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75-15

GEOLOGY OF THE EAGLE MOUNTAINS AND VICINITY TRANS-PECOS TEXAS

TECHNICAL REFERENCES

Figure A. Index Map of Eagle Mountains and Vicinity
Figure B. Physiographic Features, Western Trans-Pecos, Texas and Adjacent Chihuahua
Figure C. Late Paleozoic and Mesozoic Tectonic Features, Trans-Pecos Texas and Northeastern Mexico
Figure D. Stratigraphic Section of Cretaceous Rock in Eagle Mountains and Vicinity
Figure E. Correlation of Cretaceous and Upper Jurassic Rocks, Trans-Pecos Texas and Northern Chihuahua
Figure F. Eagle Mountains High-Altitude Photograph
Figure G. Indio Mountains High-Altitude Photograph
Figure H. Devil Ridge High Altitude Photograph
Figure I. Route Map First Day
Figure J. Route Map Second Day
Figure K. Route Map Third Day

PLATE I. Geologic Map of Eagle Mountains and Vicinity, Hudspeth County, Texas: Univ. Texas, Bur. Econ. Geology Geol. Quad. Map 26

ROAD LOGS

First Day Road Log:
Second Day Road Log:
Third Day Road Log:

TECHNICAL PAPERS

The View from Eagle Peak: Physiographic and Geologic Setting of the Eagle Mountains Region
J. R. Underwood, Jr.
Geology of Eagle Mountains and Vicinity, Hudspeth County, Texas Bureau of Economic Geology
Geologic Quadrangle Map Number 26, pages 1-32, in this Guidebook pages 63-94
J. R. Underwood, Jr.
Tectonic Style of the Eagle-Southern Quitman Mountains Region, Western Trans-Pecos Texas
D.F. Reaser & J. R. Underwood, Jr.
Geology of the Cox Formation, Trans-Pecos Texas
W.D. Miller, Condensed by D.H. Campbell
Comanchean Cardiid Bivalves in Texas
R. W. Scott
A Geochemical Study of Igneous Rocks of the Eagle Mountain , Trans-Pecos Texas
T.T. Tieh, R.A. Nelson and D.H. Egger
Exploration for Fresh Ground Water in the Eagle Mountain Area, Hudspeth County, Texas
J.S. Gates and J.T. Smith
Large-Scale Desiccation Fissures in Alluvium, Eagle Mountain Area
J. R. Underwood, Jr. and R.K. Deford
Fluorspar Deposits of Eagle Mountains
F.W. Daugherty and J. R. Underwood, Jr.
Mineral Deposits of the Central Indio Mountains Hudspeth County, Texas
A. Wallace and S.S. Shannon

Oil and Gas Prospects of Western Trans-Pecos Texas and Northern Chihuahua

B. Pearson and J.R. Underwood, Jr.

Geothermal Prospects of the Eagle-Quitman Mountains Vicinity Trans-Pecos Texas

D.F. Reaser, J. R. Underwood, Jr. and B. R. Jones

HISTORICAL PAPERS

W.H. von Streeruwitz (1833-1916): Early in Trans-Pecos Texas Geologist

J.R. Underwood, Jr.

The Jackass Mail: The San Antonio-San Diego Mail Line

J.R. Underwood, Jr.

GEOGRAPHICAL PAPER

Climate, Vegetation and Wildlife of the Eagle Mountains and Vicinity

J. R. Underwood, Jr.

78-17

**TECTONICS AND PALEOZOIC FACIES OF THE MARATHON
GEOSYNCLINE WEST TEXAS**

ARTICLES

REGIONAL ASPECTS OF TECTONICS AND SEDIMENTATION

The Regional Setting of the Marathon Salient

P. T. Flawn

Tectonics and Sedimentation of the Paleozoic Rocks in the Marathon Region, West Texas

P.B. King

The Ouachita Trough Sequence: Marathon Region and Ouachita Mountains

E.F. McBride

Notes on the Structural Domains of the Marathon Region

W. L. Muehlberger

Early Stage of Geosynclinal Deposition, Marathon Region, Texas

E.F. McBride

Summary of the Geologic History of the Marathon Geosyncline

A. Thomson and E. F. McBride

Late Pennsylvanian and Early Permian Sedimentary Rocks and Tectonic Setting of Marathon Geosyncline

C.A. Ross

Ouachita-Marathon Geosynclinal Facies in the Green Valley Area, Brewster County, Texas

B.T. Pearson

SILICICLASTIC SEDIMENTOLOGY

Origin of the Caballos Novaculite

R.L. Folk and E. F. McBride

Tesnus and Haymond Formations – Siliciclastic Flysch

E. F. McBride

Braided-Fan-Delta Deposits of the Pennsylvanian Upper Haymond Formation in the Northeastern
Marathon Basin, Texas

R.M. Flores

CARBONATE SEDIMENTOLOGY

Peritidal Carbonate Boulder Beds and Associated Carbonates of the Ordovician Marathon Limestone in the
Marathon Basin, Texas

R.M. Flores and D.H. Hanselman

Sedimentology and Stratigraphy of the Dimple Limestone, Marathon Region, Texas

A. Thomson and M.R. Thomasson

Sedimentary Rocks and Tectonic Setting of the Gaptank Formation

C.A. Ross

Megaclast-Bearing Conglomerate Beds in the Skinner Ranch Formation, Glass Mountains, West Texas

W.B. Rogers

PALEONTOLOGY

Observations on the Monument Spring Member of the Lower Ordovician Marathon Formation, Marathon
Region, Southwest Texas

D. F. Toomey

Marathon Region Ordovician Graptolite Zones: Retrospect and Prospect

W.B.N. Berry

ROAD LOGS

FIRST DAY

- | | |
|----------------|--------------------------------|
| Stop 1-1. | Caballos Novaculite |
| Stop 1-2. | Maravillas Fm., fault, breccia |
| Stop 1-3. | Traverse |
| Optional Stop. | Exposures at Old Fort Pena |
| Stop 14. | Maravillas and Caballos Fms. |

SECOND DAY

- | | |
|------------|-------------------------------|
| Stop 2-1. | Haymond Formation |
| Stop 2-2. | Tesnus Formation |
| Stop 2-3. | Dimple Formation |
| Stop 2-4 . | Haymond Formation Olistoliths |

79-18

**GUADALUPIAN DELAWARE MOUNTAIN GROUP
WEST TEXAS AND SOUTHEAST NEW MEXICO**

ARTICLES

Delaware Basin Sedimentation, Tectonism and Hydrocarbon Generation

John M. Hills

Inhomogeneities of the Ramsey Member of the Permian Bell Canyon formation, Geraldine Ford Field, Culberson and Reeves Counties, Texas

William G. Watson

Deep-Sea Sedimentation and Stratigraphic Traps, Bell Canyon Formation(Permian), Delaware Basin

Charles R. Williamson

Reservoir Sandstones of the Delaware Mountain Group, Southeast New Mexico

Robert R. Berg

Submarine-Fan Channel Depositional Processes in the Permian Bell Canyon Formation, West Texas and Southeast New Mexico

M.W. Payne

Deposition and Entrapment of Hydrocarbons in Bell Canyon and Cherry Canyon Deep-Sea Fans of the Delaware Basin

Alonzo D. Jacka

The Bell Canyon and Cherry Canyon Formations, Eastern Delaware Basin, Texas: Lithology, Environments and Mechanisms of Deposition

Richard G. Bozanich

Indian Draw Delaware Field: A Model for Deeper Delaware Sand Exploration

David W. Cromwell

Petrogenesis of Permian Delaware Mountain Sandstone, Texas and New Mexico

Joseph P.D. Hull, Jr.

