AAPL FORM 610 MODEL FORM OPERATING AGREEMENT
(See also AAPL 610 – 1989 MODEL FORM);
(See also JOINT OPERATING AGREEMENTS)
Generally 52:11.01 et seq.
Abandonment of wells 52:11.12[1],[2]
Acreage or cash contributions 52:11.16
Exculpatory language, enforceability of 52:11.04
Execution by less than all parties 52:11.19
History 52:11.02
Lease renewal or extension 52:11.13
Lease termination/surrender 52:11.12[3],[4]
Liens and payment defaults 52:11.14
Limitation on expenditures 52:11.15
Loss of title 52:11.05
Only one unit operator 52:11.06
Operator and nonoperators, relationship between 52:11.03
   Fiduciary duty created by agreement 52:11.03[1]
   Fiduciary relationship limited by agreement 52:11.03[2]
   No fiduciary duty 52:11.03[3]
Operator obligations re test or initial well 52:11.09
Operator of unit 52:11.06
Preferential right to purchase 52:11.17
Production in kind, right to take 52:11.11
Prohibition on partition 52:11.18
Resignation or removal of operator 52:11.07
Subsequent operations 52:11.10
   Election as to subsequent operation 52:11.10[6],[7]
   Non-consent provisions 52:11.10[8]-[10]
   Notice of subsequent operation 52:11.10[3]-[5]
   Sidetrack operations 52:11.10[1],[2]
Successor operator 52:11.08

AAPL 610 – 1989 MODEL FORM OPERATING AGREEMENT: HORIZONTAL
MODIFICATIONS AND OTHER DEVELOPMENTS
Generally 59:29.01 et seq.
Article I—definitions 59:29.03[1]
   AFE 59:29.03[1][a]
   Deepen 59:29.03[1][b]
   Displacement 59:29.03[1][c]
   Drillsite 59:29.03[1][d]
   Horizontal rig move-on period 59:29.03[1][e]
   Horizontal well 59:29.03[1][f]
   Lateral 59:29.03[1][g]
   Plug back 59:29.03[1][h]
   Sidetrack 59:29.03[1][i]
Spudder rig 59:29.03[1][j]
Terminus 59:29.03[1][k]
Total measured depth 59:29.03[1][l]
Vertical well 59:29.03[1][m]

Article VI—drilling and development 59:29.03[2]
  Article VI.A.: initial well 59:29.03[2][a]
  Article VI.B.1.: subsequent operations – proposed operations 59:29.03[2][b]
  Article VI.B.4.: subsequent operations – deepening 59:29.03[2][c]
  Article VI.B.5.: subsequent operations – sidetracking 59:29.03[2][d]
  Article VI.B.9.: subsequent operations – spudder rigs 59:29.03[2][e]
  Article VI.B.10.: subsequent operations – multi-well pads 59:29.03[2][f]
  Article VI.C.1.: completion of wells – completion (casing point election) 59:29.03[2][g]

Article XV—miscellaneous (operations without execution of all parties on exhibit A) 59:29.03[3]

Article XVI—other provisions 59:29.03[4]
  Conflict of terms 59:29.03[4][a]
  Operator's duty 59:29.03[4][b]
  Priority of operations 59:29.03[4][c]

History 59:29.02

Recent cases 59:29.04
  Come Big or Stay Home, LLC v. EOG Resources, Inc. 59:29.04[1]

Topics being considered for the new model form 59:29.05
  Continuing/successor liability 59:29.05[2]
  Disclosure of information and confidentiality 59:29.05[4]
  Exculpatory clause 59:29.05[1]
  Title/interests of the parties 59:29.05[3]

ABORIGINAL
(See CANADIAN ABORIGINAL RIGHTS);
(See MINING AND ABORIGINAL RIGHTS IN CANADA)

ABORIGINAL TITLE—TSILHQOT'IN NATION V. BRITISH COLUMBIA

Generally 61:14B.01 et seq.
Aboriginal land legal regimes in Canada 61:14B.02
  Duty to consult 61:14B.02[4]
  Historical treaties 61:14B.02[1]
    Modern treaties/land claims agreements 61:14B.02[2]
    Non-treaty areas: Pre-Tsilhqot'in jurisprudence 61:14B.02[3]
Implications and unanswered questions 61:14B.04
Proving aboriginal title in the courts: Tsilhqot'in Nation v. British Columbia 61:14B.03
  Site-specific approach 61:14B.03[2]
  Territorial approach 61:14B.03[1]
    Territorial approach endorsed by Supreme Court 61:14B.03[3]

ACCESS
Across adjacent lands 50:10.04
  Federal lands 50:10.04[1]
  Indian lands 50:10.04[2]
  Private lands 50:10.04[3]
Oil and gas leases 50:10.03
  Federal lands 50:10.03[1]
  Indian lands 50:10.03[2]
  Private lands 50:10.03[3]
Simultaneous mineral operations 50:10.06
ACCESS ACROSS FEDERAL PUBLIC LANDS
Generally 57:27.01 et seq.
Emerging issues 57:27.05
  Directional drilling 57:27.05[2]
  Public access 57:27.05[1]
General access issues 57:27.04
  NEPA 57:27.04[1]
  Species issues 57:27.04[2]
Key access issues 2000-2011 57:27.02[2]
  ANILCA continuing interpretation issues 57:27.02[2][d]
  Department of the Interior wild lands initiative 57:27.02[2][c]
  Forest Service Roadless Rule 57:27.02[2][a]
  Forest Service split estate issues 57:27.02[2][b]
  RS 2477 litigation 57:27.02[2][e]
Statutes governing access 57:27.02[1][b]
Surface access to severed federal minerals 61:8.01 et seq.
Surface management agency rules 57:27.03
  Bureau of Land Management 57:27.03[4]
  Fish and Wildlife Service 57:27.03[3]
  Forest Service 57:27.03[1]
  National Park Service 57:27.03[2]
  National Wild and Scenic Rivers System 57:27.03[2][b]
  National Wilderness Preservation System 57:27.03[2][a]
Theories governing access 57:27.02[1][a]

ACHIEVING CONSENSUS OVER ENERGY DEVELOPMENT ON PUBLIC LANDS:
LESSONS FROM NINE MILE CANYON
Generally 57:3.01 et seq.
ADR opportunities elsewhere 57:3.05
Background 57:3.02
  Bill Barrett Corporation (BBC) project proposal 57:3.02[3]
  Legal framework 57:3.02[1]
  Nine Mile Canyon and West Tavaputs Plateau area 57:3.02[2]
Nine Mile Canyon: well site access and rock art protection 57:3.03
  Cultural resource concerns 57:3.03[1]
  Enforcement and consequences 57:3.03[4]
  Lessons learned 57:3.03[5]
  NHPA and formal consultation 57:3.03[2]
  Programmatic agreement 57:3.03[3]
West Tavaputs Plateau: drilling and wilderness 57:3.04
  BBC-SUWA agreement 57:3.04[2]
  BBC-SUWA negotiation process 57:3.04[1]
  Lessons learned 57:3.04[3]

ACQUISITION DUE DILIGENCE
Generally 51:23.01 et seq.
Sarbanes-Oxley implications 51:23.01 et seq.
  Additional areas of inquiry 51:23.03[1]
  Additional sources of information 51:23.03[2]
  Disclosure controls and internal controls 51:23.02
  Sample documentation 51:23.04
ACQUISITION OF PROPERTIES IN FINANCIAL DISTRESS

Generally 56:17.01 et seq.

Credit bidding by secured creditor 56:17.12
  Authority of syndicate agent 56:17.12[3]
  In auction pursuant to a plan 56:17.12[2]
  In Section 363 sale 56:17.12[1]

Interests of third parties 56:17.09
  Sale of property subject to leasehold interest 56:17.09[2]
  Section 363(h) sale of co-owner's interest 56:17.09[1]

Preferential rights, enforceability 56:17.06
  Analysis under bankruptcy code 56:17.06[2]
  By non-debtor 56:17.06[5]
  Co-owner preferential rights 56:17.06[7]
  Multiple properties and package sales 56:17.06[6]
  Oil and gas industry 56:17.06[1]
  Section 365 of bankruptcy code 56:17.06[3]

Procedure 56:17.05
  Appeal 56:17.05[3]
  Orders establishing bid procedures 56:17.05[1]
  Upset bids 56:17.05[4]

Sales in Chapter 11 56:17.02
Section 363(b)(1) sale outside ordinary course 56:17.03
  Concept of ordinary course of business 56:17.03[1]
  Oil and gas industry 56:17.03[3]
  Test for determining 56:17.03[2]
Section 363(m) protection of good faith purchaser 56:17.07
Section 363(n) avoidance of sale if price controlled by agreement 56:17.08

Secured creditor problem 56:17.11

Standards for approving Section 363(b) sales 56:17.04
  Current test 56:17.04[3]
  Second Circuit sets standard 56:17.04[2]
  Section 363(f) sale of substantially all debtor's assets 56:17.04[4]

Sub Rosa plan problem 56:17.10

ADAPTIVE MANAGEMENT
(See also ENDANGERED SPECIES ACT);
(See also WILDLIFE)

Generally 54:11.01 et seq.

Application 54:11.03
  CWA § 404 wetlands compensatory mitigation 54:11.03[2][b]
  Environmental impact assessment 54:11.03[1]
  ESA habitat conservation plans 54:11.03[2][a]
  Public land management planning 54:11.03[3]
  Regulation of private resources 54:11.03[2]

Court decisions 54:11.05
  ESA 54:11.05[2]
  NEPA 54:11.05[1]

Definition 54:11.02
  Origins and theory 54:11.02[1]
  Statutory and regulatory definitions 54:11.02[2]

Demands on agency resources 54:11.04[1]
Lack of public participation 54:11.04[5]
Uncertainty for regulated interests 54:11.04[4]
ADMINISTRATIVE PROCEDURE
(See GUIDANCE DOCUMENTS);
(See SCIENCE IN THE COURTROOM)

ADMINISTRATIVE RECORD IN PUBLIC LAND LITIGATION
Generally 58:22.01 et seq.
Compiling the administrative record 58:22.03
   Agency guidance 58:22.03[4]
      Agency responsibility and presumption of regularity 58:22.03[1]
      Inclusion of deliberative and privileged materials 58:22.03[3]
      Judicial standards 58:22.03[2]
   Completion of the record 58:22.04[1]
   Extra-record evidence 58:22.04[2]
      All relevant factors 58:22.04[2][b]
      Bad-faith exception 58:22.04[2][a]
      Technical or scientific matters 58:22.04[2][c]
   MOU or cost recovery agreement covers contemporaneous record 58:22.05[4]
   Participation in pre-application process 58:22.05[1]
   Public participation process 58:22.05[3]
   Record review rule 58:22.02
   Third-party contractor treated as third party 58:22.05[2]

AIR QUALITY
(See CLEAN AIR ACT);
(See OZONE)

AIR QUALITY LITIGATION—MINERAL DEVELOPMENT ON PUBLIC LANDS
Generally 58:25.01 et seq.
Common themes 58:25.03
Recent decisions 58:25.02
   Amigos Bravos v. BLM (Amigos Bravos) 58:25.02[5]
   Natural Resources Defense Council v. Vilsack (Hell’s Gulch) 58:25.02[3]
   San Juan Citizens Alliance v. Stiles (San Juan Citizens) 58:25.02[2]
   Theodore Roosevelt Conservation Partnership v. Salazar (Atlantic Rim) 58:25.02[1]

AIR QUALITY: NEW AND EVOLVING REGULATIONS IMPACTING OIL AND GAS DEVELOPMENT
Generally 58.6.01 et seq.
Aggregation of oil and gas operations 58.6.06
   Florida River compression facility—contiguous or adjacent 58.6.06[2]
   Frederick Compressor Station—contiguous or adjacent 58.6.06[1]
   Lessons—contiguous or adjacent 58.6.06[5]
   Marcellus shale—common control 58.6.06[4][b]
   Midwest—contiguous or adjacent 58.6.06[4][a]
   Sims Mesa CDP—common control 58.6.06[3]
Clean Air Act framework 58.6.02
   Federal agencies, oil and gas commissions, local governments 58.6.02[7]
   Hazardous air pollutants for new and existing sources (NESHAP) 58.6.02[5]
   National Ambient Air Quality Standards (NAAQS) 58.6.02[1]
   New and modified sources (NSPS) 58.6.02[4]
   Permits 58.6.02[3]
   State implementation plans 58.6.02[2]
   State primacy 58.6.02[6]
Emission sources and control technologies 58.6.03
Enforcement 58.6.12
EPA’s Indian country rules 58:6.07
   Implementation 58:6.07[3]
   Permitting 58:6.07[1]
   Time frames 58:6.07[2]
Exemption for startup, shutdown, and malfunction 58:6.11
Greenhouse gas regulation 58:6.08
Land management decisions and NEPA 58:6.09
Local regulation 58:6.13
Modeling 58:6.10
New and revised standards for oil and gas operations 58:6.04
   NESHAP HH 58:6.04[4]
   NSPS KKK 58:6.04[2]
   NSPS LLL 58:6.04[3]
   NSPS OOOO 58:6.04[1]
   RICE subject to NSPS and NESHAP 58:6.04[5]
Ozone nonattainment 58:6.05
   Nonattainment areas in Intermountain West associated with oil and gas
development 58:6.05[3]
   Ozone advance program 58:6.05[4]
   Practical impacts 58:6.05[2]

ALASKA LANDS: A PRIMER
Generally 61:7.01 et seq.
Alaska National Interest Lands Conservation Act (ANILCA) 61:7.04
   Access rights 61:7.04[8]
   Acquiring title to meanderable waters 61:7.04[7]
   Compromise between conservation and other interests 61:7.04[2]
   Conservation system units (CSUs), meshing with existing land rights 61:7.04[5]
   CSUs, reservation of 61:7.04[3]
   Federal onshore oil and gas programs in Alaska 61:7.04[10]
   Native allotments 61:7.04[9]
   No more clause 61:7.04[4]
   Origins 61:7.04[1]
   Protecting subsistence activities 61:7.04[6]
Alaska Native Claims Settlement Act (ANCSA) 61:7.03
   Assertion of native claims 61:7.03[1]
   Congressional policy 61:7.03[2]
   Extinguishment of aboriginal rights 61:7.03[4][a]
   Movement towards tribal sovereignty and Indian country 61:7.03[5]
   Native corporations as primary structure for settlement 61:7.03[3]
   Revocation of existing reservations 61:7.03[4][b]
   Withdrawal, selection, and conveyance of lands 61:7.03[4][c]
Alaska Statehood Act, state lands and minerals generally 61:7.02
   Alaska Constitution art. VIII 61:7.02[4][b]
   Alaska Land Act 61:7.02[4][c]
   Alaska Land Transfer Acceleration Act of 2004 61:7.02[3]
   Selections and conveyances under the Statehood Act 61:7.02[2]
   State trust lands 61:7.02[4][d]

ALASKA NATIVE CLAIMS SETTLEMENT ACT (ANCSA)
Generally 53:12.01 et seq.
Aboriginal title 53:12.03[1]
   Extinguishment 53:12.03[1][b]
   History 53:12.03[1][a]
   Economic success 53:12.04
Native corporations 53:12.03[2]
   Alaska Native Fund 53:12.03[2][e]
   Native roll and shareholders 53:12.03[2][d]
Regional corporations 53:12.03[2][a]
Restrictions on alienation 53:12.03[2][c]
Village corporations 53:12.03[2][b]
Native lands, provisions relating to 53:12.03[4]
   Alaska Land Transfer Acceleration Act 53:12.03[4][h]
   Indian reservations 53:12.03[4][f]
   Land exchanges 53:12.03[4][d]
Regional corporation withdrawals and selections 53:12.03[4][b]
Southeastern Alaska Native corporations 53:12.03[4][e]
Third party rights 53:12.03[4][g]
Village and regional conveyances 53:12.03[4][c]
Village withdrawals and selections 53:12.03[4][a]
Securities laws and proxy solicitations 53:12.03[5]
Sharing mineral wealth 53:12.03[3]
Summary 53:12.02

ALBERTA
Oil sands (See OIL SANDS)

ALTERNATIVE ENERGY
(See RENEWABLE ENERGY)

ANTI-CORRUPTION AND TRANSPARENCY STANDARDS
Generally 58:20.01 et seq.
Australian bribery regime 58:20.04[3]
Canada’s Corruption of Foreign Public Officials Act 58:20.04[2]
   Anti-bribery provisions 58:20.04[2][a]
   Enforcement trends 58:20.04[2][b]
Domestic bribery laws 58:20.04[4]
Extraterritorial anticorruption laws 51:3.01 et seq.
Implications for extractive companies 58:20.05
   Compliance programs 58:20.05[2]
   Extractive-industry-specific compliance and transparency standards 58:20.05[3]
   Where issues arise 58:20.05[1]
International financial institutions 58:20.04[5]
Treaties 58:20.03
   OECD Convention 58:20.03[1]
   UN Convention Against Corruption 58:20.03[2]
UK Bribery Act 58:20.04[1]
   Anti-bribery provisions 58:20.04[1][a]
   Enforcement trends/SFO statements 58:20.04[1][b]
U.S. Foreign Corrupt Practices Act 58:20.02
   Anti-bribery provisions 58:20.02[2]
   Enforcement trends 58:20.02[6]
   Penalties 58:20.02[4]

ANTI-MONEY LAUNDERING STATUTES
Generally 51:3.03
International standards and organizations 51:3.03[2]
U.S. laws and regulations 51:3.03[1]
ANTITRUST CONSIDERATIONS, RECENT ENFORCEMENT ACTIONS, AND PROPOSED SOLUTIONS WHEN USING AMIS AND OTHER FORMS OF COLLABORATION IN ACQUIRING LEASES

Generally 59:13.01 et seq.
Collaborative lease acquisition 59:13.02
AMIs 59:13.02[1]
Joint bidding arrangements 59:13.02[2]
Joint ventures 59:13.02[3]

Federal antitrust laws 59:13.03[1]
  Application of per se rule 59:13.03[1][a][ii]
  Application to collaborations 59:13.03[1][a][iii]
  Enforcement and available remedies 59:13.03[1][b]
  Per se vs. rule of reason 59:13.03[1][a][i]
  Potential plaintiffs 59:13.03[1][c]
Sherman Act 59:13.03[1][a]

Recent enforcement actions 59:13.04
Lessons 59:13.04[3]
United States v. SG Interests I, Ltd. 59:13.04[1]

State antitrust laws 59:13.03[2]

ANTITRUST LAW
(See JOINT OPERATIONS AND ANTITRUST LAW)

APA
(See ADMINISTRATIVE PROCEDURE)

ARBITRATION
(See DISPUTE RESOLUTION)

ARCHAEOLOGICAL AND PALEONTOLOGICAL RESOURCES PROTECTION ACTS: THE LEGAL PERSPECTIVE
(See also CULTURAL RESOURCES);
(See also NATIVE AMERICAN);
(See also INDIAN)
Generally 56:14A.01 et seq.
Archaeological Resources Protection Act 56:14A.02
  Application to development on federal and Indian lands 56:14A.02[3]
  Essential provisions and definitions 56:14A.02[2]
  History and purpose 56:14A.02[1]
Avoiding ARPA violation 56:14A.05
Civil enforcement process 56:14A.04
  Calculation of civil penalties 56:14A.04[2]
  Civil enforcement 56:14A.04[3]
  Investigation and site assessment 56:14A.04[1]
Settlements 56:14A.04[4]
Paleontological Resources Preservation Act 56:14A.03
  Application for development on federal lands 56:14A.03[3]
  Departmental guidance 56:14A.03[5]
  History and purpose 56:14A.03[1]
  Status of rulemaking 56:14A.03[4]
  Substantive provisions 56:14A.03[2]
ARCHAEOLOGICAL RESOURCES
(See ARCHAEOLOGICAL RESOURCES PROTECTION ACT: THE ARCHAEOLOGIST’S
PERSPECTIVE; ARCHAEOLOGICAL AND PALEONTOLOGICAL RESOURCES
PROTECTION ACTS: THE LEGAL PERSPECTIVE)

ARCHAEOLOGICAL RESOURCES PROTECTION ACT:
THE ARCHAEOLOGIST’S PERSPECTIVE
Generally 56:14B.01 et seq.
Archaeological investigations in civil cases 56:14B.06
Archaeological problems with Archaeological Resources Protection
Act of 1979 (ARPA) 56:14B.04
Determining archaeological value 56:14B.03
Minimizing operator risk 56:14B.07
Society for American Archaeology (SAA) standards 56:14B.05
  Standard 1—identification of archaeological resources in ARPA violation 56:14B.05[1]
  Standard 2—scale of scientific information retrieval to be used 56:14B.05[2]
  Standard 3—methods of scientific information retrieval 56:14B.05[3]
  Standard 4—scientific information retrieval standards 56:14B.05[4]
Valuation 56:14B.02

AREAS OF INTEREST
(See also AREAS OF MUTUAL INTEREST)
Generally 55:38.01 et seq.
Acquisitions 55:38.03
  Decision to acquire 55:38.03[4]
  Inadvertent 55:38.03[6]
Confidentiality agreements 55:38.02[3][a], .03[3]
Defining the AOI 55:38.03[2]
  Third-party agreements 55:38.03[2][e]
Duration and scope 55:38.03[5]
  Covenants running with the land 55:38.03[5][a]
  Rule against perpetuities 55:38.03[5][b]
Exploration or earn-in agreements 55:38.02[3][c], .05[2][b]
Latent AOI 55:38.04
Management perspectives and practical considerations 55:38.05
  AOI administration 55:38.05[5]
  Clearinghouse 55:38.05[4]
  Documentation 55:38.05[3]
  In confidentiality agreements 55:38.05[2][a]
  In earn-in and joint venture agreements 55:38.05[2][b]
  In royalty agreements 55:38.05[2][c]
  Mergers and acquisitions 55:38.05[6]
  Static versus dynamic provisions 55:38.05[2][d]
Mining venture agreements 55:38.02[3][d]
Options to lease, mining leases, and royalty agreements 55:38.02[3][b], .05[2][c]
Types of agreements and typical provisions 55:38.02[3]

AREAS OF MUTUAL INTEREST
Generally 52:27.01 et seq.
AMI agreements 52:27.03
  Definition 52:27.03[1][2]
  Issue checklist 52:27.05
  Negotiation 52:27.04
  Overlapping agreements 52:27.06
  Purpose and advantage 52:27.04[1]
Antitrust considerations 59:13.01 et seq.
ARTISANAL AND SMALL-SCALE MINING IN NATIONAL LEGISLATION: CASE STUDIES FROM SUB-SAHARAN AFRICA

Generally 59:19.01 et seq.
Contemporary challenges to ASM inclusion today 59:19.03
Access to land/endowments 59:19.03[1]
Commercialisation 59:19.03[4]
Organisation of artisanal and small-scale activities 59:19.03[2]
Taxation 59:19.03[3]

Mining legislation—past role and present potential in shaping national participation in mining 59:19.02
Diamond fields of 1870s South Africa 59:19.02[2]
Exporting the early model outward 59:19.02[3]
Legislation as key mediating force 59:19.02[1]

ATTORNEY-CLIENT PRIVILEGE
(See also ETHICAL CONSIDERATIONS IN PRIVILEGED COMMUNICATIONS);
(See also CRIMINAL ENFORCEMENT OF ENVIRONMENTAL LAWS)

ABA task force 51:4.03
Definition 51:4.02[1], [3]
Federal regulation of attorneys 51:4.05
Government assertion 51:4.02[4]
Privilege not absolute 51:4.02[5]
State regulation of attorneys 51:4.04
Waiver of privilege 51:4.06

AUTHENTICATION OF DOCUMENTS IN COMMON LAW AND CIVIL LAW JURISDICTIONS

Generally 52:23.01 et seq.
Apostille, form of 52:23.05
Apostille vs. chain authentication 52:23.02
Chain authentication 52:23.02[2]-[7]
Hague convention and the apostille 52:23.02[1]
Protocol on uniformity of powers of attorney 52:23.02[7]
Civil and common law notaries 52:23.03
Civil vs. common law notarial systems 52:23.03[2]
History 52:23.03[1]
Role and powers of civil vs. common law notaries 52:23.03[3]
Execution, authentication, and recording in civil law jurisdictions 52:23.04
Table of requirements by jurisdiction 52:23.06

AVIAN PROTECTION: MANAGING PROJECT RISK

Generally 57:21.01 et seq.
BGEPA legal framework 57:21.02[2]
Bald eagle management guidelines 57:21.02[2][e]
Eagle permit program 57:21.02[2][d]
Enforcement 57:21.02[2][c]
Penalties 57:21.02[2][b]
Protections 57:21.02[2][a]
Developing a permit program under MBTA 57:21.04
   Legal risk and uncertainty 57:21.04[1]
MBTA legal framework 57:21.02[1]
   Enforcement 57:21.02[1][f]
   Executive Order 13186 57:21.02[1][g]
   Penalties 57:21.02[1][e]
   Permits 57:21.02[1][d]
   Protections 57:21.02[1][c]
   Purpose 57:21.02[1][a]
Species covered 57:21.02[1][b]
Obstacles posed by MBTA and BGEPA 57:21.01[2]
Overview of MBTA and BGEPA 57:21.01[1]
Reducing risk under BGEPA 57:21.03[2]
   Siting 57:21.03[2][a]
   Take authorization 57:21.03[2][b]
Reducing risk under MBTA 57:21.03[1]
   Avian and bat protection plans 57:21.03[1][c]
   Siting 57:21.03[1][a]
   Voluntary conservation measures 57:21.03[1][b]
The future 57:21.05

BANKRUPTCY
   (See ACQUISITION OF PROPERTIES IN FINANCIAL DISTRESS);
   (See FINANCIAL CRISIS, FROM OIL AND GAS PERSPECTIVE);
   (See INSOLVENCY ZONE);
   (See REORGANIZATIONS)

BANKRUPTCY, JOINT OPERATIONS
   Generally 56:27.01 et seq.
Basics of Bankruptcy Code Section 365 56:27.03
   Assumption of executory contract by debtor 56:27.03[4]
   Contract assumed or rejected 56:27.03[3]
   Definition of executory contract 56:27.03[1]
   Requirements for assuming or rejecting an executory contract 56:27.03[2]
   Termination or rejection of executory contract by debtor 56:27.03[5]
   Termination or rejection of executory contract by non-debtor 56:27.03[6]
Joint operating agreements as executory contracts 56:27.04
   Non-operator as insolvent party in JOA 56:27.04[2][a]
   Oil and gas leases 56:27.04[1]
   Operator as insolvent party in JOA 56:27.04[2][b]
Overview of U.S. bankruptcy system 56:27.02
Rights of contractors and vendors 56:27.06
Rights of royalty owners and other interest holders 56:27.05
   Overlap with other jurisdictions 56:27.05[1]
Setoff and recoupment 56:27.07

BEVILL EXCLUSION
   (See RCRA BEVILL EXCLUSION)

BONDING
   (See ENVIRONMENTAL/RECLAMATION FINANCIAL ASSURANCES);
   (See EPA BONDING OF HARDROCK MINES)
   (See FINANCIAL ASSURANCE FOR RECLAMATION)
BOUNDARY DISPUTES
Generally 50:20.01 et seq.
Boundaries and priorities of calls 50:20.02
Boundary litigation
   Generally 50:20.04
      Adverse possession or limitations title 50:20.04[3]
      Partition 50:20.04[2]
      Trespass to try title 50:20.04[1]
Establishing boundary lines 50:20.03

BROWNFIELD REDEVELOPMENT, RISK-REDUCTION STRATEGIES
Generally 52:16.01 et seq.
Agency assurances 52:16.03
   CERCLA guidance and policy 52:16.03[2]
   Hierarchy 52:16.03[1]
   Mine-scarred land policy 52:16.03[3]
   RCRA guidance policy 52:16.03[4]
   Statutory solutions 52:16.03[5]
Bona fide prospective purchaser protection 52:16.02
   Appropriate care 52:16.02[3]
   Taking reasonable steps 52:16.02[3]
   Windfall lien 52:16.02[4]
Cleanup completion strategy 52:16.07
Institutional controls 52:16.06
Modifying CERCLA consent decrees 52:16.04
Stopping releases and preventing exposure 52:16.05

CANADA (See CANADIAN)
Aboriginal title (See ABORIGINAL TITLE—TSILHQOT’IN NATION; MINING AND
   ABORIGINAL RIGHTS IN CANADA)
Diamonds (See DIAMONDS)
Oil sands (See OIL SANDS)

CANADA—THE MINING CAPITAL CAPITAL
Generally 57:7.01 et seq.
Alternatives to listing in Canada 57:7.13
CPCs and SPACs 57:7.07
Escrow restrictions 57:7.10
Founder share guidelines (the 15% rule) 57:7.09
Listing of exploration and mining companies in Canada 57:7.03
OTCQX 57:7.14
Preparing to list on a Canadian stock exchange 57:7.04
Qualifying transaction 57:7.08
Reasons for dominance of Canadian stock exchanges 57:7.02
Relative merits of an IPO vs. RTO 57:7.06
Reverse takeovers and backdoor listings 57:7.05
Share resale restrictions 57:7.11
U.S. company on a Canadian exchange 57:7.12

CANADIAN ABORIGINAL RIGHTS AND MINERAL DEVELOPMENT
(See also MINING AND ABORIGINAL RIGHTS IN CANADA)
Generally 56:5B.01 et seq.
Best practices 56:5B.07
Duty to consult and accommodate 56:5B.03
Governance: Who represents First Nations 56:5B.04
Historical overview 56:5B.02
  Aboriginal rights 56:5B.02[1]
  Federal and provincial powers 56:5B.02[3]
  Historical treaties 56:5B.02[2]
  Modern treaties 56:5B.02[4]
Intersection of regulatory approvals and aboriginal rights 56:5B.05
  Environmental assessment process 56:5B.05[2]
  Exploration phase 56:5B.05[1]
  Operational permits 56:5B.05[3]
Negotiating agreements 56:5B.06
  Government-to-government agreements 56:5B.06[1]
  Private party-First Nation agreements 56:5B.06[2]

CANADIAN ABORIGINAL TITLE
(See ABORIGINAL TITLE—TSILHQOT’IN NATION)

CANADIAN ENERGY EXPORTS
Generally 61:18A.01 et seq.
Canadian LNG exports 61:18A.06
Crude oil exports 61:18A.05
  Federally regulated pipelines 61:18A.05
  Rail 61:18A.05
Impact of NAFTA and CUSFTA 61:18A.02
Legal framework 61:18A.03
Proposed legislative changes and recent developments 61:18A.04

CANADIAN JUNIOR EXPLORATION AND MINING COMPANIES
Generally 51:16.01 et seq.
Common law principles 51:16.07
Hallmarks 51:16.03
Lack of funds, consequences of 51:16.09
Organizational structure 51:16.04
Securities laws and stock exchange requirements 51:16.05
  Continuous disclosure requirements 51:16.05[2]
  Listing requirements 51:16.05[1]
  Property acquisition requirements 51:16.05[4]
  Registration, prospectus exemptions, hold periods 51:16.05[5]
Transactional and contractual considerations 51:16.08
Why so many 51:16.02

CANADIAN NI 43-101
(See NATIONAL INSTRUMENT 43-101)

CAPTURE OF VENTILATED METHANE FROM COAL MINING
Generally 55:26.01 et seq.
Monetization of CMM 55:26.04
Ownership of methane 55:26.03
  Federal lands 55:26.03[1]
  Private lands 55:26.03[3]
  State lands 55:26.03[2]
Carboxylic acid 57:22.09

Carboxylic acid 57:22.09

CARBON, SOCIAL COST OF
(See GREENHOUSE GAS EMISSIONS AND THE SOCIAL COST OF CARBON)

CARBON DIOXIDE
(See CO₂)

CARBON SEQUESTRATION
(See GEOLOGIC CARBON SEQUESTRATION)

CERCLA
(See NATURAL RESOURCE DAMAGES UNDER)
(See EPA BONDING OF HARDROCK MINES UNDER)

CERCLA 108(B) FINANCIAL ASSURANCE FOR HARDROCK MINING
Generally 57:23.01 et seq.
Constitutional implications 57:23.06
Applicability of the Information Quality Act 57:23.07
Equal protection 57:23.06[3]
Fifth amendment takings 57:23.06[1]
Substantive due process 57:23.06[2]

EPA’s criteria for identifying hardrock mining as priority class for section 108(b) 57:23.03
Analysis of NPL data 57:23.03[2]
Applicability to nonoperating facilities 57:23.04[3]
Availability of insurance 57:23.04[4]
Consistent with risks identified in the rulemaking record 57:23.05
Evaluation of corporate structure and bankruptcy risk 57:23.03[3]
Existing regulations and requirements 57:23.04[2]
Inconsistent criteria 57:23.04[1]
Use of TRI data 57:23.03[1]

CHEMICAL SECURITY
Generally 51:21.01 et seq.
Federal framework 51:21.02
Maritime Transportation Security Act 51:21.03[1]
Mining and Safe Explosives Act 51:21.03[4]
Natural resource industry 51:21.03
Security planning 51:21.04
Security vulnerability assessments 51:21.03[3]

CHINESE STATE-OWNED ENTERPRISES (SOE)
Generally 54:18A.01 et seq., 18B.01 et seq.
Enforcement of contracts with SOEs 54:18A.03
Foreign Investment Review Policy 54:18B.01 et seq.
Australian principles 54:18B.05
Canadian guidelines 54:18B.06
Debate over investments by state-owned entities 54:18B.04
U.S. proposed regulations 54:18B.07
Overseas investment approvals 54:18A.02
  Industrial policy 54:18A.02[1]
  Ministry of commerce 54:18A.02[4]
  State Administration of Foreign Exchange 54:18A.02[5]
  State Asset Supervision and Administration Commission 54:18A.02[3]

CITIZEN SUITS
(See CLEAN WATER ACT)

CLEAN AIR ACT
(See also OZONE);
(See also SOURCE AGGREGATION DETERMINATIONS FOR OIL AND GAS FACILITIES UNDER CLEAN AIR ACT)
Equipment replacements 52:6.03[4]
Oil and gas industry, developments affecting 51:12.01 et seq.
  BART guidelines 51:12.02
  Boiler and process heater MACT 51:12.06
  EPA source aggregation policy 51:12.04
  NSR/PSD reform 51:12.03
  Oil and natural gas MACT Rule, area sources 51:12.07
  Ozone control requirements 51:12.08
  Regional haze rule 51:12.02
  RICE MACT 51:12.05
Startup/shutdown malfunction defense 52:6.03[3]
Title V permits 52:6.03[2]

