

ANGELINA C. SOUTHCOTT

SUMMARY

Broad experience in both unconventional and conventional oil and gas basins, grounded in all facets of horizontal and vertical well exploration and development geology/geophysics.

PROFESSIONAL EXPERIENCE

Discovery Natural Resources • Sr. Geoscientist • Denver, CO 2018- 04/2020

Team Member for Permian Basin unconventional development

- Bolstered collaboration between geoscience, reservoir, and completions through providing geomechanics deliverables for team use, encouraged frequent multidisciplinary discussion on technical matters
- Brought multivariate statistical analysis (MVSTATS) into the company and educated across disciplines how it can be used to evaluate and predict well performance
- Leveraged analytics including MVSTATS to challenge ingrained beliefs that geology alone is responsible for well performance
- Recommended dramatic spacing changes to accommodate for surface/facility constraints. New spacing implemented Q3 2019
- Delivered geologic analysis to business development team for M&A purposes
- Created and managed a consortium of Southern Midland Basin Operators. Seven operators shared learnings and best practices

HighPoint Resources (F.K.A. Bill Barrett Corporation) • Geoscience Advisor • Denver, CO 2015- 2018

Team Member for DJ Basin unconventional development

- Identified key geologic, spacing, completions parameters, and production flow-back methods that drive well performance while maximizing economic metrics using MVSTATS, collaborated across disciplines to implement modelling suggested optimizations
- Received training for and served as company Petrophysicist; modeled 5 dozen wells and determined petrophysical parameters that correlate to production
- Provided geologic analysis to business development team for M&A purposes; including the geologic evaluation of Fifth Creek Energy. Resulted in \$650M merger to create HighPoint Resources
- Monitored investor presentations and evaluated technical merit to keep abreast of peer operations and performance; presented evaluations to management
- Realized capital savings of \$100K/well after proving with MVSTATS that azimuth is not an impactful variable on production; wells now drilled in opposite directions off a common pad
- Analyzed faulting styles as mapped on 3D seismic to understand impact on drilling, completions, and well performance
- Created the company's first DJ Basin completions, production, and geology database utilizing internal data, trades with offset operators, and procuring public engineering data
- Assessed TA vertical wells for uphole potential to defer P&A expense
- MVSTATS analysis of SCOOP/STACK plays for acquisition opportunities

WPX Energy • Geology Team Lead • Denver, CO

2011-2015

Senior Geoscientist & Geology Team Lead for Williston Basin unconventional development

- Supervised and mentored Operations Geology team including Geosteering, 5 consecutive quarters with perfect steering record
- Optimized completions, well spacing, and well orientation by integrating multiple independent data sets and using MVSTATS as part of a multidisciplinary team
- Identified Three Forks second bench sweet spots using MVSTATS and traditional mapping techniques
- Interpreted, Q/C'd, and analyzed both intermediate and final seismic volumes and worked with data processing vendors to make processing decisions yielding high quality volumes that could then go through the pre-stack inversion process
- Interpreted inversion seismic volumes and identified reservoir characteristics that helped to explain well performance when normalized by completions
- Synthesized geologic parameters from core and logs with geomechanical, 3D seismic, and production data as part of a Middle Bakken reservoir characterization project
- Assisted with subsurface micro-seismic survey design, field acquisition, and interpretation; tracer survey design and interpretation and integrated that data with 3D seismic, core, and geomechanical data to optimize completion design

Rosetta Resources, Inc • Senior Geoscientist • Denver, CO

2008-2011

Team member for Sacramento Basin development

- Assessed the Rio Vista Gas Field: 16 reservoirs, 15,000' of section, over 32,000 acres; for full resource assessment to determine current and potential value (Msw = 1.6 TCFE unrisks)
- Coordinated 2010 drill program; identified new drill opportunities, worked with the field office to pick surface locations, file permits, and schedule drill rig, met with landowners, and stewarded well packages through the approval process
- Matured six prospects from inventory to completion with 100% success rate for 2009 drilling program yielding 15 BCFE of reserve adds. Work included geophysical and geologic interpretation, AVO analysis, volumetric analysis, risk assessment, depth conversion, working with reservoir engineer on economic analysis, wrote well proposals, generated drilling prognosis, presented to senior management, made casing/cement calls and picked perforation intervals
- Assisted asset team with ongoing recompletion projects; including identifying a new tight gas sand pay zone in Rio Vista gas field (Msw = 300 BCFE unrisks) and helped to design best completion practice