Relations of Oil Composition and Stratigraphy of Delaware Reservoirs

Robert P. McNeal and Thomas D. Mooney

Fluid Relations in Delaware Mountain Sandstone

William F. Grauten

Brushy Canyon Formation, Texas: A Deep-Water Density Current Deposit

J.C. Harms

80-19

**GEOLOGY OF THE FINLAY MOUNTAINS
SOUTH CENTRAL HUDSPETH COUNTY, TEXAS**

POCKET OF BOOK

Plate I	Geology of the Finlay Mountains
Plate II	Electric Log & Sample Description
Plate III	Composite Measured Section in the Finlay Mountains
Plate IV	Measured Section of Etholene Conglomerate

ROAD LOGS

First Day Road Log
Second Day Road Log

SPECIAL STUDIES

Permian Patch Reefs in Finlay Mountains, West Texas
Foraminifera From The Campagrande Formation
Structural Geology of the Finlay Mountains Area
Pre-Leonard Stratigraphy of the Finlay Mountains Area
Etholen Conglomerate
Resume of Pleistocene Rocks, Finlay Mountains
McNary, Texas (A Trip to Yesterday)
Vascular Plants North End Quitman Mountains
Archeology of the Finlay Mountain Area

81-20

MARATHON – MARFA REGION OF WEST TEXAS

History of the Davis and Glass Mountains Country of West Texas

Denis Edward Foley

Some Structural Problems of the Marfa Basin

Bruce Pearson

Geology and Plate Tectonic History of the Marfa Basin, Presidio County, Texas

Walter L. Ammon

Regional Geophysical Study of Southern Trans-Pecos Texas

G.R. Keller, et al.

A Brief Overview and Oil and Gas Potential of the Marfa Basin, West Texas

Glen C. Luff

Northern Extent of Marathon Thrust, Elsinore Area, Pecos County, Texas

G.E. Moore, G.V. Mendenhall and W.L. Saultz

Pennsylvanian and Early Permian History of the Marathon Basin, West Texas

Charles A. Ross

Stratigraphy, Lithofacies, and Sedimentation of Lower Permian Carbonate of the Leonard Mountain Area, Glass Mountains, Western Texas

Romeo M. Flores and Terry L. McMillan

Lithofacies and Sedimentation of Lower Permian Carbonate of the Leonard Mountain Area, Glass Mountains, Western Texas

J.M. Cys and S.J. Mazzullo

Lithofacies and Sedimentation of Lower Permian Carbonate of the Leonard Mountain Area, Glass Mountain Area, Western Texas: A Reply

R.M. Flores, T.M. McMillan and G.E. Watters

Preliminary Report on Proposed Leonardian Lectostratotype Section, Glass Mountains, West Texas

John M. Cys

The Davis Mountain Volcanic Field

Don F. Parker

Mineral Resources of Brewster-Presidio Counties, Texas

Franklin W. Daugherty

Hot Springs and Geothermal Indicators, Presidio County, Texas

J. M. Hoffer and R.A. Kopp

Bird Mine, Brewster County, Texas

Tommy R. Woodward

Road Log – First Day

Road Log – Second Day

82-21

MIDDLE AND UPPER PENNSYLVANIAN SYSTEM OF NORTH-CENTRAL AND WEST TEXAS (Outcrop to Subsurface)

TECHNICAL ARTICLES

Upper Strawn and Canyon(Pennsylvanian) Depositional Systems, Surface and Subsurface, North-Central Texas

Arthur W. Cleaves and Albert W. Erxleben

Geology of the Type Area, Canyon Group, North-Central Texas

Robert L. Laury

Depositional History of the Palo Pinto Limestone(Pennsylvanian), North-Central Texas

Austin A. Sartin

Sedimentology and Paleocurrent Analysis of the Posideon Formation, Canyon Group (Pennsylvanian), North-Central Texas

John S. Spaid

Upper Pennsylvanian Peri-Tidal Benthic Marine Communities from the Wolf Mountain Formation (Canyon Group), North-Central Texas

Norman MacLeod

Petrographic Relationships in the Winchell (U. Paleozoic) Carbonate Buildup, North-Central Texas

Mary L. Barrett

Intraformational Subaerial Exposure of Carbonates in the Canyon Group, Pennsylvanian of Texas: Evidence for Eustatic Control of Facies Distribution on the Eastern shelf of the Midland Basin

Alton Brown

Turbidite Channel Reservoirs in Cisco Sandstone, Roundtop Field Area, Fisher County, Texas

Robert R. Berg

Cross-Section Coke County, Texas

Charles E. Mear

Paleontology and Stratigraphy of Selected Pennsylvanian Formations in North-Central Texas

C.L. (ed) Rowlett

Samples and Core Library Listings of Wells Drilled in the Midland Basin and Eastern Shelf

Texas Bureau of Economic Geology

POCKET

Field Conference Route Map

R. Laury(Plate 1); Geology of the Type Area, Canyon Group, North-Central Texas

C.E. Mear; West-East Cross-section, Coke County, Texas

84-23

**LOWER PERMIAN TO UPPER PLIOCENE CARBONATE AND CLASTIC
FACIES, SOUTHERN EASTERN SHELF - West Central, Texas**

SPECIAL STUDIES

Carbonate Facies in the Pueblo Formation
Depositional Systems in the Putnam Formation
Depositional History and Petroleum Potential of the Permian Tannehill Sandstone
Stratigraphy of Upper Permian Rocks
Origin of Siliceous Dockum Conglomerates
Pictographs at Paint Rock
Origin of the "Cup and Saucer"
Analysis of a Remotely Sensed Satellite Image

85-24

PERMIAN CARBONATE/CLASTIC SEDIMENTOLOGY, GUADALUPE MOUNTAINS: Analogs for Shelf and Basin Reservoirs

SECTION ONE – ROAD LOG

Day One – Back Reef Facies

Day Two – Back Reef and Reef Facies

Day Three- Reef, Fore-Reef, and Basin Facies

SECTION TWO – ABSTRACTS

Inferred Tectonic Control of Permian Hemi-cyclic Sandstone-Carbonate Sedimentation, Northwestern Shelf, Delaware Basin, New Mexico

M.P. Candelaria

Sea Level and the Capitan Reef Complex, Southwest USA. A Famous Model “In Flux”

