Environmental Benefits of Advanced Oil and Gas Exploration and Production Technology
Technology

Exploration
1. 3-D Seismic
2. 4-D Visualization
3. Remote Sensing
4. Subsalt Imaging

Drilling and Completion
5. CO₂-Sand Fracturing
6. Coiled Tubing
7. Horizontal Drilling
8. Hydraulic Fracturing
9. Measurement-While-Drilling
10. Modern Drilling Bits
11. Multilateral Drilling
12. Offshore Drilling
13. Pneumatic Drilling
14. Slimhole Drilling
15. Synthetic Drilling Muds

Production
16. Acid Gas Removal and Recovery
17. Artificial Lift Optimization
18. Coalbed Methane Recovery
19. Freeze-Thaw/Evaporation
20. Gas-to-Liquids Conversion
21. Glycol Dehydration
22. Advanced Data Management
23. Improved Recovery Processes
24. Leak Detection and Measurement Systems
25. Low-Bleed Pneumatic Devices
26. Offshore Platforms
27. Downhole Oil/Water Separation
28. Safety & Environmental Management Programs
29. Vapor Recovery Units

Site Restoration
30. Advanced Approaches to Site Restoration
31. Rigs to Reefs
32. Road Mix and Roadspreading

Sensitive Environments
33. DOE-BLM Partnership
34. Coastal and Nearshore Operations
35. Insulated Ice Pads
36. North Slope Operations

Environmental Benefits
The technologies described in these Fact Sheets are merely representative of the numerous advances in exploration and production technology over the last three decades and, as such, are not intended as an exhaustive inventory of these advances.