation under the '**Petrochemical**' category (July 2005).
- “**Golden Peacock National Training Award 2005**” to ONGC Academy. This is the third time that the Academy was given the recognition (November 2005).

- “**Greentech Environment Excellence Gold Award**” to Cauvery and Rajahmundry Assets in recognition of **efforts towards environment management** (November 2005).
- “**Greentech Environment Excellence Silver Awards**” in Petroleum Sector for the year 2004-2005 to Balol Main In-situ Compressor Plant and Balol GGS-IV of Mehsana Asset (October 2005).
- “**Oil Industry Safety Award 2005**” to Ahmedabad and Cauvery Assets by Oil Industry Safety Directorate under the Ministry of Petroleum and Natural Gas (MoP&NG) (October 2005).
- ONGC Academy received the Runners up “**National Training Award**” for Innovative Training practices. The award has been instituted by the Indian Society for Training and Development (ISTD). The award was given at the valedictory function of XXXVI National Convention of ISTD held at Mumbai (February 2006).
- Hazira Plant has bagged **Winner Award in Gujarat State Safety Awards 2004** instituted by Gujarat Safety Council (December 2005).
- Tatipaka refinery has received a **Certificate of Appreciation** from the National Safety Council (NSC)'s Andhra Pradesh Chapter (March 2006).
- Ahmedabad Asset received **Golden Peacock Environment Management Award-2006** by World Environment Foundation at 8<sup>th</sup> World Congress on Environment Management at Palampur, Himachal Pradesh. Mr Lehmbhar Singh, Asset Manager received the award presented by Governor of Himachal Pradesh Mr V S Kokje. The award has been given to the Asset for excellent Environment Management (June 2006).
- Cauvery Asset received the Special Commendation of the prestigious **Golden Peacock Award for Eco-Innovation 2006**. The Award was given by the Minister of Power and Environment, Government of Himachal Pradesh, Mrs Vidya Stokes at CSK HP Agricultural University Auditorium, Palampur (June 2006).

### 5. Awards to C&MD & Directors

- “**Asiamoney's 2004 Deals of the Year Award**” (April 2005).
- '**Srijon Samman Award**' from Sangbad Pratidin, a Kolkata based Newspaper at Kolkata (August 2005).
- '**HR Ratna Award**' by the National Institute of Personnel Management (NIPM) at Kolkata (September 2005).
- '**Giants International Award**' for outstanding contribution to Public Sector from Giant International, Mumbai (September 2005).
- '**CNBC Innovator Year Award**' from the Finance Minister of India (October 2005).
- '**Lakshya - Business Visionary Award**' by National Institute of Industrial Engineering (NITIE) at Mumbai (October 2005).
- '**Personality of the Decade Award by KG Foundation**', Coimbatore (November 2005).
- '**Dadabhai Naoroji International Millennium Award**' for 2004-05 for life time achievement (November 2005).
- '**Teacher's Achievement Award for 2005**' for distinguished achievement in the field of Business (November 2005).
- '**Andhra Pradesh Cultural and Welfare Society Award**' for making outstanding achievements in the Indian Corporate World (December 2005).
- “**Corporate Leadership Award**” instituted by Ramakrishna-Vivekananda International Foundation (February 2006).
- '**Sir Jehangir Ghandy Medal**' by XLRI for Industrial and Social Peace for the year 2006. The Medal was presented in the Institute's convocation ceremony held (April 2006).
- '**ISTD Fellowship**' of the Indian Society for Training and Development (ISTD) for the year 2004-05 (May 2006).
- '**The India CFO Awards 2005**' to **Director (Finance) for excellence in Finance in PSU Category**, instituted by International Market Assessment India Pvt. Ltd (IMA), alongwith BNP Paribas, Sun Micro System and CNBC TV-18 (December 2005).
- '**GSBA Top Rankers Achievers Award**' to **Director (HR)**. The award instituted by “**Top Rankers**”, a reputed management consultant in association with Graduate School of Business & Administration (GSBA) (October 2005).