L.C. Pray

Tepees: An Environmental Cue in Ancient Carbonates

J.K. Warren

Eolian Origin of Quartzose Shear Sands in Permian Shelf Facies, Guadalupe Mountains

S.J. Mazzullo, J. Mazzullo and P.M. Harris

SECTION THREE – REPRINTS

Queen Formation (Guadalupian, Permian) Outcrops of Eddy County, New Mexico and Their Bearing on Recently Proposed Depositional Models

S.M. Ball, J.W. Roberts, J.A. Norton and W.D. Pollard

Guadalupian Depositional Cycles of the Delaware Basin and Northwest Shelf

A.D. Jacka, C.M. Thomas, R.H. Beck, K.W. Williams, and S.C. Harrison

Cyclic Sedimentation in Middle Permian Strata of the Permian Basin, West Texas and New Mexico

F.F. Meissner

SECTION FOUR – GENERAL INTEREST

The Guadalupe Mountains of Texas

A. Tennant

Geology of the Carlsbad Caverns

N.R. Bullington

Historic Guadalupe Pass

J.W. Adams

1985 Spring Field Trip Photographs

HYDROCARBON RESERVOIR STUDIES AN SAN ANDRES / GRAYBURG FORMATIONS, PERMIAN BASIN

Geologic Description of the San Andres Reservoir, Mallet Lease, Slaughter Field, Hockley County, Texas: Implications for Reservoir Engineering Projects

W.J. Ebanks, Jr.

Description of Lower San Andres Core – Well No. 124, East Mallet Unit, Slaughter Field, Hockley County, Texas

J.P. Dulaney and B. Kintner

Deposition, Porosity Occurrence, and Reservoir Properties of the San Andres formation – Suniland Field, Lynn County, Texas

J. L. Beaver

The Relationship of San Andres Facies to the Distribution of Porosity and Permeability – Garza Field , Garza County, Texas

G.P. Hild

History Match and Projections of Future Water and CO2 Flood Recoveries – Southwest Garza Unit, Garza County, Texas

J.E. Smith

Permeability Distribution and Reservoir Continuity in Permian and Andres Shelf Carbonates, Guadalupe Mountains, New Mexico

P.D. Hinrichs, F.J. Lucia and R. L. Mathis

Fluorescence Petrography of San Andres Dolomites – H.O. Mahoney Lease, Wasson field, Yoakum County, Texas

D.E. Eby and R.C. Hager

Petrography of Recent Waterflood Effects on the San Andres Formation – Mobil H.O. Mahoney Lease, Wasson Field, Yoakum County, Texas

R.C. Hager and R.C. Heathcote

Reservoir Geology of the Denver Unit – Wasson San Andres Field, Gaines and Yoakum Counties, Texas

R. L. Mathis

Depositional and Diagenetic Controls on Porosity, Upper San Andres Formation – Bridges State Leases, Vacuum Field, Lea County, New Mexico

W. J. Purves

Depositional History of the Guadalupian Grayburg Formation, Last Chance Canyon Vicinity, Southeast New Mexico

E. Tye

Depositional Facies of the Grayburg/San Andres Dolomite Reservoirs – Central Basin Platform, Permian Basin

R.A. Garber and P.M. Harris

Diagenesis of the Permian (Guadalupian) San Andres Formation, Central Basin Platform, West Texas

D.A. Leary and J. N. Vogt

Influence of Reservoir Stratigraphy on Secondary Recovery and Gas Cap Management – West Seminole San Andres Unit, Gaines County, Texas

C.D. Caldwell and K.J. Harpole

Identification of Carbonate Depositional Texture from Well-Log Response – West Seminole Field, Gaines County, Texas

K. Kamon and H. H. Dorfman

Planning a CO2 Tertiary Recovery Project, Means San Andres Unit

C.J. George and L. H. Stiles

Stratigraphic Potential for Hydrocarbon Entrapment on the East Flank of the Means San Andres Field, Andrews County, Texas

J.R. Bartel and R.W. Broomhall

Reservoir Facies of the Permian San Andres Formation in the Mabee Field, Midland Basin, West Texas: Characterization for Enhanced Recovery

S.F. Urschell, S.K. Ghosh, and G.M. Friedman

Correlation of San Andres and Grayburg (Guadalupian) Reservoirs – Central Basin Platform
C.M. Garrett

San Andres Facies and Porosity Distribution – Emma Dield, Andrews County, Texas
S.C. Ruppel

Shoaling-Upward Facies in Penwell Field – Ector County, Texas
R.P. Major and K.L. Herrington

Facies Control of Porosity in the Grayburg Formation – Dune Field, Crane County, Texas
D.G. Bebout

Permeability Estimated from Subsurface Data, Grayburg Formation – Dune Field, Crane County, West Texas
F.J. Lucia

Reservoir Characterization Assisted Using Production Data, Grayburg Formation – Dune Field, Crane County, West Texas
C.R. Hocott

The Grayburg Formation at North McElroy - A Cinderella Reservoir
S.A. Longacre

McElroy Field: Development of a Dolomite Reservoir, Permian Basin of West Texas
S. D. Walker and P.M. Harris

Depositional facies and Porosity Evolution in a Karst-Modified San Andres Reservoir – Taylor Link West San Andres, Pecos County, Texas
C. Kerans and M.J. Parsley

Depositional Styles in the Queen and Seven Rivers Formations – Yates Field, Pecos County, Texas
A. Spencer and J.K. Warren

Stratigraphy and Reservoir Geology of the San Andres Dolomite – Yates Field, West Texas
D.H. Craig, D.H. Mruk, M.J. Heymans, P.D. Crevello, and R.C. Lanz

87-27

**THE LEONARDIAN FACIES IN W. TEXAS AND S.E. NEW MEXICO AND
GUIDEBOOK TO THE GLASS MOUNTAINS WEST TEXAS**

ROAD LOGS

Field Trip Index Map
Road Log From Midland to Alpine
Road Log Map
Day One Road Log
Road Log Map
Day Two Road Log

TECHNICAL ARTICLES

Marathon Area

Leonardian Series (Permian), Glass Mountains, West Texas
Charles A. Ross
Preliminary Report on Proposed Leonardian Lectostratotype Section, Glass Mountains, West Texas
(Reprint: 1981 Permian Bas Section, SEPM)
John M. Cys
Stratigraphy, Lithofacies, and Sedimentation of Lower Permian Carbonates of the Leonard Mountain Area,
Glass Mountains, Western Texas (Reprint: Permian Basin Section, SEPM)
Romeo M. Flores and Terry L. McMillan
Stratigraphy and Deposition of the Cathedral Mountain Formation(Leonardian), Glass Mountains, West
Texas
E.A. Measures
Conodont Biostratigraphy of the Cathedral Mountain and Road Canyon Formations, Glass Mountains,
West Texas
Bruce R. Wardlaw and Richard E. Grant
Leonardian Plant-Bearing Beds from the Del Norte Mountains, West Texas
D.M. Rohr, R. A. Davis, S. H. Mamay, and J. M. Miller

