	Division: Corporate	Business Unit/Area: U.S. Drilling	Protocol No.: DRIL-01EHS1-PR	Page 1	Revision/Approval 9/29/2014
Rig Move Hazard Mitigation Procedure					

Purpose

This U.S. Drilling Department procedure defines the requirements for rig move pre-planning, detailed route assessments that identify hazards and mitigation steps, and safe rig move execution.

Scope


This procedure applies to all Devon U.S. rig moves and the employees, contractors and suppliers participating in the rig move. Deviation from this procedure requires a risk assessment with written consent from the responsible Devon Drilling Manager in charge and notification to the Vice President of Drilling and EHS Manager. (Email response to the risk assessment is adequate for the written consent and leadership notification.)

1.0 Responsibilities

In addition to any job specific responsibilities, it is the responsibility of the people with the following roles to ensure that this standard operating procedure is applied during rig mobilizations.

Roles	Responsibilities
Superintendent	<ul style="list-style-type: none"> • Ensures Rig Move Plan is followed and is working
PIC	<p>The PIC is the Company Man/Well-site Supervisor unless otherwise stated. This individual will be on location and is accountable for execution of the Rig Move plan and will have control to determine which operation or phase of work has precedence at any given time. The PIC shall communicate daily with the Drilling Superintendent or Foreman with respect to rig move activity. The PIC or designee shall communicate with each contractor upon entry and departure from the well location</p> <ul style="list-style-type: none"> • Accountable for execution of the Rig Move plan • Ensure all key stakeholders (rig, completion, facilities and production) are briefed and engaged, including contractors. Must have communications across the crews and shifts • Monitor daily Rig Move activity • Evaluate the risk of the various move and rig up operations and ensure necessary mitigation plans are in place

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	Division: Corporate	Business Unit/Area: U.S. Drilling	Protocol No.: DRIL-01EHS1-PR	Page 2	Revision/Approval 9/29/2014
Rig Move Hazard Mitigation Procedure					

CONTRACTOR	Individual on location who is accountable for executing specific activities under the direction of the PIC. The Contractor shall communicate with the PIC prior to entry, upon entry and upon departure from the particular well location. The Contractor shall also be accountable for monitoring the ongoing operation and identifying and reporting any activity that may impact their ability to perform the intended activity. Generally, the Contractor will: <ul style="list-style-type: none"> • Monitor daily Rig Move and Rig Up activities • Facilitate daily Pre-Task Tailgates (Pre-Job) and operations review(s) • Attend daily activity review(s) • Execute specific activity under the direction of the PIC
EHS REPRESENTATIVE	Individual assigned to provide functional EHS expertise. The Representative shall communicate with the PIC with respect to EHS aspects of the ongoing operation. <ul style="list-style-type: none"> • Monitor daily activity • Provide EHS support and oversight

2.0 Terms and Definitions

Oversized Load - In the United States an oversize load is a vehicle and/or load that is wider than 8 ft. 6 in. (2.59 m). Each individual state has different requirements regarding height and length (most states are 13 ft. 6 in. or 4.11 m tall), and a driver must purchase a permit for each state he/she will be traveling through.

Safe Clearance Electrical Power Lines - vehicles, equipment and loads of material in transit must maintain 4 foot minimum clearance from overhead power lines. (This 4 foot clearance does not apply to communication lines.)


3.0 Procedures

Your Safety & Your Co-Workers' Safety is YOUR Responsibility. You have the authority and obligation to STOP any unsafe task or operation.

3.1 Pre-Planning Rig Move

- 3.1.1 Verify the well pad at the new location is constructed to the appropriate dimensions for both the rig and equipment being moved prior to coordinating the rig move.
- 3.1.2 Complete a route survey and detailed route assessment. Assessment should identify obstructions and hazards to normal and oversized loads, such as overhead power lines, bridges, overpasses and cattle guards for each route. Maintain 4 foot minimum clearance from overhead power lines.
- 3.1.3 Note: Route assessments can be documented on the included forms or similar documents and must also meet DOT and /or state requirements. (Documentation will be kept in the rig files or electronically in Well View.)