CLEAN AIR ACT, INTERPLAY WITH FLPMA & NEPA
Generally 55:14.01 et seq.
Air quality analysis, addressing impacts identified through 55:14.04
  FLPMA § 202(c)(8)’s effect on BLM decision making 55:14.04[1]
BLM analysis of air quality under NEPA 55:14.03
  Agencies’ attempts to resolve issues re: type of analysis required 55:14.03[2][c]
  CAA thresholds and standards 55:14.03[3]
    De minimis thresholds 55:14.03[3][b]
    Land use planning and leasing stages 55:14.03[2][a]
  Methods of assessing impacts 55:14.03[1]
    NAAQS 55:14.03[3][a]
    PSD increments 55:14.03[3][c]
    Small projects and EAs 55:14.03[2][b]
  CAA protection of air quality 55:14.02[1]
  CAA regulation of oil and gas development on federal land 55:14.02[3]
  Coal mine methane regulation 55:26.02[2][a]
  Criteria pollutants and air quality standards relating to oil and gas 55:14.02[2]
    Fine particulates (PM$_{2.5}$) 55:14.02[2][b]
    Ozone 55:14.02[2][a]

CLEAN WATER ACT
Generally 50:24.01 et seq.
Citizen suits
  Generally 50:23.01 et seq.
  Against EPA 50:23.02[2]
  Causes of action 50:23.02
  Constitutional defenses 50:23.03[3]
  Defenses based on primary jurisdiction, abstention, and exemptions 50:23.03[4]
16

Discharge of pollutant 50:23.02[1][a]
Failure to have a CWA permit 50:23.02[1]
Fees and costs recovery 50:23.03[5]
Mandatory duties 50:23.03[2][c]
Notice of intent to sue 50:23.03[2][a]
Ongoing violations 50:23.03[1]
Potential defenses 50:23.03
Preclusion by government enforcement 50:23.03[2][b]
EPA’s role in section 404 59:25.01 et seq.
Rapanos/Carabell 52:6.02[2]
Regulation of discharges of fill vs. pollutants 52:6.02[3]
Section 404 jurisdiction 52:6.02
Stormwater regulatory program 52:6.02[5]
TMDL program 50:24.03
Water transfers, permitting requirements for 52:6.02[4]
Waters of the United States (See WATERS OF THE UNITED STATES)

CLEAN WATER ACT JUDICIAL DEVELOPMENTS
2016
Generally 62:21.01 et seq.
Attempted congressional nullification of the rule 62:21.06
Clean Water Rule, development 62:21.04
Clean Water Rule, summary 62:21.05
   Exclusions 62:21.05[2]
   Waters that are jurisdictional in all instances 62:21.05[1]
   Waters that may be jurisdictional on a case-specific basis 62:21.05[3]
Historical background of protected waters 62:21.02
Litigation over the rule 62:21.07
Supreme Court decisions on scope of Clean Water Act 62:21.03
   United States v. Riverside Bayview Homes, Inc. 62:21.03[1]

2010
Generally 56:19.01 et seq.
General permits 56:19.03[2]
Judicial review of administrative interpretations, summary 56:19.05
Mountaintop mining 56:19.03
Recent Supreme Court cases 56:19.02
   Coeur Alaska 56:19.02[1]
   Post-Rapanos 56:19.02[2]

CLIMATE CHANGE
(See ENDANGERED SPECIES ACT & GHG EMISSIONS);
(See GLOBAL WARMING);
(See GREENHOUSE GAS EMISSIONS);
(See GREENHOUSE GAS (GHG) EMISSIONS PROGRAMS);
(See GREENHOUSE GAS REGULATION);
(See RENEWABLE ENERGY)

CO₂ ENHANCED OIL RECOVERY: PREPARING FOR THE FLOOD
Generally 59:11.01 et seq.
CO₂ transport 59:11.05
Developing a CO₂ EOR field 59:11.03
   Infrastructure 59:11.03[2]
   Potential trespass 59:11.03[1]
Selecting a field 59:11.02
Appropriate materials and updated equipment for well sites 59:11.02[3]
Technical and geological reservoir parameters 59:11.02[1]
Unitization 59:11.02[2]
Special considerations for CO₂ 59:11.04
Federal tax incentives 59:11.04[4]
Natural vs. anthropogenic sources 59:11.04[2]
Scarcity amidst abundance 59:11.04[3]
What is CO₂? 59:11.04[1]
Using CO₂ 59:11.06
EOR advantages for storage 59:11.06[3]
Other environmental laws 59:11.06[4]
Regulation under UIC 59:11.06[2]
State regulation 59:11.06[5]
Storage vs. utilization 59:11.06[1]

COAL
(See also CAPTURE OF VENTILATED METHANE FROM COAL MINING)
Arbitration of price term disputes 53:29.01 et seq.
Arbitration procedures 53:29.01 et seq.
Long-term coal supply contracts 53:29.01 et seq.
Methane, capture of ventilated 55:26.01 et seq.
Price adjustment provisions 53:29.01 et seq.
Social cost of carbon 62:6.02[1]

COAL, CURRENT CHALLENGES
Generally 62:17.01 et seq.
Background on regulation of coal mining 62:17.03
Brief overview of coal 62:17.02
Cross-cutting issues for coal leasing, permitting, and mine plan review 62:17.09
Current market issues 62:17.04
Litigation 62:17.07
Major current legal issues affecting the coal mining industry 62:17.08
  Regulation of coal consumers 62:17.08[1]
  Regulation of coal mining 62:17.08[2]
Moving forward 62:17.10
Political constraints 62:17.05
Regulatory developments 62:17.06

COAL TRANSPORT AND EXPORT: LESSONS FROM THE PACIFIC NORTHWEST
Generally 60:17.01 et seq.
Case study from Oregon: Morrow Pacific Project 60:17.03
  Federal permitting and review 60:17.03[3]
  Project description 60:17.03[2]
Case study from Washington: Millennium Bulk Terminals Longview 60:17.04
  MBTL permitting requirements 60:17.04[2]
  NEPA/SEPA scoping 60:17.04[3]
  Project description 60:17.04[1]
Lessons from the Pacific Northwest 60:17.05
Scoping determinations under NEPA and ESA § 7 60:17.02
  Assessing impacts under ESA 60:17.02[2]
  “Hard look” under NEPA  60:17.02[1]

CODEVELOPMENT OF RENEWABLE AND CONVENTIONAL ENERGY ON PUBLIC LANDS
Generally 59:22.01 et seq.
Conventional energy resources and technology 59:22.02[2]
  Coal 59:22.02[2][b]
  Oil and gas 59:22.02[2][a]
Examples and challenges for codevelopment 59:22.06
  Multiple minerals management 59:22.06[2]
  Reuse of conventional sites 59:22.06[1]
  Split estate lands 59:22.06[3]
Federal policy guidance 59:22.05
Federal public lands and split estates 59:22.03
Federal renewable energy development 59:22.04
  Administering agencies 59:22.04[1]
  Energy development authorization 59:22.04[2]
  Permitting mechanisms 59:22.04[3]
Lessons in moving forward 59:22.07
Renewable energy resources and technology 59:22.02[1]
  Solar 59:22.02[1][a]
  Wind 59:22.02[1][b]

COLORADO RIVER BASIN WATER SUPPLY AND DEMAND OVERVIEW
Generally 58:7.01 et seq.
Approach to incorporate uncertainty 58:7.02
  Water demand scenarios 58:7.02[2]
  Water supply scenarios 58:7.02[1]
Next steps 58:7.04
Options and strategies to resolve supply and demand imbalances 58:7.03

COLUMBIA RIVER TREATY: WHAT DOES THE FUTURE HOLD?
Generally 59:7.01 et seq.
Conclusions 59:7.05
Flood control after 2024 59:7.03
  All related storage 59:7.03[2]
  Compensation for called upon operations post-2024 59:7.03[7]
  Effective use 59:7.03[3]
  Procedure for a call 59:7.03[6]
  Trigger for the called upon operation 59:7.03[1]
Winter flood operations 59:7.03[5]
Main provisions of the Columbia River Treaty (CRT) 59:7.02
  Benefits in Canada 59:7.02[6]
  Canada’s flood control obligations until 2024 59:7.02[1]
  Impacts of CRT facilities in Canada 59:7.02[5]
  Non-treaty storage 59:7.02[4]
  Power provisions 59:7.02[2]
  Treatment of Libby 59:7.02[3]
Treaty termination 59:7.04
  Treaty provisions expressly continued 59:7.04[1]

COMMUNITY PROPERTY
Generally 62:26.01 et seq.
Allocating income from property owned by married people 62:26.06
  Separate and community property 62:26.06[1]
Community property: authority to manage and control 62:26.03
  Spousal rights to independently control 62:26.03[1]
Nature of property owned by married people 62:26.02
  Title presumptions affecting community property 62:26.02[1]
Property owned by married people: changing the nature of 62:26.04
  Transmutation of separate property 62:26.04[1]
Quasi-community property 62:26.05
  Married persons in non-community property states 62:26.05[1]

COMPENSATORY MITIGATION
(See ADAPTIVE MANAGEMENT);
(See LANDSCAPE-SCALE MITIGATION);
(See PUBLIC LANDS: REGIONAL AND COMPENSATORY MITIGATION)

CONDEMNATION
Generally 53:5.01 et seq.
  Kelo v. New London 53:5.01 et seq.
    Background 53:5.02[1]
    Holding 53:5.02[2]
    Plan 53:5.02[2][b]
    Public purpose 53:5.02[2][a]
    Recent case law 53:5.03[3]
Natural resource developments, condemnation under federal law 53:5.04
  Hydroelectric power projects: Federal Power Act 53:5.04[3]
  Interstate gas pipelines: Natural Gas Act 53:5.04[2]

CONFIDENTIALITY AGREEMENTS
Generally 53:28.01 et seq.
  Aquiline v. IMA Exploration 53:28.02
  Area of interest provisions, mining 55:38.02[3][a], .03[3]
  Areas of exclusion 53:28.04[7]
  Common law principles on confidential information 53:28.03
  Definitions articulated by courts 53:28.04[1][b]
  Due diligence best practices 53:28.05
  Exclusions from definition of confidential information 53:28.04[2]
  Key functions 53:28.04[1]
  Non-solicitation 53:28.04[8]
  Relief 53:28.04[10]
  Restrictions on disclosure 53:28.04[3]
  Return or destruction of data 53:28.04[9]

CONGO MINING
(SEE MINING IN THE CONGO)

CONJUNCTIVE MANAGEMENT OF SURFACE WATER AND GROUND WATER
Generally 54:14.01 et seq.
  Artificial ground water recharge 54:14.05
  Hydrogeologic background 54:14.02
States with different legal systems 54:14.04
   Arizona 54:14.04[1][b]
   California 54:14.04[1][a]
   Nebraska 54:14.04[2][b]
   Texas 54:14.04[2][a]
States with integrated appropriation system 54:14.03
   Authorizing substitution (New Mexico) 54:14.03[3][a]
   Inconsequential impact 54:14.03[1]
   Requiring substitution (Colorado) 54:14.03[3][b]
   Tempering priority with reasonable use policy (Idaho) 54:14.03[4]
   Time lag, purchase and retirement of surface rights (New Mexico) 54:14.03[2]

CONSERVATION COMMISSIONS
   (See OIL AND GAS CONSERVATION COMMISSIONS)

CONSERVATION EASEMENTS
   Generally 51:22.01 et seq.
   Charitable trust 51:22.07
   Cy pres 51:22.07
   Eminent domain 51:22.05
   Enforcement of 51:22.06
   Growth in use of 51:22.01
   Interpretation of 51:22.06[2]
   Land trust 51:22.01
   Land Trust Alliance 51:22.01
   Modification of 51:22.07
   Recent developments 51:22.10
   Standing 51:22.06[1]
   State easement enabling statutes 51:22.02[2]
   Tax incentives 51:22.08
   Termination 51:22.07
   Terms 51:22.03
   Uniform Conservation Easement Act 51:22.02[1]
   Valuation of 51:22.09
   Water rights 51:22.02[2], .04

CORPORATE CRISIS COMMUNICATION: ETHICAL AND LEGAL CONSIDERATIONS
   Generally 59:3.01 et seq.
   Advising clients on or disclosure of crisis-related information 59:3.06
      Duty to disclose? 59:3.06[1]
      Implications on litigation or dealings with regulators 59:3.06[2][b]
      Requirements of other sources of authority 59:3.06[3]
      Selective disclosures prohibited 59:3.06[2][a]
   Duty to maintain client confidences 59:3.02
   Preventing inadvertent disclosure 59:3.05
   Sarbanes-Oxley Act of 2002 59:3.04
      Intersection between Model Rule 1.6(b) and “up-the-ladder” reporting 59:3.04[2]
      Up-the-ladder reporting 59:3.04[1]
   When disclosure of client confidences is required or permitted 59:3.03

CORPORATE SOCIAL RESPONSIBILITY: A FRAMEWORK FOR UNDERSTANDING
   THE LEGAL STRUCTURE
   (See also FREE, PRIOR, AND INFORMED CONSENT);
   (See also INDIGENOUS PEOPLES);
   (See also SOCIAL LICENSE)
   Generally 57:17A.01 et seq.
Extraterritorial legislation 57:17A.09
   Bribery Act 57:17A.09[2]
   Corruption of Foreign Public Officials Act 57:17A.09[1]
   Foreign Corrupt Practices Act 57:17A.09[3]
Finance related obligations 57:17A.06
   Equator principles 57:17A.06[3]
   International finance corporation, performance standards on social and environmental sustainability 57:17A.06[1]
   World Bank environmental, health, and safety guidelines 57:17A.06[2]
FPIC 57:17A.04[2]
Framework 57:17A.03
Industry norms and best practices: mining industry examples 57:17A.08
International guides/initiatives 57:17A.05
   Guiding principles for the implementation of the protect, respect, remedy framework 57:17A.05[2]
   Principles of responsible investment 57:17A.05[3]
   UN global compact 57:17A.05[1]
   Voluntary principles on security and human rights 57:17A.05[4]
Legal structure 57:17A.02
Peru legislation 57:17A.10[2]
South Africa legislation 57:17A.10[1]
Treaties and conventions 57:17A.04
   International convention on combating bribery of foreign officials 57:17A.04[4]
   International Labour Organization 57:17A.04[1]
   Organization for economic cooperation and development, guidelines for multinational enterprises 57:17A.04[3]
   UN convention against corruption 57:17A.04[5]
   UN declaration on the rights of indigenous peoples 57:17A.04[2]
Voluntary standards 57:17A.07
   AccountAbility standards 57:17A.07[3]
   Global Reporting Initiative 57:17A.07[4]
   International Organization for Standardization 57:17A.07[1]
   Social Accountability International 57:17A.07[2]

CORPORATE SOCIAL RESPONSIBILITY AND LAW: HUMAN RIGHTS STRATEGY AND LITIGATION READINESS
Generally 60:19.01 et seq.
Evolution of CSR in wake of Guiding Principles 60:19.02
   Applying causal filter 60:19.02[2][c]
   Business responsibility for human rights 60:19.02[1]
   CSR as legal science 60:19.02[3]
   Prioritizing and implementing remedial measures 60:19.02[2][d]
   Scope of human rights 60:19.02[2][b]
Implications of Guiding Principles 60:19.03
   Business respect for human rights and bilateral investment treaty protection 60:19.03[1]
   Human rights due diligence and transnational torts 60:19.03[2]
Role of counsel in CSR strategy 60:19.04
   Counsel as CSR hub 60:19.04[3]
   Limitations 60:19.04[2]
   Understand standards and risks 60:19.04[1]

CORPORATE SOCIAL RESPONSIBILITY AS ECONOMIC AND INFRASTRUCTURAL DEVELOPMENT
Generally 57:17B.01 et seq.
Competitive advantages 57:17B.03
Conflict as niche markets  57:17B.04[2]
  British Petroleum in Azerbaijan  57:17B.04[2][d]
  Caterpillar Tractor in Brazil  57:17B.04[2][c]
  Hamersley Iron in Australia  57:17B.04[2][b]
Framework  57:17B.05
  Common conflict elements  57:17B.05[3][a]
  Generally  57:17B.05[1]
  Liberia  57:17B.05[4]
  Preconciliation  57:17B.05[2]
  Process infrastructure development/IIGPs  57:17B.05[3][b]
Power of those who interpret our behavior  57:17B.04

CORRUPTION RISK IN THE RESOURCE SECTOR, MANAGING
Generally 60:20.01 et seq.
Exposure points 60:20.02[3]
  Development process 60:20.02[3][d]
  Managing revenue stream 60:20.02[3][e]
  Obtaining concession 60:20.02[3][a]
  Partners and intermediaries 60:20.02[3][b]
  Regulatory approval process 60:20.02[3][c]
Governance risks in resource-rich countries 60:20.02[1]
International enforcement of supply-side anti-corruption rules 60:20.03
  Board and senior management risk 60:20.03[4]
  Intergovernmental efforts to enhance enforcement cooperation 60:20.03[3]
  International enforcement 60:20.03[2]
  U.S. FCPA enforcement 60:20.03[1]
Key determinants of corruption risk 60:20.02
Resource access: race to securing 60:20.02[2]
Strategies to resist demand-side corruption 60:20.04
  Compliance implementation in-country & responding to bribe solicitation 60:20.04[1]
  Role of CSR in anti-corruption compliance 60:20.04[2]
  Role of resource revenue transparency 60:20.04[3]

COVENANTS THAT RUN WITH THE LAND
Generally 53:19.01 et seq.
Area of interest provisions, mining 55:38.03[5][a]
Assignability 53:19.04[5]
Definition 53:19.02
Effect of assignment or sublease 53:19.05
Historical development 53:19.03
Incidents of 53:19.04
Oil and gas transactions, application to 53:19.06

CREEPING NATIONALIZATION: LEGAL REMEDIES FOR FOREIGN INVESTORS
Generally 56:12.01 et seq.
Compensation available to foreign investors 56:12.04
  For a lawful expropriation 56:12.04[1]
  For an unlawful expropriation 56:12.04[2]
Compensation if no finding of regulatory expropriation 56:12.05
Determining when regulation is expropriation 56:12.02
  Conditions host state must satisfy for lawful expropriation 56:12.02[2]
  Factors tribunals consider 56:12.02[1]
Remedies for foreign investors 56:12.03
  Bilateral investment treaties (BITs) 56:12.03[2]
  Host country laws (unilateral commitments) 56:12.03[1]
  International agreements 56:12.03[3]
International court of justice  56:12.03[4]
Other remedies  56:12.03[5]

CRIMINAL
(See ENVIRONMENTAL LAWS, CRIMINAL ENFORCEMENT OF)

CRISIS MANAGEMENT
(See CORPORATE CRISIS COMMUNICATION)
Generally  50:2.01 et seq.
Case study: Shell, Greenpeace, and the Brent Spar  50:2.02
Crisis dynamics  50:2.03
Leading under pressure  50:2.04
Values, importance of  50:2.05

CRUDE OIL EXPORTS FROM THE U.S.
Generally  61:18B.01 et seq.
Benefits to permitting exports of crude oil  61:18B.05
Concerns surrounding exports  61:18B.06
Crude oil transport infrastructure  61:18B.04
Evolution of legal and regulatory export framework  61:18B.03
Historical export framework  61:18B.02
   Current legal framework  61:18B.02[3]
   Statutory enactments  61:18B.02[2]

CULTURAL RESOURCES
(See ARCHAEOLOGICAL RESOURCES);
(See INDIAN COUNTRY, INDIAN LANDS);
(See NATIVE AMERICAN SACRED PLACES, PROTECTION ON FEDERAL LANDS)

CULTURAL RESOURCES CONSULTATION: STRATEGIES FOR FEDERAL AGENCIES,
ENERGY PROJECT PROPPONENTS, AND TRIBES
Generally  60:22.01 et seq.
Legal requirements  60:22.02
   Agency regulations  60:22.02[7]
   AIRFA  60:22.02[5]
   ARPA  60:22.02[3]
   NAGPRA  60:22.02[4]
   NEPA  60:22.02[2]
   NHPA  60:22.02[1]
   Presidential pronouncements  60:22.02[6]
   UNDRIP  60:22.02[8]
Ruby Pipeline experience  60:22.03
   Agency work  60:22.03[3]
   Partnership with Council of Energy Resource Tribes  60:22.03[1]
   Recent case studies  60:22.04
   Results of Ruby’s tribal outreach  60:22.03[4]
   Tribal concerns  60:22.03[2]

CULTURAL RESOURCES MANAGEMENT IN THE U.S.
Generally  59:20A.01 et seq.
NAGPRA’s cultural items  59:20A.02[3][b]
   Excavation and removal  59:20A.02[3][e]
   Inadvertent discovery of cultural items  59:20A.02[3][d]
   Native American ownership or control  59:20A.02[3][c]
Practical recommendations  59:20A.04
Sacred sites and religious freedom considerations  59:20A.03
Tribal consultation role under NAGPRA  59:20A.02[3]
Tribal consultation under NEPA  59:20A.02[1]
Tribal consultation under NHPA § 106  59:20A.02[2]
  1992 amendments and enhanced tribal role  59:20A.02[2][c]
  Federal agencies’ consultation obligations  59:20A.02[2][b]
  Identifying interested tribes  59:20A.02[2][a]
  *Pueblo of Sandia v. United States*  59:20A.02[2][d]

**CYANIDE**

*(See INTERNATIONAL CYANIDE MANAGEMENT CODE)*

**CYBERSECURITY: INFORMATION GOVERNANCE AND INCIDENT RESPONSE; ETHICS AND PRIVILEGE**

Generally  62:3.01 *et seq.*

Attorney-client privilege  62:3.04
  Counsel’s role in information security program  62:3.04[2]
  Duty of confidentiality: foundation for privilege and work-product doctrine  62:3.04[1]
  Incident response process  62:3.04[3]
  Lessons learned  62:3.04[4]

Incident response  62:3.03
  After-action review  62:3.03[4]
  Breach notification obligations  62:3.03[3]
  Evolution  62:3.03[2]
  Incident response plan  62:3.03[1]

Information governance  62:3.02
  Audits and role of counsel  62:3.02[5]
  Cyber insurance  62:3.02[6]
  Data, location and flow  62:3.02[1]
  Data, value of  62:3.02[2]
  Information security strategy as new norm  62:3.02[4]
  Security measures  62:3.02[3]

**DAMAGES**

*(See NATURAL RESOURCE DAMAGES); (See NATURAL RESOURCE DAMAGES UNDER CERCLA); (See ENVIRONMENTAL RESTORATION DAMAGES)*

**DAUBERT**

*(See EVIDENCE, NATURAL RESOURCES LITIGATION)*

**DIAMONDS**

Generally  50:13.01 *et seq.*

Canada  50:13.01 *et seq.*

Forms
  Diamond marketing agreement  50:13.10
  Gross overriding royalty agreement  50:13.09

Geology  50:13.02

Joint ventures  50:13.08

Marketing agreements  50:13.07, .10
  Drafting checklist  50:13.07[1]

Mining history  50:13.03[1]-[3]

Production and marketing  50:13.04

Royalties  50:13.05
  Drafting checklist  50:13.05[2]
  Gross overriding royalty  50:13.05[1], .09
DISCLOSURE
(See ACQUISITION DUE DILIGENCE);
(See NATIONAL INSTRUMENT 43-101);
(See MINERAL RESERVES, DISCLOSURE OF)

DISCOVERY RULE, MINING LAW
Generally 52:18.01 et seq.
Application of tests 52:18.04
  Disputes between private parties 52:18.04[1]
  Disputes with the government 52:18.04[2]
1872 Mining Law 52:18.02
Excess reserves 52:18.06
Ongoing issues 52:18.05
Tests for discovery 52:18.03
  Marketability test 52:18.03[2]
  Prudent person test 52:18.03[1]
Validity determinations 52:18.07

DISPUTE RESOLUTION
Generally 50:8.01 et seq.
Arbitration, domestic 50:8.05
  Arbitral tribunal 50:8.05[6]
  Planning issues 50:8.05[9]
Arbitration, international 50:8.06
  Governing law 50:8.06[2]
  Planning issues 50:8.06[8]
BITs, NAFTA, and ECT 50:8.09
Expert determination 50:8.04
Forum selection 50:8.08
ICSID arbitration 50:8.07
International 53:24.01 et seq.
  Arbitration with states 53:24.06
  Drafting arbitration clauses and agreements 53:24.03
  Forum selection 53:24.02
  Litigation or arbitration 53:24.02
  Model arbitration clauses 53:24.08
  Place of arbitration, choosing 53:24.04
  Procedural rules, choosing 53:24.05
Mediation 50:8.03

DODD-FRANK ACT (See RESOURCE EXTRACTION DISCLOSURE UNDER SECTION 1504)

DROUGHT, PLANNING FOR
Generally 51:27.01 et seq.
Colorado River Basin 58:7.03
Mitigation planning 51:27.03
National Drought Mitigation Center 51:27.03
National Drought Policy Act 51:27.03
National Drought Preparedness Act 51:27.03
Policy and preparedness 51:27.02
Risk management 51:27.01 et seq.
DUE DILIGENCE: PRACTICAL AND ETHICAL ISSUES FOR LANDMEN AND ATTORNEYS
Generally 62:24.01 et seq.
Analyzing and assessing diligence needs and goals 62:24.03
  Business value proposition 62:24.03[1]
  Character of assets involved in transaction 62:24.03[2]
  Due diligence deliverables 62:24.03[5]
  Ethical considerations in analysis and assessment phase 62:24.03[6]
  Seller’s business records 62:24.03[3]
Defining the desired outcome 62:24.02
  Client’s goals for due diligence 62:24.02[2]
  Resources available for due diligence 62:24.02[3]
  Transition context 62:24.02[1]
Developing a due diligence plan 62:24.04
  Ethical considerations in the due diligence plan 62:24.04[3]
  Resource plan 62:24.04[1]
Executing the plan 62:24.05
  Communication 62:24.05[2]
  Evaluation and adjustment 62:24.05[3]
  Resources 62:24.05[1]

EARTHQUAKES
(See INDUCED SEISMICITY)

EASEMENTS
(See ACCESS);
(See CONSERVATION EASEMENTS)

ECONOMIC SANCTIONS: APPLICATION TO U.S. AND NON-U.S. EXTRACTIVE OPERATIONS
Generally 62:9.01 et seq.
Compliance and risk mitigation measures 62:9.05
  Cuba 62:9.03[2]
  Iran 62:9.03[1]
  Myanmar (Burma) 62:9.03[4]
  Russia and Crimea 62:9.03[3]
Economic sanctions 62:9.02
  Comprehensive U.S. sanctions of interest (Cuba, Iran, Myanmar, Russia-Crimea) 62:9.03
  Current targets of U.S. economic sanctions 62:9.02[3]
  Other jurisdictions 62:9.02[6]
  “Policy” basis of U.S. economic sanctions 62:9.02[1]
Enforcement actions 62:9.04
  CGG Services S.A. 62:9.04[3]
  Halliburton Atlantic Ltd./Halliburton Overseas Ltd. 62:9.04[4]
  Schlumberger Oilfield Holdings Ltd. 62:9.04[1]
  Weatherford International Ltd. 62:9.04[2]

EMERGING HYDROCARBON MARKETS
Managing risk in 55:30.01 et seq.
EMINENT DOMAIN
(See CONDEMNATION)

ENDANGERED SPECIES ACT
(See ENDANGERED SPECIES ACT & GHG EMISSIONS);
(See ENDANGERED SPECIES PROTECTION);
(See GREATER SAGE-GROUSE CONSERVATION STRATEGY);
(See PECE);
(See WILDLIFE PROTECTION)

ENDANGERED SPECIES ACT & GHG EMISSIONS
Generally 55:10.01 et seq.
2008 ESA polar bear listing and Bush administration 55:10.04
2008 revisions to § 7 rules 55:10.04[5]
GHG emissions outside range not “takes” 55:10.04[4]
Litigation challenging § 4(d) and § 7 rules 55:10.04[6]
Policy against using ESA to set climate change policy 55:10.04[2]
Undetectable effect on listed species does not trigger § 7 consultation 55:10.04[3]
ESA, generally 55:10.02
Future relationship between ESA and GHG emissions 55:10.06
Consequences of climate change for critical habitat 55:10.06[4]
Exotic uses of ESA 55:10.06[6]
GHG emissions from an individual project 55:10.06[2]
Global climate change may overwhelm ESA 55:10.06[7]
Reducing delays of § 7 consultation 55:10.06[3]
Section 7 and regulation of GHG emissions 55:10.06[1]
Unsettled role of ESA 55:10.06[5]
Obama administration ESA and GHG initiatives 55:10.05
Status before 2008 polar bear listing 55:10.03

ENDANGERED SPECIES ACT DEVELOPMENTS REGARDING IMPERILED BUT NOT (YET?) LISTED SPECIES
Generally 58:23.01 et seq.
Clearing the listing bottleneck 58:23.05
Corporate social responsibility 58:23.08
Endangered Species Act (ESA) regulatory framework 58:23.02
ESA listing bottleneck 58:23.04
ESA listing process 58:23.03
PECE policy in the courts 58:23.06
Species conservation 58:23.07

ENDANGERED SPECIES PROTECTION—WETLANDS MITIGATION AND CONSERVATION BANKS
Case studies 59:24.06
Clean Water Act 59:24.03
1995 wetlands mitigation guidance 59:24.03[1]
Conservation for listed species through banks 59:24.07
Endangered Species Act 59:24.04
Background 59:24.04[1]
Future potential of conservation through banks 59:24.08
Financing 59:24.08[2]
Foundations of a robust future system 59:24.08[3]
ENERGY, FUTURE OF
Generally 50:1.01 et seq.
Causes and consequences of energy crises 50:1.03
Energy markets, politics, and security 50:1.05
Lessons from the past 50:1.02
Nation’s track record
  Generally 50:1.04
    Domestic policy and economics 50:1.04[1]
    International security 50:1.04[2]
Optimism, no grounds for 50:1.06
Outlook for the future 50:1.02
World prospects in 2014 60:18.01 et seq.

ENERGY DEVELOPMENT ON NATIONAL FOREST SYSTEM LANDS
Generally 57:6.01 et seq.
Administrative review of Forest Service decisions 57:6.10
Coal data 57:6.01[2][b]
Electricity transmission data 57:6.01[2][d]
Judicial review 57:6.11
National Forest Management Act and forest planning 57:6.03
  Efforts to replace 1982 Forest Planning regulations 57:6.03[4]
  1982 Forest Planning regulations 57:6.03[3]
  Programmatic nature of forest plans 57:6.03[1]
  Requirement of consistency with Forest Plan 57:6.03[2]
Oil and gas data 57:6.01[2][a]
Oil and gas leasing and development process 57:6.06
  Development of federal oil and gas 57:6.06[2]
  Development of fee oil and gas 57:6.06[3]
  Leasing of federal oil and gas 57:6.06[1]
Origin of NFS lands 57:6.02
  Effect of land status on Forest Service authority over energy development 57:6.02[4]
National grasslands 57:6.02[3]
Public domain lands 57:6.02[1]
Weeks Act of 1911 lands 57:6.02[2]
Overview of NFS 57:6.01[1]
Pipeline data 57:6.01[2][e]
Renewable energy data 57:6.01[2][c]
  Biomass 57:6.01[2][c][iii]
  Geothermal 57:6.01[2][c][i]
  Hydropower 57:6.01[2][c][ii]
  Solar 57:6.01[2][c][iv]
  Wind 57:6.01[2][c][v]
Renewable energy development 57:6.07
  Geothermal 57:6.07[1]
  Solar 57:6.07[3]
  Wind 57:6.07[2]
Roadless area regulation 57:6.05
  Idaho Roadless Rule and proposed Colorado Roadless Rule 57:6.05[3]
  Overview 57:6.05[1]
  2001 Roadless Rule 57:6.05[2]
Special use authorizations  57:6.08
  Application process  57:6.08[1]
  Forest Service review of application  57:6.08[2]
  Terms of permit  57:6.08[3]
State and local regulation  57:6.09

ENERGY DEVELOPMENT ON PUBLIC LANDS
(See ACHIEVING CONSENSUS)

ENERGY EXPORTS
(See CRUDE OIL EXPORTS);
(See CANADIAN ENERGY EXPORTS)

ENERGY INFRASTRUCTURE
Generally  52:7.01 et seq.
Electric Reliability Organization (ERO)  52:7.04[2]
Electric reliability problems  52:7.02
  DCPSC petition  52:7.02[2]
  DOE order  52:7.02[3]
  FERC order  52:7.02[4]
  Solutions, short and long term  52:7.02[5]
EPAct  52:7.03
Liquefied natural gas policy  52:7.05
Transmission siting  52:7.04[1]

ENERGY PRODUCTION AND WILDLIFE PROTECTION
Generally  55:15.01 et seq.
Biodiversity protection on public lands  55:15.08
Impacts on wildlife  55:15.04
Overview of the law  55:15.05
  Mineral Leasing Act  55:15.05[1]
  Multiple use statutes: NFMA, FLPMA, NEPA  55:15.05[3]
  Renewable energy resources  55:15.05[2]
Renewable energy development  55:15.06
  Solar  55:15.06[2]
  Wind  55:15.06[1]
Solutions and recommendations  55:15.09
  Biodiversity land conservation system  55:15.09[1]
  Conservation checklist  55:15.09[2][a]
  Mineral Leasing Act  55:15.09[3][b]
  NFMA and FLPMA  55:15.09[3][a]
  Renewable energy legislation  55:15.09[3][d]
  Withdraw important wildlife habitat  55:15.09[3][c]
State developments  55:15.07
  Otero Mesa  55:15.07[2]
  Sage grouse  55:15.07[3]
  Western Governors’ Association  55:15.07[1]

ENERGY REGULATION
Generally  52:2.01 et seq.
Bush administration  52:2.03
Electricity  52:2.04
  Federal  52:2.04[1]
    State regulation and the California debacle  52:2.04[2]
Hydroelectric projects  52:2.06
Natural gas  52:2.05
Nuclear power 52:2.07

ENTERPRISE RISK MANAGEMENT
Generally 56:1.01 et seq.
Company-specific application of ERM 56:1.05
COSO ERM integrated framework 56:1.03
Defining risks 56:1.08
External drivers for ERM process 56:1.06
  Credit rating agencies 56:1.06[2]
  New York Stock Exchange 56:1.06[1]
  Other external drivers 56:1.06[4]
  Shareholder rights 56:1.06[3]
Evaluating company's risk tolerance 56:1.11
Facilitated interview process 56:1.09
Agnostic approach 56:1.09[1]
  Mechanics 56:1.09[3]
  Questionnaires 56:1.09[2]
Four broad categories of risk 56:1.04
Origin 56:1.02
Proposed methodology for evaluating risks 56:1.07
Responding to results of ERM process 56:1.12
Scoring risks 56:1.10

ENVIRONMENTAL CLEANUPS, COST RECOVERY
Generally 54:9.01 et seq.
Aviall decision 52:6.04
Brownfields programs 54:9.05
Judicial development of §§ 107(a) and 113(f) 54:9.03
Open questions after Aviall and Atlantic Research 54:9.04
  Consent decree, recouping costs after 54:9.04[1]
  Contribution rights under § 113(f) 54:9.04[5]
  Implied right to contribution 54:9.04[3]
  PRP cost recovery actions 54:9.04[4]
Post Aviall and Atlantic Research 54:9.01 et seq.
Statutory provisions: CERCLA §§ 107 and 113(f) 54:9.02

ENVIRONMENTAL CRIMES, INTERNAL INVESTIGATIONS OF
Generally 61:24.01 et seq.
Domestic internal investigations, practical tips 61:24.02
  Conducting employee witness interviews 61:24.02[6]
  Defending witness interviews 61:24.02[4]
  Defining scope 61:24.02[1]
  Indemnifying employees 61:24.02[7]
  Preserving evidence and privileges 61:24.02[5]
  Reducing risk of debarment and suspension 61:24.02[12]
  Reporting to client 61:24.02[9]
  Role of counsel 61:24.02[3]
  Self-reporting regulators 61:24.02[10]
  Use of technical consultants 61:24.02[8]
Internal investigations abroad, practical tips 61:24.03
  Cultural barriers 61:24.03[5]
  Data privacy 61:24.03[6]
ENVIRONMENTAL DUE DILIGENCE
Generally 51:24.01 et seq.
Legal bases of liability 51:24.02
   CERCLA 51:24.02[1]
   Oil Pollution Act 51:24.02[6]
   RCRA 51:24.02[2]
   Regulation of hardrock mining 51:24.02[4]
   SMCRA 51:24.02[3]
   Wetlands and coastal zone issues 51:24.02[5]
Managing liability 51:24.04
   Addressing known contamination 51:24.04[2][d]
   Designating the generator 51:24.04[2][c]
   Indemnities 51:24.04[1][b]
   Representations and warranties 51:24.04[1][a]
   Seller’s insurance coverage 51:24.04[2][b]
Mineral property transactions 51:24.01 et seq.
Pre-closing 51:24.03
   All appropriate inquiries test 51:24.03[1][b]
   Compliance audit 51:24.03[2]
   Environmental assessment 51:24.03[1]

ENVIRONMENTAL FINANCIAL REPORTING
Generally 54:28A.01 et seq.
Asset retirement obligations (AROs) 54:28A.03
   Distinguishing AROs from environmental remediation liabilities 54:28A.03[2]
   Financial assurance and financial reporting 54:28A.03[4]
   Inability to reasonably estimate AROs 54:28.03[3]
Constructive obligations 54:28A.05
Environmental contingencies 54:28A.04
   Historical accounting 54:28A.04[2]
   New disclosure requirements 54:28A.04[4]
   New standards for mergers and acquisitions 54:28A.04[3]
Generally accepted accounting principles (GAAP) 54:28A.02[2]
Solvency considerations 54:28A.06

ENVIRONMENTAL LAW
(See also specific acts and subject headings)
Criminal enforcement of 55:12.01 et seq.
Natural resource industries, developments affecting 52:6.01 et seq.