DELAWARE BASIN AREA

The Effects of Igneous Intrusions and Higher Heat Flow on the Thermal, Maturity of Leonardian and
Younger Rocks, Western Delaware Basin, Texas
Charles E. Barker and Mark J. Pawlewicz
Nature, Distribution, and Petroleum Potential of Bone Spring Detrital Sediments Along the Northwest
Shelf of the Delaware Basin
Ted F. Gawloski
Stratigraphy of the Bone Spring Formation(Leonardian) and Depositional Setting in the Scharb Field, Lea
County, New Mexico
Louis J. Mazzullo and A.M. Reid, II

88-28

**BASIN TO SHELF FACIES TRANSITION OF THE WOLFCAMPIAN
STRATIGRAPHY OF THE OROGRANDE BASIN**

ROAD LOGS

Synopsis of the Late Paleozoic Depositional History of the Orogrande Basin, New Mexico and Texas

Magell P. Candelaria

Field Trip Index Map

Road Log from Midland to Van Horn

Day One (Part 1)

Road Log from Van Horn to El Paso

Day One (Part 2)

Road Log from El Paso to Las Cruces

Day One (Part 3)

Road Log from Las Cruces to Dona Ana Mountains Roundtrip

Day Two

Road Log from Las Cruces to Alamogordo, Tularosa, LaLuz and Cloudcroft

Day Three

TECHNICAL PAPERS

A Preliminary Analysis of the Permian(Wolfcamp) Powwow Conglomerate of the Diablo Plateau, Trans-Pecos, Texas

David V. LeMone

Depositional Environments of Lower Permian(Wolfcamp) Marginal Marine Mixed Carbonate-Clastic System, Hueco Mountains, West Texas

James C. Pol

Depositional History of Virgilian Phylloid Algal Mound Complex, Hueco Mountains, El Paso County, Texas

James C. Pol

Depositional Patterns of Upper Pennsylvanian Calcilithites and Associated Facies: Hueco Mountains, West Texas

James C. Pol

Measured Sections in the Pennsylvanian and Permian of the Sacramento Mountains (Fresnal Canyon) And the Hueco Mountains

James Lee Wilson and Clifton F. Jordan, Jr.

Late Paleozoic – Early Mesozoic Rifting in Southern New Mexico and Northern Mexico: Controls on Subsequent Platform Development

James Lee Wilson and Clifton F. Jordan, Jr.

Sedimentological and Stratigraphical Relationships of the Panther Seep Formation, Southern San Andres Mountains, New Mexico

David A. Schoderbek and Henry S. Chafetz

Wolfcampian (Lower Permian) Stratigraphy and Depositional Environments in The Dona Ana and Robledo Mountains, South-Central New Mexico

Greg H. Mack, W.C. James and William R. Seager

Depositional and Diagenetic Facies in Marine-Cemented Phylloid Algal Reefs, Labrocita Formation (Wolfcampian, Permian), Northern Sacramento Mountains, New Mexico

S. J. Mazzullo

1988-88

**PERMIAN AND PENNSYLVANIAN STRATIGRAPHY, MIDLAND BASIN,
WEST TEXAS: STUDIES TO AID HYDROCARBON EXPLORATION**

Stratigraphic Architecture of Pennsylvanian and Lower Permian Facies, Northern Midland Basin, Texas

S.J. Mazzullo and A.M. Reid

Stratigraphy, Depositional Environment, and Development of a Late Wolfcampian Reservoir Midland
Farms Deep Unit Andrews Count, Texas

Barbara A. Lanan, and David C. Lenig

Organic Geochemistry, Source Rock Potential and Oil Source Rock Correlation of the Permian Spraberry
Formation, Northern Midland Basin, Jo Mill Field, Borden County, Texas

Andrew R. Scott and Mahbub Hussain

Seismic Data Inversion Using Geologic Constraints

Robert T. Vest

The Lithology, Depositional Environments, and Reservoir Properties of Sandstones in the Queen
Formation, Magutex North, McFarland North, and McFarland Fields, Andrews County, Texas

Carolayne Holley and Jim Mazzullo

Cyclic Stratigraphy of the Late Pennsylvanian of North-Central Texas

Thomas E. Yancey and R. Dennis McLerran

Changes in Facies and Depositional Environments Along and Across the Trend of the Horseshoe Atoll,
Scurry and Kent Counties, Texas

Richard A. Schatzinger

88-30

GEOLOGIC GUIDE TO THE WESTERN ESCARPMENT, GUADALUPE MOUNTAINS, TEXAS

INTRODUCTION TO THE TRIP

Geology of the Western Escarpment, Guadalupe Mountains, Texas

Lloyd C. Pray

ROAD LOGS AND TRAIL GUIDE

Geologic Guide for U.S. Highway 62 (180) from El Paso to Southern Guadalupe Mountains at the Junction of U.S. 62-180 with Texas 54 from Van Horn

Lloyd C. Pray

Geologic Guide from National Park Road Entrance to Williams Ranch

Lloyd C. Pray

Trail Guide for Day I: Shumard to Bone Canyon Traverse

C. Rossen, P.J. Lehmann, and J.F. Sarg

ABSTRACT

Bank to Basin Transition in Permian(Leonardian) Carbonates Guadalupe Mountains, Texas

Paul N. McDaniel and Lloyd C. Pray

Allochthonous Origin, Bone Spring "Patch Reefs," West Texas

Lloyd C. Pray and Francis G. Stehli

89-31

THE LOWER PALEOZOIC OF WEST TEXAS AND SOUTHERN NEW MEXICO—MODERN EXPLORATION CONCEPTS

SECTION ONE – FIELD SEMINAR ROAD LOG

Day One

Day Two

Day three

SECTION TWO – TECHNICAL PAPERS

Cambrian and Ordovician Systems

Depositional Facies and Provenance of the Bliss Formation (Cambro-Ordovician), Southern New Mexico and West Texas

J. Chris Stageman

Sequence Stratigraphy of the Tabosa Basin-Related Paleozoic Sediments of the Franklin Mountains, El Paso County, Texas and Dona Ana County, New Mexico

David V. LeMone

The Ellenburger – El Paso Connection: Lower Ordovician Shelf Carbonates

Russell E. Clemons

Recognition of Second, Third, and Fourth/Fifth Order Scales of Cyclicity in the El Paso Group and Their Relation to Genesis and Architecture of Ellenburger Reservoirs

Charles Kerans and F.J. Lucia

Geochemistry and Dolomite Textures in the Ellenburger Group (Lower Ordovician), West Texas and Southeastern New Mexico Indicate Multiple Episodes of Dolomitization (Abstract)

Joachim E. Amthor and Gerald Friedman

Formational and Zonal Subdivisions of the Ellenburger Group (Lower Ordovician). Southern Midland Basin, Texas

S.J. Mazzullo

Composite Classification of Fractured and Brecciated Carbonate Rocks – Examples from the Ordovician Ellenburger Group, West Texas (reprint)

B.T. Ijirigho and J.F. Schreiber, Jr.