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	Division: Corporate	Business Unit/Area: U.S. Drilling	Protocol No.: DRIL-01EHS1-PR	Page 3	Revision/Approval 9/29/2014
Rig Move Hazard Mitigation Procedure					

- 3.1.4 Only a trained electrician may use hot sticks to measure, touch or raise overhead power lines. Non electricians can only use electronic (non-contact) cable height meters to measure cable height.

Note: High-pole escort trucks can be used to validate line clearance on state and federal roads.


- 3.1.5 Conduct a pre-rig move meeting with Devon PIC, drilling contractors rig manager and truck pusher at least 24 hours prior to the rig move. The meeting shall include a review of the proposed route(s) and the documented route assessment that identifies all known obstructions and hazards. Document the pre-rig move meeting on the included form or something equivalent. (Documentation will be kept in the rig files or electronically in Well View.)

Note: Include any additional personnel deemed necessary, including safety techs if available.

- 3.1.6 Devon PIC or truck pusher must drive and check the route for new hazards, 24 hours prior to the rig move. Check for new electric lines, ditches and other obstructions. Hazards shall be removed or mitigated and clearly marked prior to the rig move.
- 3.1.7 NO deviations from the approved route will be allowed without a new route assessment. Deviations = **Stop Work!**
- 3.1.8 Equipment should not be staged on any other location without a documented route assessment and approval from the Devon PIC.
- 3.1.9 There should be at least one Devon PIC or truck pusher on the “move from” location and at least one Devon PIC or truck pusher at the “move to” location.
- 3.1.10 Required signage shall be clearly positioned and visible by personnel on site, from the road as it enters the location and if necessary, along the transit route. Examples: “Warning Overhead Power line”, “Trucks Turning”, “Caution Heavy Truck Traffic”, “Residential Area”, “Slow Down”, etc. All speed limits are to be strictly enforced.
- 3.1.11 Identify or barricade off all overhead power lines on the well pad and within 100 feet of the outer edge of the well pad using one of the following:
- A. Goal post warning system (see attachment) or similar shall be used to mark overhead power lines that vehicles and equipment must pass underneath.
 - OR
 - B. Physical barriers shall be used to keep vehicles and equipment at least 15 foot away from overhead power lines where there is no need to drive underneath.

Note: (These requirements apply to the new and old location.)

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	Division: Corporate	Business Unit/Area: U.S. Drilling	Protocol No.: DRIL-01EHS1-PR	Page 4	Revision/Approval 9/29/2014
Rig Move Hazard Mitigation Procedure					

3.2 Rig Move Execution

- 3.2.1 Conduct daily pre-task tailgate meetings (safety meeting) with all contractors on site to include: rig crew, rig move company, truck drivers and all other parties on location during the rig move. Nobody should begin work or join the rig move without participating in a pre-task tailgate or being updated by PIC, truck pusher, Safety Tech or designee.

Note: Clarify any special procedures for the rig move and discuss any specific safety hazard that might come up during the move. Everyone should know what loads they will pick up, where they are going and what tools/equipment they need for the job.

- 3.2.2 Verify crane and forklift operators have current certifications prior to beginning. Verify that contractor has inspected all applicable rig move equipment, cranes, trucks, forklifts and associated lifting & rigging equipment prior to beginning work. Equipment must either be in good condition or be replaced.
- 3.2.3 Mobile mechanical equipment must be unloaded and rigged up/rigged down on location and shall not leave location in the rigged up configuration. Forklifts, man lifts and loaders shall only be operated on location.

Note: Gin pole trucks must have the poles racked prior to leaving location.


