

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT 

<b>APPLICATION FOR PERMIT TO DRILL</b>						1. <b>WELL NAME and NUMBER</b> Cactus Park 7-7-36-25								
2. <b>TYPE OF WORK</b> DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						3. <b>FIELD OR WILDCAT</b> WILDCAT								
4. <b>TYPE OF WELL</b> Gas Well Coalbed Methane Well: NO						5. <b>UNIT or COMMUNITIZATION AGREEMENT NAME</b>								
6. <b>NAME OF OPERATOR</b> SUMMIT OPERATING, LLC						7. <b>OPERATOR PHONE</b> 435 940-9001								
8. <b>ADDRESS OF OPERATOR</b> 1245 Brickyard Road, Suite 210, Salt Lake City, UT, 84106						9. <b>OPERATOR E-MAIL</b> david@summitcorp.net								
10. <b>MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE)</b> UTU-81762			11. <b>MINERAL OWNERSHIP</b> FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>			12. <b>SURFACE OWNERSHIP</b> FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>								
13. <b>NAME OF SURFACE OWNER (if box 12 = 'fee')</b>						14. <b>SURFACE OWNER PHONE (if box 12 = 'fee')</b>								
15. <b>ADDRESS OF SURFACE OWNER (if box 12 = 'fee')</b>						16. <b>SURFACE OWNER E-MAIL (if box 12 = 'fee')</b>								
17. <b>INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')</b>			18. <b>INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS</b> YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>			19. <b>SLANT</b> VERTICAL <input checked="" type="checkbox"/> DIRECTIONAL <input type="checkbox"/> HORIZONTAL <input type="checkbox"/>								
20. <b>LOCATION OF WELL</b>		<b>FOOTAGES</b>		<b>QTR-QTR</b>		<b>SECTION</b>		<b>TOWNSHIP</b>		<b>RANGE</b>		<b>MERIDIAN</b>		
LOCATION AT SURFACE		2141 FNL 2013 FEL		SWNE		7		36.0 S		25.0 E		S		
Top of Uppermost Producing Zone		2141 FNL 2013 FEL		SWNE		7		36.0 S		25.0 E		S		
At Total Depth		2141 FNL 2013 FEL		SWNE		7		36.0 S		25.0 E		S		
21. <b>COUNTY</b> SAN JUAN			22. <b>DISTANCE TO NEAREST LEASE LINE (Feet)</b> 2013			23. <b>NUMBER OF ACRES IN DRILLING UNIT</b> 670								
			25. <b>DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)</b> 1872			26. <b>PROPOSED DEPTH</b> MD: 5200 TVD: 5200								
27. <b>ELEVATION - GROUND LEVEL</b> 6484			28. <b>BOND NUMBER</b> UTB-000014			29. <b>SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE</b> City of Monticello								
<b>Hole, Casing, and Cement Information</b>														
<b>String</b>	<b>Hole Size</b>	<b>Casing Size</b>	<b>Length</b>	<b>Weight</b>	<b>Grade &amp; Thread</b>	<b>Max Mud Wt.</b>	<b>Cement</b>		<b>Sacks</b>	<b>Yield</b>	<b>Weight</b>			
Surf	12.25	9.625	0 - 2230	36.0	J-55 ST&C	9.2	Class G		450	1.9	12.4			
							Class G		175	1.2	15.6			
Prod	7.875	5.5	0 - 5200	17.0	J-55 LT&C	9.2	Premium Lite High Strength		240	2.1	12.3			
							Type III		85	1.47	14.2			
<b>ATTACHMENTS</b>														
<b>VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES</b>														
<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER						<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN								
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)						<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER								
<input type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)						<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP								
NAME Crystal Hammer				TITLE Geo Tech				PHONE 435 940-9001						
SIGNATURE				DATE 04/25/2013				EMAIL crystal@summitcorp.net						
API NUMBER ASSIGNED 43037500560000				APPROVAL   Permit Manager										

# SUMMIT OPERATING, LLC

1245 Brickyard Road, Suite 210, Salt Lake City, Utah 84106  
Phone: 435.940.9001 • Fax: 435.940.9001

## APD DRILLING PLAN

### Cactus Park 7-7-36-25

SW/4 NE/4 Section 7, Township 36 South, Range 25 East, S.L.B.&M.  
San Juan County, Utah

Lease Number: UTU-0081762

#### Plan Summary:

This exploratory well will be drilled as a vertical bore hole in accordance with the following drilling plan. Planned total depth is 5200' to test the Honaker Trail formation.

The planned location is as follows:

Surface Hole Location: 2141' FNL, 2013' FEL, Section 7, T36S, R25E, S.L.B.&M.

Bottom Hole Location: Same as surface location

Conductor pipe will be set at approximately 40 feet and cemented to surface. A 12-1/4" hole will be drilled to 2230' where 9-5/8" surface casing will be set and cemented to surface. After setting surface casing, a 7-7/8" hole will be drilled to 5200'. The well will be logged and 5-1/2" production casing will be set and cemented at TD or as required based on the presence of potentially commercial gas bearing intervals. If none of the perspective formations appear commercial, the well will be plugged for abandonment as directed by the BLM.