Contrasting Styles of Reservoir Heterogeneity in Ellenburger Group Carbonates, West Texas (abstract)

Charles Kerans, M.H. Holt and Noel Tyler

Petrophysical Character of Ellenburger Karst Facies: Stateline (Ellenburger) Field, Lea County, Southeastern New Mexico

Joachim E. Amthor and Gerald M. Friedman

Depositional Setting of the Ellenburger – Langley Field, Lea County, New Mexico

T.D. Verseput

Tectono-Structural Evolution and Hydrocarbon Distribution in Fractured Carbonate Reservoirs, Permian Basin, West Texas

B. Tajinere Ijirigho

Ellenburger Reservoir Development at Midland Farms and Inez Fields Andrews County, Texas

C.E. Mear

Silurian and Devonian Systems

Stratigraphy, Lithofacies, and Depositional Models of the Fusselman Formation, Central Midland Basin

Richard C. Geesaman and Alan J. Scott

Depositional Variations in the Fusselman Formation, Central Midland Basin, West Texas

Timothy R. Garfield and Mark W. Longman

Fusselman Reservoir Development at Flying W Field, Winkler County, Texas

Charles E. Mear

Geologic Controls on Reservoir Development in Silurian and Devonian Carbonates, Northern Midland Basin, Texas

Louis J. Mazzullo, S.J. Mazzullo and Terry E. Durham

Regional Depositional Setting of the Thirtyone Formation (Devonian) in the Northern Midland Basin and Northern Central Basin Platform, West Texas

Tim Speer

1990-MARATHON THRUST BELT: STRUCTURE, STRATIGRAPHY, AND HYDROCARBON POTENTIAL

FIELD SEMINAR ROAD LOG

Day 1

Day 2

Day 3

TECHNICAL PAPERS

Regional Setting

Structural Geology and Petroleum Exploration of the Marathon Thrust Belt, West Texas

Timothy A. Reed and David L. Strickler

Surface to Subsurface Structure and Stratigraphy of the Marathon Fold Belt, Brewster, Pecos, and Terrill Counties, Texas

Garner L. Wilde

Local Stratigraphy and Structure

Radiolarian Biostratigraphy: Evidence for an Early Mississippian Basin-wide Hiatus at the Caballos-Tesnus Boundary, Marathon Basin, Texas

Paul Noble

Volcanism Recorded in Tesnus Formation, Marathon Uplift, Texas

Nobuhiro Imoto and Earle F. McBride

Concordant, Discordant, and Transitional Clastic Injection Structures in the Tesnus Formation, Marathon Basin, Trans-Pecos Texas

Timothy N. Diggs and Earle F. McBride

A Tectonic Origin for Microfaults in the Mississippian-Pennsylvanian Tesnus Formation, Marathon Basin, Trans-Pecos Texas

Timothy N. Diggs

Stratigraphy and Structure, Gap Tank Area, Southwestern Pecos County, Texas

Garner L. Wilde

Remote Sensing

Landsat 5 Thematic Mapper Image of the Marathon Mountains

Robert L. Borger

91-32

SEQUENCE STRATIGRAPHY, FACIES, AND RESERVOIR GEOMETRIES OF THE SAN ANDRES, GRAYBURG, AND QUEEN FORMATIONS, GUADALUPE MOUNTAINS, NEW MEXICO AND TEXAS

FIRST DAY

Road Log: First Day Midland, Texas to Last Chance Canyon, New Mexico Via Mentone, Texas and Carlsbad, New Mexico

L. James Weber, Jr.

High Cyclicity within Shelf-Margin and Slope Strata of the Upper San Andres Sequence, Last Chance Canyon

Mark D. Sonnenfeld

SECOND DAY

High Frequency Cyclicity and Regional Depositional Patterns of the Grayburg Formation, Guadalupe Mountains, New Mexico

C. Kerans and H.S. Nance

Road Log: Second Day Carlsbad, New Mexico to Algerita Escarpment Via Dark Canyon

L. James Weber, Jr., C. Kerans, and H.S. Nance

THIRD DAY

Road Log: Third Day Grayburg Formation on the Shattuck Valley Wall

C. Kerans and H. S. Nance

TECHNICAL PAPERS

Stratigraphy and Biostratigraphy of the Lower and Middle San Andres Formation in Last Chance Canyon, Guadalupe Mountains, New Mexico

C.E. Wilkinson, Jr., S.M. Ritter, L.L. Lambert, and G.L. Wilde

Grayburg Formation (Permian-Guadalupian): Comparison of Reservoir characteristics and Sequence Stratigraphy in the Northwest Central Basin Platform with Outcrops in the Guadalupe Mountains, New Mexico

Robert F. Lindsay

Depositional Setting and Reservoir Characteristics of Lower Queen (Permian, Guadalupian) Sandstones, Keystone (Colby) Field, Winkler County, Texas

James B. Vanderhill

Depositional and Reservoir Properties of the Upper Queen Formation at Concho Bluff and Concho Bluff North Fields, West Texas (Abstract Only)

Ariel Malicse, Jim Mazzullo, and Ben Price

New Exploration Technologies for Identification of New Guadalupian Production in the Northwestern Shelf Area of the Permian Basin, Southeastern New Mexico

Arthur J. Pyron

92-33

**PALEOKARST, KARST RELATED DIAGENESIS AND RESERVOIR
DEVELOPMENT: EXAMPLES FROM ORDOVICIAN-DEVONIAN AGE
STRATA OF WEST TEXAS AND THE MID-CONTINENT**

Field Trip Road Logs

Day One; Midland to El Paso to Scenic Drive, Franklin Mountains

Road Log-Part One: Midland to El Paso

Road Log-Part Two; Scenic Drive-Sequence Stratigraphy of the El Paso Group Franklin Mountains, Texas

Day Two: Ordovician Karst System Franklin Mountains, El Paso County, Texas

Road Log-Part One: McKelligon Canyon Area

Road Log-Part Two: West Side Franklin Mountains

Day Three: Anthony Gap Silurian Karst Northern Franklin Mountains, Texas and New Mexico

Road Log-Part One El Paso to Anthony's Gap to Midland

Road Log References

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A Review of Cambro-Ordovician Breccias in North America

James L. Wilson, P.L. Medlock, R.D. Fritz, K. Lyn Canter, and Richard G. Geesaman

Paleokarst Facies Characterization and Prediction of Reservoir Properties

Mateu Esteban

Origin and Recognition of Fractures, Breccias and Sediment Fills in Paleocave-Reservoir Networks

Robert G. Loucks and C. Robertson Handford

Characterization and Classification of West Texas Ellenburger Reservoirs

Mark H. Holtz and Charles Kerans

Sequence Boundary Control on Hydrocarbon Reservoir Development, Ellenburger Group, Texas