ENVIRONMENTAL LAW UPDATE
2015–2016
Generally 62:27.01 et seq.
Bald and Golden Eagle Protection Act 62:27.03
   Proposed rule amendments and draft programmatic environmental impact statement 62:27.03[2]
   Shearwater v. Ashe 62:27.03[1]
Clean Air Act 62:27.05
   EPA’s Clean Power Plan 62:27.05[2]
Mercury and air toxics standards for power plants 62:27.05[1]
Clean Water Act 62:27.04
   Definition of “waters of the United States” 62:27.04[1]
   Jurisdictional determination is final agency action 62:27.04[2]
Endangered Species Act: spotlight on 4(d) rules, voluntary conservation, and climate change 62:27.02
   Dunes sagebrush lizard 62:27.02[4]
   Greater sage-grouse 62:27.02[2]
   Lesser prairie-chicken 62:27.02[3]
   Northern long-eared bat 62:27.02[1]
   Revisions to critical habitat regulations and policy 62:27.02[5]

2014–2015
Generally 61:25.02 et seq.
BLM regulations for hydraulic fracturing 61:25.05
CWA changes for unconventional oil and gas activities 61:25.06
EPA’s exercise of permit veto authority under section 404(c) of the Clean Water Act (CWA) 61:25.02
   CWA overview and section 404(c) 61:25.02[1]
   EPA’s recent exercise of section 404(c) authority 61:25.02[2]
   Implications 61:25.02[3]
EPA’s regulation of coal-fired power plants and greenhouse gases 61:25.01
   EPA’s clean power plan 61:25.01[1]
   Upcoming rules on new coal-fired power plants 61:25.01[2]
Federal court ruling on natural gas compressor station permitting 61:25.04
New developments under the Endangered Species Act 61:25.03
   Greater sage-grouse 61:25.03[3]
   Gunnison sage-grouse 61:25.03[2]
   Northern long-eared bat 61:25.03[1]

ENVIRONMENTAL LAWS, CRIMINAL ENFORCEMENT OF
Generally 55:12.01 et seq.
Environmental criminal case 55:12.04[3]
   Choosing counsel 55:12.04[3][a]
   Collateral consequences 55:12.04[3][e]
   Deferred prosecution/non-prosecution agreement 55:12.04[3][f]
   Employees’ separate counsel 55:12.04[3][b]-[c]
   Protecting company from parallel proceedings 55:12.04[3][d]
   Role of alleged victims 55:12.04[3][g]
   Trial 55:12.04[3][h]
   Whether to join with employees’ counsel 55:12.04[3][c]
Ongoing investigation 55:12.03
   Conducting internal investigation 55:12.03[2][a]
   Keeping privileged 55:12.03[3]
   Setting scope of 55:12.03[2][a]
Preempting criminal investigation 55:12.04
Subpoenas for documents 55:12.02[6]
Surprise searches: administrative inspections and criminal warrants 55:12.02[1]
Unannounced government interviews 55:12.02[5]
Voluntary disclosure with EPA 55:12.04[2]

ENVIRONMENTAL/RECLAMATION FINANCIAL ASSURANCES
(See CERCLA 108(B))
Generally 56:23.01 et seq.
EPA’s rationale for CERCLA financial assurance 56:23.07
   CERCLA Section 108(b) 56:23.07[3]
   Financial assurance under CERCLA 56:23.07[1]
Existing mining financial assurances programs 56:23.03
   FLPMA 56:23.03[2]
   National forest lands 56:23.03[3]
   SMCRA 56:23.03[1]
Forms of financial assurances 56:23.04
   Corporate surety bonds 56:23.04[1]
   Letters of credit 56:23.04[4]
   Obligee/regulatory agency 56:23.04[3][b]
   Principal/permittee 56:23.04[3][a]
   Surety/bonding company 56:23.04[3][c]
   Trust funds 56:23.04[5]
Industry arguments against further financial assurances 56:23.08
Long-term water pollution treatment trusts 56:23.06

ENVIRONMENTAL REQUIREMENTS OF ALLOCATING WATER IN THE WEST
Generally 59:8.01 et seq.
Federal reserved water rights doctrine 59:8.05[2]
Local land use laws 59:8.05[3]
Non-water law environmental requirements 59:8.04
   Clean Water Act 59:8.04[1]
   Endangered Species Act 59:8.04[3]
   Federal and state environmental policy acts 59:8.04[2]
Public trust doctrine 59:8.05[1]
Water law environmental requirements 59:8.03
   Environmental requirements 59:8.03[1]
   Instream flows 59:8.03[4][a]
   Interbasin transfers 59:8.03[3]
   Public interest 59:8.03[2]
   Reservations of unappropriated water 59:8.03[4][b]
Western water law basics 59:8.02

ENVIRONMENTAL RESTORATION DAMAGES: REGULATING CLEANUPS THROUGH PRIVATE LAWSUITS
Generally 60:24.01 et seq.
Conflict with environmental statutes 60:24.04
   CERCLA and restoration damages claims 60:24.04[1]
   Primary jurisdiction and administrative preclusion doctrines 60:24.04[3]
   State environmental statutes 60:24.04[2]
Limitations on awards 60:24.03
   Properties other than personal residence 60:24.03[3]
   Standing 60:24.03[1]
   Statute of limitations 60:24.03[2]
Origins of restoration damages doctrine 60:24.02[1]
Requirements for awards 60:24.02[2]
   Genuine intent to use award for restoration 60:24.02[2][b]
   Personal reasons 60:24.02[2][a]
   Reasonableness of award 60:24.02[2][c]
Significant cases 60:24.02[3]

ENVIRONMENTAL WHISTLEBLOWERS
Generally 51:6.01 et seq.
False Claims Act 51:6.02[3][b]
Federal environmental statutes 51:6.02[1]
   Administrative process 51:6.02[1][a]
   Elements of employee’s claim 51:6.02[1][b]
Employer defenses 51:6.02[1][e]
Employer’s legitimate reason 51:6.02[1][c]
Jury trial challenges 51:6.02[1][g]
Mixed motive cases 51:6.02[1][d]
Relief available to employee 51:6.02[1][f]
Litigation strategies 51:6.05
Policies to minimize whistleblower risks 51:6.03
Protection outside the United States 51:6.02[5]
Sarbanes-Oxley Act 51:6.02[2]
  Civil employee protection provision 51:6.02[2][a]
  Criminal anti-retaliation provision 51:6.02[2][b]
State law protections 51:6.02[4]
Strategies for responding to whistleblowers 51:6.04
Workplace safety statutes 51:6.02[3][a]

EPA BONDING OF HARDROCK MINES UNDER CERCLA
Generally 62:28.01 et seq.
Challenges, questions, and predictions 62:28.05
Current regulatory background 62:28.03
  Federal bonding requirements 62:28.03[1]
  Financial assurance requirements under RCRA 62:28.03[3]
  State bonding requirements 62:28.03[2]
EPA’s CERCLA § 108 bonding initiative 62:28.02
  Framework for EPA’s proposed rulemaking 62:28.02[2]
  History of litigation with major milestones 62:28.02[1]
Recent events 62:28.04

EPA’S ROLE UNDER CWA § 404
Generally 59:25.01 et seq.
EPA’s 404(c) “veto” power 59:25.03
  Before a 404 permit application submitted 59:25.03[4]
  Past use of “veto” power 59:25.03[2]
  Veto of existing final 404 permit—Mingo Logan 59:25.03[3]
EPA’s partnership with the Corps of Engineers 59:25.01
EPA’s role in overseeing 404 permitting 59:25.04
  ARNI designations 59:25.04[2]
  Respective roles of Corps and EPA 59:25.04[1]
  Use of guidance to impose enhanced 404 permitting process for Appalachian coal mines 59:25.04[3]
  Watershed assessment and rapid response team 59:25.04[4]
Historical context 59:25.02
Other critical EPA roles in implementing the 404 program 59:25.05
  Determining jurisdictional waters 59:25.05[2]
  404 enforcement 59:25.05[4]
  404(b)(1) guidelines 59:25.05[1]
  Implementing NEPA 59:25.05[3]
Practical advice for navigating the 404 program 59:6

EQUATOR PRINCIPLES
Generally 54:16.01 et seq.
Challenges 54:16.08
Changes to business 54:16.04
Chilean projects 54:16.06
  Banking 54:16.06[1]
ETHICAL COMPANY
AND SUPPLY CHAIN: THE BUSINESS CASE, AND A TOOLKIT FOR TEMPERING THE LINKS
Generally 62:8.01 et seq.
Appendix: extractive project case studies 62:8.06
Data-driven discernment of social conflict risks 62:8.03
Causes of social conflict 62:8.03[2][a]
Consequences of social conflict 62:8.03[2][d]
Current data gap 62:8.03[1]
Manifestations of social conflict 62:8.03[2][c]
Mobilizing actors 62:8.03[2][b]
Phase of operations and social conflict 62:8.03[2][e]
Supply chain and social conflict 62:8.03[2][f]
Implementing integrity: recommended strategies 62:8.04
Applying data-driven approach to manage social risk 62:8.04[1]
Corporate strategies 62:8.04[2]
Understanding the risk 62:8.02
Case study 62:8.02[3]
Overview of the business case 62:8.02[1]
Understanding the costs 62:8.02[2]

ETHICAL CONSIDERATIONS IN PRIVILEGED COMMUNICATIONS
Generally 55:34.01 et seq.
Considerations 55:34.05
Duty to explain effect of client’s waiver 55:34.05[4]
Encouraging frank communication 55:34.05[1]
Which company is represented 55:34.05[3]
Who is the client 55:34.05[2]
Environmental statutory privilege 55:34.06
Counsel’s audit role in absence of privilege 55:34.06[2]
Potential waiver 55:34.06[1]
In-house counsel privilege under Vioxx 55:34.03
Practice pointers 55:34.08
“Attorney-client” stamp 55:34.08[5]
Client understanding regarding dual advice or dual titles 55:34.08[2]
Collaborative business team risk 55:34.08[6]
Content and nature of communication 55:34.08[3]
Counsel’s title, relevance of 55:34.08[8]
Defense of privilege 55:34.08[7]
Ethical duty to disclose 55:34.08[1]
Segregation of legal advice 55:34.08[4]
When is it legal advice 55:34.02

ETHICAL DUTY OF LANDMEN AND LEGAL COUNSEL TO FORMER EMPLOYERS
Generally 55:7.01, et seq.
Ethical obligations of attorneys: ABA rules 55:7.03
Law of agency: fiduciary duty 55:7.02
AAPL code of ethics 55:7.02[4]
Common Law 55:7.02[1]
Contract principles 55:7.02[3]
Remedies and damages 55:7.02[2]
Protecting confidential information 55:7.05
Trade secrets 55:7.04
Restatements 55:7.04
Uniform Trade Secrets Act 55:7.04[1]

ETHICAL ISSUES IN OBTAINING LEASES
Generally 58:27.01 et seq.
Contract law 58:27.03[2][b]
Correcting prior statements 58:27.04[3]
Ethics rules 58:27.03[1]
Nondisclosure of information 58:27.04[1]
Partial information 58:27.04[2]
Puffing, sales talk, and opinions 58:27.04[4]
Reasons allegations arise 58:27.02
Recent lease litigation 58:27.05
   Failure to disclose 58:27.05[3]
   Hydraulic fracturing 58:27.05[2]
   Rejected lease 58:27.05[1]
Strategies to avoid fraud and misrepresentation 58:27.06
Tort law 58:27.03[2][a]

ETHICS
(See also ATTORNEY-CLIENT PRIVILEGE);
(See also CORPORATE CRISIS COMMUNICATION);
(See also CYBERSECURITY);
(See also DUE DILIGENCE);
(See also ETHICAL CONSIDERATIONS IN PRIVILEGED COMMUNICATIONS);
(See also ETHICAL DUTY OF LANDMEN AND LEGAL COUNSEL TO FORMER EMPLOYERS);
(See also ETHICAL ISSUES IN OBTAINING LEASES);
(See also ETHICS OF MULTIJURISDICTIONAL PRACTICE);
(See also PROFESSIONAL RESPONSIBILITY AND THE TRANSACTIONAL LAWYER: THE DRAFTING CONTEXT);
(See also RESERVES DISCLOSURE RULES);
(See also SOCIAL MEDIA ETHICS)
Generally 50:6.01 et seq.

ETHICS OF MULTIJURISDICTIONAL PRACTICE
Generally 58:13.01 et seq.
ABA commission on ethics 20/20 58:13.08
ABA commission on multijurisdictional practice 58:13.04
ABA model rules amendments 58:13.05
   Bar admission 58:13.05[3]
   Choice of law 58:13.05[2]
   Disciplinary authority 58:13.05[2]
   Multijurisdictional practice of law 58:13.05[1]
   Unauthorized practice of law 58:13.05[1]
Federal practice 58:13.03
Implementation by states 58:13.06

EVIDENCE, NATURAL RESOURCES LITIGATION
(See also CRIMINAL ENFORCEMENT OF ENVIRONMENTAL LAWS)
Generally 51:13.01 et seq.

**Expert witnesses** 51:13.06
- *Daubert* analysis 51:13.06[2], [3]
- Procedural evidentiary requirements 51:13.06[1]

**Fact, argument, anecdote** 51:13.04

**Merger doctrine** 51:13.05[1]

**Parol evidence rule** 51:13.05[1]

**Rules of interpretation** 51:13.05[2]

**Substantive vs. procedural evidentiary rules** 51:13.03

**EXPLORATION LETTERS OF INTENT AND OPTION AGREEMENTS**

Generally 58:28.01 et seq.

**Letters of intent** 58:28.04
- Best practices 58:28.04[1][e], .04[7]
- Binding letters of intent 58:28.04[1][a]
- Drafting considerations 58:28.04[6]
- Due diligence 58:28.04[4]
- Exclusivity and confidentiality 58:28.04[3]
- Good faith 58:28.04[5]
- How to determine whether binding 58:28.04[1][c]
- Non-binding letters of intent 58:28.04[1][b]
- Public disclosure 58:28.04[2]
- Term sheets vs. letters of intent 58:28.04[1][d]

**Option agreement** 58:28.05
- Best practices for option agreements 58:28.05[7]
- Issues to consider 58:28.05[1]
- Partial surrenders or additions 58:28.05[5]
- Representations and warranties 58:28.05[2]
- Standard terms 58:28.05[3]
- Transfer provisions 58:28.05[4]

**Preliminary considerations** 58:28.02

**Strategic considerations** 58:28.03

**EXPORTS**
- (See CRUDE OIL EXPORTS);
- (See CANADIAN ENERGY EXPORTS)

**EXPROPRIATION**
- (See CREEPING NATIONALIZATION);
- (See RISK MANAGEMENT IN EMERGING HYDROCARBON PROJECTS)

**EXTRATERRITORIAL ANTICORRUPTION LAWS**

Generally 51:3.01 et seq.

**International anticorruption conventions** 51:3.02[2]

**Overview** 51:3.02

**U.S. Foreign Corrupt Practices Act** 51:3.02[1]
- Accounting provisions 51:3.02[1][d]
- Antibribery provisions 51:3.02[1][b], [c]
- Mergers and acquisitions 51:3.02[1][f][i]
- Penalties and enforcement 51:3.02[1][e]

**EXTRATERRITORIAL APPLICATION OF U.S. LAW**

Generally 53:7.01 et seq.

**Alternate legal mechanisms** 53:7.06

**Pakootas case** 53:7.03

**Presumption against** 53:7.02
FARMOUT TRANSACTION DOCUMENTATION
Generally 56:16.01 et seq.
Complying with statute of frauds 56:16.04[1]
Coordinating farmout with operating agreement 56:16.04[3]
   Limitations of Model Form JOA 56:16.04[3][c]
Farmout agreement 56:16.03
   Farmout agreement checklist 56:16.03[3]
   Go-by agreement 56:16.03[1]
Getting the deal right 56:16.02
   Avoiding unintended contract 56:16.02[2]
   Term sheet/letter of intent 56:16.02[1]
Goals of documentation process 56:16.01[3]
Limitations of operating agreement 56:16.04[4]
Managing exploration risk 56:16.01[1]
Tax consequences of the transaction 56:16.04[2]
   Fractional interest rule 56:16.04[2][b]
   Revenue Rule 77-176 56:16.04[2][a]
   Tax partnerships 56:16.04[2][c]
Types of exploration ventures 56:16.01[2]

FEDERAL AGENCY DEFERENCE: ERODING OR STRENGTHENING?
Generally 62:30.01 et seq.
Future of agency deference 62:30.04
Key recent deference decisions 62:30.02
   King v. Burwell 62:30.02[3]
   Michigan v. EPA 62:30.02[4]
   Perez v. Mortgage Bankers Ass’n  62:30.02[2]
   Utility Air Regulatory Group v. EPA 62:30.02[1]
Regional haze rulemaking challenges 62:30.03
   Challenging EPA’s regional haze SIP and FIP decisions 62:30.03[2]
   Regional haze background 62:30.03[1]
   Successful challenges to EPA’s claim for deference 62:30.03[3]
   Unsuccessful challenges to the application of the deference doctrine 62:30.03[4]

FEDERAL AGENCY RULEMAKING
Generally 61:2.01 et seq.
Background 61:2.02
   Burden of notice-and-comment rulemaking 61:2.02[3]
   Need for regulations and rulemaking processes 61:2.02[1]
   Rules defined 61:2.02[2]
Challenging an agency regulation 61:2.04
   Availability of judicial review 61:2.04[1]
   Scope of judicial review 61:2.04[2]
Rulemaking process 61:2.03
   Exemptions to notice-and-comment requirements 61:2.03[5]
   Finalizing regulations 61:2.03[4]
   Notice of proposed rulemaking 61:2.03[2]
   Notice-and-comment process 61:2.03[3]
   Path to a proposal 61:2.03[1]
FEDERAL ENVIRONMENTAL REGULATORY ACTION AGAINST EASTERN U.S.
MINING AS HARBINGER FOR THE WEST
Generally 58:26.01 et seq.
Conductivity benchmarks 58:26.03
Guidance documents, use 58:26.02
Litigation over EPA’s use 58:26.02[2]
vs. legislative rulemaking 58:26.02[1]
Selenium 58:26.05
Enforcement actions and citizen suits 58:26.05[2]
Regulatory background 58:26.05[1]
Veto authority, reach of 58:26.04
Background 58:26.04[1]
Legal arguments 58:26.04[2]
Spruce No. 1 Mine’s § 404 permit 58:26.04[3]

FEDERAL HISTORIC PRESERVATION REVIEW, PROGRAMMATIC AGREEMENTS
(See PROGRAMMATIC AGREEMENTS FOR FEDERAL HISTORIC PRESERVATION REVIEW AND CONSULTATION)

FEDERAL LAND EXCHANGES
Generally 51:8.01 et seq.
Administrative decisions 51:8.05
Federal Land Transaction Facilitation Act (Baca II) 51:8.06[2], [3]
GAO/OIG reports 51:8.04
Judicial decisions 51:8.05
Legislative land exchanges 51:8.03
Southern Nevada Public Land Management Act 51:8.06[1], [3]
Statutory and regulatory authority 51:8.02

FEDERAL LAND POLICY AND MANAGEMENT ACT (FLPMA)
(See CLEAN AIR ACT, INTERPLAY WITH FLPMA & NEPA);
(See UNNECESSARY OR UNDUE DEGRADATION STANDARD)

FEDERAL LAND USE PLANS
Generally 51:11.01 et seq.
Administrative developments 51:11.05
BLM land use planning 51:11.02[1]
Forest Service land use planning 51:11.02[2]
Legislative developments 51:11.06
NEPA litigation 51:11.04
Status 51:11.03

FEDERAL LANDS
(See NATIVE AMERICAN SACRED PLACES, PROTECTION ON FEDERAL LANDS);
(See PUBLIC LANDS);
(See PUBLIC LANDS ACCESS);
(See RENEWABLE ENERGY DEVELOPMENT ON FEDERAL PUBLIC LANDS);
(See ROYALTY ISSUES—FEDERAL);
(See WILDERNESS POLICY)

FEDERAL OIL AND GAS LEASE EXTENSIONS, TERMINATIONS, AND SUSPENSIONS
Generally 61:28.01 et seq.
Expiration and termination 61:28.03
Cessation of production in paying quantities 61:28.03[3]
Expiration and failure to pay rentals 61:28.03[1]
Failure to complete a well capable of production in paying quantities 61:28.03[2]
Lease extensions 61:28.02
   Assignment and segregation of lease extended by production or compensatory royalty 61:28.02[6]
   Basic rules 61:28.02[1]
   Communitization agreements 61:28.02[9]
   Discovery after segregation by assignment 61:28.02[7]
   Drilling over primary term 61:28.02[4]
   Payment of compensatory royalty 61:28.02[5]
   Payment of rentals 61:28.02[2]
   Production in paying quantities or completing a well capable 61:28.02[3]
   Unitization 61:28.02[8]
Suspensions 61:28.04
   Other types 61:28.04[4]
   Requesting a suspension 61:28.04[1]
   Section 17 suspensions 61:28.04[3]

FINANCIAL ASSURANCE
(See CERCLA 108(B) FINANCIAL ASSURANCE FOR HARDROCK MINING);
(See ENVIRONMENTAL/RECLAMATION FINANCIAL ASSURANCES)

FINANCIAL ASSURANCE FOR RECLAMATION
Generally 52:19.01 et seq.
Agency responses 52:19.06
Current issues 52:19.05
   Adequacy 52:19.05[2]
   Availability and affordability 52:19.05[1]
Federal laws governing 52:19.03[3]
   BLM § 3809 surface management regulations 52:19.03[3][b]
   SMCRA 52:19.03[3][a]
   U.S. Forest Service regulations 52:19.03[3][c]
Financial assurance mechanisms 52:19.04
   Common mechanisms 52:19.04[1]
   Industry and agency preferences 52:19.04[2]
Financial assurance requirements 52:19.03
   Role of financial assurance 52:19.02
State laws governing 52:19.03[4]

FINANCIAL CRISIS, FROM OIL AND GAS PERSPECTIVE
(See also BANKRUPTCY);
(See also INSOLVENCY)
Generally 55:33.10 et seq.
Bankruptcy basics 55:33.03
   Automatic stay 55:33.03[2]
   DIP financing and use of cash collateral 55:33.03[3]
   Executory contracts and unexpired leases 55:33.03[4]
   Property of the estate 55:33.03[1]
Current topics in bankruptcy 55:33.04
   Enforceability of arbitration clauses 55:33.04[1]
   Plugging and abandonment liabilities 55:33.04[5]
   Triangular setoff 55:33.04[3]
   Twilight zone 55:33.04[2]
Pre-bankruptcy planning 55:33.02

FINANCIAL DISTRESS
FINANCING
(See METAL STREAMING TRANSACTIONS)

FINANCING OIL AND GAS OPERATIONS IN TUMULTUOUS TIMES
Generally 55:22.01 et seq.
Funding based on several producing fields 55:22.05
Funding exploration success 55:22.04
Funding initial exploration wells 55:22.03
Initial capitalization 55:22.02

FLARING: ECONOMICS, REGULATION, AND FUTURE
Generally 60:5.01 et seq.
Economics 60:5.02
Alternatives to flaring 60:5.02[2]
Infrastructure 60:5.02[1]
Lost revenue 60:5.02[3]
Federal regulation 60:5.03[1]
Protecting federal revenue 60:5.03[1][a]
Reducing regulatory hurdles 60:5.03[1][b]
Public perception, conservation, and environmental concerns 60:5.01[2]
State regulation 60:5.03[2]
Colorado 60:5.03[2][a]
North Dakota 60:5.03[2][b]
Texas 60:5.03[2][c]
Utah 60:5.03[2][d]
Wyoming 60:5.03[2][e]

FLPMA
(See CLEAN AIR ACT, INTERPLAY WITH FLPMA & NEPA)

FORCE MAJEURE
(See HURRICANES)

FORCE MAJEURE IN RESOURCE AGREEMENTS
Generally 59:17.01 et seq.
Contractual force majeure clauses 59:17.04
General 59:17.04[1]
Adverse weather 59:17.04[3][d][iii]
Burden of proof 59:17.04[2]
Control 59:17.04[3][c]
Economic events 59:17.04[3][d][iv]
Ejusdem generis 59:17.04[3][a]
Foreseeability 59:17.04[3][b]
Governmental actions 59:17.04[3][d][v]
Labour disruptions 59:17.04[3][d][ii]
Supply chain issues 59:17.04[3][d][i]
Triggering events 59:17.04[3]
Effect on contractual obligations 59:17.04[5]
In civil law 59:17.02
Civil Code of Québec art. 1470 59:17.02[2]
History 59:17.02[1]
In common law 59:17.03
Contrasting civil and common law 59:17.03[3]
FOREIGN BASED TORTS: DEFENDING ACTIONS IN THE UNITED STATES

Generally 57:8.01 et seq.

Claims against U.S. and multinational companies for business operations in Africa, Asia, Latin America 57:8.03
- Cases dismissed by U.S. courts 57:8.03[1]
- Recent cases proceeding to trial in the U.S. 57:8.03[3]
- Recently settled cases 57:8.03[2]

Cases in the U.S. under the ATS 57:8.02
- Aiding and abetting; conspiracy liability under ATS 57:8.02[2][a]
- Cases applying Sosa decision 57:8.02[2]
- Corporate ATS liability under customary international law 57:8.02[2][b]
- Dismissal based on forum non conveniens 57:8.02[2][c]
- Sosa v. Alvarez-Machain 57:8.02[1]
- State action requirement and war crimes exception 57:8.02[2][d]

Considerations for party defending potential foreign judgment 57:8.05[2]
- Bilateral treaty rights 57:8.05[2][f]
- Counterclaims, discovery, and evidentiary hearings in foreign court proceeding 57:8.05[2][e]
- Evidence to challenge recognition of foreign judgment 57:8.05[2][c]
- Evidentiary hearing in U.S. court before recognizing judgment 57:8.05[2][d]
- Judgment recognition issues 57:8.05[2][b]
- Prejudgment remedies 57:8.05[2][g]
- Subject matter and personal jurisdiction 57:8.05[2][a]

Considerations for party seeking foreign judgment 57:8.05[1]
- Choice of foreign venue 57:8.05[1][a]
- Counterclaims and key defenses 57:8.05[1][d]
- Final and enforceable judgment 57:8.05[1][b]
- Prejudgment attachment issues 57:8.05[1][c]

Standards for recognition of foreign judgment in the U.S. 57:8.04
- Summary of key defenses 57:8.04[3]

FOREIGN CORRUPT PRACTICES ACT
(See also ANTI-CORRUPTION AND TRANSPARENCY STANDARDS);
(See also CORRUPTION RISK)
(See also EXTRATERRITORIAL ANTICORRUPTION LAWS)

Generally 50:6.05
- Compliance procedures 50:6.05[2]
- Governmental contracts 50:6.05[1][a]
- Specific contract 50:6.05[1][b]
- United States v. Kay 50:6.05

FOREIGN INVESTMENT IN U.S. MINING PROJECTS: KEY DEAL POINTS

Generally 61:19A.01 et seq.
- Environmental review and agency decision making 61:19A.04
- Expertise in U.S. transactions 61:19A.09
- Government approvals for access to gathering data 61:19A.05
  - Federal minerals and surface 61:19A.05[3]
  - Private minerals and surface 61:19A.05[1]
  - State minerals and surface 61:19A.05[2]
- Joint venture agreement to reflect business objectives 61:19A.08
- Location 61:19A.07
Ownership of minerals and nature of mineral interest 61:19A.02
   Federal minerals 61:19A.02[2]
   Private minerals 61:19A.02[1]
   State minerals 61:19A.02[3]
Project EIS and mining permits 61:19A.06
Restrictions and special requirements for foreign ownership 61:19A.03
   CFIUS review 61:19A.03[4]
   Federally owned minerals 61:19A.03[1]
   Privately owned minerals 61:19A.03[3]
   State-owned minerals 61:19A.03[2]

FOREIGN INVESTMENT IN U.S. MINING PROJECTS: WHAT DOES FOREIGN INVESTOR FACE?
Generally 61:19B.01 et seq.
Acquisition structures 61:19B.02
Antitrust law 61:19B.03[1]
   General 61:19B.03[1][a]
   HSR Act 61:19B.03[1][b]
Exon-Florio Amendment (CFIUS) 61:19B.03[2]
Minority investments 61:19B.02[2]
   Business combination statutes 61:19B.02[2][c]
   Going private transactions 61:19B.02[2][b]
   Registration rights 61:19B.02[2][a]
Private merger and acquisition (M&A) transactions 61:19B.02[1]
   Asset 61:19B.02[1][b]
   Consideration, form of 61:19B.02[1][c]
   Indemnification 61:19B.02[1][d]
   Stock 61:19B.02[1][a]
Public M&A transactions 61:19B.02[3]
   Beneficial ownership reporting obligations 61:19B.02[3][e][i]
   Consideration 61:19B.02[3][c]
   Definitive agreements 61:19B.02[3][d]
   Premerger notification requirements (HSR Act) 61:19B.02[3][e][ii]
   Statutory mergers 61:19B.02[3][b][i]
   Tender offers 61:19B.02[3][b][ii]
State corporate law 61:19B.02[4]
   Appraisal rights 61:19B.02[4][b]
   Fiduciary duties of directors 61:19B.02[4][c]
   Short-form mergers 61:19B.02[4][a]
   Transactions involving controlling stockholders 61:19B.02[4][d]

FOREIGN INVESTMENT IN U.S. OIL AND GAS PROJECTS
Generally 60:12.01 et seq.
Commercial considerations 60:12.03
   Confidentiality and technology 60:12.03[4]
   Joint development agreements and joint operating agreements 60:12.03[3]
   Secondment 60:12.03[5]
   Structuring transaction to address CFIUS 60:12.03[2]
   Tax 60:12.03[1]
Regulatory oversight 60:12.02
   Bureau of Economic Analysis filings 60:12.02[6]
   CFIUS 60:12.02[3]
   Export controls and embargoes 60:12.02[5]
   FIRPTA 60:12.02[4]
   Leasing federal lands 60:12.02[1]
   Leasing state lands 60:12.02[2]
FORM 2 UNIT OPERATING AGREEMENT
Generally  54:23.01 et seq.
Adjustment on establishment or change in PA  54:23.05
Coalbed natural gas units  54:23.14
Dual completions  54:23.12
Farmout agreement complications  54:23.09
History  54:23.03
Issues when unitizing lands within existing unit  54:23.07
Non-participating parties  54:23.04
Non-paying wells  54:23.10
Not committed royalty owners, other burdens on production  54:23.11
Operator/change of operator issues  54:23.08
Reworking operations  54:23.13
Unleased federal tracts  54:23.06