- 3.2.4 Use non-conductive taglines to guide and position suspended loads. Taglines should be of sufficient length to keep workers out of fall path.
- 3.2.5 “Homemade” lifting devices and tools are prohibited on Devon locations. Must be certified by a registered engineer. Break-over or lever-style load tensioning devices (boomers) are not allowed on Devon locations.
- 3.2.6 All vehicles, equipment and loads of material in transit must maintain a 4-foot minimum clearance from overhead power lines. Any exception requires a risk assessment with written (email) approval from the responsible Devon Drilling Manager and notification to the Drilling Vice President and EHS Manger.

If unable to maintain the proper clearance, the line must be de-energized and/or raised by a licensed electrician, or an alternate route must be identified and used. Route changes shall be approved by the Devon PIC and documented on the approved route assessment.

- 3.2.7 The rig move trucking company is responsible to ensure all loads are prepared, loaded and secured in a manner that allows for adequate clearance from all obstructions.
- 3.2.8 Measure load height for all loads leaving location to ensure the load meets the clearance requirements listed above for the lowest power line or hazard along the route. Loads **must be measured after they are on the trailer that will be used** and properly secured.

Note: Alternative method of measuring each load is to create a measuring station on the old location to ensure overhead hazard clearance. This involves setting a goal post system with a height indicator (flagging, cable/string, laser, etc) to create the “measuring station”. The height of the station would be set 4’ foot below the lowest power line or at

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	Division: Corporate	Business Unit/Area: U.S. Drilling	Protocol No.: DRIL-01EHS1-PR	Page 5	Revision/Approval 9/29/2014
Rig Move Hazard Mitigation Procedure					

the height of the lowest overhead hazard along the approved route (bridge, communications line, etc) whichever is lower. Each load leaving location would then drive under the height indicator to verify proper clearance prior to leaving location.