Occidental Oil & Gas • Staff Geophysicist • Houston, TX

2006- 2008

Team member for Hugoton Basin development

- Provided geophysical and geological support in an Upper Morrow exploitation project that resulted in the approval and acquisition of a new 45 square mile 3D
- Generated multiple seismic attributes and integrated well log data to define untested channel complexes resulting in over two dozen inventory locations

Lead interpreter for Ghadames Basin exploration, Libya

- Interpreted over 6000 line miles of multi vintage 2D seismic data
- Related velocity changes to geology and incorporated these findings into a final 'V_o & K' sub-regional velocity model for time to depth conversion
- Identified two new prospects, which were stewarded through the approval process and moved to the drillable prospect inventory (2008 wells)
- Conducted a geologic field study to tie surface and subsurface together and spent two weeks in the Sahara Desert on a seismic acquisition crew
- Analyzed possible relationships between topography and outcrop to seismic data quality

Resource Solutions, LLC · Geophysicist · Denver, CO 2001- 2006
Managed Texas transition zone exploration project Interpreted 2300 square miles of 3D seismic data

- Correlated over 300 logs on and offshore for regional depositional understanding
- Log analysis for reservoir modeling
- Resulted in the generation of dozens of prospects and the successful drilling of one discovery well
- Mapped over 6000 square miles of onshore Texas and offshore Gulf of Mexico 3D seismic data
- Contributed geophysical and geological support instrumental in a Gulf of Mexico Federal Lease Sale project that resulted in the successful bid and capture of 36 OCS lease blocks, and eleven discoveries yielding 190 BCFE proven and probable gas reserves for partner

EDUCATION

Colorado School of Mines · Golden, CO 2001
Bachelor of Science in Geophysical Engineering

COMPUTER SKILLS

Software

- Interpretation: SMT, Petra, Transform, PowerLog
- Standard: MS Word, Excel, Power Point, Outlook, Spotfire

PUBLICATIONS & PRESENTATIONS

Southcott, A., and Harper, H., 3D Seismic Proves its Value in Bakken Geosteering, AAPG Rocky Mountain Section, Search and Discovery Article #41435, Denver, Colorado, 20-22 July 2014

Barhaug, J., Harper, H., and Southcott, A., Creating, Calibrating and Testing a Hydraulic Fracture Model for Optimized Williston Basin Completions, URTEC: 1918604, Denver, Colorado, 25-27 August 2014

Barhaug, J., King, V.M., Harper, H., Schmidt, A., Southcott A., and Steinke, L., Completion Optimization and Validation in the Williston Basin through Integrated Datasets, SPE 170721-MS, Annual Technical Conference and Exhibition, Amsterdam, Netherlands, 27-29 October 2014

Southcott, A., and Harper, H., The Role of 3D seismic in Hydraulic Fracture Analysis, Presented at 3D Seismic Symposium, Denver, Colorado, 5 February 2015

Southcott, A., and Stewart, S., Quantifying the Impact of Flowback Methods on Horizontal Wells, DJ Basin, Colorado, Presented at RMS of AAPG, Billings, Montana, 26 June 2017

PROFESSIONAL MEMBERSHIPS & VOLUNTEER SERVICE

- American Association of Petroleum Geologists: Public Outreach Committee
- Denver Geophysical Society: President 2020, 3D Seismic Symposium Committee Member 2015-present, Co-Chair 2016-2019, Student Challenge Bowl Committee Member 2014-present
- Denver Well Logging Society
- Dinosaur Ridge: Tour Guide
- Rocky Mountain Association of Geologists: Registration Booth Volunteer
- Society of Exploration Geophysicists