Julie A. Kupecz

Third-Order Sequence Boundaries and High Frequency Cycle Stacking Patterns in Lower Ordovician Platform Carbonates, El Paso Group (Texas): Implications for Carbonate Sequence Stratigraphy

Robert K. Goldhammer, Pat J. Lehmann, and Paul A. Dunn

Sequence Stratigraphy and Depositional Facies of the Siluro-Devonian Interval of the Northern Permian Basin

K. Lyn Canter, David Wheeler and Richard C. Geesaman

Paleokarst and Karst-Associated Hydrocarbon Reservoirs in the Fusselman Formation, West Texas, Permian Basin

Sal J. Mazzullo and Louis Mazzullo

The Fusselman Formation(Early-Middle Silurian) Franklin Mountains, El Paso County, Texas and Dona Ana County, New Mexico

David V. LeMone

Paleo-Cave Reservoirs in the Wristen Formation at Emerald Field, Gaines-Yoakum Counties, Texas

David J. Entzminger and Robert G. Loucks

An Example of a Karsted Silurian Reservoir, Buckwheat Field, Howard County, Texas

John Troschinetz

Paleokarst Interpretation for Crittendon (Silurian) Field, Winkler County, Texas

John Troschinetz

Karst-related Diagenesis and Reservoir Development in the Arbuckle Group, Paschall #2 Core. Wilburton Field, Oklahoma

Debbie M. Bliefnick

Identification of Subaerial Unconformities in the Subsurface – An Example From the Lower-Middle Ordovician of the Michigan Basin

Gregory C. Nadon and George L. Smith

Controls of Eustacy and Associated Diagenesis on Reservoir Heterogeneity in Lower Ordovician, Upper Knox Carbonate, Appalachians

Isabel P. Montanez

Diagenesis and Porosity Development Beneath the Pre-Kaskaskia (Early Devonian) Interregional Unconformity, Northwest Illinois Basin

John M. Kruger

Sulfuric Acid Oil-Field Karst

Carol A. Hill

Structural and Tectonic Development of McKelligon Canyon, Southern Franklin Mountains, El Paso County, Texas

John K. Stacy, Frances E. Julian and David V. LeMone

Miscellaneous

“El Paso” (reprint of 1989 PBS-SEPM official field trip song)

93-34

**PALEOKARST, KARST-RELATED DIAGENESIS, RESERVOIR
DEVELOPMENT, AND EXPLORATION CONCEPTS:
EXAMPLES FROM THE PALEOZOIC SECTION OF THE SOUTHERN MID-
CONTINENT**

Field Trip Road Logs

Day 1: Richard D. Fritz, Zuhair Al-Shaieb, James L. Wilson, Pat Medlock Robert Lindsay, Mary Van Der Loop, John McCarty

Day 2: Richard D. Fritz, Zuhair Al-Shaieb, James L. Wilson, Pat Medlock, Robert Lindsay, Mary Van Der Loop, John McCarty

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James L. Wilson

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Robert F. Lindsay and Kathy M. Koskelin

An Overview of the Factors Contributing to the Evolution and Spatial Distribution of Reservoir Properties in Knox Cyclic Carbonates

Isabel P. Montanez and Ann B. Stefani

The Woodford Shale (Upper Devonian-Lower Mississippian) and Associated Phosphate Nodules, South-Central and Southeastern Oklahoma

Suzan E. Siy

Biostratigraphy of the Timbered Hills and Arbuckle Groups, Arbuckle Mountains, Oklahoma

James H. Stitt and James D. Loch

Extended Abstracts

Royer and Butterly Dolomites in the Arbuckle Mountains: A Petrographic and Geochemical Synthesis

Guoqiu Gao and Lynton S. Land

FIELD GUIDE TO THE PALEOZOIC SECTION OF THE SAN ANDRES MOUNTAINS

Field Trip Road Logs

Day 1: Hembrillo Basin and White Sands

Frank E. Kottlowski, Robert F. Lindsay, David V. LeMone and Gerilyn S. Soreghan

Day 2: Alamogordo to Rhodes Canyon and Ruidoso

Frank E. Kottlowski, David V. LeMone, Robert F. Lindsay, Gerilyn S. Soreghan and Steven L. Bachtel

Technical Papers

San Andes Mountains Stratigraphy Revisited

Frank E. Kottlowski and David V. LeMone

Mississippian Carbonate Platform Profiles and Preliminary Sequence Stratigraphic Interpretation, San Andres and Sacramento Mountains, South –Central New Mexico

Steven L. Bachtel and Steven L. Dorobek

Missourian Strata of the Northern Sacramento Mountains and Orogrande Basin, New Mexico

William d. Raatz, Stephen R. Schutter and James Lee Wilson

Upper Pennsylvanian Facies and Cyclostratigraphy in Rhodes and Hembrillo Canyons, San Andres Mountains

Gerilyn S. Soreghan

Environments of Deposition and Patterns of Cyclicity of the Panther Seep Formation, Southern San Andres Mountains

David A. Schoderbek

San Andres Sequence Framework, Guadalupe Mountains: Implications for San Andres Type Section and Subsurface Reservoirs

Charles Kerans and Stephen C. Ruppel

Sequence Stratigraphy and Facies Analysis of the Permian San Andres Formation (Lower Guadalupian), Northwest Shelf, Permian Basin

Troy B. Beserra and Steven L. Dorobek

San Andres Formation type and Reference Sections Revisited

Robert F. Lindsay

Summary of the Mineral Resources in the San Andres and Organ Mountains, South-Central New Mexico

Virginia T. McLemore

White Sands National Monument, New Mexico

David V. LeMone

95-37

THE SAN ANDRES IN OUTCROP AND SUBSURFACE

Field Trip Logs

Road Log, Sacramento Mountains Field Trip:

San Andres Formation, Sacramento Mountains, New Mexico

Algerita Escarpment Field Trip:

Stratigraphic Framework of the San Andres Formation, Algerita Escarpment Guadalupe Mountains, New Mexico

Technical Articles

Sequence Stratigraphy and Regional Correlation of the San Andres Formation, Sacramento Mountains and Rio Hondo Valley, Southeastern New Mexico

Troy B. Beserra and Steven L. Dorobek

Correlation of the San Andres in the Wasson Field, Yoakum County, Texas, to Outcrops in the Algerita Escarpment, Guadalupe Mountains, New Mexico

K.E. Winfree

Sequence-Stratigraphic Control on San Andres Reservoirs in Atoka Field and its Implications for Other San Andres Reservoirs in Eddy County, New Mexico

Troy B. Beserra and Steven L. Dorobek

96-38

**THE BRUSHY CANYON PLAY IN OUTCROP AND SUBSURFACE:
CONCEPTS AND EXAMPLES**

ROAD LOGS

El Paso, Texas to Carlsbad, New Mexico

Midland, Texas to Carlsbad, New Mexico

TECHNICAL PAPERS

Stratigraphic Changes in Facies Architecture of the Permian Brushy Canyon Formation in Guadalupe Mountains National Park, West Texas