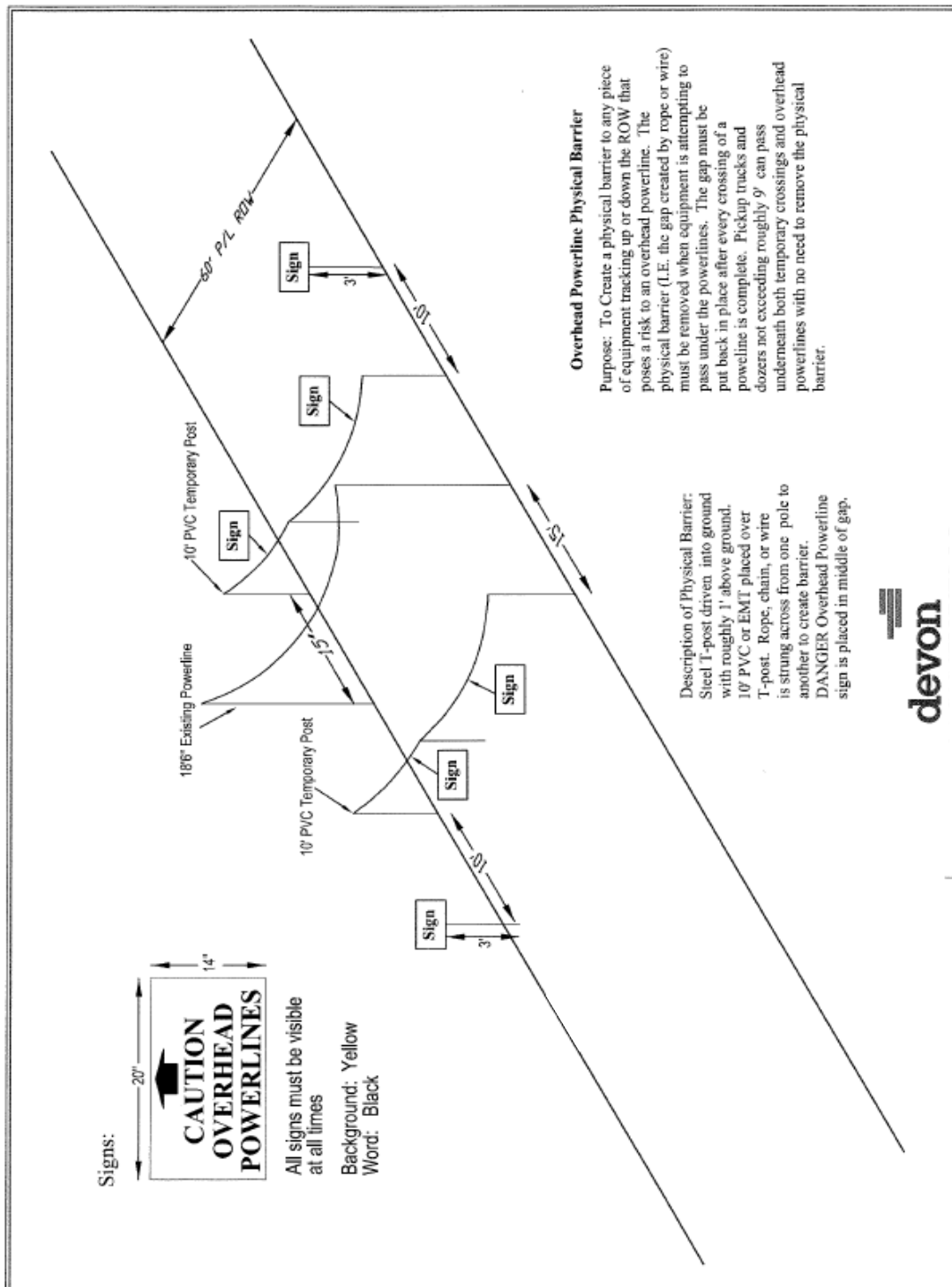
- 3.2.9 Ensure pit roofs, lights, handrails and finger/racking boards are lowered and removed as appropriate.
- 3.2.10 Check and document the dimensions of all permitted loads prior to leaving location.
- 3.2.11 All on-site vehicles and mechanical equipment (rigs, cranes, forklifts, loaders and gin pole trucks) that have the capability to be elevated must maintain a 10-foot clearance from any overhead power line. If unable to maintain 10-foot clearance, the power line must be de-energized.
- 3.2.12 All vehicles that enter onto a Devon location or site must comply with first-move-forward policy to minimize backing risks. Vehicles larger than a pickup should have a spotter while backing. Set parking brake or chock wheels if the vehicle is left unattended while running.

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Rig Move Hazard Mitigation Procedure

Attachment



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	Division: Corporate	Business Unit/Area: U.S. Drilling	Protocol No.: DRIL-01EHS1-PR	Page 7	Revision/Approval 9/29/2014
Rig Move Hazard Mitigation Procedure					

Rig Move Forms

Pre- Rig Move Meeting

Date of Meeting: _____

Drilling company and rig number: _____

Old Location: _____

New Location: _____

Weather Forecast: _____

Meeting Attendees:

NAME	TITLE	COMPANY
	Field Supt.	Devon
	Truck Pusher	
	Rig Manager (Tool Pusher)	
	Drilling Consultant	Devon
	Safety Rep	Devon
	Consultant	Check-6

Trucking Company: _____

Trucking Personnel:

Truck Pushers _____

Safety _____

Escort _____


Truck Driver's _____

Equipment _____

Rig up / Pole Trucks _____

Forklifts _____

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	Division: Corporate	Business Unit/Area: U.S. Drilling	Protocol No.: DRIL-01EHS1-PR	Page 8	Revision/Approval 9/29/2014
Rig Move Hazard Mitigation Procedure					

Cranes _____
 Tandems _____
 Haul Trucks _____
 Slick Backs _____

Third Party Route Assessment: _____

Load height must be measured and clearance validated before loads leave location.