FPIC
(See CORPORATE SOCIAL RESPONSIBILITY: A FRAMEWORK FOR UNDERSTANDING THE LEGAL STRUCTURE);
(See FREE, PRIOR, AND INFORMED CONSENT);
(See FREE, PRIOR AND INFORMED CONSENT—THE CANADIAN CONTEXT)

FRAC HITS: WHEN THE HORIZONTAL AND VERTICAL COLLIDE
(See also HYDRAULIC FRACTURING)
Generally  61:12.01 et seq.
Case law  61:12.04[1]
Defining rights in the common reservoir  61:12.05
   Ad coelum doctrine  61:12.05[1]
   Capture  61:12.05[2]
   Correlative rights  61:12.05[3]
   Prevention of waste  61:12.05[5]
   Reservoir community analysis  61:12.05[4]
Frac hits  61:12.02[1]
   Agency action  61:12.02[3]
   Industry response  61:12.02[2]
Litigation theories  61:12.04[2]
   Alternative analysis  61:12.04[3]
   Nuisance  61:12.04[2][b]
   Right to engage in prudent reservoir development  61:12.04[2][d]
   Rule of capture  61:12.04[2][c]
   Trespass  61:12.04[2][a]
Operator acceptance or tolerance  61:12.03

FRACING
(See HYDRAULIC FRACTURING)

FRACKING
(See HYDRAULIC FRACTURING)

“FREE GAS” CLAUSES
Generally  51:14.01 et seq.
Creation of right  51:14.03
History  51:14.02
Implementing the gas tap  51:14.06
Liability concerns  51:14.08
Limitations  51:14.04
FREE, PRIOR, AND INFORMED CONSENT
(See also CORPORATE SOCIAL RESPONSIBILITY: A FRAMEWORK FOR UNDERSTANDING THE LEGAL STRUCTURE)
Generally 58:18.01 et seq.
Case law precedents for FPIC 58:18.02[4]
African Commission on Human and Peoples’ Rights 58:18.02[4][b]
Inter-American Court of Human Rights 58:18.02[4][a]
FPIC in Canada 58:18.03
Generally 59:20B.01 et seq.
Activities causing relocation 58:18.03[2][a]
Having impacts 58:18.03[2][b]
Canada’s legal obligations to its aboriginal population 58:18.03[1]
Comparing FPIC to the Canadian duty to consult 58:18.03[2]
FPIC in Peru 58:18.04
Concept of public participation as first approach to regulate FPIC 58:18.04[2]
FPIC is binding in Peru 58:18.04[1]
Law on prior consultation 58:18.04[3][b]
Prior consultation in jurisprudence 58:18.04[3][a]
Regulations 58:18.04[3][c]
Historical origins 58:18.02[1]
International institutions and initiatives 58:18.02[3]
European Bank for Reconstruction and Development 58:18.02[3][b]
International Finance Corporation 58:18.02[3][a]
International law 58:18.02[2]
ILO Convention 58:18.02[2][a]
UN Declaration on the Rights of Indigenous Peoples 58:18.02[2][b]
FREE, PRIOR AND INFORMED CONSENT—THE CANADIAN CONTEXT
Generally 59:20B.01 et seq.
Crown’s duty to consult and accommodate 59:20B.04
Scope and content 59:20B.04[2]
Third parties 59:20B.04[3]
Impact and benefit agreements 59:20B.05
Areas of cooperation in IBAs 59:20B.05[4]
Negotiation of IBAs 59:20B.05[3]
Legal context 59:20B.03
Constitutional basis 59:20B.03[2]
Meaning of “aboriginal and treaty rights” 59:20B.03[3]

GAS
(See LIQUEFIED NATURAL GAS);
(See METHANE);
(See OIL AND GAS)
GAS AND OIL GATHERING IN NEW SHALE PLAYS
Generally 58:5.01 et seq.
Early infrastructure considerations 58:5.02
Capacity issues 58:5.02[2]
Dedication 58:5.02[3]
New connection costs 58:5.02[1]
Quantity/volume commitments 58:5.02[4]
Term 58:5.02[5]
Financing and flipping a system 58:5.04
Issues 58:5.04[2]
Joint venture contracts involved in selling system 58:5.04[3]
Players and their interests 58:5.04[1]
Other drafting and negotiating considerations 58:5.03
Billing payment/audit 58:5.03[6]
Economic outs 58:5.03[5]
Fees 58:5.03[3]
FL&U/oil loss 58:5.03[8]
Nominations and balancing 58:5.03[2]
Producer service priority 58:5.03[1]
Producers’ retained rights 58:5.03[7]
Quality and liability 58:5.03[4]
Receipt/delivery points 58:5.03[8]

GEOLOGIC CARBON SEQUESTRATION (GCS)
Generally 54:2.01 et seq., 3.01 et seq.
Acquiring property rights 54:3.04
Enhanced oil recovery (EOR) operations 54:3.04[2]
Ownership of pore space 54:3.04[1]
Rights in pore space 54:3.04[3]
Areas where appropriate 54:3.03
CO₂ storage industry, size of 54:2.04[1]
EOR, role of 54:2.04[2]
Four essential facts about geologic storage 54:2.05
GCS regulation 54:3.05
As threat to water quality – traditional view 54:3.05[1]
EPA approach to GCS permitting 54:3.05[4]
Incentives under carbon cap-and-trade programs 54:3.05[6]
IOGCC model rules and regulations 54:3.05[3]
Long-term liability 54:3.05[5]
State approaches to GCS permitting 54:3.05[2]
Lawyers, subsurface engineers, and geoscientists must work together 54:2.06
Need for 54:3.02

GEOLOGIC CO₂ STORAGE
(See GEOLOGIC CARBON SEQUESTRATION)

GEOPHYSICAL/SEISMIC EXPLORATION LEGAL ISSUES
Generally 54:29.01 et seq.
Common law protection 54:29.04
New tort 54:29.04[2]
Rule of capture (exploration) 54:29.04[3]
Trade secret 54:29.04[1]
Geophysical surveys 54:29.02
Private property rights in geophysical exploration 54:29.03
Controlling right of access 54:29.03[1]
Non-permitted access 54:29.03[2]
Protecting private property rights/minimizing liability risks 54:29.05
Data collection and handling 54:29.05[4]
Pre-lease negotiations 54:29.05[1]
Seismic survey contracts 54:29.05[2]
Surface permits 54:29.05[3]

GEOTHERMAL DEVELOPMENT—CURRENT TOPICS
Generally 55:6.01, et seq.
Research and development 55:6.05[2][c]
Tax and bonding incentives 55:6.05[2][d]
Development in Indian country 55:6.06
Historic Preservation Act and cultural resource issues 55:6.06[2]
Development in the U.S. 55:6.01[2]
Drainage and the rule of capture 55:6.04[1]
Environmental 55:6.07
NEPA compliance and shared BLM/USFS jurisdiction 55:6.07[1]
Federal statutory framework 55:6.02
Geothermal leasing regulations 55:6.02[1][c]
Geothermal Steam Act 55:6.02[1][a]
Contrast with oil and gas 55:6.04[2][a]
Dispute resolution 55:6.04[2][c]
Model form agreement 55:6.04[2][b]
Incentives: renewable portfolio standards 55:6.05[1]
Increasing interest 55:6.01[3]
Land and title issues 55:6.03
Deed interpretation 55:6.03[2]
Ownership and surface access 55:6.03[3]
State water law 55:6.03[1]
Nature and uses 55:6.01[1]
State compulsory unitization statutes 55:6.04[3]
State statutory framework 55:6.02[2]

GLOBAL WARMING
(See also CLIMATE CHANGE)
Carbon regulation systems 53:1.05
Electric power system 53:1.03
Emissions and regulatory strategies 53:1.02
Transportation 53:1.04

GOLD MINING
Cyanide management code 52:22.01 et seq.
Modern gold mining 52:22.02[1]

GREATER SAGE-GROUSE: LAND USE PLANNING FOR PROTECTION
Generally 60:23.01 et seq.
BLM’s industry-specific authorities 60:23.03[2]
Locatable minerals development 60:23.03[2][a]
Oil and gas leasing 60:23.03[2][b]
Concept of ecosystem protection 60:23.02
FLPMA 60:23.03[1]
State sage-grouse conservation approaches 60:23.04
Idaho 60:23.04[2]
Nevada 60:23.04[3]
Wyoming 60:23.04[1]

GREATER SAGE-GROUSE CONSERVATION STRATEGY
Generally 62:4.01 et seq.
Background 62:4.02
Core components 62:4.03
  Federal conservation strategy 62:4.03[1]
  State conservation strategies 62:4.03[2]
Delivery of implementation commitments 62:4.05
  Mineral withdrawal process, completion of 62:4.05[1]
  Mitigation framework 62:4.05[2]
  Wildfire control 62:4.05[3]
Long-term outlook 62:4.06
Statutory interplay of landscape-level planning 62:4.04
  ESA 62:4.04[1][a][iii]
  FLPMA and NFMA 62:4.04[1][a][i]
  Land use planning: tension with the ESA, NEPA, FLPMA, and NFMA 62:4.04[1][b], [c]
  NEPA 62:4.04[1][a][ii]
  Policy considerations for future efforts 62:4.04[2]

GREENHOUSE GAS EMISSIONS
  (See also OIL AND GAS REGULATORY UPDATE: EPA EFFORTS TO CURB GREENHOUSE GAS EMISSIONS AND MORE)
Endangered Species Act, relationship to 55:10.01 et seq.
Evidence 54:2.02[2]
Options for reducing 54:2.03
  Alternative fuels 54:2.03[3]
  Conservation 54:2.03[1]
  Energy efficiency 54:2.03[2]
  Geologic storage 54:2.04
Political consensus 54:2.02[3]
Prediction 54:2.02[1]

GREENHOUSE GAS EMISSIONS AND THE SOCIAL COST OF CARBON, IMPLICATIONS OF THE EVOLVING NEPA FRAMEWORK FOR ASSESSING
Generally 62:6.01 et seq.
Broader implications of incorporating the social cost of carbon into NEPA analysis 62:6.04
  Practical implications 62:6.04[1]
Coal: the social cost of carbon 62:6.02[1]
Incorporation of social cost of carbon into agencies’ NEPA analysis 62:6.03
  Evaluating greenhouse gas emissions and climate change impacts 62:6.03[1]
  Incorporation of social cost of carbon estimates 62:6.03[2]
  What is expected to follow? 62:6.03[3]
Natural gas: emergence of the social cost of methane 62:6.02[2]

GREENHOUSE GAS (GHG) EMISSIONS PROGRAMS
Generally 51:2.01 et seq.
Canadian approaches 51:2.07
Climate change 51:2.02
  Causes 51:2.02[1]
  Responses 51:2.02[3]
Common law liability 51:2.06
Corporate accountability 51:2.05
Corporate GHG strategy, elements of 51:2.10
Corporate responses 51:2.09
Emissions trading 51:2.08
  Canada 51:2.08[2]
  Elements 51:2.08[1]
  United States 51:2.08[3]
Kyoto Protocol 51:2.02[2]
GREENHOUSE GAS REGULATION AND THE POLITICS OF CLIMATE CHANGE IN THE OIL AND GAS INDUSTRY
(See also OIL AND GAS REGULATORY UPDATE: EPA EFFORTS TO CURB GREENHOUSE GAS EMISSIONS AND MORE)
Generally 61:11.01 et seq.
Climate change regulation 61:11.01
   Federal regulation 61:11.01[3]
      Kyoto Protocol, failure of Waxman-Markey and recent international treaties and agreements 61:11.01[1]
      State and regional responses in absence of federal legislation 61:11.01[2]
Enforcement 61:11.04
EPA focus on GHG emissions from oil & natural gas industry 61:11.02
   Federal GHG regulation of petroleum refineries 61:11.02[1]
   Federal regulation of upstream and midstream operations 61:11.02[2]
   Venting and flaring emissions on BLM lands 61:11.02[3]
Permitting issues 61:11.03
   Aggregation 61:11.03[2]
   EPA’s recent efforts to regulate 61:11.03[1]

GROUNDWATER
(See also CONJUNCTIVE MANAGEMENT OF SURFACE WATER AND GROUND WATER)
Computer modeling 53:17.01 et seq.
   Model complexity 53:17.01 et seq.
In situ mining 52:17.01 et seq.

GROUNDWATER MANAGEMENT AND USE IN DROUGHT
Generally 61:23.01 et seq.
Approaches to groundwater management and regulation 61:23.03
   Aquifer storage as management tool 61:23.03[5]
   Exempt wells 61:23.03[4]
   Hybrid approach: Arizona and Colorado 61:23.03[2]
   Rights of reasonable use and correlative rights 61:23.03[3]
   State regulation within the prior appropriation doctrine 61:23.03[1]
Management and regulatory challenges 61:23.02[2]
   Determining harm to users 61:23.02[2][c][ii]
   Federal reserved rights 61:23.02[2][c][v]
   Groundwater hydrologically connected to surface 61:23.02[2][a]
   Groundwater mining 61:23.02[2][b]
   Interstate aquifers 61:23.02[2][c][iii]
   Interstate compacts 61:23.02[2][c][iv]
   Prior appropriation 61:23.02[2][c][i]
Recent responses to stresses on groundwater supplies 61:23.04
   California’s sustainable groundwater management act 61:23.04[1]
   Idaho’s comprehensive aquifer management plans 61:23.04[2]
Technical challenges 61:23.02[1]

GUIDANCE DOCUMENTS AND THE COURTS
Generally 57:5.01 et seq.
Administrative law doctrines affecting legal challenges to informal agency documents 57:5.04
   Finality 57:5.04[2]
   Ripeness 57:5.04[3]
Emergence of informal agency guidance documents 57:5.02
   APA development 57:5.02[1]
Importance 57:5.02[3]
Ossification of the rulemaking process 57:5.02[2]

Evolving legal challenges 57:5.03

Appalachian Power Co. 57:5.03[3]
Emerging issues 57:5.03[1]
Legislative or guidance documents rules 57:5.03[2]
Modern agency practice 57:5.03[5]
Post-Appalachian Power 57:5.03[4]

Successful judicial review 57:5.05

HORIZONTAL DEVELOPMENT: COMPETING RIGHTS OF HORIZONTAL AND VERTICAL DEVELOPERS

Generally 58:11.01 et seq.
AAPL 610 – 1989 Model Form horizontal modifications 59:29.01 et seq.

Drilling and operating horizontal wells with and without a JOA 58:11.02
Continuing jurisdiction 58:11.02[1]
Cost disputes 58:11.02[2]
Marketing issues 58:11.02[3]
Operator issues 58:11.02[4]
Frac hits 61:12.01 et seq.
Subsurface trespass 58:11.03
Drilling from off-unit locations 58:11.03[2]
Hydraulic fracturing 58:11.03[1]

HORIZONTAL DEVELOPMENT: PERMITTING AND TRESPASS ISSUES ON FEDERAL LANDS AND MINERALS

Generally 62:12.01 et seq.
BLM review and regulation of downhole activities 62:12.05[1]
BLM review of surface activities under NHPA, ESA, and NEPA 62:12.05[2]
Instruction memorandum No. 2009-078 62:12.05[3]
Wells drilled from an existing pad 62:12.05[2][a]
Wells drilled from new pads 62:12.05[2][b]
Drilling without authorization and mineral trespass 62:12.02
Potential trespass scenarios 62:12.03
Subsurface access across federal lands and minerals 62:12.04

HORIZONTAL DRILLING

Generally 57:11.01 et seq.
Basics 57:11.02
Implied covenants 57:11.03[4]
Pooling 55:8.01; 57:11.03[2]
Case law 57:11.03[2][b]
Compulsory pooling 57:11.03[2][c]
Voluntary pooling 57:11.03[2][a]
Pore space and subsurface considerations 57:11.03[3]
Majority and minority rules 57:11.03[3][b]
Mineral estate dominance 57:11.03[3][e]
Relevant statutes 57:11.03[3][c]
Subsurface trespass 57:11.03[3][d]
Trespass risks 57:11.03[3][f]
Regulatory considerations 57:11.03[1]
Federal 57:11.03[1][a]
Local 57:11.03[1][c]
State 57:11.03[1][b]
Shale plays 57:25.03
HORIZONTAL DRILLING IN AREAS HELD BY EXISTING PRODUCTION
Generally 60:29.01 et seq.
Correlative rights and drainage issues 60:29.04
Hypotheticals, examples, and practical considerations 60:29.06
Joint operating agreements 60:29.03
Leases held by production 60:29.02
Spacing and pooling issues in areas with existing production 60:29.05

HURRICANES, EFFECT ON ACT OF GOD AND FORCE MAJEURE DEFENSES
Generally 52:10.01 et seq.
Exploration and production activities 52:10.01 et seq.
Federal and state environmental statutes 52:10.06
Future hurricanes 52:10.07
Katrina- and Rita-related litigation 52:10.02
   Homeowner vs. insurer 52:10.02[1]
   Suits against oil companies 52:10.02[2]
Louisiana law 52:10.04
   Contracts 52:10.04[1]
   Torts 52:10.04[2]
Maritime law 52:10.05
Texas law 52:10.03
   Contracts 52:10.03[1]
   Torts 52:10.03[2]

HYDRAULIC FRACTURING
(See also FRAC HITS);
(See also SUBSURFACE TRESPASS)
Generally 57:13.01 et seq.
Common law claims 57:13.02
   Breach of contract 57:13.02[6]
   Fraud 57:13.02[7]
   Negligence 57:13.02[1]
   Negligence per se 57:13.02[2]
   Negligent misrepresentation 57:13.02[8]
   Nuisance 57:13.02[3]
   Premises liability 57:13.02[5]
   Trespass 57:13.02[4]
Pending environmental studies 57:13.05
Pending litigation 57:13.03
Pending litigation and settlements 57:13.04
Pending state hydraulic fracturing disclosure legislation 57:13.06
Prior litigation and settlements 57:13.04

HYDRAULIC FRACTURING: AMERICAN LAW AND JURISPRUDENCE
(See also OIL AND GAS, CONFLICTS OVER LOCAL GOVERNMENT REGULATION)
Generally 58:4.01 et seq.
Air quality permitting and controls 58:4.15
Canada 58:4.13
Conservancy districts 58:4.16
Drilling and groundwater protection 58:4.03
Effect on domestic production 58:4.07
Environmental effects 58:4.08
   Subsidence and earthquakes 58:4.08[2]
   2011 earthquake activity 58:4.08[3]
   Water 58:4.08[1]
Federal regulation 58:4.14
Fracing fluids and operations  58:4.05
Horizontal drilling  58:4.04
Indian country  58:4.12
Local preemption  58:4.11
Nationwide fracing operations  58:4.06
   Antrim shale  58:4.06[7]
   Bakken shale  58:4.06[9]
   Barnett shale  58:4.06[2]
   Eagle Ford shale  58:4.06[6]
   Fayetteville shale  58:4.06[4]
   Haynesville shale  58:4.06[5]
   Marcellus and Utica shale  58:4.06[1]
   New Albany shale  58:4.06[8]
   Woodford shale  58:4.06[3]
Oil and gas jurisprudence  58:4.09
   Aftermath of Coastal  58:4.09[4]
   Lawsuits by governmental entities  58:4.09[6][c]
   Microseismicity  58:4.09[5]
   Neighboring mineral owners  58:4.09[3]
   Operator suits  58:4.09[d]
   Owners of oil and natural gas vs. owners of other minerals  58:4.09[2]
   Personal-injury lawsuits  58:4.09[6][b]
   Surface owner lawsuits  58:4.09[6][a]
   Surface ownership vs. mineral ownership  58:4.09[1]
Overview  58:4.02
State regulation  58:4.10

**IMPLIED COVENANTS UNDER MINERAL LEASES**
(See also OIL AND GAS IMPLIED COVENANTS)
Generally  57:20.01 et seq.
Fiduciary standard  57:20.03[2]
Good faith standard  57:20.03[2]
History  57:20.02
Lessee's duties  57:20.04
   Duty to conduct operations with reasonable care and due diligence  57:20.04[4]
   Duty to develop premises as a reasonably prudent operator  57:20.04[1]
   Duty to market production once production has begun  57:20.04[3]
   Duty to protect against drainage  57:20.04[2]
Practical considerations  57:20.05
Reasonably prudent operator standard  57:20.03[1]

**IN SITU LEACH MINING**
Generally  52:17.01 et seq.
Definition  52:17.01, .02
Land and mineral ownership issues  52:17.03[1]
   Federal lands  52:17.03[1][e]
   Rule of Capture  52:17.03[1][d]
   Unitization  52:17.03[1][a]
Regulation and permitting  52:17.03[2]
   Atomic Energy Act of 1954  52:17.03[2][b]
   CERCLA  52:17.03[2][e]
   Clean Air Act  52:17.03[2][g]
   Clean Water Act  52:17.03[2][c]
   NEPA  52:17.03[2][f]
RCRA  52:17.03[2][d]
Underground injection control program  52:17.03[2][a]
Uranium  55:27.01[5][b]
Water use and disposal  52:17.03[3]

INDEMNITIES

INDEX PRICING
Price manipulation scandal  50:6.06[2][c], [d], [f]

INDIAN
(See INDIAN COUNTRY, ENVIRONMENTAL REGULATION);
(See INDIAN LANDS, MINERAL DEVELOPMENT);
(See NATIVE AMERICAN SACRED PLACES);
(See TRADITIONAL CULTURAL PROPERTIES)

INDIAN COUNTRY, ENVIRONMENTAL REGULATION
Generally  52:20.01 et seq.
Federal environmental laws, applicability  52:20.01
Geothermal development  55:6.06
Law before tribal amendments of 1986-1990  52:20.02
Litigation after tribal amendments  52:20.04
  Arizona Public Service Co. v. EPA  52:20.04[4]
  Montana v. EPA  52:20.04[3]
  RCRA litigation  52:20.04[1]
Off-reservation impacts  52:20.05[2]
Supreme Court limitations on tribal jurisdiction  52:20.05[1]
Tribal amendments to federal environmental laws  52:20.03
  CERCLA  52:20.03[2]
  Clean Air Act  52:20.03[4]
  Clean Water Act  52:20.03[3]
  Safe Drinking Water Act  52:20.03[1]

INDIAN LANDS, MINERAL DEVELOPMENT
(See also CANADIAN ABORIGINAL RIGHTS AND MINERAL DEVELOPMENT)
Generally  50:12.01 et seq.; 56:5A.01 et seq.
Acquiring energy and mineral development rights  56:5A.04[1]
  Allotted Lands Leasing Act of 1909  56:5A.04[1][b]
  Coal leasing and exploration  56:5A.04[1][f]
  Exploration phase: pre-lease geological and geophysical permits  56:5A.04[1][e]
  Indian Mineral Development Act  56:5A.04[1][c]
  Indian Mineral Leasing Act  56:5A.04[1][a]
  Tribal energy resource agreements  56:5A.04[1][d]
Acquiring non-mineral, non-energy development rights  56:5A.04[1][g]
  Access for split estate surface and minerals  56:5A.04[1][g][v]
  Approval of contracts under 25 U.S.C. § 81  56:5A.04[1][g][ii]
  Business site leasing  56:5A.04[1][g][iii]
  Indian trader licensing  56:5A.04[1][g][vi]
  Non-Intercourse Act  56:5A.04[1][g][i]
  Rights-of-way and access rights  56:5A.04[1][g][iv]
Allotted lands
  Generally  50:12.03
  Leasing  50:12.05[1]
Congress’s plenary power  50:12.04
Contractual stipulations to enhance economic stability 56:5A.04[8]
Dispute resolution 50:12.07
Documenting development agreement 56:5A.04[3]
  Proper parties 56:5A.04[3][a]
  Structuring the deal 56:5A.04[3][b]
Enforceability and dispute resolution 56:5A.04[5]
  Exhaustion of tribal court remedies 56:5A.04[5][c]
  Forum selection 56:5A.04[5][b]
  Sovereign immunity 56:5A.04[5][a]
Environmental clearances 50:12.06
Federal approvals 56:5A.04[4]
  Assigning interests in development agreements 56:5A.04[4][f]
  Endangered Species Act 56:5A.04[4][d]
  Leasing and permitting requirements 56:5A.04[4][a]
  National Environmental Policy Act 56:5A.04[4][b]
  National Historic Preservation Act § 106 process 56:5A.04[4][c][i]
  Native American Graves Protection and Repatriation Act 56:5A.04[4][c][ii]
  Pre-approval rights and remedies 56:5A.04[4][e]
  Religious freedom protection statutes 56:5A.04[4][c][iii]
Federal Trust Doctrine, development and effect 56:5A.03[1]
Financing the deal 56:5A.05
  Collateralizing Indian country financing 56:5A.05[2]
  Federal financing incentives 56:5A.05[1]
Indian country defined 56:5A.02
  Allotments 56:5A.02[3]
  Dependent Indian communities 56:5A.02[2]
  Effect of Indian country status 56:5A.02[4]
  Reservations 56:5A.02[1]
Legislation
  Indian Mineral Development Act of 1982 50:12.05[3]
  Indian Mineral Leasing Act of 1938 50:12.05[2]
Regulation of operations 56:5A.04[6]
  Commercial law in Indian country 56:5A.04[6][e]
  Environmental regulation 56:5A.04[6][b]
  Federal regulation of exploration and development 56:5A.04[6][a]
  Federal statutes of general applicability 56:5A.04[6][c]
  Tribal regulatory power over nonmembers 56:5A.04[6][d]
Renewable energy development rights 56:5A.04[2]
Sovereignty, effects on contracting and development 56:5A.03[2]
Taxation 50:12.08; 56:5A.04[7]
Title 50:12.02; 56:5A.04[1][i]
Water rights 56:5A.04[1][h]

INDIGENOUS PEOPLES AND MINING IN CHILE
Generally 61:17B.01 et seq.
Implementation of duty to consult in Chile 61:17B.04
  El Morro project 61:17B.04[2]
  Good faith 61:17B.04[5]
  Opportunity for dialogue and negotiation 61:17B.04[1]
  Strategic planning of mining projects 61:17B.04[3]
Indigenous peoples and mining: sustainable relations, social responsibility, and human rights 61:17B.02
Indigenous rights and mining 61:17B.03
INDUCED SEISMICITY
Generally 61:5.01 et seq.
Earthquake defined 61:5.02[1]
Earthquake frequency 61:5.02[4]
Factors that determine severity and how scientists measure it 61:5.02[2]
  Magnitude vs. intensity 61:5.02[2][a]
  Scales for expressing earthquake severity 61:5.02[2][b]
Fluid injections or withdrawals 61:5.07
  Geothermal activities 61:5.07[1]
  Hydraulic fracturing 61:5.07[4]
  Injection disposal 61:5.07[2]
  Injections for carbon sequestration 61:5.07[6]
  Secondary and enhanced recovery 61:5.07[3]
  Withdrawals 61:5.07[5]
Harm 61:5.08
Induced seismicity 61:5.03
  Activities that can induce seismicity 61:5.03[1]
  Evaluating whether activity likely to induce seismicity 61:5.05
  Evaluating whether seismic event induced by human activity 61:5.04
  How human activities trigger earthquakes 61:5.03[2]
Litigation 61:5.13
Magnitude necessary to be felt/cause damage 61:5.02[3]
Produced water 61:5.10
Regulations 61:5.12
  Canada 61:5.12[3]
  Federal 61:5.12[1]
  State 61:5.12[2]
Scientists’ recommendations for mitigation of risks 61:5.06

INITIATIVES, VOTER: MINERAL DEVELOPMENT AND WILL OF THE PEOPLE
Generally 59:15.01 et seq.
Alaska—anti-Pebble initiatives 59:15.03
  Financial support, collateral litigation, and controversy 59:15.03[6]
  Pebble Project 59:15.03[1]
  Summary of Alaska initiative provisions 59:15.03[2]
  2007–2009 challenges: 07WATR and 07WTR3 59:15.03[3]
Arizona 59:15.06[6]
California 59:15.06[2]
  Anti-surface mining initiative 59:15.06[2][d]
  Hermosa Beach oil development ban 59:15.06[2][b]
  Initiative process 59:15.06[2][a]
  Mine ban inapplicable to permitted quarry 59:15.06[2][c]
Colorado—unsuccessful attempts at surface mining and cyanide bans 59:15.05
Idaho 59:15.06[3]
  Challenge to signatures of unregistered voters 59:15.06[3][b]
  Challenges to state mining statute 59:15.06[3][c]
Initiative system, origins and critics 59:15.02
Montana cyanide prohibition—I-137, I-147 and Seven Up Pete Venture 59:15.04
Oregon 59:15.06[4]  
South Dakota—federal mining laws preempt local initiative banning mining 59:15.06[1]  
Summary 59:15.07  
- Early legal challenges have better chance of success 59:15.07[3]  
- Grounds for legal challenges to initiatives 59:15.07[5]  
- Major resource projects must remain acceptable to voters 59:15.07[1]  
Utah 59:15.06[5]  

IN SOLVENCY ZONE  
(See also BANKRUPTCY);  
(See also FINANCIAL CRISIS)  
Generally 55:37.01 et seq.
- Deepening insolvency theory 55:37.04[1]
- Definition of insolvency zone 55:37.02
  - Distinguishing the insolvency zone 55:37.02[2]
  - Tests for measuring insolvency 55:37.02[1]
- Where the claim or suit can be pursued 55:37.05
  - Changing landscape under Volkswagen 55:37.05[1]
- Home court presumption 55:37.05[2]
  - Statutory guidance 55:37.05[1]
  - Volkswagen’s applicability to adversary proceedings 55:37.05[4]
- Who can benefit 55:37.03
  - Balancing creditor rights and corporate welfare 55:37.03[4]
  - Derivative standing 55:37.03[2]
  - Evolving Delaware law on creditor rights 55:37.03[3]
  - Protection under the business judgment rule 55:37.03[1]

INSTREAM FLOW PROGRAMS IN THE WESTERN U.S.  
Generally 61:22.01 et seq.
- Background 61:22.02
  - Alaska’s instream flow law 61:22.02[3]
  - Changing the definition of beneficial use 61:22.02[1]
  - Incorporating instream flow into prior appropriation system 61:22.02[2]
- Evaluating the effectiveness of instream flow programs 61:22.04
- State programs 61:22.03
  - Definition of beneficial use approach 61:22.03[2]
  - Statewide planning approach 61:22.03[3]
  - Water rights approach using statutorily enacted instream flow programs 61:22.03[1]

INSTREAM FLOW WATER RIGHTS  
Generally 56:9.01 et seq.
- Effect of state instream flow water rights 56:9.05
  - Impact on changes of water rights 56:9.05[3]
  - Impact on existing water rights 56:9.05[2]
  - Impact on new water rights 56:9.05[1]
- Evolving science 56:9.07[1]
  - Expansion of protected uses 56:9.07[1][b]
  - Survival flows 56:9.07[1][a]
  - Variable flows 56:9.07[1][c]
- Existing state and provincial programs 56:9.04
  - Alberta 56:9.04[1]
  - British Columbia 56:9.04[3]
Nevada 56:9.04[8]
New Mexico 56:9.04[9]
Oregon 56:9.04[10]
Utah 56:9.04[12]
Wyoming 56:9.04[14]

Federal role in U.S. instream flow protection 56:9.06
  Deference to state law 56:9.06[2]
  Federal reserved rights doctrine 56:9.06[3]
  Initial federal ownership 56:9.06[1]
  Wild and Scenic Rivers Act 56:9.06[4]

Historical development 56:9.03
  Influence of the environmental movement 56:9.03[2]
  Influence of the mining law 56:9.03[1]
  Legal obstacles 56:9.03[3]

Integration of federal requirements into state instream flow programs 56:9.07[3]
Upside-down water rights 56:9.07[2]

INTERBASIN TRANSFERS OF WATER—OVERVIEW
Generally 55:17.01 et seq.

2009 plans for interbasin water transfers 55:17.03
  Big Straw: Colorado River Basin to the Front Range 55:17.03[1]
  Lake Lanier 55:17.03[2]
  Red River Valley water supply project 55:17.03[5]
  Southern Nevada Water Authority groundwater development 55:17.03[4]
  T. Boone Pickens and Ogallala aquifer 55:17.03[3]

Regulation of interbasin water transfers 55:17.02
  Environmental review 55:17.02[3]
  Federal and state laws addressing environmental issues 55:17.02[2]
  State water laws addressing social and economic issues 55:17.02[1]

INTERNATIONAL CYANIDE MANAGEMENT CODE
Generally 52:22.01 et seq.

Development of code 52:22.03
Dispute resolution 52:22.06[2]
Environmental auditing 52:22.03[6], .04[3], .05[1]
Gold mining, use of cyanide 52:22.02
Voluntary best practices 52:22.01 et seq.

INTERNATIONAL NATURAL RESOURCES DEVELOPMENT
(See also CANADA, CANADIAN);
(See also ECONOMIC SANCTIONS);
(See also EQUATOR PRINCIPLES);
(See also INTERNATIONAL TAXATION OF MINING);
(See also MEGA PROJECTS);
(See also MERGERS AND ACQUISITIONS, CROSS-BORDER);
(See also SOCIAL LICENSE);
(See also WORLD BANK)

Bilateral financing for mining companies, North and South America 53:23.01 et seq.
  Bilateral approach to financing and managing junior mining companies 53:23.04
  Chile and Peru 53:23.08
  Conditions necessary for creation of market in South America 53:23.07
  Current project development archetype 53:23.02
  Historical summary of relations between North and South America 53:23.06[1]
Ingredients for success 53:23.05
Issues facing junior mining companies 53:23.03
Mining investment in former Soviet Union 51:19.01 et seq.