Mike H. Gardner and Mark D. Sonnenfeld

Initial Comparison between Fines- and Coarse- Grained Submarine Fans and the Brushy Canyon Formation Sandstones

Arnold H. Bouma

Deposition of the Brushy Canyon Formation: 30 Years of Conflicting Hypotheses

John C. Harms and Michael J. Brady

Stratigraphic Constraints on the Origins of Brushy Canyon Sandstones

Charles Kerans and William M. Fitchen

Reconstructing Permian Eustasy from 2-D Backstripping and its use in Forward Models

Qiucheng Ye and Charles Kerans

Position of the Polydiexodina Last-Occurrence Datum in Guadalupian Strat: Revised Correlations at McKittrick Canyon

Alton Brown

New Method to Determine the Depositional Mechanisms in a Submarine Fan Channel-Levee Complex, Brushy Canyon Formation, West Texas

Debnath Basu and Arnold H. Bouma

Delaware Mountains Group Sandstone Channel Orientations: Implications for Sediment Source and Deposition

William L. Basham

Depositional Regimes and Reservoir Characteristics of the Brushy Canyon Sandstones, East Livingston Ridge Delaware Field, Lea County, New Mexico

Markus D. Thomerson and Lee E. Catalano

Geology and Development History of the Livingston Ridge and Lost Tank Delaware pools, Southeastern New Mexico

Brent A. May

Oil and Gas Resources in the Delaware Mountain Group at the WIPP site, Eddy County, New Mexico

Ronald F. Broadhead and Fang Luo

Mid-Lower Cherry Canyon Play in War-Wink Area of the Delaware Basin, Ward and Winkler Counties, Texas

Dean C. Hamilton

Depositional Stacking Patterns within the Cherry Canyon Formation, Delaware Basin, West Texas

Thomas R. Luftin

Fracture Skins in the Brushy Canyon Formation

Ilan Kreisel and John M. Sharp, Jr.

Recognition of Possible Oil and Water Wettability Changes in the Permian Delaware Mountain Group Sandstones from Petrophysical Well Logs

G.B. Asquith, M.D. Thomerson and M.D. Arnold

Laboratory Analysis of the Clays within the Brushy Canyon Formation and their Reservoir and Petrophysical Implications: Red Tank Field, Lea County, New Mexico

K.M. Green, S.M. Frailey, and G.B. Asquith

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Nash Unit #15, Nash Draw Delaware Field, Eddy County, New Mexico
Fred H. Behnken
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George L. Scott, III, and Art Carrasco

98-39

**GEOLOGY OF THE DELAWARE BASIN GUADALUPE, APACHE, AND
GLASS MOUNTAINS NEW MEXICO AND WEST TEXAS**

GEOGRAPHIC SETTINGS

**Location and Physiography
Climate**

PART I; SEDIMENTS

STRATIGRAPHY

**Mesozoic
Cenozoic
Quaternary**

DIAGENESIS

**Diagenesis of Carbonate Rock
Special Topic: The Origin of Blades in the Guadalupe Mountains
Diagenesis of Evaporite Rock**

PART II: STRUCTURE

STRUCTURAL GEOLOGY

**Guadalupe Mountains
Delaware Mountains
Salt Basin
Apache Mountains
Davis-Barrilla Mountains
Glass Mountains
East Side of Basin
North Side of Basin**

TECTONICS

Special Topic: How Much Uplift of the Delaware Basin was Laramide

PART III: WATER

HYDROLOGY

**Guadalupe Mountains
Salt Basin
Apache Mountains
Glass Mountains
East Side of Basin
North Side of Basin
Basin
Rivers
Lakes**

CAVES AND DISSOLUTION

- Guadalupe Mountains**
- Apache Mountains**
- Barrilla Mountains**
- Glass Mountains**
- East Side of Basin**
- North Side of Basin**
- Basin**

GEOCHEMISTRY

Special Topic: is the WIPP Site Safe?

PART IV: ECONOMIC GEOLOGY

Oil and Gas
Plays

SULFUR

SULFIDE/BARITE/FLUORITE DEPOSITS

- Guadalupe Mountains**
- Apache Mountains**
- Glass Mountains**
- East Side of Basin**

Origin

Special Topic: Are the Sulfide/Barite/Fluorite Deposits of the Mississippi Valley Type?

Age

POTASH

- Description**
- Origin**
- Age**

PART V: CONCLUSIONS

IMPLICATIONS FOR OTHER INTRACRATONIC BASIN

FUTURE RESEARCH NEEDS

REFERENCES

APPENDICES

- Appendix 1 – Carbon-Oxygen Isotopes, Carbonate**
- Appendix 2 – Sulfur Isotopes**
- Appendix 3 – Strontium Isotopes**
- Appendix 4 – Deuterium-Oxygen Isotopes, Water**
- Appendix 5 – Carbon-Deuterium Isotopes, Oil and Gas**
- Appendix 6 – Deuterium and Oxygen Isotopes, Silicates and Sulfates**

98-40

**BIG BEND FIELD TRIP STRUCTURAL TYPES, AND HYDROCARBONS:
FOLDS, FAULTS, AND FRACTURES**

DAY ONE

Midland – Sheffield- Sanderson – Marathon – Lajitas

Richard J. Erdlac, Jr.

The Downie-Goldwire shear zone

Gilbert Barragan

Geology of the Marathon Uplift, west Texas

Earle F. McBride

II. Structural styles in the western domain of the Marathon Basin, Trans-Pecos, Texas

Peter R. Tauvers and William R. Muehlberger

DAY TWO

Lajitas – Terlingua - Persimmon Gap – Terlingua – Lajitas

Richard J. Erdlac, Jr.

Superposed deformation in the Santiago and northern Del Carmen Mountains, Trans-Pecos Texas

Robert C. Cobb and Stephen Poth

Persimmon Gap in Big Bend National Park, Texas; Ouachita facies and Cretaceous cover deformed in a Laramide overthrust

Peter R. Tauvers and William R. Muehlberger

A Laramide-age push-up block: The structures and formation of the Terlingua-Solitario structural block, Big Bend region, Texas

Richard J. Erdlac, Jr.

A mathematical model of push-up block formation: An example from the Big Bend region, Texas

Richard J. Erdlac, Jr.

Paleostress field trajectories as defined by natural strain gauges and stress load conditions

Richard J. Erdlac, Jr. and Richard J. Erdlac

In-situ stress and hydraulic fracture orientation in the mid-continent area, US

D.P. Yale and T.C. Ryan

Laramide paleostress trajectories from stylolites in the Big Bend region

Richard J. Erdlac, Jr.

DAY THREE

Lajitas – Terlingua – Boquillas Area – Marathon – Fort Stockton – Midland

Richard J. Erdlac, Jr.