New Location / Any Problems? _____

Are we moving down high traffic roads? _____

Are we moving in a populated area? _____

Should the road & location be watered to hold down dust? _____

What is the height of the lowest overhead line? _____

Total # of Power Lines _____

Will gates or cattle guards be an issue? _____

Will a staging area be used? _____

Hazards? (Power Lines/flow lines/etc.) _____

Rail Road Crossing: _____

Any land owners that we might have issues with? _____


Split Derrick or Sub: _____

Hazards checked by Truck Pusher? _____

Devon PIC or Truck Pusher to drive/check route for new hazards 24 hours prior to rig move.

****Check for new electric lines/ditches/obstructions, etc. since Pre-Rig Move Meeting****

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	Division: Corporate	Business Unit/Area: U.S. Drilling	Protocol No.: DRIL-01EHS1-PR	Page 9	Revision/Approval 9/29/2014
Rig Move Hazard Mitigation Procedure					

Pre Risk Assessment Form

Date: _____ Rig Number: _____

Old Location: _____

New Location: _____

Route Directions:

Road Conditions: Steep Banks _____ Hairpin Curves _____ Hills _____ Trees _____

Weather/Road Conditions: Wet _____ Dry _____ Dusty _____ Turn Arounds on Locations _____
 Snow packed _____ Icy _____ Snowing _____ Raining _____ High Winds 20-30 MPH _____
 Other _____

Overhead Hazards: Lines/Poles Number: _____ Height: _____ Width: _____

Bridges or other Structures _____ Hazards on Location _____

Maximum height of loads to be transported _____

Animals: Livestock _____ Wild Animals _____

Cattle Guards: How Many: _____ Width _____ Wings: ___ No _____

Miles: Dirt/Gravel Miles _____ Highway Miles: _____ Crossing Other Location _____

Heavy Traveled Road: Yes ___ No ___ State ___ County ___ Private ___ Lease ___ Other ___

Obstructions On Either Side Of Road:

Pilot Cars Needed for Traffic Control: Yes _____ No _____ (If Yes, How Many?) _____

Railroad Crossings: Yes _____ No _____ (If Yes, How Many?) _____ Number of Tracks _____


Blind Corners: _____ Uncontrolled Intersections _____

Tight corners or obstructions on corners: _____

Traffic Hazards: Culverts _____ Delineator Post _____ Signs _____ Tanks _____ Pipes _____

Other/Comments/Concerns:

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	Division: Corporate	Business Unit/Area: U.S. Drilling	Protocol No.: DRIL-01EHS1-PR	Page 10	Revision/Approval 9/29/2014
Rig Move Hazard Mitigation Procedure					

Route Assessment Form

Date of Assessment:

Directions Summary:

Total miles:

Total Cattle Guards and Gates

1st (Cattle Guard):

2nd (Cattle Guard):

3rd (Cattle Guard):

4th (Cattle Guard):

5th (Cattle Guard):

Total Lines:

Total Bridges:

Lowest line:

Detailed Route (Bridges, Power Lines, overpasses, etc)

Lease Road:

Miles – x' x"

Dirt Road:

Miles – x' x"

Highway XX:

Miles – x' x"

Highway XXX:


Miles – x' x"

Miles – x' x"

Lease Road:

Miles – x' x"

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	Division: Corporate	Business Unit/Area: U.S. Drilling	Protocol No.: DRIL-01EHS1-PR	Page 11	Revision/Approval 9/29/2014
Rig Move Hazard Mitigation Procedure					

Release from Location Form

Date: _____

Lowest Power Line On Approved Routes Height _____ FT _____ INCHES

Trucking Company Name _____

Truck Number _____

Driver's Name _____

Maximum Load Height _____

Load	Description	Height
1	_____	_____
2	_____	_____
3	_____	_____
4	_____	_____
5	_____	_____
6	_____	_____
7	_____	_____
8	_____	_____
9	_____	_____
10	_____	_____
11	_____	_____
12	_____	_____
13	_____	_____

Signature _____

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