



AUTHORITY FOR EXPENDITURE
NEW DRILLING, RECOMPLETION & RE-ENTRY

AFE NO. draft
AFE DATE 5/25/2010
AFEND (rev 6/08)

| | | | |
|--|---|---|--|
| AFE Type: | Well Objective: | Well Type: | AFE STATUS: |
| <input checked="" type="checkbox"/> New Drilling | <input checked="" type="checkbox"/> Oil | <input checked="" type="checkbox"/> Development | <input checked="" type="checkbox"/> Original |
| <input type="checkbox"/> Recompletion | <input type="checkbox"/> Gas | <input type="checkbox"/> Exploratory | <input type="checkbox"/> Revised |
| <input type="checkbox"/> Re-entry | <input type="checkbox"/> Injector | | <input type="checkbox"/> Final |
| | | | <input type="checkbox"/> Supplemental |

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|---------------|---|---------------|-------------------------|
| LEASE NAME | Herradura Unit #1H | PROJ'D DEPTH | 5,700' TVD (10,455' MD) |
| COUNTY | Eddy | STATE | New Mexico |
| FIELD | | HORIZON | Avalon Shale |
| LOCATION | T24S-R25E, (Surf: Sect. 16, 330' N & 660' E), (BHL: Sect. 9, 660' N & 660' E) | | |
| DIVISION CODE | 100 | DIVISION NAME | Oil & Gas Division |
| DISTRICT CODE | | DISTRICT NAME | |
| BRANCH CODE | | BRANCH NAME | |

PROGNOSIS: **New well drilled horizontally at 5,700' TVD (10,455' MD) to test the Avalon Shale.**
This AFE reflects cost to drill horizontal with pilot hole to 6,500'.

| INTANGIBLE DRILLING COSTS: | | DRY HOLE | COMP'D WELL |
|---------------------------------|--|-----------|-------------|
| 920-100 | Staking, Permit & Legal Fees | 5,000 | 5,000 |
| 920-105 | Environmental Permitting/Pit Closure | | |
| 920-110 | Location, Right-of-Way | 40,000 | 40,000 |
| 920-120 | Drilling, Footage | | |
| 920-130 | Drilling, Daywork 28 days @ \$14,750/day + 70,000 for mob & R.H. | 517,000 | 517,000 |
| 920-135 | Drilling, Power & Fuel \$3,000/day rig fuel | 84,000 | 84,000 |
| 920-140 | Drilling Water, Fasline Rental | 32,000 | 32,000 |
| 920-150 | Drilling Mud & Additives | 65,000 | 65,000 |
| 920-160 | Mud Logging Unit, Sample Bags | 30,000 | 30,000 |
| 920-170 | Cementing - Surface Casing | 75,000 | 75,000 |
| 920-180 | Drill Stem Testing, OHT | | |
| 920-190 | Electric Logs & Tape Copies | 40,000 | 40,000 |
| 920-200 | Surface Drilling Tools & Equip. Rntl. includes closed loop | 225,000 | 225,000 |
| 920-205 | Control of Well-Insurance | 4,000 | 4,000 |
| 920-210 | Supervision & Overhead | 60,000 | 60,000 |
| 920-220 | Contingency for Drilling | | |
| 920-225 | Down-hole Drilling Tool & Equip. Rental includes RSS | 325,000 | 325,000 |
| 920-230 | Coring, Tools & Service | | |
| 920-240 | Bits, Tool & Supplies Purchase | 60,000 | 60,000 |
| 920-350 | Cementing - Production Casing | | |
| 920-410 | Completion Unit - Swabbing | | 20,000 |
| 920-420 | Water for Completion | | 70,000 |
| 920-430 | Mud & Additives for Completion | | |
| 920-440 | Cementing - Completion | | |
| 920-450 | Elec. Logs, Testing, Etc. - Completion | | 9,000 |
| 920-460 | Surface Completion Tool & Equip. Rental | | 160,000 |
| 920-465 | Down-hole Completion Tool & Equip. Rental | | |
| 920-470 | Stimulation for Completion | | 1,000,000 |
| 920-480 | Supervision & O/H - Completion | | 6,500 |
| 920-490 | Additional LOC Charges - Completion | | |
| 920-510 | Bits, Tools & Supplies - Completion Peak completion system | | 225,000 |
| 920-500 | Contingency for Completion | | |
| TOTAL INTANGIBLE DRILLING COSTS | | 1,562,000 | 3,052,500 |

| TANGIBLE EQUIPMENT COSTS: | | | |
|--------------------------------|-------------------------------------|-----------|-----------|
| 930-010 | Christmas Tree & Wellhead | 5,000 | 30,000 |
| 930-020 | Casing 13 3/8" @ 450' | 34,000 | 34,000 |
| | 9 5/8" @ 2,600' | 146,000 | 146,000 |
| | 7" @ 5,150' | 268,000 | 268,000 |
| | 4 1/2" liner @ 5,200'-10,455' | | 126,000 |
| 930-030 | Tubing | | |
| 930-040 | Packer & Special Equipment | | |
| 940-010 | Pumping Equipment | | 180,000 |
| 940-015 | Electrification | | 90,000 |
| 940-020 | Storage Facilities | | 40,000 |
| 940-030 | Separation Equip., Flowlines, Misc. | | 30,000 |
| 940-040 | Trucking & Construction Costs | | 5,000 |
| TOTAL TANGIBLE EQUIPMENT COSTS | | 453,000 | 949,000 |
| TOTAL COSTS | | 2,015,000 | 4,001,500 |

IT IS RECOGNIZED THAT THE AMOUNTS PROVIDED FOR HEREIN ARE ESTIMATED ONLY AND APPROVAL OF THIS AFE SHALL EXTEND TO THE ACTUAL COSTS INCURRED IN CONDUCTING THE OPERATIONS SPECIFIED WHETHER MORE OR LESS THAN HEREIN SET OUT.

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| Prepared By | Jeremiah Mullen | Operations Approval | |
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