INTERNATIONAL TAXATION OF MINING
(See also MEGA PROJECTS: PROTECTION OF FOREIGN INVESTMENT)
Generally 50:17.01 et seq.
Comparative tax regimes 50:17.01 et seq.
Comparison of mining taxation systems 50:17.06
Incentive schemes 50:17.05[3]
Investment decision-making 50:17.03
Key issues 50:17.04
Principal taxation methods and incentives 50:17.05
Taxes based on profits 50:17.05[1]
Taxes on inputs and outputs 50:17.05[2]

INTERSTATE WATER COMPACT ALLOCATION RISKS AND REMEDIES
Generally 60:9.01 et seq.
Challenges to interstate water allocation strategies 60:9.02
Managerial solution to water securing 60:9.05
Tools for interstate water allocation 60:9.03
Congressional apportionment 60:9.03[2]
Equitable apportionment 60:9.03[1]
Interstate compacts 60:9.03[4]
Private litigation 60:9.03[3]
Water allocation strategies and risks 60:9.04
Average annual water delivery obligation 60:9.04[3]
Fixed annual water delivery obligations 60:9.04[2]
Groundwater availability and averaging 60:9.04[5]
Management agencies 60:9.04[6]
Physically superior access 60:9.04[1]
Proportioned delivery obligations 60:9.04[4]

INTERSTATE WATER CONTROVERSIES, PAST AND PRESENT
(See also MODEL INTERSTATE WATER COMPACT)
Generally 55:18.01 et seq.
Equitable apportionment by compact 55:18.03[2]
Alternative dispute resolution 55:18.03[2][e]
Compact administration 55:18.03[2][d]
Compact Clause 55:18.03[2][a]
Impetus for compacts 55:18.03[2][b]
Methods of allocation 55:18.03[2][c]
Equitable apportionment by Congress 55:18.03[3]
Colorado River 55:18.03[3][b]
Commerce Clause 55:18.03[3][a]
Rio Grande River 55:18.03[3][c]
Equitable apportionment by court 55:18.03[1]
Criteria of apportionment 55:18.03[1][a]
Pending litigation 55:18.03[1][c]
Standard of proof 55:18.03[1][b]
Failure to comply with court interpretation and enforcement decrees 55:18.04[3]
Laramie River 55:18.04[3][a]
Republican River 55:18.04[3][b]
Impact of interstate allocations on in-state uses 55:18.05
Hinderlider (La Plata River) 55:18.05[1]
Kansas v. Colorado (Arkansas River) 55:18.05[3]
Kansas v. Nebraska & Colorado (Republican River) 55:18.05[4]
Texas v. New Mexico (Pecos River) 55:18.05[2]

Interpretation and enforcement of prior allocations 55:18.04[2]
Arkansas River compact 55:18.04[2][e]
Laramie decree 55:18.04[2][a]
North Platte decree 55:18.04[2][b]
Pecos River compact 55:18.04[2][c]
Republican River compact 55:18.04[2][d]
Yellowstone River compact 55:18.04[2][f]

Original jurisdiction 55:18.02[2]
Original jurisdiction procedure 55:18.02[3]
Disposition by court 55:18.02[3][d]
Initiation 55:18.02[3][a]
Parties 55:18.02[3][b]
Proceedings before special master 55:18.02[3][c]

Private interstate litigation 55:18.03[4]
Supreme Court central role 55:18.02[1]
Supreme Court enforcement jurisdiction 55:18.04[1]

INVESTMENT DECISION MAKING IN THE EXTRACTIVES INDUSTRY
IN “CHALLENGING” PLACES

Generally 58:2.01 et seq.
Challenging places 58:2.03
Diversity of challenges and risks 58:2.03[1]
Evolving risk/reward investment equation 58:2.06
Factors affecting investment decisions 58:2.04
Compliance and integrity 58:2.04[3][b][iii]
Economic and financial considerations 58:2.04[1]
Infrastructure 58:2.04[3][b][ii]
Other qualitative factors 58:2.04[3]
Reduced access to financing 58:2.04[3][d]
Resource nationalism 58:2.04[3][b][i]
Security and human rights 58:2.04[3][b][v]
Social license 58:2.04[3][b][iv]
State capitalism 58:2.04[3][c]
Strategic considerations 58:2.04[2]

Information: risk assessments, due diligence, and analysis 58:2.05
Investment decision-making process 58:2.02

JOINT OPERATING AGREEMENTS
(See also AAPL FORM 610 MODEL FORM OPERATING AGREEMENT);
(See also AAPL 610 – 1989 MODEL FORM OPERATING AGREEMENT: HORIZONTAL MODIFICATIONS);
(See also FORM 2 UNIT OPERATING AGREEMENT);
(See also OPERATING AGREEMENTS)

Generally 50:7.01 et seq.
Arbitration 50:7.13
Area of mutual interest 50:7.14[1]
Assignment 50:7.08
COPAS accounting standards 51:15.03[1], 15.04[3]; 53:32.05
Cotenancy 50:7.10
Development issues 50:7.12
Exculpatory clauses 51:15.04[1]; 53:32.03
Historical judicial interpretation 53:32.03[2]
Recent cases 53:32.04
Texas courts  53:32.03[3]
Facilities that serve JOA assets  50:7.11
Gross negligence  51:15.04[1]
Joint interest account disputes  53:32.01 et seq.
Limitation as to AFEs  50:7.14[5]
Maintenance of uniform interest  50:7.07
Marketing issues  50:7.09
Multiple JOAs or operators  50:7.14[4]
Nonconsent  51:15.04[2]
Operator assignment of operations  50:7.14[2]
Operator removal  50:7.05; 51:15.04[4]
Pay to play  50:7.14[7]
Preferential right issues  50:7.06
Relationship of JOA parties  50:7.04
Role and liability of operator  50:7.03
Shale plays  57:25.01 et seq.
Subsequent operations, notice  50:7.02

JOINT OPERATING AGREEMENTS: DRILLING WITH NO JOA OR WITH MULTIPLE JOAS
Generally 62:25.01 et seq.
Comparative treatment of cotenancy issues  62:25.03
   Duties and liabilities among cotenants  62:25.03[3]
   Liabilities to third parties  62:25.03[2]
   Operational rights  62:25.03[1]
   Sharing of production and expenses  62:25.03[4]
Cotenancy basics  62:25.02
   Model Form Operating Agreement  62:25.02[1]
   Statutory pooling  62:25.02[2]
Introduction: sample drilling scenarios and scope of discussion  62:25.01[1], [2]
Problem of multiple joint operating agreements (JOA)  62:25.04
   Multi-JOA case law  62:25.04[2]
   Privity/third-party beneficiary claims  62:25.04[3]
   Sharing and governance issues  62:25.04[1]

JOINT OPERATING AGREEMENTS—NEW DEVELOPMENTS IN SHALE PLAYS
Generally 57:25.01 et seq.
Recent disputes and court rulings  57:25.05
   Duties of nonoperators  57:25.05[2]
   Duties of operator  57:25.05[1]
   Remedies of operator  57:25.05[3]
Special provisions in Article XVI  57:25.04
   Assignment and notice of assignment  57:25.04[6]
   Confidentiality  57:25.04[1]
   Federal and state administration  57:25.04[5]
   Netting out revenue for past-due joint interest billings  57:25.04[3]
   Notice of assignment under farmouts  57:25.04[7]
   Sales necessitating separate measurement  57:25.04[2]
   Withholding information for past-due joint interest billings  57:25.04[4]
Unique issues related to horizontal drilling in shale plays  57:25.03
   Drilling vertical and horizontal wells out of a single wellbore  57:25.03[3]
   Horizontal laterals  57:25.03[4]
   Lease swaps  57:25.03[2]
   Multiple JOAs  57:25.03[1]

JOINT OPERATIONS AND ANTITRUST LAW
Generally 54:31.01 et seq.
Benchmarking 54:31.03[10], .04[5]
Joint operations and collaborations 54:31.03
  Marketing 54:31.03[2]
  Production 54:31.03[1]
  Research and development 54:31.03[3]
Joint venture 54:31.03[4]-[9]
  Agreements and activities 54:31.03[9], .04[4]
  Formation 54:31.03[4]
  Operation 54:31.03[8]
    Participants, exclusivity, and duration 54:31.03[5]
    Purpose, market conditions, and entry 54:31.03[6]
    Safety zones 54:31.03[7]
Selected joint activity 54:31.04
  Industry conferences and gatherings 54:31.04[1]
  Sharing facilities with competitors 54:31.04[2]
  Upstream operations 54:31.04[3]
Statutes and guidelines 54:31.02[1]

JOINT OPERATIONS AND BANKRUPTCY
(See BANKRUPTCY, JOINT OPERATIONS)

JOINT VENTURE
(See MINING JOINT VENTURE AGREEMENTS);
(See MINING VENTURE AGREEMENT FORMS);
(See MINING VENTURES)

JOINT VENTURES FOR SHALE AND OTHER CAPITAL INTENSIVE
OIL AND GAS PROJECTS
Generally 57:18.01 et seq.
Abandonment 57:18.14
Accounting 57:18.13
Alternative structures 57:18.03
  Entity structures 57:18.03[2]
    Tax considerations in the U.S. and Canada 57:18.03[3]
    Unincorporated joint venture structure 57:18.03[1]
Consideration and funding 57:18.06
  Carry obligations 57:18.06[2]
  Credit support 57:18.06[3]
  Defaults and remedies 57:18.06[4]
  Sale arrangements 57:18.06[1]
Governance 57:18.08
  Procedural matters 57:18.08[2]
  Scope of authority 57:18.08[1]
  Subcommittees 57:18.08[4]
  Voting thresholds 57:18.08[3]
Inbound investment issues 57:18.15
  Committee on Foreign Investment in the United States (CFIUS) 57:18.15[1]
  Investment Canada Act and Competition Act requirements 57:18.15[2]
Independent operations/sole risk 57:18.10
  Consequences 57:18.10[4]
  Distinguished from operations outside JV 57:18.10[1]
  Restrictions 57:18.10[2]
  Scope 57:18.10[3]
Operator or managing partner 57:18.09
  Alternatives 57:18.09[5]
  Liability 57:18.09[4]
Replacement 57:18.09[3]  
Scope of authority 57:18.09[1]  
Standard of operations 57:18.09[2]  
Production 57:18.12  
Take in kind 57:18.12[1]  
Role of nonoperator 57:18.11  
Marketing 57:18.11[4]  
Provision of goods, services, or technology 57:18.11[1]  
Secondments 57:18.11[2]  
Technology transfer 57:18.11[3]  
Scope of joint venture 57:18.05  
Adjacent or related interests 57:18.05[2]  
Marketing 57:18.05[4]  
Midstream 57:18.05[3]  
Size 57:18.05[1]  
Typical documentation 57:18.04  
Work programs, budgets and other approvals 57:18.07  
AFE and management committee approvals 57:18.07[3]  
Agreed initial multiyear plan 57:18.07[1]  
Annual work program and budget 57:18.07[2]  
Operator's exceptional authority 57:18.07[5]  
Overruns 57:18.07[4]  

JURY PERCEPTIONS IN ENERGY LITIGATION  
Generally 61:4.01 et seq.  
Best practices for trying energy cases today 61:4.04  
Public opinion of energy industry in 2015 61:4.03  

KATRINA  
(See HURRICANES)  

KELO V. NEW LONDON  
(See CONDEMNATION)  

KYRGYZ REPUBLIC  
Mining investment 51:19.01 et seq.  

LAND CONSULTING AGREEMENTS  
Generally 52:25.01 et seq.  
Common provisions 52:25.05  
Company funds and property issues 52:25.05[9]  
Compensation 52:25.05[6]  
Conflict of interest 52:25.05[8]  
Description of services 52:25.05[2]  
General provisions 52:25.05[10]-[17]  
Independent contractor status 52:25.05[1]  
Nondisclosure and noncompetition 52:25.05[7]  
Standard of services 52:25.05[4]  
Term 52:25.05[3]  
Use of forms 52:25.05[5]  
Independent contractors, land consultants as 52:25.04  
Common law 52:25.04[1]  
Internal Revenue Service test 52:25.04[2]  
Safe harbor 52:25.04[3]  
Perspective of the parties 52:25.03  
Primary relationships 52:25.02
LAND USE PLANS
(See FEDERAL LAND USE PLANS)

LANDMEN
(See ETHICAL DUTY OF LANDMEN AND LEGAL COUNSEL TO FORMER EMPLOYERS)

LANDSCAPE-SCALE MITIGATION AND ITS IMPLEMENTATION IN A MULTI-JURISDICTIONAL SETTING
Generally 62:5.01 et seq.
Compensatory mitigation in context 62:5.02
Landscape-scale mitigation across governmental jurisdictions 62:5.06
Mandatory mitigation 62:5.04[1]
   ESA post-listing context 62:5.04[1][a]
   FLPMA 62:5.04[1][b]
Mitigation as a budget supplement 62:5.04[3]
Principles of mitigation 62:5.05
   Durability and additionality 62:5.05[3]
   Identifying and measuring conservation values of concern 62:5.05[1]
   Satisfying mitigation objectives 62:5.05[4]
   Timing and impacts 62:5.05[2]
Recent developments 62:5.03
   Agency policies and plans 62:5.03[2]
   Meaning of landscape-scale mitigation 62:5.03[3]
   Presidential and departmental policies 62:5.03[1]
Voluntary or policy-driven mitigation 62:5.04[2]
   ESA pre-listing context 62:5.04[2][b]
   Migratory Bird Treaty Act 62:5.04[2][c]
   NEPA 62:5.04[2][a]

LAWYER LIABILITY: SUING OPPOSING COUNSEL
Generally 61:3.01 et seq.
Barriers to suing opposing lawyers for conduct in non-litigation representations 61:3.04
   Increased duty under 2003 amendments to Model Rules 61:3.04[2]
   Liability to unintended clients 61:3.04[3]
   Negligence 61:3.04[1]
Barriers to suing opposing lawyers for litigation conduct 61:3.03
   Anti-SLAPP statute defenses 61:3.03[3]
   Defenses to malicious prosecution and abuse of process actions 61:3.03[2]
   Litigation privilege 61:3.03[1]
   Litigation sanctions 61:3.03[4]
General barriers to attorney third-party liability 61:3.02
Potential exposure: a new climate 61:3.06
Recent claims by corporate defendants against plaintiffs’ lawyers 61:3.05
   Chevron’s RICO and common law fraud claims 61:3.05[1]
   Drummond Co.’s libel claims 61:3.05[2]
   Facebook/Zuckerberg litigation 61:3.05[3]

LEASE MAINTENANCE ISSUES THAT ARISE WHEN OIL PRICES DROP
Generally 62:20.01 et seq.
Gaps in drilling operations 62:20.03
   Express requirements for drilling operations 62:20.03[1]
   Implied covenants 62:20.03[2]
Gaps in production 62:20.02
   Cessation/temporary cessation 62:20.02[2]
   Production in paying quantities 62:20.02[1]
LEASE TERMINATION IN UNCONVENTIONAL SHALE PLAYS
Generally 59:27.01 et seq.
Basics 59:27.02
   Habendum clause 59:27.02[1]
   Production 59:27.02[2]
   Savings clauses 59:27.02[3]
New York’s moratorium; related force majeure arguments 59:27.05
Other current issues 59:27.06
Recent cases involving new technology 59:27.04
Recent litigation 59:27.03
   Completion 59:27.03[2]
   Operations 59:27.03[1]
   Production 59:27.03[3]

LEASES, AREAS OF INTEREST IN
(See Areas of Interest)

LEASES, MAINTENANCE IN DIFFERING ECONOMIC ENVIRONMENTS
Developing the leasehold 55:23.05
   Express covenant to develop 55:23.05[1]
   Implied covenant for further development 55:23.05[2]
   Implied covenant of further exploration 55:23.05[3]
   Notice requirement 55:23.05[2][c]
   Unconventional gas plays 55:23.05[4]
During primary term 55:23.02
   Coalbed methane wells 55:23.02[3]
   Delay rentals 55:23.02[1]
   Obtaining production 55:23.02[2]
Into secondary term 55:23.03
   Commencement of operations 55:23.03[1]
   Force majeure 55:23.03[3]
   Pooling/unitization 55:23.03[2]
Maintaining during secondary term 55:23.04
   Dry hole and cessation of production clauses 55:23.04[1]
   Notice requirement 55:23.04[3]

LEASES, OIL AND GAS
(See also Oil and Gas Leases);
(See also Oil and Gas Implied Covenants)
Generally 50:19.01 et seq.
Form 50:19.05
Liability after assignment 53:31.01 et seq.
   Advance novation concept 53:31.04[2]
   Due diligence 53:31.06
   Lease language 53:31.05
   Seagull case 53:31.01 et seq,
Selecting form, business approach 50:19.02
Specific clauses
   Delay rental 50:19.03[4]
   “Free gas” (see “Free Gas” Clauses)
   Granting 50:19.03[1]
   Habendum 50:19.03[2]
   Miscellaneous 50:19.03[7]
Pooling and unitization 50:19.03[6]
Royalty 50:19.03[5]
Savings 50:19.03[3]

LEGAL DESCRIPTIONS
Generally 50:20.01 et seq.

LETTERS OF INTENT
(See EXPLORATION LETTERS OF INTENT)

LIMITED LIABILITY COMPANY AGREEMENTS, MINING
(See MINING VENTURE AGREEMENT FORMS)

LIQUIFIED NATURAL GAS (LNG)
Generally 51:10.01 et seq.
Case for LNG 51:10.03
Definition 51.10.02
LNG sale and purchase agreement 51:10.06
  Key provisions 51:10.06[1]
  Trends 51:10.06[2]
LNG value chain 51:10.04, .05

LIQUEFIED NATURAL GAS EXPORTS: HISTORY & PROJECTED FUTURE
Generally 60:6.01 et seq.
1950s—ocean transportation 60:6.02
1960s—exports from Algeria and Alaska 60:6.03
1970s—demand increases four-fold 60:6.04
1980s—Asian demand rises 60:6.05
1990s—steep rise in LNG developments 60:6.06
2000s—lower prices and increased demand 60:6.07
  Asian demand 60:6.07[2]
  Global demand 60:6.07[3]
  U.S. import terminals 60:6.07[1]
2010s—new technologies 60:6.08
  Arctic development 60:6.08[5]
  Floating LNG 60:6.08[3]
  Floating storage and regasification units 60:6.08[6]
  Horizontal drilling and hydraulic fracturing 60:6.08[1]
  Offshore gas reserves 60:6.08[4]
  Unconventional coal seam gas 60:6.08[2]
Current and future opportunities and challenges 60:6.09
  Continuance of take-or-pay 60:6.09[2]
  Continuing viability of LNG value chain 60:6.09[1]
  Floating LNG 60:6.09[4]
  Impact of unconventionals 60:6.09[5]
  Rise of MSPA 60:6.09[3]

LOCAL GOVERNMENT REGULATION OF LAND USE
Generally 53:6.01 et seq.
Authority, sources of 53:6.03
Dealing with regulation 53:6.05
Methods of regulation 53:6.04
  Limits to power 53:6.04[4]
  Other mechanisms 53:6.04[3]
  Zoning 53:6.04[1]-[2]
Police power 53:6.02
MASTER LIMITED PARTNERSHIPS (MLP)
Generally 54:22.01 et seq.
Assets suitable for MLPs 54:22.06
Basic structure and taxation 54:22.02
Federal securities laws issues 54:22.05
  NYSE and NASDAQ rules 54:22.05[4]
  Sarbanes-Oxley Act 54:22.05[3]
  SEC Release Nos. 33-6900 and 34-2914 54:22.05[1]
Separate financial statement disclosure requirements 54:22.05[2]
Substantive disclosure requirements 54:22.05[1][b]
Legal issues 54:22.07
  Alien ownership restrictions 54:22.07[3]
  Conflict of interest 54:22.07[1]
  Separate financial statements 54:22.07[2]
MLP governance 54:22.04
MLP units and rights to distributions 54:22.03

MEGA PROJECTS
(See MEGA PROJECT CONSTRUCTION CONTRACTS: CONTRACTOR’S PERSPECTIVE);
(See MEGA PROJECT CONSTRUCTION CONTRACTS: OWNER’S PERSPECTIVE);
(See MEGA PROJECTS: INITIAL PHASE);
(See MEGA PROJECTS: PROTECTION OF FOREIGN INVESTMENT)

MEGA PROJECT CONSTRUCTION CONTRACTS: CONTRACTOR’S PERSPECTIVE
Generally 55:21A.01 et seq.
Contract types 55:21A.02
  EPC 55:21A.02[1]
  EPCM 55:21A.02[2]
  Hybrid 55:21A.02[3]
EPCM and mega projects 55:21A.02[4]
Risk allocations in EPC and EPCM 55:21A.03
  Cost and schedule 55:21A.03[1][a]
  Deficient services and defective works 55:21A.03[1][b]
  Fundamentals 55:21A.03[1]
  Governing law and dispute resolution 55:21A.03[2][h]
  Insurance 55:21A.03[2][g]
  Intellectual property 55:21A.03[2][c]
  Liability limits 55:21A.03[2][i]
  Security guarantees 55:21A.03[2][j]
  Standards of performance 55:21A.03[2][e]
Termination and suspension rights 55:21A.03[2][f]
Variations and change orders 55:21A.03[2][d]

MEGA PROJECT CONSTRUCTION CONTRACTS: OWNER’S PERSPECTIVE
Generally 55:21B.01 et seq.
EPC compared to EPCM 55:21B.02
  Change orders and changes to contract 55:21B.03[4]
  Cost and schedule 55:21B.03[1]
  Defective work vs. defective services 55:21B.03[2]
  Dispute resolution and governing law 21B.03[8]
  Insurance and indemnification 55:21B.03[7]
  Intellectual property 55:21B.03[3]
  Liability limits 55:21B.03[9]
MEGA PROJECTS: INITIAL PHASE

Generally 55:19.01 et seq.

Alternative dispute resolution 55:19.05[3][a]

Comprehensive due diligence 55:19.03[2]
  Fiscal requirements 55:19.03[2][d]
  Legal requirements 55:19.03[2][a]
  Local practices 55:19.03[2][c]
  Management issues 55:19.03[2][f]
  Strategy issues 55:19.03[2][e]
  Tenure issues 55:19.03[2][b]

Construction agreement 55:19.04[5]

Exit strategy and transfer rights 55:19.05[1]

  Assignment 55:19.04[3][e]
  Co-participant risk 55:19.04[3][g]
  Cross charges 55:19.04[3][c]
  Forfeiture and abatement 55:19.04[3][d]
  Minority interests and financial covenants 55:19.04[3][f]
  Security interests 55:19.04[3][b]

Governing law 55:19.05[3][b]

Impacts and benefits agreement 55:19.04[4]

Interim agreement 55:19.04[1]

Joint venture agreement 55:19.04[2]
  Choosing form of agreement 55:19.04[2][a]
  Financing considerations 55:19.04[2][b][iv]
  Liability considerations 55:19.04[2][b][iii]
  Structure for tax treatment purposes 55:19.04[2][b][i]

Money, management, and control 55:19.05[2]

Understanding the project 55:19.03[1]
  Identifying agreements 55:19.03[1][b]
  Preliminary assessment 55:19.03[1][a]
  Preliminary due diligence 55:19.03[1][c]

MEGA PROJECTS: PROTECTION OF FOREIGN INVESTMENT

(See also STABILIZATION AGREEMENTS)

Generally 55:20.01 et seq.

Bilateral investment treaties (BITs) 55:20.02
  Arbitration 55:20.02[5]
  BITs and double taxation treaties 55:20.02[1]
  Importance of 55:20.02[2]
  Variations in coverage and scope of guarantees 55:20.02[3]

Political risk insurance 55:20.04

Post-investment initiatives by host governments 55:20.01
  Ontario, Canada 55:20.01[2]
  Peru 55:20.01[1]
  Venezuela 55:20.01[3]

Private investment agreements 55:20.03
  Choice of law 55:20.03[2]
  Stabilization clauses 55:20.03[1]
  Umbrella clauses 55:20.03[3]
MERGERS AND ACQUISITIONS, CROSS-BORDER
Generally 52:24.01 et seq.
Canadian M&A transactions, typical structures 52:24.03[2]
  Business combination transactions 52:24.03[2][b]
  Corporate law considerations 52:24.03[2][c]
  Takeover bid 52:24.03[2][a]
Mining sector 52:24.01
Planning an M&A transaction 52:24.02
Regulatory approvals 52:24.05
  Competition Act 52:24.05[2][a]
  Exon-Florio 52:24.05[1][b]
  Export controls 52:24.05[1][c]
  Hart-Scott-Rodino 52:24.05[1][a]
  Investment Canada Act 52:24.05[2][b]
U.S. M&A transactions, typical structures 52:24.03
  Business combination or merger transaction 52:24.03[1][c]
  Corporate law considerations 52:24.03[1][d]
  Mineral resources and reserves, reporting 52:24.03[1][b]
  Tender offer 52:24.03[1]
U.S./Canadian transactions 52:24.04
  Securities law issues 52:24.04[1]
  Tax considerations 52:24.04[2]

METAL STREAMING TRANSACTIONS
Generally 60:16.01 et seq.
Advantages of streaming transactions 60:16.04[1]
Allocation of risk 60:16.05
  Development risks and completion tests 60:16.05[2]
  Political events 60:16.05[3]
  Security 60:16.05[1]
Development of alternative financings 60:16.02
Disadvantages of streaming transactions 60:16.04[2]
Financing models 60:16.03
  Royalty transactions 60:16.03[2]
  Streaming transactions 60:16.03[3]
  Traditional lending facilities 60:16.03[1]
Future developments 60:16.08
Interplay of creditors 60:16.07
  Inter-creditor agreements 60:16.07[2]
  Priorities on enforcement 60:16.07[3]
  Priority of security and payment waterfalls 60:16.07[4]
Tax implications of various structures 60:16.06
  Mining, commodity, and sales taxes 60:16.06[4]
  Structuring the streaming arrangement 60:16.06[3]
  Withholding tax 60:16.06[2]

METHANE
(See CAPTURE OF VENTILATED METHANE FROM COAL MINING)

MEXICO: PETROLEUM DEVELOPMENT
Generally 61:20.01 et seq.
Addendum: round 1, calls 1 and 2 61:20.14
Bid round one 61:20.11
Bid round zero 61:20.10
Constitution 61:20.07
Contract types 61:20.01[1]
Characteristics of contract types 61:20.01[2]
Concession 61:20.01[1][a]
Production-sharing 61:20.01[1][b]
Restrictions on type 61:20.02
Risk-service contract 61:20.01[1][c]
Evaluating the petroleum reforms 61:20.12
Investor interests 61:20.12[1]
Seven standards for the state 61:20.12[3]
Integrated services contract (ISC) 61:20.05
Multiple services contract (MSC) 61:20.04
New petroleum regime 61:20.06
Public Works Law 61:20.03
Regulations 61:20.09
Secondary laws 61:20.08
Hydrocarbons Law 61:20.08[1]
Hydrocarbons Revenue Law 61:20.08[3]

MIDSTREAM OPERATORS AND PRODUCER SUPPLIERS: STRATEGIES
Generally 62:11.01 et seq.
Managing existing midstream contracts 62:11.03
Midstream operator concerns and reactions 62:11.03[2]
Supplier concerns and reactions 62:11.03[1]
New midstream arrangements 62:11.02
Contract signing: final steps 62:11.02[4]
Midstream operator’s starting point 62:11.02[2]
Negotiation 62:11.02[3]
Supplier’s starting point 62:11.02[1]

MIDSTREAM UPDATE—CHALLENGES IN GETTING PRODUCTION TO MARKET
Generally 59:6.01 et seq.
Basic midstream contracts 59:6.02
Fractionation 59:6.02[3]
Gathering 59:6.02[1]
Processing agreements 59:6.02[2]
Midstream infrastructure 56:28.01 et seq.
New challenges 59:6.03
Jurisdictional issues 59:6.03[2]
Producer participation 59:6.03[1]
Valuing production 59:6.03[3]
Overview of midstream market 59:6.01

MINE
(See MINERAL, MINING)

MINE CLOSURE
Federal laws governing 51:18.02[1]
Financial assurance 51:18.04
Legal requirements governing 51:18.02
Planning and permitting 51:18.03
Public lands and leased lands 51:18.02[3]
Release from financial assurance requirements and liability 51:18.05
State laws governing 51:18.02[2]
MINE DISASTERS, HANDLING
(See MINE-WATER DISCHARGES)
Generally 54:21.01 et seq.
Legal liability 54:21.02[1][b]
  False statement and obstruction of justice 54:21.02[1][b][iv]
  Federal Mine Safety and Health Act liability 54:21.02[1][b][i]
  Negligent homicide 54:21.02[1][b][iii]
  Suspension and debarment 54:21.02[1][b][v]
  Worker’s compensation and tort claims 54:21.02[1][b][ii]
Media-public-government fallout 54:21.02[1][a]
Strategic planning 54:21.02[2]
  Assembling team 54:21.02[2][a]
  Internal investigation 54:21.02[2][b]
Tactical planning 54:21.02[3]
  Government investigations 54:21.02[3][d]
  Media plan 54:21.02[3][b]
  Notice to MSHA 54:21.02[3][a]

MINE RECLAMATION: HARDROCK OPEN-PIT MINES
Generally 58:15.01 et seq.
Case studies 58:15.04
  Glamis Imperial Project – California 58:15.04[1]
  Golden Sunlight Mine – Montana 58:15.04[3]
  Mandatory backfill vs. case-by-case evaluation 58:15.04[4]
  Soledad Mountain Project – California 58:15.04[2]
Decision to backfill – regulatory and practical considerations 58:15.05
Hardrock mine reclamation regulation 58:15.03
Policy issues 58:15.02

MINE SAFETY AND HEALTH
Generally 53:14.01 et seq.
Coal mine methane 55:26.02[1], [3]
Federal Mine Safety and Health Act of 1977 53:14.02
  History 53:14.02[1]
  Implementation 53:14.02[2]
  Key enforcement features 53:14.02[2][d]
  Liability under 54:21.02[1][b][i]
Mine Improvement and New Emergency Response Act of 2006 (MINER Act) 53:14.03
  History 53:14.03[1]
  Major provisions, all mines 53:14.03[3]
  Major provisions, underground coal mines 53:14.03[2]

MINE SAFETY AND HEALTH IN THE U.S.: EXPANSION OF MSHA AUTHORITY
Generally 60:15.01 et seq.
Expanding scope of MSHA’s subpoena power 60:15.03
  Accident investigation authority under Mine Act § 103 60:15.03[3]
  Early cases 60:15.03[2]
  General inspection and investigation authority under Mine Act § 103 60:15.03[4]
Mine Act § 103(k) control orders to impose compliance obligations 60:15.04
  Challenging MSHA’s authority 60:15.04[2]
  Definition of accident 60:15.04[1]
  Financial implications 60:15.04[3]
Pattern of violations rule and challenges 60:15.05
  Brody Mining challenge 60:15.05[4][a]
  History 60:15.05[2]
  Living under a POV 60:15.05[5]
Murray Energy Corp. challenge 60:15.05[3]
Review of critical mine plans and resolution of disagreements 60:15.02
Legal mandates governing mine plans 60:15.02[1]
Mach Mining 60:15.02[3]
Practical problems 60:15.02[2]

MINE-WATER DISCHARGES FROM INACTIVE AND ABANDONED MINES IN THE AMERICAN WEST, MANAGING THE LEGACY OF
Generally 62:15.01 et seq.
Application of existing laws to Gold King Mine (GKM) 62:15.04[1]
GKM blowout and history of inactive and abandoned mines (IAM) 62:15.02
Abandoned and inactive hardrock mines—the problem and its effects 62:15.02[2]
Mining law overview 62:15.02[3]
Overview and current status 62:15.02[1]
Legal framework for liability and cleanup of IAMs 62:15.03
Federal liability framework imposed on IAMs 62:15.03[1]
Law facilitating cleanup of IAMs 62:15.03[2]
Lessons learned from GKM 62:15.04[3]
Newly proposed laws in response to GKM 62:15.04[2]
Proposed solutions 62:15.05

MINERAL RESERVES, DISCLOSURE OF
Generally 51:9.01 et seq.; 54:28C.01 et seq.
CRIRSCO standards 54:28C.02
Differences among CRIRSCO-based reporting standards 54:28C.04
Differences between CRIRSCO template and SEC Industry Guide 7 54:28C.05
Disclosure of mineral resources 51:9.02
Interaction of competent person requirement and liability for expertised disclosure 54:28C.07
Liability for disclosure of misleading mineral resource and mineral reserve estimates 54:28C.06
Mineral classification systems 51:9.02[1]
Mineral reserve disclosure problems 51:9.04
Mineral reserve disclosure regimes 51:9.02[2]
Applying securities regulations 51:9.02[2][b]
Criticism of U.S. regulatory approach 51:9.02[2][f]
Disclosure of petroleum reserves, U.S. approach 51:9.02[2][e]
Investor protection 51:9.02[2][a]
Mineral classification systems in securities laws, use of 51:9.02[2][c]
U.S. regulatory approach 51:9.02[2][d]
Mineral resources and mineral reserves 54:28C.03
Recommendations for improved disclosure 51:9.05[2]
Recommendations for improved regulatory framework 51:9.05[1]
Shell reserve reclassification 51:9.03
Independent counsel recommendations 51:9.03[2]
Strategies to minimize liability 54:28C.08

MINING AND ABORIGINAL RIGHTS IN CANADA
Generally 61:17A.01 et seq.
Aboriginal title defined 61:17A.02
Outstanding questions 61:17A.04
Free entry system 61:17A.04[2]
Mining regulations on Aboriginal title lands 61:17A.04[5]
Subsurface rights 61:17A.04[1], [3]
Path forward 61:17A.05
Consent 61:17A.05[1]
Justified infringement 61:17A.05[2]
MINING AND PUBLIC LAND LAW UPDATE
2015–2016
Generally 62:14.01 et seq.
Administrative developments 62:14.03
Judicial and federal administrative adjudication developments 62:14.02
Court decisions 62:14.02[1]
Interior Board of Land Appeals (IBLA) decisions 62:14.02[2]
Legislative developments 62:14.04
2014–2015
Generally 61:14A.01 et seq.
Executive and administrative developments 61:14A.06
Federal court decisions 61:14A.02
IBLA decisions 61:14A.03
Legislative developments 61:14A.05
State court decisions 61:14A.04
2013–2014
Generally 60:14.01 et seq.
Administrative developments 60:14.04
Federal court decisions 60:14.02[1]
IBLA decisions 60:14.02[2]
Legislative developments 60:14.03
2012–2013
Generally 59:14.01 et seq.
Administrative 59:14.04
BLM land withdrawals 59:14.04[1], [2]
Forest service rules and processes 59:14.04[4], [5]
Federal court decisions 59:14.02[1]
IBLA decisions 59:14.02[2]
Legislative 59:14.03
State court decisions 59:14.02[3]

MINING, ARTISANAL
(See ARTISANAL AND SMALL-SCALE MINING)

MINING, CHILE
(See INDIGENOUS PEOPLES)

MINING, CONGO
Generally 57:9.01 et seq.
Economy 57:9.03
Improvement of business climate 57:9.03[3]
Post-independence 57:9.03[2]
Pre-independence 57:9.03[1]
Historical overview 57:9.02
Colonization 57:9.02[1]
Independence 57:9.02[2]
International treaties, foreign legislation, and guidelines 57:9.05
Legal provisions applicable to mining operations 57:9.04
Business structure 57:9.04[3]
Civil law 57:9.04[2]
Mining Code 57:9.04[5]
Mining legislation 57:9.04[4]
OHADA 57:9.04[1]
Mining contracts 57:9.06
MINING, IN SITU
(See IN SITU LEACH MINING)

MINING, INTERNATIONAL TAXATION
(See INTERNATIONAL TAXATION OF MINING)

MINING INVESTMENT IN FORMER SOVIET UNION
Generally 51:19.01 et seq.
Kumtor Project 51:19.01 et seq.
Kyrgyz Republic 51:19.01 et seq.