- Dr. A.K. Balyan, Director (HR) has been elected as the **National President of the National Institute of Personnel Management (NIPM)**, one of the premier institutes of Human Resource Related studies in the country (June 2006).
- Dr. A.K. Balyan, Director (Human Resource) has been conferred Fellowship by the All India Management Association (AIMA), at its 11<sup>th</sup> Convocation held on 5<sup>th</sup> August 2006.
- Shri D.K. Pande, Director (Exploration) has been **elected as the new Director of Petrotechnical Open Standards Consortium Inc. (POSC)**, an international not-for-profit, membership organization and provider of information and business process standards for the upstream oil & gas industry; in "oil company" Director Category. Shri Pande shall be director for three years i.e. upto November 2008. (January 2006).

#### 6. Awards to ONGC officers

- Mr. P K Mittal, GM, KDMIPE was selected for the **National Mineral Award-2004** under the 'National Mineral Award Scheme' by Ministry of Mines, Government of India. (October 2005)

## AUDITORS' REPORT

### THE MEMBERS OIL AND NATURAL GAS CORPORATION LIMITED

1. We have audited the attached Balance Sheet of OIL AND NATURAL GAS CORPORATION LIMITED (the Company) as at 31 March, 2006, the Profit and Loss Account and also the Cash Flow Statement for the year ended on that date, annexed thereto in which are incorporated the Company's share in the total value of assets, liabilities, expenditure, income and net profit of forty seven joint ventures for exploration and production audited by other auditors or certified by the management (Refer Note 18.1.2 and 18.1.3 of Schedule 28 of the financial statements). These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.
2. We have conducted our audit in accordance with auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amount and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.
3. As required by the Statement on the Companies (Auditor's Report) Order, 2003 issued by the Central Government of India in terms of Section 227(4A) of the Companies Act, 1956, we enclose in the Annexure a statement on the matters specified in paragraphs 4 and 5 of the said Order.
4. In our opinion, the Profit and Loss Account, the Balance Sheet and the Cash Flow Statement comply with the accounting standards referred to in sub-section (3C) of Section 211 of the Companies Act, 1956.
5. Based on the written representation made by all the Directors of the Company which was taken on record by the Board of Directors of the Company and the information and explanations as made available, none of the Directors of the Company is disqualified as on 31<sup>st</sup> March, 2006 from being appointed as a director in terms of Clause (g) of sub section (1) of Section 274 of the Companies Act, 1956.
6. We have placed reliance on technical/ commercial evaluation by the management in respect of categorisation of wells as exploratory and producing, allocation of cost incurred on them, depletion of producing properties on the basis of the proved developed hydrocarbon reserves, liability for abandonment costs and allocation of depreciation on process platforms to transportation and facilities.
7. Attention is invited to Note 11 of Schedule 28 of the financial statements regarding accounting treatment of side tracking costs in respect of abandoned portion of wells.
8. Further to our comments referred to in paragraph 3 above and subject to paragraph 7 above, with consequential aggregate effects on the profit for the year, reserves and surplus and net assets, the quantification of which could not be determined, we report as follows:
  - 8.1 we have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of our audit;
  - 8.2 in our opinion, proper books of account as required by law have been kept by the Company so far as it appears from our examination of those books;
  - 8.3 the Balance Sheet, Profit and Loss Account and the Cash Flow Statement dealt with by this report are in agreement with the books of account;

8.4 in our opinion and to the best of our information and according to the explanations given to us, the said accounts read with notes to account and in particular Note 1 of Schedule 28 in respect of recognition of Sales Revenue in respect of crude oil and natural gas and Note 6 of Schedule 28 regarding accident and consequential damages to BHN Platform and other assets in Mumbai High, insurance claim and adjustment thereof, give the information required by the Companies Act, 1956 in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India:

- a) in the case of the Balance Sheet, of the state of affairs of the Company as at 31<sup>st</sup> March, 2006;
- b) in the case of the Profit and Loss Account, of the profit of the Company for the year ended on that date: and
- c) in the case of the Cash Flow Statement, of the Cash Flow of the Company for the year ended on that date.