Dead Horse graben: A West Texas accommodation zone

Michael O. Maler

2001-41

WOLFCAMPIAN OF WEST TEXAS(PERMIAN BASIN, SIERRA DIABLO AND HUCCO MOUNTAINS) – SHELFAL AND PERIPLATFORM CARBONATE RESERVOIRS AND OUTCROP ANALOGS

CORE WORKSHOP TECHNICAL PRESENTATIONS

Contrasting Depositional Models for Wolfcamp Periplatform Carbonate Reservoirs, Reagan and Upton Counties, Midland Basin, Texas

Jon Kaufman, Doug Fiske and Joe Caputo

Depositional History of Lower Permian(Wolfcampian - Leonardian) Carbonate Buildups, Midland Basin Upton County, Texas

Catherine O'Hara Merriam

Stratal Architecture and Facies Development in a Middle Wolfcampian Platform Carbonate Reservoir: University Block 9 Field, Andrews County, Texas

Stephen C. Ruppel

Examples of Wolfcampian Debris Flow Deposits from the Eastern Shelf of the Midland Basin

David J. Sivils

Basinal Wolfcampian Carbonate Debris Flow, Midland Basin, Texas

David J. Sivils and Emily L. Stoudt

Phillips Edwards West Field, Ector County Texas and Costilla Buffalo Ridge and Darlin Fields, Crane County, Texas – Controls on Reservoir Distribution in Wolfcamp Shelfal Carbonates

Emily L. Stoudt, Dennis R. Prezbindowski and David J. Sivils

Wolfcamp Carbonate Debris Flows and Distal Turbidites from the Western Margin of the Midland Basin, Exxon R.D. Johnson #1 Well, Upton County, Texas

Emily L. Stoudt and David J. Sivils

FIELD TRIP INFORMATION

Road Log – Midland, Texas to Van Horn, Texas

Robert F. Lindsay, Robert F. Ward, Robert C. Trentham and Alvin H. Smith

FIELD TRIP DAY I : WOLFCAMP OUTCROPS IN HUECO OUTLIERS

Road Log – Van Horn, Texas to Hueco Mountain Outliers

Robert F. Lindsay, Robert F. Ward, Robert C. Trentham, Alvin H. Smith and
Modified from Rod Phares & W.L. Basham

Wolfcampian Shelf Margins, Hueco Mountains, West Texas

Toni Simo, Greg Wahlman, Jen Beall, Michelle Stoklosa and Leonardo Piccoli

FIELD TRIP DAY 2 : WOLFCAMP OUTCROPS IN SIERRA DIABLO MOUNTAINS

Road Log, Part 1 – Van Horn Texas to Apache Mountains, Texas

Robert F. Lindsay, Robert F. Ward, Robert C. Trentham and Alvin Smith

Field Trip to Apache Canyon, Northern Sierra Biablo, West Texas

James J. Corboy

Road Log, Part 2 - Apache Mountains, Texas to Carlsbad, New Mexico

Robert F. Lindsay, Robert F. Ward, Robert C. Trentham and Alvin Smith

Road Log, 3 – Carlsbad, New Mexico to Midland, Texas

Robert F. Lindsay, Robert F. Ward, Robert C. Trentham and Alvin Smith

2002-42

**CORE WORKSHOP & FIELD GUIDEBOOK (CD ONLY)
THE BRUSHY CANYON FORMATION (DELAWARE MOUNTAINS)
WEST TEXAS . DEEP -WATER SANDSTONE RESERVOIR ARCH. 2002**

2003-43

**CYCLOSTRATIGRAPHIC PRINCIPLES FOR RESERVOIR
CHARACTERIZATION IN CARBONATES: EXAMPLES FROM THE
CRETACEOUS OF WEST-CENTRAL TEXAS. FIELD TRIP AND CORE
WORKSHOP, MARCH 28-30,2003**

SECTION 1: CORE WORKSHOP

**CYCLOSTRATIGRAPHY IN CRETACEOUS CORES FROM A GLEN
ROSE RUDIST REEF COMPLEX, PIPE CREEK AREA, BANDERA
COUNTY, TEXAS**

**INDIVIDUAL CORE DESCRIPTIONS
PIPE CREEK DIP-ORIENTED CROSS SECTION
PIPE CREEK STRIKE-ORIENTED CROSS SECTION**

SECTION 2: FIELD TRIP

**FIELD TRIP ITINERARY
ROAD LOG
FIELD TRIP ROUTE MAP
GEOLOGICAL SETTING**

**DAY 1: EDWARDS FORMATION OF CENTRAL TEXAS
CYCLE CHARACTERISTICS AND CYCLE-STACKING PATTERNS
IN THE KERRVILLE AREA**

DAY 2: EDWARDS FORMATION OF NORTH-CENTRAL TEXAS

APPENDIX A: FACIES AND OUTCROP PHOTOS (KERRVILLE AREA)

APPENDIX B: FACIES PHOTO (NORTH-CENTRAL TEXAS AREA)

APPENDIX C: FOSSIL GUIDE AND BACKGROUND GEOLOGY

APPENDIX D: DAY 1 PHOTOS

APPENDIX E: DAY 2 PHOTOS

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**THE ORIGIN OF DOLOMITES IN THE LOWER CRETACEOUS
EDWARDS FORMATION IN TAYLOR COUNTY, TEXAS
CYNTHIA WELCH, AND GEORGE ASQUITH**

**PRODUCTION FROM CRETACEOUS HIGH-PERMEABILITY
CARBONATE GRAINSTONES--ALABAMA FERRY NORTH
UNIT, LEON COUNTY, TEXAS**

**WILLIAM M. FITCHEN, DON G. BEBOUT AND
DENNIS PREZBINDOWSKI**

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CHARACTERIZATION PROJECTS**

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CARBONATE RESERVOIRS

Lower Cisco Formation(Pennsylvanian-Virgilian) Paleokarst, Wolf Flat Field, Northeast Shelf
Palo Duro Basin, Texas.

Robert C. Trentham, Robert F. Lindsay, Rex Price and Don D. Pack

Depositional Environments From Core, North Robertson(Clear Fork) Unit, Gaines County, Texas

Brian H. Pregger and William H. Dixon

The Use of Core in an Integrated 3D Seismic, Geological and Engineering Study of the
Grayburg/San Andres of Foster and South Cowden Fields, Ector County, Texas.

Robert C. Trentham, William C. Robinson and Richard E. Weinbrandt

Reservoir Characterization of the Upper Permian Grayburg Formation in Preparation for a
Horizontal-Well CO2 Flood, South Cowden Unit, West Texas.

Craig D. Caldwell, Ken J. Harpole and Matt G. Gerard

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Paul McDonald, John C. Lorenz, Charlie Sizemore, David S. Schechter and
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Reservoirs Nash Draw Brushy Canyon Pool, Eddy County, New Mexico.

Bruce Uzynski, Bruce A. Stubbs and Mark B. Murphy

Ramsey Sandstone Deep-Water Channel-Levee and Lobe Deposits, Ford Geraldine Unit, Reeves
and Culberson Counties, Texas.

Shirley P. Dutton, Mark D. Barton, Sigrid J. Clift and Jose I. Guzman