MINING JOINT VENTURE AGREEMENTS: COMPARISON OF AUSTRALIAN,
CANADIAN, AND U.S. VERSIONS
Generally 56:24.01 et seq.
Adjustments of interests 56:24.05
  Default adjustments 56:24.05[2]
  Non-consent operations 56:24.05[3]
  Voluntary adjustments 56:24.05[1]
  Withdrawal 56:24.05[4]
Background of 56:24.01
  Australia 56:24.01[1]
  Canada 56:24.01[2]
  United States 56:24.01[3]
Dispute resolution 56:24.07
  Australia 56:24.07[1]
  Canada 56:24.07[2]
  United States 56:24.07[3]
Duties of managers and liability limitation 56:24.04
  Australia 56:24.04[1]
  Canada 56:24.04[2]
  United States 56:24.04[3]
Earn-in arrangements 56:24.03
  Australia 56:24.03[1]
  Canada 56:24.03[2]
  United States 56:24.03[3]
Expansion of operations 56:24.06
  Australia 56:24.06[1]
  Canada 56:24.06[2]
  United States 56:24.06[3]
Mineral tenure systems and aboriginal rights 56:24.02
  Australia 56:24.02[1]
  Canada 56:24.02[2]
  United States 56:24.02[3]

MINING: MANAGING OBSTACLES TO NEW PROJECTS IN REGIONS IMPACTED
BY PAST MINING OPERATIONS
Generally 59:16.01 et seq.
Examples of current projects and recurring issues 59:16.02
  The Comstock 59:16.02[1][a]
  Copperwood 59:16.02[2][d]
  Eagle Mine/Humboldt Mill 59:16.02[2][e]
  Gogebic Taconite 59:16.02[2][c]
  NorthMet 59:16.02[2][a]
  Pumpkin Hollow 59:16.02[1][b]
  Twin Metals Minnesota 59:16.02[2][b]
Resolution of recurring obstacles  59:16.03
ARD  59:16.03[2]
Cooperative federalism  59:16.03[3]
Taxation  59:16.03[1]

MINING ROYALTY
Generally  53:30.01 et seq.
Changes in ownership and operators  53:30.07
Foreign use of royalties  53:30.10
Historical development  53:30.02
Marketing of minerals, changes in  53:30.05
Mining and processing methods, changes in  53:30.04
Royalty as a financing mechanism  53:30.08
Stockpiling minerals  53:30.06
Threshold principles  53:30.03
Types of royalties  53:30.09
Warehousing properties  53:30.06

MINING ROYALTY—INTERNATIONAL
Generally  57:15.01 et seq.
History of royalties  57:15.02
Royalty agreements: legal issues and drafting considerations  57:15.05[2]
Abandonment and reacquisition of tenures  57:15.05[2][n]
Calculation of payment  57:15.05[2][b]
Commingling of ores  57:15.05[2][i]
Conduct of operations  57:15.05[2][l]
Dispute resolution  57:15.05[2][q]
Duration of interest  57:15.05[2][r]
Effects of hedging  57:15.05[2][h]
Further assurances  57:15.05[2][p]
Information rights  57:15.05[2][g]
Lands subject to royalty  57:15.05[2][a]
Maintenance of project and title  57:15.05[2][m]
Payment and delivery terms  57:15.05[2][c]
Preserving the royalty or streaming obligation  57:15.05[2][f]
Real or personal property interest  57:15.05[1]
Registration in public records  57:15.05[2][o]
Risk mitigation and allocation  57:15.05[2][e]
Security for performance and payment  57:15.05[2][d]
Stockpiling  57:15.05[2][j]
Waste rock and tailings  57:15.05[2][k]
Royalty financing as alternative to traditional financing  57:15.04[2]
Examples  57:15.04[3]
Precious metals streaming contracts  57:15.04[2][b]
Production payment agreements  57:15.04[2][a]
Traditional financing methods  57:15.04[1]
Debt  57:15.04[1][a]
Equity  57:15.04[1][b]
Joint ventures  57:15.04[1][c]
Offtake agreements  57:15.04[1][d]
Traditional forms of mining royalties  57:15.03
Gross smelter return  57:15.03[2][b]
Gross value  57:15.03[2][b]
Net profits and net proceeds  57:15.03[2][d]
Net smelter return  57:15.03[2][c]
MINING, SMALL-SCALE
(See ARTISANAL AND SMALL-SCALE MINING)

MINING, U.S.: IS IT POSSIBLE TO PERMIT NEW PROJECTS?
Generally 61:15.01 et seq.
Cooperative federalism and mining 61:15.03
   Case law 61:15.03[1]
   Congressional action 61:15.03[3]
   Federal agency actions 61:15.03[2]
   Litigation risks reduced with prior agreements 61:15.07
Lessons learned 61:15.09
Social license to operate 61:15.05
   Citizens of advisory panel 61:15.05[3]
   Community assessments 61:15.05[6]
   Measurement 61:15.05[2], [4]
   Origins 61:15.05[1]
   Sustainability reports 61:15.05[5]
State of the industry 61:15.02
Strategies for success 61:15.08
Strategies to stop projects 61:15.06
World Bank standards, impact of 61:15.04

MINING VENTURE AGREEMENT FORMS
Generally 53:13.01 et seq.
Modest Form 5 LLC, proposed 53:13.01 et seq.
   Background 53:13.02
   Dispute resolution considerations 53:13.07
   Form 5A LLC, reconsidering 53:13.04
   Proposal 53:13.03
   Tax matters 53:13.08
   What’s new in modest form 53:13.05

MINING VENTURES
Management committee
   Generally 50:16.01 et seq.
   Establishment 50:16.06
   Exploration phase 50:16.07
   External influences and controls 50:16.13
   Feasibility study stage 50:16.08
   Mine closure and rehabilitation stage 50:16.12
   Mine construction stage 50:16.10
   Mine operating stage 50:16.11
   Production decision 50:16.09

MINING VENTURES IN BRAZIL: APPLICATION OF FORM
JOINT OPERATING AGREEMENTS (JOA)
Generally 58:19.01 et seq.
Application of forms to Brazilian mining transaction 58:19.04
   Changes in participating interests 58:19.04[7]
   Confidentiality, general provisions, dispute resolution 58:19.04[14]
   Contributions 58:19.04[6]
   Corporate social responsibility 58:19.04[15]
   Disposition of production 58:19.04[10]
MODEL INTERSTATE WATER COMPACT
Generally 52:21.01 et seq.
Article I: compact purposes, water subject to compact and signatory parties 52:21.02
Article II: effective date and duration of compact 52:21.03
Article III: definitions 52:21.04
Article IV: The Utton River Basin Commission 52:21.05
Article V: interstate water apportionments 52:21.06
Article VI: water quality protection program 52:21.07
Article VII: water resources management program 52:21.08
Article VIII: enforcement of compact obligations and resolution of other disputes 52:21.09
Article IX: interagency coordination and public participation 52:21.10
Article X: budgeting and funding 52:21.11
Article XI: relationship of compact to existing law 52:21.12

MODEST FORM 5 LLC
(See MINING VENTURE AGREEMENT FORMS)

MULTIJURISDICTIONAL PRACTICE
(See ETHICS OF MULTIJURISDICTIONAL PRACTICE)

MUNICIPAL WATER PRIORITIES/PREFERENCES IN TIMES OF SCARCITY
Generally 56:7.01 et seq.
Current developments 56:7.03
  Conservation 56:7.03[1]
  Failure to meet development goals 56:7.03[4]
  Future water supply planning and acquisition 56:7.03[2]
  Interim use of the water 56:7.03[3]
Municipalities under prior appropriation doctrine 56:7.02
  Acquiring water for future use 56:7.02[3]
  Disposing of sewage effluent 56:7.02[4]
  Eminent domain 56:7.02[2]
  Preference lists 56:7.02[1]
Natural resources industries and water 56:7.04

NAFTA
(See NORTH AMERICAN FREE TRADE AGREEMENT)

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)
(See also CLEAN AIR ACT, INTERPLAY WITH FLPMA AND NEPA);
(See also NEPA ANALYSES AND PERMITTING)
Generally 53:4.01 et seq.
Coal mine methane regulation 55:26.02[2][d]
NEPA process 53:4.03
  Environmental assessment 53:4.03[5]
  Environmental impact statement 53:4.03[6]
  Tiering 53:4.03[9]
Overview 53:4.02
Participation in NEPA process 53:4.05
Scientific analysis requirements 53:8.01 et seq.
  Consequences of harder look review 53:8.05
  Cross border comparison 53:8.06
  Factors underlying harder look 53:8.07
  Harder look 53:8.04[1]-[4]
  Standard of review framework 53:8.03
  Statutory and regulatory framework 53:8.02
  Trends in judicial review 53:8.04

NATIONAL INSTRUMENT 43-101 STANDARDS OF DISCLOSURE FOR MINERAL PROJECTS
Generally 61:16.01 et seq.
Application of NI 43-101 61:16.03
  Materiality 61:16.03[2]
  Qualified person 61:16.03[1]
Canadian Institute of Mining, Metallurgy and Petroleum best practices 61:16.02
Common deficiencies 61:16.04
  BCSC report 61:16.04[1]
  Staff notice 61:16.04[3]
Practical guidance 61:16.05
  Consequences of noncompliance 61:16.05[7]
  Disclosure of PEAs 61:16.05[5]
  Exploration targets 61:16.05[3]
  Historical estimates 61:16.05[2]
  Investor presentations and website disclosure 61:16.05[6]
  Mining studies 61:16.05[4]
  Resource estimates 61:16.05[1]

NATIONALIZATION
(See CREEPING NATIONALIZATION)

NATIVE AMERICAN
(See INDIAN COUNTRY);
(See INDIAN LANDS)

NATIVE AMERICAN SACRED PLACES, PROTECTION ON FEDERAL LANDS
Generally 54:12.01 et seq.
Claims for native sacred places 54:12.03
  National Historic Preservation Act (NHPA) 54:12.03[1]
  NEPA 54:12.03[2]
  NHPA coordinated with NEPA 54:12.03[3]
Establishment clause cases 54:12.04[1]
Executive orders 54:12.02[3]
Federal statutes 54:12.02[2]
Glamis Gold Ltd. v. United States 54:27.01 et seq.
International law 54:12.02[4]
Procedural cases 54:12.04[2]
Religious freedom as fundamental right 54:12.02
   Establishment Clause 54:12.02[1][b]
   Free Exercise Clause 54:12.02[1][a]

NATURAL RESOURCE DAMAGES
Generally 59:2.01 et seq.
Assessment regulations 59:2.05
   Planning and assessment implementation 59:2.05[2]
   Pre-assessment screening phase 59:2.05[1]
Defining NRD 59:2.02
Natural resource trustees and related legal issues 59:2.04
Quantification methods 59:2.06
   Habitat equivalency analysis 59:2.06[3]
   Market valuation or direct valuation techniques 59:2.06[1]
   Nonmarket or indirect valuation methods 59:2.06[2]
   Resource equivalency analysis 59:2.06[3]
Resolution of claims 59:2.07
Statutory bases for recovery 59:2.03
   CERCLA 59:2.03[1]; generally 50.15:01 et seq.
   CWA 59:2.03[3]
   OPA 59:2.03[2]

NATURAL RESOURCE DAMAGES UNDER CERCLA
Mining sites
   Generally 50:15.01 et seq.
   Case law 50:15.03[3]
   Coeur d'Alene 50:15.04[1],[3]
   Montana v. ARCO 50:15.04[2]-[3]
   NRD law, overview 50:15.03
   NRD practice 50:15.05
   Regulations 50:15.03[2]
   Statutes 50:15.03[1]; 59:2.03

NATURAL RESOURCES LITIGATION
(See EVIDENCE, NATURAL RESOURCES LITIGATION)

NAVIGABILITY AND ITS CONSEQUENCES
Generally 60:7.01 et seq.
Admiralty jurisdiction of federal courts 60:7.02[1]
Commerce Clause jurisdiction 60:7.02[2]
   Clean Water Act 60:7.02[2][c][iii]
   Commerce Clause authority 60:7.02[2][c]
   Federal navigation servitude 60:7.02[2][b]
   Federal Power Act 60:7.02[2][c][ii]
   Navigable waters 60:7.02[2][c]
   Rivers and Harbors Act 60:7.02[2][c][i]
State title to submerged lands 60:7.03
   Consequences 60:7.03[8]
   Consequences of non-navigability for title 60:7.03[9]
   Equal footing doctrine and presumption of state title 60:7.03[1]
   Federal government's authority to convey submerged lands 60:7.03[5]
   Offshore submerged lands 60:7.03[4]
State boundaries in navigable waters and rule of the thalweg 60:7.03[6]
State law definitions of navigability 60:7.04[2]
State law navigability, state public trust doctrines, and public rights 60:7.04
State modifications of state title vis-à-vis private landowners 60:7.03[7]
State ownership as basis for public use 60:7.04[3]
State title navigability and public trust doctrine 60:7.04[1]
Under navigable-in-fact waters 60:7.03[2]
Under waters subject to ebb and flow of the tide 60:7.03[3]

NEPA ANALYSES AND PERMITTING: MAINTAINING A SEAT AT THE TABLE
Generally 60:25.01 et seq.
Advice and legal considerations 60:25.04
   Coordinating NEPA reviews with other permitting processes 60:25.04[5]
   Describe project purpose and need 60:25.04[3]
   Federal Advisory Committee Act 60:25.04[8]
   Limiting analysis to feasible alternatives 60:25.04[4]
   Pre-application discussions 60:25.04[1]
   Preparing analysis 60:25.04[2]
   Responding to issues raised by third parties in comments 60:25.04[6]
   Safeguarding confidential information 60:25.04[7]
Applicant’s ability to express views constitutionally protected 60:25.02
Challenges to effective communication 60:25.03
   Bias concerns discourage communication 60:25.03[2]
   Filter failure and information overload 60:25.03[1]
   Paradox of project proponent 60:25.03[3]

NI 43-101
(See NATIONAL INSTRUMENT 43-101)

NON-GOVERNMENTAL ORGANIZATIONS (NGOs)
Generally 52:8.01 et seq.
Effective NGO-business cooperation 52:8.04
   Evaluating and improving performance 52:8.04[1]
   Jointly strengthening public institutions 52:8.04[3]
   Mobilizing joint resources to solve challenges 52:8.04[2]
Growing role and importance of NGOs 52:8.01
NGO accountability 52:8.03
   Accountability issues 52:8.03[1]
   Frameworks for analyzing NGO accountability 52:8.03[2]
   Mechanisms for achieving NGO accountability 52:8.03[3]
NGOs and the extractive sector 52:8.02
   Key issues 52:8.02[3]
   Key NGO players 52:8.02[2]
   Key types of engagement 52:8.02[1]

NONPARTICIPATING ROYALTY INTERESTS
Generally 61:6.01 et seq.
History of NPRI and variations 61:6.02
   Colorado 61:6.02[2][a]
   Kansas 61:6.02[2][f]
   New Mexico 61:6.02[2][d]
   North Dakota 61:6.02[2][b]
   Oklahoma 61:6.02[2][e]
   Texas 61:6.02[2][c]
Quantifying and allocating the NPRI burden 61:6.03
Allocating NPRI 61:6.03[3]
Calculating NPRI 61:6.03[1]
Example allocations 61:6.03[4]
Failure to develop or lease minerals 61:6.03[2]

NONUSE OF RESOURCES
Generally 55:25.01 et seq.
Conflicts between user and nonuser interests 55:25.04
  Laws protecting resource nonuse value 55:25.04[1]
  Legislative and judicial acknowledgment of nonuse values 55:25.04[2]
Conflicts between user interests 55:25.03
  Common law and resource users 55:25.03[2]
  Statutes and resource users 55:25.03[1]
Legal interests in natural resources 55:25.02
  Nonuse interests 55:25.02[2]
  User interests 55:25.02[1]
Rise of third-generation nonuse laws 55:25.05

NORTH AMERICAN FREE TRADE AGREEMENT (NAFTA)
Generally 50:18.01 et seq.
Bringing a NAFTA claim 50:18.04
Chapter 11 50:18.01 et seq.
Environmental measures 50:18.03[8]
Expropriation and tantamount actions 50:18.03[7]
  Lawful vs. unlawful expropriation 50:18.03[7][c]
  Standards for tribunal decision-makers 50:18.03[7][d]
  U.S. takings law, comparison 50:18.03[7][b]
Glamis Gold Ltd. v. United States, use of investment protections 54:27.03
  Claim for lost value of gold reserves and damages 54:27.04[3]
  Expropriation claim 54:27.04[1]
  Fair and equitable treatment claim 54:27.04[2]
Investment protections 54:27.02
  Common treaty protections 54:27.02[4]
  Investment treaties 54:27.02[2]
  Obtaining protection of an investment treaty 54:27.02[3]
  Traditional international law 54:27.02[1]
Mining investments 50:18.01 et seq.
Unanswered questions 50:18.06

NPDES PERMITTING
Generally 50:24.01 et seq.
Miccouskee 50:24.05[2]
Watershed approach 50:24.04
Wind projects 55:5.04[2]

OFFSHORE DECOMMISSIONING
Generally 53:22.01 et seq.
Abandonment or decommissioning 53:22.02
Brent Spar episode 53:22.06
Challenges and opportunities for the future 53:22.10
Challenges in United Kingdom 53:22.11
International law 53:22.05
National legislation 53:22.09
OSPAR decision 98/3 53:22.07
Relevant issues 53:22.04
OIL AND GAS
(See AREAS OF MUTUAL INTEREST);
(See ENERGY);
(See FARMOUT TRANSACTION DOCUMENTATION);
(See FINANCIAL CRISIS);
(See FINANCING IN TUMULTUOUS TIMES);
(See FLARING);
(See FREE GAS CLAUSES);
(See JOINT OPERATING AGREEMENTS);
(See MEXICO: PETROLEUM DEVELOPMENT);
(See OFFSHORE DECOMMISSIONING);
(See OIL AND GAS MIDSTREAM INFRASTRUCTURE);
(See OIL SANDS);
(See ONSHORE OIL AND GAS LEASING POLICY EVOLUTION: INTERPLAY BETWEEN SECRETARIAL DISCRETION AND LEASE RIGHTS);
(See PEAK OIL);
(See POOLING FOR HORIZONTAL WELLS);
(See PURCHASE AND SALE AGREEMENTS);
(See RENEWABLE ENERGY);
(See RESERVE AND RESOURCE ESTIMATE REPORTING;
(See RISK);
(See ROYALTY ISSUES);
(See SHALE GAS, EASTERN U.S.);
(See SOURCE AGGREGATION DETERMINATIONS FOR OIL AND GAS FACILITIES UNDER THE CLEAN AIR ACT);
(See TRANSFERS OF AGING FEDERAL OIL AND GAS PROPERTIES);
(See TRANSPORTATION OF);
(See UNLEASED AND UNJOINED OWNERS—FORCED POOLING AND COTENANCY);
(See WELL LOCATION AND SPACING REGULATION);
(See WILDLIFE PROTECTION);
(See WIND DEVELOPMENT, CONFLICTS WITH)

OIL AND GAS, CONFLICTS OVER LOCAL GOVERNMENT REGULATION
Generally 60:11.01 et seq.
Challenges to local oil and gas regulation 60:11.03[2]
   Other claims 60:11.03[2][c]
   Preemption 60:11.03[2][a]
   Regulatory takings 60:11.03[2][b]
Recent surge in local regulation 60:11.02
   Colorado 60:11.02[1]
   New Mexico 60:11.02[2]
   New York 60:11.02[3]
   Pennsylvania 60:11.02[4]
   Texas 60:11.02[5]
Source of local authority to regulate oil and gas 60:11.03[1]
State alternatives to local government conflicts 60:11.05
   Local government designee and liaison programs 60:11.05[2]
   MOUs 60:11.05[1]
Trends in preemption jurisprudence 60:11.04
   Avoiding preemption by constitutional mandate to protect environment 60:11.04[2][a]-[e]
   Avoiding preemption by narrow construction of legislative intent to preempt 60:11.04[1]
   Limitations of local control 60:11.04[3]
   Ohio local government regulation 60:11.04[4]
OIL AND GAS CONSERVATION COMMISSIONS
Generally 52:15.01 et seq.
Current hearing trends 52:15.06
Expanded scope of authority 52:15.05
   Colorado 52:15.05[2]
   Commission projects, studies, and evaluations 52:15.05[1]
   Other states 52:15.05[3]
Historical role 52:15.03
   Correlative rights 52:15.03[4]
   Initial creation 52:15.03[2]
   Prevention of waste 52:15.03[3]
   Rule of capture 52:15.03[1]
Traditional hearings 52:15.04
   Drilling permits and well location 52:15.04[1]
   Enforcement/violation 52:15.04[6]
   Pooling 52:15.04[3]
   Rulemaking 52:15.04[5]
   Unitization, secondary recovery 52:15.04[4]
   Well spacing orders 52:15.04[2]

OIL AND GAS IMPLIED COVENANTS
Generally 61:29.01 et seq.
Future 61:29.05
Oil and gas implied covenants 61:29.03
   Implied duty to accommodate 61:29.03[5]
   Implied duty to develop 61:29.03[1]
   Implied duty to explore 61:29.03[2]
   Implied duty to market 61:29.03[4]
   Implied duty to protect against drainage 61:29.03[3]
   General implied duty of prudence 61:29.03[6]
Potential implied covenants 61:29.04
   Duty not to bill more than actual cost 61:29.04[3]
   Duty of reasonable lease restoration 61:29.04[1]
   Duty of reasonable notification 61:29.04[2]
Predecessors to oil and gas covenants 61:29.02

OIL AND GAS INDUSTRY, RAISING CAPITAL FOR
Generally 59:12.02 et seq.
Conventional bank loans 59:12.10
Convertible securities 59:12.06
Equity 59:12.02
High yield debt 59:12.05
Joint ventures 59:12.08
Master limited partnerships 59:12.03
Mezzanine loans 59:12.11
Private equity 59:12.07
Royalty trusts 59:12.04
Volumetric production payments 59:12.09

OIL AND GAS LAW UPDATE
2015–2016
Generally 62:10.01 et seq.
Case law—federal 62:10.05
   Federal 62:10.05[2]
   U.S. Supreme Court 62:10.05[1]
Case law—state 62:10.06
Interior Board of Land Appeals decisions 62:10.04
International agreements: Paris Climate Agreement—United Nations Framework Convention on Climate Change 62:10.01
Statutes and rules—federal 62:10.02
  New offshore lease bonding requirements 62:10.02[3]
  Oil export ban lifted 62:10.02[1]
Statutes and rules—state 62:10.03
  Other state statutes 62:10.03[2]
    State bans on local oil and gas regulation 62:10.03[1]

2014–2015
Generally 61:10.01 et seq.
California statutes/regulations 61:10.13[1]
Colorado cases 61:10.06[1]
Federal 61:10.02
  Cases 61:10.02[1]
  Statutes/regulations 61:10.02[2]
Louisiana 61:10.12
  Cases 61:10.12[1]
Nebraska cases 61:10.07[1]
New Mexico cases 61:10.08[1]
New York cases 61:10.09[1]
North Dakota cases 61:10.10[1]
Ohio cases 61:10.04[1]
Oklahoma cases 61:10.11[1]
Pennsylvania cases 61:10.05[1]
Texas 61:10.03
  Cases 61:10.03[1]
  Statutes/regulations 61:10.03[2]

2013–2014
Generally 60:10.01 et seq.
Arkansas 60:10.02
  Language of release 60:10.02[1][a]
California 60:10.03
  Hydraulic fracturing/groundwater 60:10.03[1][a]
Colorado 60:10.04
  Air quality 60:10.04[2][b]
  Recording requirements 60:10.04[2][a]
  Rule against perpetuities 60:10.04[1][b]
  Title opinions 60:10.04[1][a]
Kansas 60:10.05
  Deed and lease interpretation 60:10.05[1][a]
  Implied covenant to develop 60:10.05[1][b]
Louisiana 60:10.06
  Lease interpretation 60:10.06[1][a]–[b]
Nebraska 60:10.07
  Dormant minerals statute 60:10.07[1][a]
North Dakota 60:10.08
  Deed interpretation 60:10.08[1][b]–[c]
  Lease interpretation 60:10.08[1][a], [e]
  Mineral title 60:10.08[1][d]
Ohio 60:10.09
  Dormant minerals statute 60:10.09[1][a]
Oklahoma 60:10.10
  Area of mutual interest 60:10.10[1][c]
OIL AND GAS LEASES
(See AREAS OF INTEREST, AREAS OF MUTUAL INTEREST);
(See FEDERAL OIL AND GAS LEASE EXTENSIONS, TERMINATIONS, AND SUSPENSIONS);
(See “FREE GAS” CLAUSES);
(See LEASES, OIL AND GAS);
(See OVERRIDING ROYALTY INTERESTS);
(See POOLING);
(See ROYALTY ISSUES)

OIL AND GAS MIDSTREAM INFRASTRUCTURE
(See also MIDSTREAM UPDATE)
Generally 56:28.01 et seq.
Jurisdiction under ICA 56:28.04
Continuous interstate movement 56:28.04[3]
Uncle Sam oil company exception 56:28.04[4]
NGA jurisdiction over gas transportation 56:28.03
End-user-owned facility doctrine 56:28.03[2][d]
Hinshaw pipeline exemption 56:28.03[2][b]
Jurisdictional transportation vs. non-jurisdictional gathering 56:28.03[1]
NGPA Section 311 56:28.03[2][a]
Shipper-must-have-title rule and buy/sell prohibition 56:28.03[3]

Regulatory principles and property law 56:28.05
JOAs and cotenancy-like relationships 56:28.05[2][b]
Tenancy-in-common 56:28.05[2][a]

OIL AND GAS OPERATIONS, ACCOUNTING ISSUES
Generally 60:28.01 et seq.
Operator's accounting duties 60:28.02
COPAS 2005 accounting procedures 60:28.02[2]
JOA 60:28.02[1]
Pooling statutes 60:28.02[3]
Recommendations 60:28.04

OIL AND GAS REGULATION AND THE TAKINGS CLAUSE
Generally 61:13.01 et seq.
Oil and gas regulation and the takings clause 61:13.04
Development bans 61:13.04[1]
Indirect regulation 61:13.04[3]
Moratoria and development delays 61:13.04[2]
Takings clause 61:13.02, .03
Categorical takings 61:13.03[1]
Exactions 61:13.03[2]
OIL AND GAS REGULATORY UPDATE: EPA EFFORTS TO CURB GREENHOUSE GAS EMISSIONS AND MORE

Generally 62:29.01 et seq.
2016 NSPS for the oil and gas source category 62:29.03
- Fugitive emissions standards 62:29.03[2]
- Natural gas processing plants 62:29.03[6]
- Natural gas transmission compressor stations 62:29.03[7]
- Natural gas well sites 62:29.03[3]
- Oil well sites 62:29.03[4]
- Overview 62:29.03[1]
- Production gathering and boosting stations 62:29.03[5]

Clean Air Act (CAA) new source performance standards (NSPS) program 62:29.02
- CAA § 111 62:29.02[1]
- Oil and gas source category listing 62:29.02[2]
- Prior NSPS for the oil and gas source category 62:29.02[3]
- EPA source determination rule for oil and gas sector 62:29.05
- EPA's (and others') next steps to regulate existing sources 62:29.04
  - BLM draft methane regulations 62:29.04[3]
  - Draft information collection request 62:29.04[2]
  - EPA draft Control Techniques Guidelines 62:29.04[1]

OIL AND WATER: MAKING A MARRIAGE OF NECESSITY WORK

Generally 60:13.01 et seq.
Eastern shale plays—Pennsylvania 60:13.04
- Abundant sourcing options 60:13.04[1]
- Treatment and disposal options 60:13.04[2]
- Recommendations 60:13.05
- Water use in shale plays 60:13.02
  - Water management planning 60:13.02[2]
Western shale plays—Texas 60:13.03
- Effect of land agreements 60:13.03[3]
- Locating a water supply 60:13.03[1][a]
- Owners, users, and regulators 60:13.03[2]
- Water sourcing in the Permian Basin 60:13.03[1][b]
- Water treatment and disposal 60:13.03[4]

OIL SANDS
Generally 50:9.01 et seq.; 53:2.01 et seq.
- Commercial arrangements 53:2.05
- Cross-border ventures 53:2.01 et seq.
- Development issues
  - Generally 50:9.01 et seq.; 53:2.04 et seq.
  - Aboriginal rights 50:9.03[5]
  - Cost overruns 50:9.04[1][e]
  - Environmental impact assessment 50:9.03[2]
  - Environmental impacts 50:9.03[4]
  - History 50:9.02
  - Mega projects 50:9.04[1][a]
  - New developments 50:9.02
  - Overlapping projects 50:9.04[1][c]
  - Regulatory approval process 50:9.03[1]
  - Regulatory review 50:9.03[2]
  - Remote location 50:9.04[1][b]
RESOURCE CONSERVATION ISSUES
Shortage of labor
Legal considerations
Income tax
Legal framework
Ownership interests
Regulatory framework
Royalty regime
Production

OIL SHALE DEVELOPMENT
Generally
Hydrocarbons, supply and demand and peak oil
Legal problems
Major issues
Oil shale, location of
Oil shale programs, past and present
Oil shale technology
Recommendations

ONSHORE OIL AND GAS LEASING POLICY EVOLUTION: INTERPLAY BETWEEN SECRETARIAL DISCRETION AND LEASE RIGHTS
Generally
BLM’s discretion to withhold leases after competitive sales
BLM’s regulations implementing Reform Act
DOI decisions to rescind high bids after competitive lease sales
Federal court decisions
Interior Board of Land Appeals decisions
Statutory overview
BLM’s onshore leasing reforms
Background: Hayes and Stiles reports
Land use plan review
Lease sale parcel review process
Master leasing plans
Policy to reform onshore leasing process
Time frames and reporting

OPERATING AGREEMENTS: SOME RECURRING ISSUES AND WHAT AAPL’S DRAFTING COMMITTEE MIGHT DO ABOUT THEM
Generally
Operator liability—Should operator be liable for breach of JOA in absence of gross negligence or willful misconduct?
Operator removal—Is gross negligence or willful misconduct necessary to justify removal?
Alternative dispute resolution
Arbitration clause terms
Arguments for and against

OPERATOR REMEDIES AGAINST DEFAULTING NON-OPERATORS
Generally
Alternative dispute resolution
Common questions  62:13.08
Contractual liens  62:13.04
  Operator’s lien  62:13.04[1]
Form operating agreements, additional provisions  62:13.07
Procedures for operators  62:13.02
  After default  62:13.02[2]
  Before potential default  62:13.02[1]
Remedies, judicial  62:13.06
Remedies, non-judicial  62:13.03
Statutory liens  62:13.05

OPERATOR’S DUTY TO MARKET: THE COMPONENT OF PRICE
Generally  62:19.01 et seq.
Lessee’s obligation to market on behalf of lessor  62:19.02
  Conclusions  62:19.02[4]
  Possible standards of conduct  62:19.02[2]
  Royalty clause: meaning of “market value”  62:19.02[3]
  Source of the obligation to market gas under the oil and gas lease  62:19.02[1]
Operator’s duty to market under joint operating agreements (JOA)  62:19.03
  Conclusions  62:19.03[4]
  Marketing under the AAPL model forms  62:19.03[3]
  Source of marketing duties under JOAs  62:19.03[1]
  Standard of conduct under the AAPL model forms  62:19.03[2]

OPPOSING COUNSEL, SUING
(See LAWYER LIABILITY)

OPTION AGREEMENTS
(See EXPLORATION LETTERS OF INTENT)

OVERRIDING ROYALTY INTERESTS
Generally  50:21.01 et seq.
Bankruptcy  50:21.06
Calculation  50:21.03
Definition  50:21.01
Drafting considerations  50:21.07
Express and implied covenants  50:21.04
Extension or renewal clauses  50:21.02
Pooling and unitization  50:21.05

OZONE AND THE WESTERN U.S.
Generally  61:27.01 et seq.
Bases for challenging a standard at or below background concentrations  61:27.06
  Attainability and background concentrations  61:27.06[2]
  Health effects and cost of attainment  61:27.06[1]
  Ozone standards in context  61:27.06[3]
Clean Air Act (CAA) background and national ambient air quality standards (NAAQS)  61:27.02
  CAA §§ 108 and 109  61:27.02[1]
  Clean Air Scientific Advisory Committee  61:27.02[2]
  Evolution of NAAQS  61:27.02[4]
  Legal precedent governing EPA’s considerations of NAAQS  61:27.02[3]
EPA’s proposed revisions to ozone NAAQS  61:27.04
Historical regulation of ozone  61:27.03
Proposed ozone NAAQS, effect on Intermountain West  61:27.05
  Background concentrations of ozone  61:27.05[2]
EPA’s proposed mechanism for addressing background concentrations 61:27.05[3]
Practical impact of the revised NAAQS on operations 61:27.05[4]
Sources of background ozone 61:27.05[1]