**For K K Soni & Co.**  
**Chartered Accountants**

K.K. Soni  
**Partner (Mem. No. 07737)**

**For S. Bhandari & Co.**  
**Chartered Accountants**

S.S. Bhandari  
**Partner (Mem. No. 11332)**

**For S.C. Ajmera & Co.**  
**Chartered Accountants**

S.C. Ajmera  
**Partner (Mem.No. 81398)**

**For Brahmaya & Co.**  
**Chartered Accountants**

V.Seetaramaiah  
**Partner (Mem. No. 003848)**

**For Lodha & Co.**  
**Chartered Accountants**

H.K. Verma  
**Partner (Mem. No. 55104)**

**New Delhi**  
**June 26, 2006**

## ANNEXURE TO THE AUDITORS' REPORT

(Referred to in paragraph 3 of our report of even date)

1.
  - a) The Company has generally maintained proper records showing full particulars including quantitative details and situation of fixed assets.
  - b) We are informed that the fixed assets other than those which are underground / submerged / under joint venture, having substantial value have been physically verified by the management in phased manner. The reconciliation of physically verified assets with the book records is in progress at some of the units. Discrepancies noticed on physical verification and consequential adjustment with regard to discrepancies will be carried out on completion of reconciliation. In our opinion, the same is not material.
  - c) The Company has not disposed off substantial parts of fixed assets during the year.
2.
  - a) The inventory has been physically verified (excluding inventory lying with third parties, at some of the site- locations, inventory with joint ventures and material in transit) during the year by the management. In our opinion, the frequency of verification is reasonable.
  - b) The procedures of physical verification of inventory followed by the management to the extent verified were generally reasonable and adequate in relation to the size of the Company and nature of its business.
  - c) The Company has generally maintained proper records of inventory except for recording of consumption at some of its site-locations. The discrepancies noticed on verification between the physical stock and book records were not material having regard to the size of the operations of the Company. In case where discrepancies noticed on physical verification have been identified with inventory records, necessary adjustments have been carried out in the books. In respect of those cases where the reconciliation is not complete, the management has stated that the same would be adjusted in due course.
3.
  - a) There are two companies covered in the register maintained under section 301 of the Companies Act, 1956 to which the Company has granted unsecured loans aggregating to Rs 178,769.52 million. The aggregate amount outstanding as at the year end is Rs. 169,769.52 million.
  - b) In our opinion, the terms and conditions of the loans granted are prima facie not prejudicial to the interest of the Company.
  - c) The Company is regular in recovery of principal and interest.
  - d) There is no overdue amount receivable.
  - e) The Company has not taken any loans, secured or unsecured from companies, firms or other parties covered in the register maintained under section 301 of the Companies Act, 1956. Accordingly clauses (iii)(e) and (f) of the Companies (Auditor's Report) Order, 2003 are not applicable to the Company.
4. In our opinion, and according to the information and explanations given to us, the internal control procedures are generally adequate and commensurate with the size of the Company and the nature of its business with regard to purchases of inventory, fixed assets and sale of goods. During the course of our audit we have not observed any continuing failure to correct major weakness in internal controls.
5.
  - a) According to the information and explanations given to us there is no contract or arrangement referred to in Section 301 of the Act, which are required to be entered in the register maintained under the Section.
  - b) Accordingly, the provision of the clause v(b) of the Companies (Auditor's Report) Order, 2003 is not applicable to the Company.

6. The Company has not accepted any deposits from the public.
7. In our opinion, the Company has an internal audit system commensurate with the size and nature of its business.
8. We have broadly reviewed the books of account relating to materials, labour and other items of cost maintained by the Company pursuant to the Rule made by the Central Government for the maintenance of cost records under section 209 (1)(d) of the Companies Act, 1956 and we are of the opinion that prima facie the prescribed accounts and records have been made and maintained.
9. a) The Company is regular in depositing with appropriate authorities undisputed statutory dues including Provident Fund, Investor Education and Protection Fund, Employees' State Insurance, Income Tax, Sales Tax, Service Tax, Wealth Tax, Custom Duty, Excise Duty, Cess and other material statutory dues applicable to it. There are no such material outstanding statutory dues as of the last date of the financial year concerned for a period of more than six months from the date they became payable.

b) According to the information and explanations given to us, the disputed statutory dues are as under:

Name of the Statute	Nature of the dues	Amount (Rs. in million)	Period to which the amount relates (financial year)	Forum where dispute is pending
Income Tax Act, 1961	Income tax	22,037.55	1996-2006	ITAT/ CCIT/ CIT(A), Uttaranchal High Court
Central Excise Act, 1944	Central excise duty/ Interest/Penalty	2,823.15	1981-2006	CEGAT/Director of Central Excise/ Commissioner/ Asst. Comm. of Central Excise
The Customs Act, 1962	Customs duty/ Penalty/Interest	5,255.84	1995-2006	Supreme Court/High Court/CBEC/Comm. Customs
Oilfields (Regulation & Development Act, 1948)/AP Mines and Geology Act	Royalty/Surface rent/ Interest/Penalty	730.29	1992-2006	Director, Mines & Geology/ Dept. of Geology and Mining, A.P. High Court
Oil Industries (Development) Act, 1974	Cess/Interest	95.60	2000-2006	CEGAT/ Supdt./Comm.(A)
Central Sales Tax Act, 1956 and respective States' Sales Tax Act	Sales Tax/Turnover Tax/ Penalty/Interest	2,619.95	1977-2006	Supreme Court/High Court/Tribunal/Asst. Comm/ Dy. Comm./Suptd. of Taxes/ Commercial Tax Officer
Municipal Corporation of Greater Mumbai Act (Octroi Rules, 1965)	Octroi Duty	84.50	1977-2006	Supreme Court
Assam Specified Land Taxation Act	Tax on Crude oil and Natural Gas	735.76	2004-2006	Guwahati High Court

10. The Company has no accumulated losses at the end of the current financial year and has not incurred cash losses either during the year or during the immediately preceding financial year.
11. The Company has not issued any debentures and not defaulted in repayment of dues to financial institutions or banks.

12. In our opinion, the Company has not granted loans and advances on the basis of security by way of pledge of shares, debentures and other securities.
13. In our opinion, the Company is not a chit fund or a nidhi mutual benefit fund/ society. Accordingly, the provision of clause 4(xiii) of the Companies (Auditor's Report) Order, 2003 are not applicable to the Company.
14. In our opinion, the Company is not dealing in or trading in shares, securities, debentures and other investments.
15. In our opinion, the terms and conditions on which the Company has given guarantees for loans taken by others from banks or financial institutions are not prejudicial to the interest of the Company, since these guarantees are given for the subsidiary/ company promoted by the Company.
16. In our opinion, the term loans have been applied for the purpose for which they were raised.
17. On an overall examination of the balance sheet of the Company, we report that no funds raised on short terms basis have been used for long term investment.
18. The Company has not issued any preferential allotment of shares during the year.
19. The Company has not issued any debentures during the year.
20. The Company has not raised any money by way of public issue during the year.
21. According to the information and explanations given to us, no fraud on or by the company which is material in amount and nature has been noticed or reported during the course of our audit.

**For K K Soni & Co.**  
**Chartered Accountants**

K.K. Soni  
**Partner (Mem. No. 07737)**

**For S. Bhandari & Co.**  
**Chartered Accountants**

S.S. Bhandari  
**Partner (Mem. No. 11332)**

**For S.C. Ajmera & Co.**  
**Chartered Accountants**

S.C. Ajmera  
**Partner (Mem.No. 81398)**

**For Brahmayya & Co.**  
**Chartered Accountants**

V.Seetaramaiah  
**Partner (Mem. No. 003848)**

**For Lodha & Co.**  
**Chartered Accountants**

H.K. Verma  
**Partner (Mem. No. 55104)**

**New Delhi**  
**June 26, 2006**