PALEONTOLOGICAL RESOURCES PRESERVATION ACT
(See ARCHAEOLOGICAL AND PALEONTOLOGICAL RESOURCES PROTECTION ACTS: THE LEGAL PERSPECTIVE)

PEAK OIL
Generally 52:1.01 et seq.
Historical perspective 52:1.04
Implications 52:1.05
Law of supply and demand 52:1.02
Oil price 52:1.01

PECE (POLICY FOR EVALUATION OF CONSERVATION EFFORTS WHEN MAKING LISTING DECISIONS)
Generally 56:21.01 et seq.
Canada’s Species at Risk Act 56:21.10
Conservation planning recommendations 56:21.11[1]
Endangered Species Act regulatory framework 56:21.02
PECE policy 56:21.04
  Evaluation of applications 56:21.08
  Evaluative framework 56:21.05
  Historical background 56:21.03[1]
  Successful applications 56:21.06
  Unsuccessful applications 56:21.07
PECE program refinement 56:21.11[2]
Species conservation tools 56:21.03
  Candidate conservation agreements and candidate conservation agreements with assurances 56:21.03[2]
  Regulations, policies, and guidance 56:21.03[1]
When PECE does not work 56:21.09

POLICY FOR EVALUATION OF CONSERVATION EFFORTS (PECE)
(See PECE)

POOLING
(See UNLEASED AND UNJOINED OWNERS)

POOLING CLAUSES
Generally 53:33.01 et seq.
Common issues 53:33.05
  Agency action 53:33.05[4]
  Conflicts with pooling declaration 53:33.05[3]
  Good faith exercise 53:33.05[1]-[2]
  Nature of title 53:33.05[5]
  Unit termination 53:33.05[6]
Construction of pooling authority 53:33.03
Contractual limitations on pooling 53:33.04
  Acreage 53:33.04[1]
  Anti-dilution 53:33.04[2]
  Pugh clause issues 53:33.04[3]
Contractual pooling clauses 53:33.02
Recent cases 53:33.06
POOLING FOR HORIZONTAL WELLS
Generally 55:8.01, et seq.
Basics 55:8.01[1]
Examples of orders 55:8.05
History and definitions 55:8.01
History of compulsory pooled statutes 55:8.01[2]
Horizontal pooled units 55:8.04; 57:11.03[2]
  Case law 55:8.04[1]
  Compulsory pooling statutes 55:8.04[2]
Horizontal pooling and trespass 55:8.02
Horizontal pooling and vertical pooling clauses 55:8.03
Pooling authority 55:8.01[3]
State statutes and conservation agency regulations 55:8.06

PRIVILEGED COMMUNICATIONS
(See ETHICAL CONSIDERATIONS IN)

PRODUCED WATER
Generally 52:12.01 et seq.
Disposal 52:12.06
Management 52:12.05

PRODUCTION ROYALTIES: REAL PROPERTY, PERSONAL PROPERTY, OR WHAT?
Generally 62:16.01 et seq.
Bankruptcy issues 62:16.06
  Executory contracts 62:16.06[4]
  Impact of 544(a)(3) of Bankruptcy Code and importance of recording 62:16.06[3]
  Real property interest not discharged 62:16.06[1]
  State law governs nature of interest 62:16.06[2]
Classification as real or personal property 62:16.03
  Arizona 62:16.03[7]
  Colorado 62:16.03[2]
  Utah 62:16.03[1]
  Wyoming 62:16.03[3]
Nature of production royalty 62:16.02
  Exceptions 62:16.02[2]
  General rule 62:16.02[1]
  Right to accrued royalties 62:16.02[3]
Production royalties payable from an area of interest: case study 62:16.05
Production royalty as covenant running with the land 62:16.04
  As interest in real property 62:16.04[1]
  Rule against perpetuities 62:16.04[3], [4]
Rule against perpetuities: case study 62:16.05

PROFESSIONAL RESPONSIBILITY AND THE TRANSACTIONAL LAWYER:
THE DRAFTING CONTEXT
Generally 57:19.01 et seq.
Drafting process 57:19.04[1]
Ethical pitfalls 57:19.06
Good faith and pooling clause 57:19.05[2]
Independent professional judgment 57:19.01, .04
PROGRAMMATIC AGREEMENTS FOR FEDERAL HISTORIC PRESERVATION REVIEW AND CONSULTATION

Generally 54:7.01 et seq.
Advisory Council on Historic Preservation (ACHP) regulations on § 106 process 54:7.03
History of National Historic Preservation Act (NHPA) and § 106 54:7.02
Modern PA and other program alternatives 54:7.05
PAs not consistent with current ACHP rules 54:7.06
Problems with PAs under ACHP current rules and procedures 54:7.08
Regulation by agreement (MOAs), Programmatic MOAs, and PAs, history of 54:7.04
Streamlining § 106 review of project-specific PAs 54:7.09
Tribal consultation, use of PAs for 54:7.07

PROGRAMMATIC AGREEMENTS, MOUS, MOAS, AND PLANS IN MINING AND OTHER PROJECTS

Generally 58:16.01 et seq.
Agreement/plan vs. amendment to plan 58:16.05
Enforceability 58:16.08
  Suits involving federal government 58:16.08[1]
  Third-party enforcement 58:16.08[2]
Interagency MOUs 58:16.06[1]
  Effects on third parties 58:16.06[1][b]
  Transparency issues 58:16.06[1][a]
Legal counsel involvement 58:16.09
NEPA MOUs 58:16.06[2]
  BLM standard form 58:16.06[2][c]
  Improper applicant influence 58:16.06[2][a]
  Legal challenges to applicant involvement 58:16.06[2][b]
NHPA programmatic agreement 58:16.06[3]
  Dispute resolution clauses as waiver 58:16.06[3][b]
  Enforceability issues 58:16.06[3][a]
Plan vs. agreement 58:16.04
Selected provisions 58:16.07
Stakeholder and cooperative agreements 58:16.06[5]
When an agency agreement is advisable 58:16.03
Wildlife mitigation agreement/management plan 58:16.06[4]

PROJECT DEVELOPMENT AND CLIMATE CHANGE
(See also ENDANGERED SPECIES ACT & GHG EMISSIONS)

Generally 54:8.01 et seq.
Emission reductions and environmental review statutes 54:8.02
  Clean Air Act 54:8.02[1]
  Federal and state environmental review statutes 54:8.02[3]
  State emission reduction rules 54:8.02[2]
Land use planning and project permitting 54:8.02[3][c]
Role of the ESA 54:8.03; 55:10.01 et seq.
  Interior’s May 2008 polar bear listing 54:8.03[2]
  Polar bear and related litigation 54:8.03[3][a]
  Statutory background 54:8.03[1]

PROPERTY ACQUISITION
(See ACQUISITION OF PROPERTIES IN FINANCIAL DISTRESS)

PRUDENT OPERATOR STANDARD
Generally 58:12.01 et seq.
Exculpatory clause 58:12.03
Gross negligence or willful misconduct 58:12.04
Reasonably prudent standard: lessor and lessee 58:12.05
  Conservation commission standards and prudent operator standard 58:12.06
  Impact of horizontal drilling on standard 58:12.07
  Prudent operator standard and compliance with implied covenants 58:12.05[2]
Relationship between operator and working interest owners 58:12.02
  Reasonably prudent operator standard 58:12.02[1]

PUBLIC LAND DECISION MAKING: BALANCING TRANSPARENCY, CONFIDENTIALITY,
DELIBERATION, AND SOUND SCIENCE
(See also PUBLIC LANDS DECISION MAKING, MEANINGFUL ENGAGEMENT IN)
Generally 60:21.01 et seq.
Accessing and protecting federal information 60:21.02
Current controversies around government use of information 60:21.04
  Administrative implementation of IQA: sage-grouse 60:21.04[3]
  Expressions of interest litigation 60:21.04[1]
  Ruby Valley traditional cultural property 60:21.04[2]
Freedom of Information Act 60:21.02[1]
  FOIA exemptions 60:21.02[2]
  Reverse FOIA 60:21.02[3]
Laws addressing content 60:21.03
  Endangered Species Act 60:21.03[3]
  Information Quality Act 60:21.03[1]

PUBLIC LAND LAW AND POLICY: FAILURE OF FLPMA, AND OTHER
DISAPPOINTMENTS SINCE 1976
Generally 58:3B.01 et seq.
FLPMA: new era in public land management 58:3B.03
  Limitation of extractive land uses to protect 58:3B.03[1][c]
  Management in national interest 58:3B.03[1][b]
  Prevention of unnecessary or undue degradation 58:3B.03[1][d]
  Procedure 58:3B.03[2]
  Protection of environmental values 58:3B.03[1][a]
Historic (non) management of BLM lands 58:3B.02
Parallel developments in national forest management 58:3B.06
  Loss of judicial review 58:3B.06[2]
  Repeal of key regulatory requirements 58:3B.06[1]
Processes to avoid hard decisions 58:3B.05
  Adaptive management 58:3B.05[1]
  Collaborative management 58:3B.05[2]
Reduction of land use planning to meaningless exercise 58:3B.04
  Natural Resources Defense Council v. Hodel 58:3B.04[1]

PUBLIC LAND LAW AND POLICY: FIVE WORST DEVELOPMENTS
Generally 58:3A.01 et seq.
Failure to address wilderness study areas 58:3A.02
Mining law reform 58:3A.04
  Natural Resources Defense Council v. Hodel 58:3A.07
  Norton v. Southern Utah Wilderness Alliance 58:3A.05
Ohio Forestry Ass’n v. Sierra Club 58:3A.06
Spotted owl controversy 58:3A.03
PUBLIC LAND LAW UPDATE
(See MINING AND PUBLIC LAND LAW UPDATE)

PUBLIC LAND LAWS
Generally 50:3B.01 et seq.
Alteration
   By “friendly” settlement 50:3B.04
   By implementation 50:3B.03
   By takings litigation 50:3B.05
   Through appropriations bills 50:3B.02
Prospects for 50:3B.01 et seq.

PUBLIC LAND POLICY
Generally 53:11.01 et seq.
Shift toward reacquisition 53:11.01 et seq.
   Additional authority for reacquisition 53:11.06
   Federal acreage, tables 53:11.13 - .14
   Land and water conservation fund 53:11.04
   Land exchanges 53:11.05
   Land trusts 53:11.08
   Reacquisition of water 53:11.10
   Regulation 53:11.09
   Shift in federal acreage 53:11.07
Traditional demarcation eras 53:11.02

PUBLIC LAND WITHDRAWALS: FEDERAL POLICY
Generally 61:9.01 et seq.
De facto wilderness withdrawal litigation: Uintah County v. Salazar 61:9.05
   De facto withdrawal by supplemental planning 61:9.05[4]
   FLPMA resource management plans 61:9.05[2]
   Long-running wilderness controversy in Utah 61:9.05[1]
   Secretarial Order No. 3310 and wild lands policy 61:9.05[3]
Future withdrawals and industry’s million-acre challenge 59:23.01 et seq.
Historical background 61:9.02
   Congressional authorization 61:9.02[1]
   FLPMA 61:9.02[3]
Recent litigation 61:9.03
   Kane County v. United States 61:9.03[1]
   R.S. 2477 61:9.03[1]

PUBLIC LANDS
Generally 50:3A.01 et seq., 11.01 et seq.
Administrative developments 50:11.03
CERCLA cases 50:11.02[6]
Changing view (1955-2004) 50:3A.01 et seq.
Healthy forests initiative 50:11.03[3]
Mineral development litigation 50:11.02[5]
National monument litigation 50:11.02[4]
Norton v. Southern Utah Wilderness Alliance 50:11.02[1][a]
Public land sales, shift from exchanges 50:11.04
R.S. 2477 litigation 50:11.02[2]; 61:9.03[1]
Recordable disclaimers 50:11.03[4]
Unnecessary or Undue Degradation Standard (See UNNECESSARY OR UNDUE
DEGRADATION STANDARD
Water ditch rights  50:11.02[3]

PUBLIC LANDS ACCESS
Generally  52:9.01 et seq.
Governing statutes and regulations  52:9.02
  ANILCA  52:9.02[4]
  FLPMA  52:9.02[2]
  Mineral Leasing Act  52:9.02[3]
  Mining Law of 1866  52:9.02[5]
Historical background  52:9.01[1][a]
R.S. 2477  52:9.02[5];  61:9.03[1]
  Implementation of SUWA  52:9.02[5][c]
  Southern Utah Wilderness Alliance v. Bureau of Land Management
  (SUWA)  52:9.02[5][b]
Stakeholder concerns  52:9.01[1][b]
Wilderness Act  52:9.02[6]

PUBLIC LANDS DECISION MAKING, MEANINGFUL ENGAGEMENT IN
Generally  59:21.01 et seq.
Arguments against public engagement  59:21.03[2]
Brief history of civic engagement  59:21.02
Case for public engagement  59:21.03[1]
Comparing effective and ineffective engagement processes  59:21.06
Designing substantive proposals to promote effective engagement  59:21.05[1]
Effective engagement  59:21.05[2]
  Formal and informal hearings  59:21.05[2][b]
  Notice and comment  59:21.05[2][a]
  Open houses  59:21.05[2][d]
  Personal meetings  59:21.05[2][f]
  Town hall meeting  59:21.05[2][c]
  Workshops and consensus-based processes  59:21.05[2][e]
Public participation  59:21.04

PUBLIC LANDS: FUTURE WITHDRAWALS AND INDUSTRY’S
MILLION-ACRE CHALLENGE
Generally  59:23.01 et seq.
Additional large-tract withdrawal authority  59:23.04[2]
  Antiquities Act  59:23.04[2][a]
  “De facto withdrawals” under other authority  59:23.04[2][b]
Federal land management policy, continuing struggle over  61:9.01 et seq.
Historical and legal background behind land withdrawals  59:23.02
  FLPMA withdrawals  59:23.02[2]
  Other withdrawals  59:23.02[3]
  Pre-FLPMA withdrawals  59:23.02[1]
Northern Arizona land withdrawal case study  59:23.03
  Constitutionality of FLPMA’s legislative veto  59:23.03[1]
  Pending statutory challenges  59:23.03[2]

PUBLIC LANDS: REGIONAL AND COMPENSATORY MITIGATION
Generally  60:26.01 et seq.
DOI’s new mitigation strategy  60:26.04
  Durability  60:26.04[2]
  Effectiveness  60:26.04[1]
Reactions to strategy 60:26.04[5]
Short-term initiatives 60:26.04[4]
Transparency and consistency 60:26.04[3]
DOI's traditional approaches to mitigation 60:26.02
Drivers for regional and compensatory mitigation 60:26.03
Climate change plans 60:26.03[3]
Infrastructure siting 60:26.03[2]
Renewable energy development 60:26.03[1]
Predictions for DOI and Bureaus 60:26.06[1]
Predictions for land users 60:26.06[2]
Prescriptions for DOI and Bureaus 60:26.06[3]
Prescriptions for public land users 60:26.06[4]
Signs of change at BLM 60:26.05
Challenges to developing regional strategies 60:26.05[1]
Dry Lake SEZ 60:26.05[2]
Interim regional mitigation policy 60:26.05[3]

PURCHASE AND SALE AGREEMENTS, TITLE ASPECTS
Generally 61:30.01 et seq.
Defect notice mechanics 61:30.03[3]
Interest additions 61:30.03[6]
Permitted encumbrances 61:30.03[2]
Common 61:30.03[2][b]
Less common 61:30.03[2][c]
Sale process identification of property-specific encumbrances 61:30.03[2][a]
Post-closing title curative rights 61:30.05
Procedures for handling title defects 61:30.03[7]
Purpose and deal process dynamics 61:30.02
Special situations 61:30.08
Special warranty in conveyance 61:30.06
Thresholds and deductibles 61:30.03[5]
Title defect value 61:30.03[4]
Title dispute resolution procedures 61:30.03[8]
Title-related conditions to closing 61:30.04
Title provision details 61:30.03
Other issues 61:30.03[1][c]
Purchase agreement defensible title standard 61:30.03[1][b]
Title opinions—marketable title standard 61:30.03[1][a]

R.S. 2477
(See PUBLIC LANDS ACCESS)

RARE EARTH MINERALS DEVELOPMENT
Generally 57:16.01 et seq.
Applications and end uses 57:16.02[2]
Commercial issues 57:16.05
Choice of law 57:16.05[1]
Dispute resolution 57:16.05[4]
Liability and indemnity 57:16.05[3]
Warranty 57:16.05[2]
Environmental permitting and compliance 57:16.04
Air quality 57:16.04[7]
Mine safety and health 57:16.04[8]
Ownership issues – fee or federal 57:16.04[1]
Reclamation 57:16.04[10]
Waste management 57:16.04[9]
Water supply 57:16.04[5]
Geology and extraction 57:16.02[1]
Global supply and commercial potential 57:16.03
   China 57:16.03[1]
   Molycorp and Mountain Pass, California 57:16.03[4]
   Other international sources 57:16.03[2]
   United States 57:16.03[3]

RCRA BEVILL EXCLUSION: EMERGING ISSUES
Generally 57:22.01 et seq.
Bevill exclusion 57:22.03
Establishing Bevill status of waste 57:22.05
Extraction/beneficiation v. mineral processing 57:22.04
   Extraction and beneficiation operations 57:22.04[1]
   Mineral processing operations 57:22.04[2]
Hazardous waste regulation under Subtitle C 57:22.02[2]
   Characteristic wastes 57:22.02[2][b]
   Listed wastes 57:22.02[2][a]
   RCRA waste-management requirements 57:22.02[2][c]
Historic mining waste 57:22.08
   Historic mineral processing v. historic beneficiation waste 57:22.08[1]
Land disposal restrictions 57:22.02[3]
Maintaining Bevill status 57:22.06
   Bevill mixture rule 57:22.06[2]
   Process changes 57:22.06[1]
RCRA exclusions 57:22.02[4]
Recent developments 57:22.09
   EPA's proposal to regulate coal combustion residuals from utilities 57:22.09[1]
   EPA's proposed revisions to the definition of solid waste 57:22.09[4]
Recycling of mineral processing wastes 57:22.07
   By-products 57:22.07[3]
   Sludges 57:22.07[2]
   Spent materials 57:22.07[1]
   Use or reuse of mineral processing wastes 57:22.07[4]
Solid waste regulation under Subtitle D 57:22.02[1]

RECLAMATION
(See ENVIRONMENTAL/RECLAMATION FINANCIAL ASSURANCES);
(See FINANCIAL ASSURANCE FOR)

REGULATORY FLEXIBILITY ACT
(See SMALL BUSINESS, REGULATORY IMPACT ON)

REMEDIES IN ENVIRONMENTAL AND NATURAL RESOURCES LITIGATION
Generally 59:26.01 et seq.
Affecting remedy issued by court 59:26.04
Permanent remedies 59:26.03
   Injunction as permanent remedy 59:26.03[1][c]
   Remand 59:26.03[1][a]
   Vacatur 59:26.03[1][b]
Practical considerations 59:26.05
Preliminary remedies 59:26.02
RENEWABLE ENERGY DEVELOPMENT ON FEDERAL PUBLIC LANDS
(See also GEOTHERMAL);
(See also WIND)
Generally 55:13.01, et seq.
BLM’s project-specific policies and guidance 55:13.03[2]
  Application and plan of development process 55:13.03[2][b]
  Cost sharing 55:13.03[2][h]
  Determining site priority 55:13.03[2][c]
  Due diligence 55:13.03[2][d]
  Expedited review 55:13.03[2][f]
  Incorporating into land use planning 55:13.03[2][j]
  Interest conveyed and competing uses 55:13.03[2][g]
  Promotion of solar and wind 55:13.03[2][a]
  Rental fees 55:13.03[2][i]
  Terms and conditions 55:13.03[2][e]
BLM’s solar and wind development programs 55:13.03[3]
  Solar energy development program and PEIS 55:13.03[3][b]
  Wind energy development program and PEIS 55:13.03[3][a]
Codevelopment with conventional energy 59:22.01 et seq.
Driving forces for solar and wind 55:13.02[1]
  Conventional and renewable energy costs 55:13.02[1][a]
  Government intervention 55:13.02[1][b]
  Public lands appeal for solar and wind development 55:13.02[1][c]
FLPMA 55:13.03[1]
FLPMA model inadequacies 55:13.04[1]
Impacts and challenges for BLM 55:13.02[2]
Wildlife protection 55:15.05[2], .06, .09[3][d]

REORGANIZATIONS AND WORKOUTS IN THE MINING AND HYDROCARBON SECTORS
Generally 62:2.01 et seq.
Bankruptcy reorganizations 62:2.04
  General concepts applicable to all chapter 11 bankruptcy cases 62:2.04[1]
Survey of reorganization tools and strategies in chapter 11 62:2.04[2]
Issues in mining and oil and gas reorganizations 62:2.05
  Issues in mining and oil and gas chapter 11 cases and plans of reorganization 62:2.05[5]
  Mining company legal frameworks 62:2.05[1]
  Oil and gas legal frameworks 62:2.05[3]
  Treatment of LLC and TIC interests in bankruptcy 62:2.05[2]
  Treatment of royalty interests and oil and gas leases in bankruptcy 62:2.05[4]
Non-bankruptcy reorganization strategies 62:2.03
  Deed in lieu/abandonment/foreclosure/assignment for the benefit of creditors 62:2.03[8]
  Forbearance 62:2.03[2]
  Mergers 62:2.03[5]
  Purchase of secured debt/foreclosure 62:2.03[7]
  Recapitalization 62:2.03[1]
  Refinancing/restructuring existing debt 62:2.03[3]
  Spinoffs 62:2.03[4]
  Tender and exchange offers 62:2.03[6]

RESERVE AND RESOURCE ESTIMATE REPORTING
Generally 56:6.01 et seq.
Canadian and U.S. disclosure standards—mining 56:6.04
RESERVES DISCLOSURE REVISED RULES, ETHICAL AND COMPLIANCE CONSIDERATIONS
Generally 59:4.01 et seq.
After companies receive SEC comments 59:4.04
Amended rules 59:4.03
Attorneys' roles in reporting corporate compliance 59:4.06
Attorneys as whistleblowers 59:4.06[3]
Attorneys' rules of professional conduct 59:4.06[1]
Sarbanes-Oxley Act § 307 59:4.06[2]
SEC enforcement actions against attorneys 59:4.06[4]
Ethical and compliance quandaries for attorneys 59:4.07
Observations on companies' rule interpretations and SEC comment letters 59:4.04
Shell reserves SEC enforcement proceedings 59:4.02

RESOURCE EXTRACTION DISCLOSURE UNDER SECTION 1504 OF THE DODD-FRANK ACT
Generally 59:18.01 et seq.
Addendum: Rule 13q-1 vacated by U.S. district court 59:18.09
Authority to adopt exemptions 59:18.09[2]
Implications for resource extraction issues 59:18.09[3]
Public disclosure not required 59:18.09[1]
Text of section 13(q) 59:18.09[4]
Background 59:18.02
Commission adoption of Rule 13q-1 59:18.02[2]
Extractive industries transparency initiative (EITI) 59:18.02[3]
Section 1504 59:18.02[1]
Certain implications of the new rules 59:18.06
Additional jurisdictions 59:18.06[2]
No accommodations or exceptions 59:18.06[1]
Companies subject to section 13(q) of Exchange Act 59:18.03
Annual report requirement 59:18.03[1]
Commercial development of oil, natural gas, or minerals requirement 59:18.03[2]
Liability under the Exchange Act and Securities Act 59:18.05
Pending litigation 59:18.08
Preparing for implementation 59:18.07
Required disclosure 59:18.04
Filing deadline 59:18.04[8]
Foreign government 59:18.04[3]
Indirect payments 59:18.04[6]
Payment 59:18.04[1]
Project 59:18.04[2]
RESOURCES EXTRACTED TRANSPARENCY REPORTING: NEW INITIATIVES IN THE UNITED STATES, EU/UK, AND CANADA

Generally 62:7.01 et seq.

Canada 62:7.06
- Application of ESTMA 62:7.06[3]
- Background 62:7.06[1]
- Enforcement, offences, and punishment under ESTMA 62:7.06[6]
- ESTMA reporting requirements 62:7.06[4]
- Extractive sector transparency measures legislation 62:7.06[2]
- Lack of certain exemptions 62:7.06[8]
- Penalties for non-compliance 62:7.06[7]
- Record keeping under ESTMA 62:7.06[5]

History of transparency initiatives in the global mining industry 62:7.03
- Extractive Industries Transparency Initiative (EITI) 62:7.03[1]
- Progress on implementation 62:7.03[2]

Rationale for transparency 62:7.02

United Kingdom/European Union Directives 62:7.05
- Accounting Directive requirements 62:7.05[2][a]
- Background to EU Directives 62:7.05[1]
- Future of transparency reporting in the EU/UK 62:7.05[6]
- Impact of EU Directives 62:7.05[4]
- Transparency Directive requirements 62:7.05[2][b]
- UK implementation of the Accounting Directive 62:7.05[3][a]
- UK implementation of the Transparency Directive 62:7.05[3][b]

United States: SEC Rule 13q-1 and Form SD 62:7.04[1]
- Background of 62:7.04[2]
- Disclosure requirements 62:7.03[3]

RIGHTS OF FIRST REFUSAL (ROFR) IN MINING AND OIL & GAS TRANSACTIONS

Generally 56:4.01 et seq.

Assignment 56:4.06
- El Morro dispute 56:4.02

Exercising the ROFR 56:4.05
- General 56:4.05[1]
- Mirror image rule 56:4.05[2]

Extinguishing the ROFR 56:4.07
- Good faith arguments against the technical circumvention of a ROFR 56:4.08

Nature and purpose of ROFRs 56:4.03

Remedies for breach 56:4.09
- Damages 56:4.09[3]
- Injunction 56:4.09[1]
- Specific performance 56:4.09[2]

Triggering events 56:4.04
- Gifts and other transfers without consideration 56:4.04[3]
- Involuntary transfers 56:4.04[2]
- Mergers, corporate reorganizations and share transfers 56:4.04[5]
- Package deals 56:4.04[7]
- Transfers among joint venture participants 56:4.04[4]
- Unique consideration and property exchanges 56:4.04[6]

RISK IN OIL AND GAS DEVELOPMENT, DEALING WITH PUBLIC PERCEPTIONS OF

Generally 61:26.01 et seq.

Acceptable risk, precautionary principle, and federal environmental regulation 61:26.03[2][a]
BLM’s new hydraulic fracturing regulations 61:26.04[2][a][ii]
EPA’s Clean Air Act regulations 61:26.04[2][a][i]
Confronting actual and perceived risks 61:26.05
   How industry communicates risks 61:26.05[4]
   How industry opponents communicate risks 61:26.05[3]
   In the boardroom 61:26.05[1]
NIMBYism 61:26.05[2]
Precautionary principle defined 61:26.03
Risk assessment defined 61:26.02
Risks of oil and gas operations 61:26.04[2]
   Air quality 61:26.04[1][b]
   Other risks 61:26.04[1][c]
   Water quality 61:26.04[1][a]
State regulation of oil and gas development 61:26.04[2][b]

RISK MANAGEMENT
(See ENTERPRISE RISK MANAGEMENT)

RISK MANAGEMENT IN EMERGING MARKET HYDROCARBON PROJECTS
Generally 55:30.01 et seq.
Change in risks over economic cycles 55:30.05
Change in risks over project’s lifecycle 55:30.04
Expropriation and political risk: key concepts 55:30.03
Methods of mitigating risk 55:30.07
   Accounting for different economic cycles 55:30.07[4]
   Bilateral investment treaty protection 55:30.07[6]
   Dispute resolution 55:30.07[2]
   Due diligence 55:30.07[1]
   Investment agreement 55:30.07[7]
   Political risk insurance 55:30.07[5]
   Stabilization 55:30.07[3]
Planning for risk 55:30.06
Production sharing contracts: sample provisions 55:30.09

RIVER CHANNELS AND LAKE BEDS: LEGAL ISSUES IN BOUNDARIES
AND OWNERSHIP
Generally 57:28.01 et seq.
Changes in water boundaries; effect on ownership 57:28.03[2]
   Accretion versus avulsion 57:28.03[2][b]
   Distinction between natural and artificial changes 57:28.03[2][a]
   Islands 57:28.03[2][c][ii]
   Reemergence 57:28.03[2][c][i]
Locating water boundaries 57:28.03[1]
   Bed and banks 57:28.03[1][b]
   Lines of ordinary high and ordinary low water 57:28.03[1][c]
   Thread and thalweg 57:28.03[1][a]
   Watercourse as boundary 57:28.03[1][d]
Navigability for title 57:28.02
   Federal test 57:28.02[1]
   Rectangular survey system; meandering 57:28.02[3]
   State implementation of federal test 57:28.02[4]
   Tidality as an independent basis 57:28.02[2]
Title to riparian or littoral property 57:28.04
   Federal navigation servitude 57:28.04[3]
ROYALTIES
(See MINING ROYALTY);
(See NONPARTICIPATING ROYALTY INTERESTS);
(See OVERRIDING ROYALTY INTERESTS)

ROYALTY ISSUES—FEDERAL
Generally 55:24.01 et seq.
False Claims Act litigation 55:24.05
  Grynberg decisions: natural gas royalties qui tam litigation 55:24.05[2]
  United States ex rel. Maxwell v. Kerr-McGee Oil & Gas Corp. 55:24.05[1]
Marketable condition rule: Devon Energy Corp. 55:24.02
Offshore royalty relief 55:24.03
  Interior's implementation of RRA 55:24.03[2]
Royalty-in-kind 55:24.04
Royalty Simplification and Fairness Act issues 55:24.06
  Statutes of limitations for recovery of overpayments 55:24.06[1]
  Time frame for filing appeal 55:24.06[2]

ROYALTY LITIGATION UPDATE
Generally 62:18.01 et seq.
Kansas Supreme Court seminal cases 62:18.02
  Fawcett v. Oil Producers, Inc. of Kansas 62:18.02[2]
  Sternberger v. Marathon Oil Co. 62:18.02[1]
Private royalty litigation overview and update 62:18.03
  At the well states 62:18.03[1]
  Marketable product and marketable location states 62:18.03[3]
  Marketable product states 62:18.03[2]
Royalties on federal and Indian oil and gas leases 62:18.04
  Current regulations and unbundling of costs 62:18.04[1]
  Proposed rule changes on flared or vented gas and setting the royalty percentage 62:18.04[3]

RULEMAKING
(See FEDERAL AGENCY RULEMAKING)

SAGE GROUSE
(See GREATER SAGE-GROUSE)

SARBANES-OXLEY ACT
(See also ACQUISITION DUE DILIGENCE)
Energy reserves disclosure, attorneys' roles 59:3.04, :4.06
False certification 50:6.03[1]
Maintaining records 50:6.03[3]
Obstruction of justice 50:6.03[4]
Securities fraud 50:6.03[2]
Significant provisions 50:6.03
Whistleblower retaliation 50:6.03[5]; 51:6.02[2]

SCIENCE IN THE COURTROOM: AN ANALYSIS OF SCIENCE-BASED
CHALLENGES TO AGENCY DECISION-MAKING ON PROPOSALS FOR FEDERAL RESOURCE DEVELOPMENT
Generally 57:1.01 et seq.
Deference, factors affecting 57:1.04[1]
Emerging science and technology 57:1.04[1][b]
Impacts over a large area 57:1.04[1][d]
Politics 57:1.04[1][e]
Risk of catastrophic impacts 57:1.04[1][a]
Scientific uncertainty 57:1.04[1][c]
Lessons learned 57:1.04[2]
Overview of judicial review of agency science 57:1.02
ESA 57:1.02[4][b]
Leasing and permitting approvals 57:1.02[4][d]
Management plans 57:1.02[4][c]
NEPA 57:1.02[4][a]
Record on review 57:1.02[2]
Regulations 57:1.02[4][e]
Standard under the Administrative Procedure Act 57:1.02[1]
Traditional deference to agency on scientific matters 57:1.02[3]
Recent examples of more searching review of agency science 57:1.03[2]

SECURITIES LAW
(See also DODD-FRANK);
(See also NATIONAL INSTRUMENT 43-101);
(See also SARBANES-OXLEY)
Enforcement 50:6.04

SEQUESTRATION
(See GEOLOGIC CARBON SEQUESTRATION)

SEVERED MINERALS
Generally 50:10.01 et seq.; 51:7.01 et seq.
Access rights 50:10.01 et seq.
Dispute avoidance 50:10.07
Common law severance 50:10.02[1]
Federal lands 50:10.02[2]
Indian lands 50:10.02[3]
Negotiating with the surface owner 51:7.05
Private lands 50:10.02[5]
Severed estates, law of 51:7.02
Creation of split estates 51:7.02[1]
Dominance of mineral estate 51:7.02[2][a]
Dormant mineral acts 50:10.02[5][b][ii]; 51:7.02[3][c]
Due regard approach 51:7.02[2][b]
Federal regulation 51:7.02[4][b]
Model Surface Use and Mineral Development Accommodation Act 51:7.02[3][b]
Reasonable accommodation doctrine 50:10.02[5][a][ii]; 51:7.02[2][d]
Reasonably necessary test 50:10.02[5][a][i]; 51:7.02[2][c]
State regulation 51:7.02[4][a]
Surface damage statutes 50:10.02[5][b][ii]; 51:7.02[3][a]
Surface access 61:8.01 et seq.
Surface agreements 51:7.03
Damage release 51:7.03[1]
Surface damage agreement 50:10.07[1]; 51:7.03[2]
Surface use agreement 51:7.03[3]
Surface use 50:10.01 et seq.
Wyoming split estate initiative  50:10.07[2]

SHALE  
(See JOINT VENTURES FOR SHALE AND OTHER CAPITAL INTENSIVE OIL AND GAS PROJECTS)

SHALE GAS—EASTERN U.S.  
Generally 55:32.01 et seq.  
Challenges from new and anticipated regulations 55:32.05  
Proposed surface owner rights legislation 55:32.05[3]  
Severance tax proposals 55:32.05[1]  
Well spacing regulations 55:32.05[2]  
Exploration and production, challenges to 55:32.04  
Capital costs, infrastructure, and manpower 55:32.04[1]  
Lease drafting 55:32.04[2]  
Other environmental and social issues 55:32.04[5]  
Water 55:32.04[3]  
History of natural gas production in Appalachian region 55:32.02  
Litigation related to exploration and production of the Eastern shales 55:32.06  
Impact of coal mining on drilling 55:32.06[2]  
Royalty issues 55:32.06[1]  
Marcellus Shale exploration and production 55:32.03

SHORT-TERM WATER ACCESS FOR ENERGY AND MINERAL DEVELOPMENT IN THE WEST  
Generally 59:9.01 et seq.  
Arizona 59:9.02[1]  
California 59:9.02[2]  
Colorado 59:9.02[3]  
Idaho 59:9.02[4]  
Montana 59:9.02[5]  
Nevada 59:9.02[6]  
New Mexico 59:9.02[7]  
North Dakota 59:9.02[8]  
Oregon 59:9.02[9]  
Utah 59:9.02[10]  
Wyoming 59:9.02[12]

SIGHT DRAFTS IN LEASING TRANSACTIONS  
Generally 59:28.01 et seq.  
Definition 59:28.01[2]  
Effect of common provisions 59:28.02  
“No liability” clauses 59:28.02[1]  
“Title approval” clauses 59:28.02[2]  
Recommendations 59:28.03  
Landowner’s perspective 59:28.03[2]  
Lessee’s perspective 59:28.03[1]  
Use of drafts in leasing transactions 59:1[3]

SMALL BUSINESS REGULATORY ENFORCEMENT FAIRNESS ACT (SBREFA)  
(See SMALL BUSINESS, REGULATORY IMPACT ON)

SMALL BUSINESS, REGULATORY IMPACT ON  
Generally 52:5.01 et seq.
Social License in Developing Countries (See Also Corporate Social Responsibility)

Generally 54:25.01 et seq.

Definition 54:25.01

Ecuador’s mining mandate 54:25.02
- Cancellation of mining concessions 54:25.02[2]
- Consequences 54:25.02[1][c]
- Future of mining in Ecuador 54:25.02[4]
- Legal nature 54:25.02[1][a]
- Legal recourse 54:25.02[1][b]
- Reasons for issuance 54:25.02[1]

Effects of public consultation 54:25.01[2]

Mining without community approval 54:25.01[7]

Potential for confrontation and disturbance 54:25.01[6]

Risk of public consultation 54:25.01[5]

Stakeholders 54:25.01[3]
- Legitimate interests 54:25.01[3][a]
- Lobbying and special interest groups 54:25.01[3][b]
- Local authorities vs. central government 54:25.01[3][c]

Who directs the consultation process 54:25.01[4]

Social Media and Corporate Transparency

Generally 3.01 et seq.

Crisis case: Kennecott tailings 56:3.07

Effect of social media 56:3.02

Empowerment of NGOs and activists 56:3.05
- Corporate engagement with critics 56:3.05[1]
- Vehicle for protest and change 56:3.05[2]

Legal and regulatory issues 56:3.06
- Advertising and marketing 56:3.06[1]
- Employer/employee 56:3.06[3]
- Ethical issues for legal counsel 56:3.06[8]
- Insurance 56:3.06[7]
- Intellectual property 56:3.06[4]
- Litigation 56:3.06[5]
- Securities 56:3.06[6]
- Trade secrets and privacy 56:3.06[2]

Maintaining reputation and managing crises 56:3.04
- Corporate crisis management 56:3.04[2]
- Reputation management 56:3.04[1][a]

RMMLF social media survey 56:3.09

Shift in communications 56:3.03
Changing how corporations do business 56:3.03[3]
Consumer acceptance and use 56:3.03[2][a]
Corporate use 56:3.03[2][c]
Government, political, community, and educational use 56:3.03[2][b]
News distribution model 56:3.03[1][b]
Platform for public discourse and news 56:3.03[1][a]
Social media in natural resources industry 56:3.03[4]

SOCIAL MEDIA ETHICS
Generally 60:3.01 et seq.
Issues 60:3.03 et seq.
  Blogging 60:3.04
  Firm policies 60:3.03
  Friending 60:3.05
  Judges 60:3.09
  Marketing with coupons 60:3.07
  Private use 60:3.06

SOLUTION MINING
(See IN SITU LEACH MINING)

SOURCE AGGREGATION DETERMINATIONS FOR OIL AND GAS
FACILITIES UNDER CLEAN AIR ACT
Generally 56:20.01 et seq.
Case study: Frederick compressor station 56:20.06
  Environmental requirements 56:20.06[2]
  Oil and gas development in the Wattenberg Field 56:20.06[1]
  Permit challenges by WildEarth Guardians 56:20.06[3]
Clean Air Act basics 56:20.02
  Hazardous Air Pollutants (HAPs) 56:20.02[2]
  National Ambient Air Quality Standards (NAAQS) 56:20.02[1]
  Title V and new source review requirements for major sources 56:20.02[3]
EPA interpretations 56:20.04
  Common sense notion of a plant 56:20.04[1][a]
  Functional interdependence of sources 56:20.04[1][b]
  Historical permitting guidance 56:20.04[1]
  McCarthy memo 56:20.04[3]
  Wehrum memo 56:20.04[2]
Pending challenges to oil and gas industry 56:20.05
  Alaska: Prudhoe Bay 56:20.05[1]
  Part 71 operating permits on tribal land 56:20.05[2]
Source aggregation basics 56:20.03
What's next 56:20.07; 56:20.08

SPLIT ESTATES
(See SEVERED MINERALS);
(See SURFACE ACCESS TO SEVERED FEDERAL MINERALS)

STABILIZATION AGREEMENTS
(See also MEGA PROJECTS: PROTECTION OF FOREIGN INVESTMENT)
Generally 51:20.01 et seq.
Argentina 51:20.04
Characteristics 51:20.03
Chile 51:20.05
Definition 51:20.02
SUBSURFACE TRESPASS
Generally 53:20.01 et seq.; 54:24.01 et seq.
Damages 54:24.05
Development of the law 53:20.03
Hydraulic fracturing 53:20.03[3]
Waterfloods 53:20.03[2]
Directional and horizontal drilling 54:24.04
Hydraulic fracturing 53:20.01 et seq.; 54:24.03
Overview 54:24.02
Public policy arguments: waterflood vs. hydraulic fracture 53:20.04
Relief in the courts 53:20.05[1]
Relief in the oil and gas conservation agencies 53:20.05[2]
Waterflooding 53:20.01 et seq.

SUPPLEMENTAL ENVIRONMENTAL PROJECTS
Generally 52:14.01 et seq.
Advantages of SEPs 52:14.04
Approval of SEPs 52:14.03
Acceptable categories of SEPs 52:14.03[3]
Community involvement 52:14.03[5]
General requirements 52:14.03[1]
Legal and implementation requirements 52:14.03[4]
Nexus 52:14.03[2]
Definition 52:14.01[1]-[7]
Disadvantages of SEPs 52:14.05
Effect on penalty 52:14.02[2]
Reasons for SEPs 52:14.02[1]
Specific EPA policies governing SEPs and penalties 52:14.02[3]
State approaches 52:14.02[4]

SUPPLY CHAIN
(See ETHICAL COMPANY)

SURFACE ACCESS AND COMPENSATION STATUTES
Generally 54:4.01 et seq.
Bureau of Land Management 54:4.04
Dominant mineral estate 54:4.02
Accommodation Doctrine 54:4.02[3]
Reasonably necessary surface use 54:4.02[2]
Restoration 54:4.02[4]
Local surface use regulation 54:4.07
Other surface use regulations 54:4.06
State surface access and compensation statutes 54:4.03
Subdivision development and oil and gas development legislation 54:4.05

SURFACE ACCESS TO SEVERED FEDERAL MINERALS
Generally 61:8.01 et seq.
Entek implications 61:8.03
Compensation 61:8.03[7]
Contraction of the unit 61:8.03[8]
Drilling stage 61:8.03[2]
SUSTAINABLE DEVELOPMENT
Generally 50:14.01 et seq.; 54:28B.01 et seq.
Communication about 54:28B.01 et seq.
   Actions vs. words 54:28B.03[1]
   Audiences and interests 54:28B.03[3]
   Communicating the message 54:28B.03[4]
   Reporting, dialogue, and participation 54:28B.03[2]
Cyanide management code 50:14.06[4][f]; 52:22.01 et seq.
Equator Principles 50:14.06[3]
Global Compact 50:14.06[4][a]
Industry’s role 50:14.03
International expectations and standards 50:14.06
Local views and expectations 50:14.07
National legal requirements 50:14.05
Project cycle 50:14.04

TAKEOVER OF TSX-LISTED COMPANY, STRATEGIC CONSIDERATIONS
Generally 58:17.01 et seq.
Acquiror shareholder approval 58:17.05
Canadian corporate/securities laws relating to acquisitions 58:17.03
   Amalgamations 58:17.03[3]
   Plans of arrangement 58:17.03[2]
   Takeover bids 58:17.03[1]
Increasing deal certainty 58:17.06
   Concurrent private placement 58:17.06[3]
   Lock-up agreements 58:17.06[1]
   “Toeholds” 58:17.06[2]
Tax consequences 58:17.07
   Bump/follow-on amalgamation 58:17.07[2][b]
   Options and warrants 58:17.07[1][b]
   Plan of arrangement vs. takeover bid 58:17.07[2][c]
   Shareholders 58:17.07[1][a]
   Structure preference 58:17.07[2][a]
Transaction structure selection 58:17.04
   Arrangements 58:17.04[1]
   Disadvantages of arrangements 58:17.04[1][b]
TAKINGS CLAUSE
(See OIL AND GAS REGULATION AND THE TAKINGS CLAUSE);
(See WATER LAW AND TAKINGS);
(See WATER RIGHTS AND TAKINGS)

TAX, TAXATION
(See INTERNATIONAL TAXATION OF MINING)

TAX TRAPS FOR THE WARY MINERAL LAWYER
Generally 59:5.01 et seq.
Avoiding accidental leasing and subleasing transactions 59:5.01
   Is transaction a sale or lease 59:5.01[3]
   Tax treatments of sales versus leases 59:5.01[2]
Like-kind exchange failures 59:5.02
   Critical deadlines 59:5.02[2]
   Recapture 59:5.02[5]
   Role of boot and basis 59:5.02[3]
   Tax partnership considerations 59:5.02[4]
Preventing FIRPTA failures 59:5.04
   Definition of USRPI 59:5.04[1]
   Satisfying or avoiding FIRPTA withholding requirements 59:5.04[3]
   U.S. real property holding corporations 59:5.04[2]
Sample like-kind exchange language 59:5.05
Tax partnership problems 59:5.03
   Buying into existing problems 59:5.03[6]
   Dangers of advance agreements to elect out 59:5.03[7]
   Dangers of procrastination 59:5.03[3]
   Establishing a tax partnership 59:5.03[2]
   Key drafting issues 59:5.03[4]
   Losing percentage depletion 59:5.03[8]
   New noncompensatory partnership option regulations 59:5.03[9]
   Structuring up-front payments 59:5.03[5]

TCP
(See TRADITIONAL CULTURAL PROPERTIES)

TRADITIONAL CULTURAL PROPERTIES: STATE AND FEDERAL
(See also INDIAN)
Generally 57:4.01 et seq.
Mount Taylor, New Mexico 57:4.04
National Historic Preservation Act (NHPA) 57:4.02
   Bulletin 38 57:4.02[3][b]
   Determining eligibility to National Register 57:4.02[3]
   1992 amendments 57:4.02[3][c]
   Section 106 consultation 57:4.02[2]
State cultural preservation laws 57:4.03

TRANSFERS OF AGING FEDERAL OIL AND GAS PROPERTIES
Generally 56:29.01 et seq.
Additional due diligence concerns 56:29.08
   Common law issues 56:29.08[3]
   Depth of due diligence 56:29.08[1]
   Environmental issues 56:29.08[2]
   Hart-Scott-Rodino 56:29.08[4]
Sarbanes-Oxley 56:29.08[5]
Adjudication unit 56:29.06[2]
   Non-required files 56:29.06[2][c]
   OCS lease file 56:29.06[2][b]
   Pending assignments 56:29.06[2][d]
   Serial register page 56:29.06[2][a]
BLM records—onshore 56:29.06[4]
Bond issues 56:29.05
   Offshore bonding 56:29.05[1]
   Onshore bonding 56:29.05[2]
Federal statutory schemes 56:29.02
   Outer Continental Shelf Lands Act 56:29.02[1]
MMS records—offshore 56:29.06[1]
Motivation of parties 56:29.03
Public information unit 56:29.06[3]
Purchase and sale agreements 56:29.04
   Naked record title 56:29.04[3]
   Purchaser considerations 56:29.04[1]
   Seller considerations 56:29.04[2]
State law and records 56:29.07
   Community property/forced heirship 56:29.07[3]

TRANSPORT OF COAL
(See COAL TRANSPORT AND EXPORT)

TRANSPORT OF OIL PRODUCTS BY TRUCK, RAIL, AND BARGE: STATE AND
FEDERAL REGULATION
Generally 60:4.01 et seq.
Monitoring to ensure compliance 60:4.05
Proposed and enacted federal regulation 60:4.02
   BLM’s revised proposed regulations on oil and gas operations on federal lands 60:4.02[4]
   Department of Transportation rail-safety initiatives 60:4.02[3]
   Resource Conservation and Recovery Act 60:4.02[1]
   U.S. Coast Guard’s November 2013 proposed regulations 60:4.02[5]
State legislative proposals to regulate transport of fracking wastewater 60:4.04
   New Jersey 60:4.04[1]
   New York 60:4.04[2]
   Pennsylvania 60:4.04[3]
State rail regulations 60:4.03[1]
State truck regulations 60:4.03[2]
   Arkansas 60:4.03[2][a]
   Colorado 60:4.03[2][b]
   New York 60:4.03[2][c]
   North Dakota 60:4.03[2][d]
   Pennsylvania 60:4.03[2][e]
   Texas 60:4.03[2][f]

TRANSPORTATION OF OIL AND GAS AND MINERALS
(See also TRANSPORT OF OIL PRODUCTS)
Generally 51:17A.01 et seq., 17B.01 et. seq.
Ocean transportation
   Bulk carriers 51:17B.05
   Chartering of vessels 51:17B.06
LNG tankers  51:17B.04
Oil Pollution Act of 1990  51:17B.03
Oil spill liability trust fund  51:17B.03[3]
Oil tankers  51:17B.02
Railroads  51:17A.01 et seq.
  Carriage, types of  51:17A.01[2]
  Coal, transportation of  51:17A.01 et seq.
  Problems  51:17A.01 et seq.
Surface  51:17A.01 et seq.
Water transportation problems  51:17A.04[2]

TRUCKEE RIVER OPERATING AGREEMENT: MANAGING THE TRUCKEE RIVER
  BY AGREEMENT AFTER A CENTURY OF LITIGATION
Generally  62:22.01 et seq.
Application of Truckee River Operating Agreement (TROA) to other river systems  62:22.04
Settlement Act and TROA  62:22.03
  TROA authorization  62:22.03[1]
  TROA negotiation  62:22.03[2]
  TROA operational provisions  62:22.03[3]
  TROA signature and implementation  62:22.03[4]
Truckee river system background  62:22.02
  Geography  62:22.02[1]
  Major water users  62:22.02[2]
  Water rights and legal characteristics  62:22.02[3]

UNDERGROUND WATER BANKING IN WESTERN UNITED STATES
Generally  58:8.01 et seq.
Basics of water banking  58:8.02
  Challenges  58:8.02[4]
  Climate change  58:8.02[2]
  Interstate water banking  58:8.02[8]
  Permitting  58:8.02[6]
  Recharge methods  58:8.02[5]
  Recovery criteria  58:8.02[7]
  Sources of water  58:8.02[3]
  Why bank water  58:8.02[1]
Water banking in the western states  58:8.03
  Arizona  58:8.03[1]
  California  58:8.03[2]
  Colorado  58:8.03[3]
  Idaho  58:8.03[4]
  Nevada  58:8.03[5]
  New Mexico  58:8.03[6]
  Oregon  58:8.03[7]
  Utah  58:8.03[8]
  Washington  58:8.03[9]

UNIT OPERATING AGREEMENTS
(See FORM 2 UNIT OPERATING AGREEMENT)

UNLEASED AND UNJOINED OWNERS—FORCED POOLING AND COTENANCY
Generally  56:18.01 et seq.
Alternative approaches  56:18.03
  Free ride  56:18.03[3]
  Risk/penalty  56:18.03[2]
  Surface and subsurface use issues  56:18.03[6]
Surrender of working interest 56:18.03[1]
Treatment of royalty interests 56:18.03[5]
Treatment of unleased interests 56:18.03[4]
Capture and co-ownership rules 56:18.01
Accounting among cotenants 56:18.01[2]
Incentive and disincentive 56:18.01[3]
Law of waste 56:18.01[1]
Free-ride approach 56:18.04[3]
Risk-penalty approach 56:18.04[2]
Spacing and drilling units 56:18.02
Pooling—cotenancy 56:18.02[2]
Royalties 56:18.02[4]
Spacing 56:18.02[1]
Working interest and unleased owners 56:18.02[3]
Surrender of working-interest 56:18.04[1]

UNLOCATABLE MINERAL OWNERS, CLEARING TITLE
Generally 54:30.01 et seq.
Compulsory or forced pooling statutes 54:30.05
Dormant mineral acts 54:30.03
Constitutional validity 54:30.03[2]
Nature of acts 54:30.03[1]
Typical acts 54:30.03[3]
Partition, quiet title, adverse possession 54:30.06
Receivership and trust statutes 54:30.04
Tenants in common 54:30.02

UNNECESSARY OR UNDUE DEGRADATION (UUD) STANDARD
Department of the Interior historic regulatory interpretation 54:10.03[2]
Original interpretation of § 302(b) UUD standard 54:10.03[2][a]
Prudent operator doctrine 54:10.03[2][b]
FLPMA and its legislative history 54:10.03[1]
§ 302(b) UUD interpretation 54:10.04
Mining context 54:10.04[1]
Other multiple uses 54:10.04[3]
Solicitor interpretations 54:10.04[2]
§ 603(c) UUD standard in wilderness context, interpretation of 54:10.05
Statutory framework 54:10.02
UUD standard and NEPA compliance 54:10.06
Hardrock mining regulations 54:10.06[1]
Timing of UUD determination 54:10.06[2]

UPSTREAM CONTRACTUAL RISK MANAGEMENT: INDEMNITIES, INSURANCE, AND LIMITATION OF LIABILITY CLAUSES
Generally 57:12.01 et seq.
Anti-indemnity statutes 57:12.04
Indemnity and anti-indemnity acts applied to pollution 57:12.04[6]
Louisiana Oilfield Indemnity Act 57:12.04[2]
Louisiana statutory employer 57:12.04[3]
New Mexico Oilfield Indemnity Act 57:12.04[5]
Texas Oilfield Anti-Indemnity Act 57:12.04[1]
Contractual framework 57:12.02
Indemnities 57:12.03
Indemnities for pollution 57:12.03[3]
URANIUM LAW AND LEASING
Generally 55:27.01 et seq.
Future of domestic uranium industry 55:27.05
Principles of uranium law (federal lands) 55:27.02
Principles of uranium law (fee lands) 55:27.03
  Regulatory law 55:27.03[2]
  Surface or mineral estate? 55:27.03[1]
Production methods 55:27.01[5]
  In situ recovery 55:27.01[5][b]
  New extraction technologies 55:27.01[5][c]
  Surface mining and milling 55:27.01[5][a]
Uranium leases (fee lands), sample provisions 55:27.04
  Assignment 55:27.04[10]
  Commingling 55:27.04[9]
  Definitions 55:27.04[2]
  General concepts 55:27.04[1]
  Granting issues 55:27.04[3]
  Lease term and rentals 55:27.04[6]
  Operations, surface estate issues, restoration, and reclamation 55:27.04[12]
  Pooling, or prohibition on pooling 55:27.04[14]
  Royalties 55:27.04[7]
  Shut-in royalties 55:27.04[8]
  Statute of limitations 55:27.04[13]
  Warranty of title or disclaimer of title 55:27.04[4]

URANIUM, PRODUCTION OF
Generally 52:4.01 et seq.
Future outlook 52:4.05
History 52:4.01., .02
  AEC uranium procurement program 52:4.02[1]
  AEC/DOE enrichment policies, impact of 52:4.02[2]
  Enrichment privatization 52:4.02[4]
  Russia/U.S. HEU agreement 52:4.02[4]
  Uranium price movement 52:4.02[3]
Increasing demand 52:4.03
  Asia 52:4.03[2][a]
  Europe 52:4.03[2][b]
  United States 52:4.03[2][c]
Role of U.S. producers 52:4.04
  Impediments to industry 52:4.04[2]
  Tight supply/demand market 52:4.04[1]

WATER
(See CLEAN WATER ACT);
(See CLEAN WATER ACT JUDICIAL DEVELOPMENTS);
(See COLUMBIA RIVER TREATY);
(See ENVIRONMENTAL REQUIREMENTS OF ALLOCATING WATER);
(See GROUNDWATER);
(See INSTREAM FLOW PROGRAMS);
(See INSTREAM FLOW WATER RIGHTS);
(See INTERBASIN TRANSFERS OF WATER—OVERVIEW);
WATER FOR SHALE GAS: MID-ATLANTIC RIVER BASIN COMMISSION APPROACH
Generally 58:9.01 et seq.
Comprehensive planning and permits 58:9.05
Delaware River Basin Commission (DRBC) 58:9.06
DRBC’s regulation of natural gas development in Delaware River Basin 58:9.07
Development of shale plays in mid-Atlantic states 58:9.02
Lessons from the commissions 58:9.09
Susquehanna River Basin Commission 58:9.08
Water sources and competing uses 58:9.03
Traditional state regulation of withdrawals and diversions in the East—riparian rights, reasonable use 58:9.04

WATER LAW AND TAKINGS DOCTRINE, INTERSECTION
Generally 60:8B.01 et seq.
Applying the takings tests in the water context 60:8B.05
Physical takings theory 60:8B.05[1]
Regulatory takings analysis 60:8B.05[2]
Climate change effects on takings litigation 60:8B.06
Inverse condemnation claims involving water 60:8B.03
Alteration of water quality 60:8B.03[4]
Changes to allocation systems 60:8B.03[7]
Erosion 60:8B.03[5]
Flooding 60:8B.03[1]
Limits on access 60:8B.03[2]
Limits on filling 60:8B.03[6]
Pollution prevention 60:8B.03[3]
Modern takings doctrine 60:8B.02
Property issue 60:8B.02[1]
Takings issue 60:8B.02[2]
Threshold property issue in water takings cases 60:8B.04
Background principle limitations on water rights 60:8B.04[3]
Distinctive characteristics of water 60:8B.04[1]
Nature and scope of a private right 60:8B.04[2]

WATER LAW PRIMER
Generally 61:21.01 et seq.
Ditch/pipeline easement law 61:21.08
Environmental regulations 61:21.07
Federal and Indian reserved rights 61:21.04
Groundwater 61:21.03
  Absolute ownership doctrine 61:21.03[4]
  Contamination 61:21.03[10]
  Integration of groundwater and surface water 61:21.03[8]
  Legal theories 61:21.03[3]
  Prior appropriation 61:21.03[7]
  Reasonable use 61:21.03[6]
  Well permits 61:21.03[9]
  Wells 61:21.03[2]
Instream flows 61:21.06
Public trust doctrine 61:21.05
Systems of water law 61:21.02
  Hybrid systems 61:21.02[3]
  Prior appropriation 61:21.02[2]
  Riparian doctrine 61:21.02[1]

WATER QUALITY
Produced water 52:12.01 et seq.
  BLM management 52:12.04[4]
  CWA permits and water quality standards 52:12.04[2]
  CWA § 401 52:12.04[3]
  In situ mining regulations and permitting 52:17.01 et seq.
  NPDES permits 52:12.04[1]
  Other CWA permitting challenges 52:12.04[5]

WATER RIGHTS
(See also CONJUNCTIVE MANAGEMENT OF SURFACE WATER
AND GROUND WATER);
(See also INSTREAM FLOW WATER RIGHTS)
Abandonment 52:26.02[3], .03[3], .04[1], .06[3], .07[2], .08[5]
Active management areas 52:26.03[2][a]
Arizona 52:26.03
  Beneficial use 52:26.02[2], .03[1], .04[2], .05, .05[3][b], .06, .06[2],[3], .07, .07[1]
Colorado 52:26.04
  Conveyances 52:26.01 et seq.
  Due diligence 52:26.01, .03[1], .07[1], .08[5]
  Forfeiture 52:26.02[3], .03[3], .05[1]-[2], .06[3], .07[2], .08[5]
  Grantor/grantee search 52:26.04[2], .05[2], .07[1], .08[1]-[2]
Montana 52:26.05
Nevada 52:26.06
New federal demands
  Generally 50:22.01 et seq.
  Bypass flows 50:22.03[2], .04
  Endangered species 50:22.03[3], .04[3]
  Federal reserved rights 50:22.02[2], [4]
  FLPMA 50:22.02[2][a]
  McCarran Amendment 50:22.02[3]
  Mining Act of 1866 50:22.02[1][a]
  Takings 50:22.03[5]
New Mexico 52:26.07
Permits 52:26.03-.08
  Prior appropriation 52:26.02[1], .03-.03[1], .04, .04[3][a], .07
  Produced water 52:12.01 et seq.
WATER RIGHTS AND TAKINGS DOCTRINE, INTERSECTION

Generally 60:8A.01 et seq.
Appropriative rights takings cases: key case studies 60:8A.04
  Casitas Municipal Water District v. United States 60:8A.04[2]
  Klamath Irrigation District v. United States 60:8A.04[3]
  Tulare Lake Basin Water Storage District v. United States 60:8A.04[1]
Takings doctrine meets water law: key Supreme Court decisions 60:8A.02
Takings doctrine meets water rights: key federal circuit and court of federal claims cases 60:8A.03

WATER RIGHTS IN THE WEST, COLLATERALIZATION OF

Generally 62:23.01 et seq.
Background 62:23.02
  Collateralization of water rights 62:23.02[2]
  Overview of western water law 62:23.02[1]
Challenges associated with collateralizing water rights 62:23.03
  Different state water law regimes 62:23.03[1]
  Foreclosure of water rights 62:23.03[5]
  Impact of bankruptcy on water rights as collateral 62:23.03[6]
  Latent risks 62:23.03[7]
  Loss of water rights through nonuse 62:23.03[2]
  State water right databases 62:23.03[3]
  Varying types of water rights 62:23.03[4]
Mitigation of risks to protect water rights as collateral 62:23.04
  Imposing affirmative obligations on the borrower to maintain water rights 62:23.04[4]
  Legal constraints 62:23.04[3]
  Risk analysis concerning physical constraints 62:23.04[2]
  Water rights evaluation 62:23.04[1]
Selected state-specific procedures and challenges 62:23.05
  Examples of states that allow for efficient collateralization of water rights 62:23.05[1]
  Examples of states with systems that do not provide for efficient collateralization of water rights 62:23.05[2]

WATER SCARCITY

Drought, planning for 51:27.01 et seq.
Western United States and Canada 53:16.01 et seq.
  Instream flows, supplementing 53:16.03
  Produced water 53:16.04
  Transfers 53:16.05
  Water rights, comparative legal frameworks 53:16.02

WATER SUPPLY, WESTERN UNITED STATES
(See also INTERBASIN TRANSFERS OF WATER)

Generally 51:25.01 et seq.
Colorado 51:25.04
Nevada 51:25.02
Southern California 51:25.03

WATER USE AND REUSE

Generally 57:29.01 et seq.
Industrial reuse 57:29.03[2]
Irrigation use 57:29.03[3]
Colorado rules on surface water irrigation systems  57:29.03[3][c]
Conflicts between users  57:29.03[3][a]
*Montana v. Wyoming*  57:29.03[3][b]
Municipal reuse  57:29.03[1]
  Artificial water exception  57:29.03[1][c]
  Geographical and intent to recapture exceptions  57:29.03[1][d]
  Imported water exception  57:29.03[1][a]
  Point of discharge exception  57:29.03[1][b]
States without case law guidance  57:29.03[4]
Statutory law  57:29.04
Use and reuse  57:29.02

**WATERFLOODING**  
(See **SUBSURFACE TRESPASS**)

**WATERS OF THE UNITED STATES**  
(See also **CLEAN WATER ACT JUDICIAL DEVELOPMENTS**)
Generally  53:18.01 et seq.
EPA role in determining  59:25.05[2]
Jurisdictional waters  53:18.01 et seq.
  Definitions  53:18.03
  Statutory authorities  53:18.02
Post-Rapanos decisions  53:18.06
Post-Rapanos guidance  53:18.07; 56:19.02[2]
*Rapanos* and *Carabell*  53:18.04
  Background  53:18.04
  Dissents' opinion  53:18.05[2]; 56:19.02[2]
  Justice Kennedy's opinion  53:18.05[3]; 56:19.02[2]
  Plurality opinion  53:18.05[1]; 56:19.02[2]

**WELL LOCATION AND SPACING REGULATION**
Generally  54:6.01 et seq.
Exception well locations  54:6.08
Federal regulation, federal lands and federal units  54:6.04
Indian lands  54:6.05
Landman's role  54:6.01
Municipal and local regulation  54:6.03
Origins of regulation  54:6.06
Pooling  54:6.11
Proration units  54:6.10
Survey of state rules  54:6.13
Terminology: well location vs. well spacing  54:6.02
Well location rules  54:6.07
  By regulation or order  54:6.07[1]
  Depth or horizon  54:6.07[4]
  Oil or gas  54:6.07[5]
  Siting restrictions  54:6.07[2]
  Statewide or other area  54:6.07[3]
  Vertical or horizontal  54:6.07[6]
Well spacing  54:6.09; 55:32.05[2]

**WILDERNESS**  
(See **WILDERNESS POLICY**)

**WILDERNESS POLICY**
Generally  56:15.01 et seq.
Alternative project designations 56:15.06[1]
   Areas of critical environmental concern 56:15.06[1][b]
   National conservation areas 56:15.06[1][a]
Federal Land Policy and Management Act 56:15.03
Lands with wilderness characteristics (LWCs) 56:15.05[1]
   BLM management concerns 56:15.05[6]
   Citizen (NGO)-proposed wilderness areas 56:15.05[5]
   Concept of wilderness 56:15.05[1][a]
   Continuing duty to inventory under FLPMA 56:15.05[3][a]
   FLPMA prohibition against unnecessary or undue degradation 56:15.05[3][b]
   Options for project proponents 56:15.05[7]
   Project level 56:15.05[4]
   Roads and roadlessness 56:15.05[1][b]
   Wilderness characteristics in the RMP process 15.05[2]
Litigation 56:15.04
   Forest Service Roadless Rule 56:15.04[2]
   Wilderness study areas 56:15.04[1]
Wilderness Act of 1964 56:15.02
   Defining wilderness 56:15.02[1]
   Growth of the National Wilderness Preservation System (NWPS) 56:15.02[3]
   Management of designated wilderness areas 56:15.02[2]

WILDLIFE PROTECTION
(See ENDANGERED SPECIES ACT);
(See ENERGY PRODUCTION AND WILDLIFE PROTECTION)

WIND POWER
(See also WIND AND MINERAL DEVELOPMENT, CONFLICTS BETWEEN);
(See also WIND PROJECT DEVELOPMENT)
Cost of energy 50:5.03[5]
Grid issues 50:5.03[6]
History 50:5.02
Incentives and regulations 50:5.03[7]
Industry participants 50:5.03[1], [2]
Siting and permitting issues 50:5.03[8]
Technology 50:5.03[3], [4]
Wind energy tomorrow 50:5.04

WIND AND MINERAL DEVELOPMENT, CONFLICTS BETWEEN
Generally 55:9.01 et seq.
Agreement for accommodation 55:9.10
Altering common law approaches through agreement 55:9.05
   Mineral rights first in time 55:9.05[2]
   Role of grantor 55:9.05[3]
   Wind rights first in time 55:9.05[1]
Common law approach 55:9.04
   Dominant-servient estate doctrine 55:9.04[1]
Future developments 55:9.07
Impact of wind energy on mineral industry 55:9.03
Multiple mineral development 55:9.06
“Purpose clause” 55:9.08
Release of surface rights by mineral owner 55:9.11
Restriction of mineral activities, sample clause 55:9.09
Wind boom 55:9.02
WIND PROJECT DEVELOPMENT
Generally 55:5.01, et seq.
Entity formation and structuring 55:5.03
Equipment procurement and construction 55:5.06
   Equipment warranty/serial defects 55:5.06[5]
   Fixed price and change orders 55:5.06[2]
   Oversight 55:5.06[6]
   Performance guarantees 55:5.06[4]
   Project schedule and delays in completion 55:5.06[3]
   Scope of work 55:5.06[1]
Interconnection and transmission 55:5.07
Operation and maintenance 55:5.08
Overview of industry 55:5.01[1]
Overview of project development 55:5.01[2]
   Financing parties 55:5.01[2][b]
   Principal parties 55:5.01[2][a]
Permitting 55:5.04
Power sales 55:5.05
   Delays in completion 55:5.05[5]
   Force majeure 55:5.05[6]
   Market impacts on pricing 55:5.05[2]
   Performance damages 55:5.05[7]
   Power purchase agreement pricing 55:5.05[3]
   Term and termination rights 55:5.05[4]
Site selection 55:5.02
   Adequacy of wind resource 55:5.02[1]
   Geotechnical conditions 55:5.02[3][b]
   Ground leases and landowner issues 55:5.02[2]
   Interconnection and transmission 55:5.02[4]
   Road access 55:5.02[3][a]
   Special purpose entities 55:5.03[1]
   Tax incentives 55:5.03[2]

WORLD BANK
Generally 50:4.01 et seq.
Extractive industries review 50:4.03
   Environmental, social issues 50:4.03[1][c]
   Governance 50:4.03[1][a]
   Human rights 50:4.03[1][d]
   Transparency 50:4.03[1][b]
Organization 50:4.02

WORLD'S ENERGY PROSPECTS AS OF JULY 2014
Generally 60:18.01 et seq.
Breaking which way in 2014 60:18.07
The Law of Energy Underground 60:18.02
Lawyers' roles in energy issues 60:18.06
National perspectives 60:18.05
Shale oil and gas development 60:18.03[1]
   Mature oil and gas jurisdictions 60:18.03[1][c]
   New shale jurisdictions 60:18.03[1][b]
   Technologies and issues 60:18.03[1][a]
Underground storage to mitigate environmental risks 60:18.04