Drilling activities at this well are expected to commence mid-2013 or as soon as possible thereafter when necessary regulatory approvals are attained.

Summit Operating, LLC  
 APD Drilling Program  
 Cactus Park 7-7-36-25

**Well Name:** Cactus Park 7-7-36-25  
**Surface Location:** 2141' FNL, 2013' FEL, SW/4 NE/4 Section 7, T36S, R25E, S.L.B. & M.  
 San Juan County, Utah  
**TD Bottom-Hole Location:** 2141' FNL, 2013' FEL, SW/4 NE/4 Section 7, T36S, R25E, S.L.B. & M.  
 San Juan County, Utah  
**Elevations:** 6483' (Est. Graded Elevation) 6500' (Est. KB)

**I. Geology:**

Tops of important geologic markers and anticipated water, oil, gas, and mineral content are as follows:

<b>Formation</b>	<b>TVD Top (KB)</b>	<b>MD Top (KB)</b>	<b>Contents</b>	<b>Pressure Gradient</b>
Dakota	17'	17'	W	
Entrada	1080'	1080'	W	
Carmel	1240'	1240'		
Navajo	1285'	1285'	W	
Chinle	2215'	2215'		
Shinarump	2770'	2770'		
Moenkopi	2875'	2875'		
Cutler	3250'	3250'		
Honaker Trail	4820'	4820'	G/W	0.40 psi/ft
Horsehead S.S.	5015'	5015'	G/W	0.40 psi/ft
Total Depth	5200'	5200'		

**II. Well Control:**

At minimum, a 2M BOP system will be in place and tested prior to drilling out the surface casing shoe. Actual rating of the BOP to be used will depend on equipment provided by the drilling contractor. A variance to the well control requirements in Onshore Order 2 is hereby requested to allow the annular preventer to be excluded if a 3M or 5M BOP system is used. Initial static reservoir pressure for the Honaker Trail Formation has been measured in offset wells and that pressure is less than 1800 psi. The planned TD of this well is shallow to over-pressured shale and sub-salt formations known to be in the area.

A schematic diagram of the BOPE, including BOP and choke manifold, is attached.

A. The BOPE will as a minimum include the following:

Wellhead Equipment (2M minimum):

<b>BOPE Item</b>	<b>Flange Size and Rating</b>
Double Ram (Pipe - top, Blind - bottom)	11" 3M
Drilling Spool w/ 2 side outlets (2" min.)	11" 3M x 11 3M
Casing Head (9-5/8" SOW w/ two 2" LPO's)	11" 3M

Auxiliary Equipment (2M minimum):

<b>BOPE Item</b>
Choke Line with two valves (all 3" minimum)
Kill Line with at least two valves with one valve being a check valve (all 2" minimum)
2 Chokes with one remotely controlled at a location readily accessible to the driller
Upper kelly cock valves with available handle
Safety valves and subs to fit all drill string connections in use
Pressure gauge on choke manifold
Fill-up line above the uppermost preventer
Wear bushing in casing head

Note: All BOPE connections subjected to well pressures will be flanged, welded, or clamped.

- B. **Choke manifold** will be functionally equipped and sized at a minimum as shown on the attached diagram. All chokes will be straight lines, or use tee blocks or be targeted with running tees if there are turns, and all choke lines will be anchored. All valves (except chokes) in the kill line choke manifold and choke line will be full opening and allow straight through flow. Pressure gauges will be designed for drilling fluid service.
- C. **System accumulator** will have sufficient capacity to open the hydraulically-controlled gate valve (if present) and close all rams and retain a minimum pressure of 200 psi above pre-charge on the closing manifold without use of the closing unit pumps. The fluid reservoir capacity shall be double the usable fluid volume of the accumulator system capacity and the fluid level of the reservoir shall be maintained at the manufacturer's recommendations. The accumulator will have two (2) independent power sources available to close the preventers. Nitrogen bottles may be one of those sources, and if so, will have charge maintained per manufacturer's specifications.
- D. **Accumulator pre-charge pressure test** will be conducted prior to connecting the closing unit to the BOP stack and at least once every 6 months. The accumulator pressure will be corrected if the measured pre-charge pressure is found to be above or below the maximum or minimum specified limits. Only nitrogen gas will be used to pre-charge.
- E. **Power for the closing unit pumps** will be available to the unit at all times so that the pumps will automatically start when the closing valve manifold pressure has decreased to the pre-set level.
- F. **Accumulator pump capacity** will be such that, with the accumulator system isolated from service, the pumps will be capable of opening the hydraulically-operated gate valve (if so equipped), plus closing the annular preventer on the smallest size drill pipe to be used within 2 minutes, and retaining a minimum of 200 psi above the specified accumulator pre-charge pressure.
- G. **Locking devices**, either manual (i.e., hand wheels) or automatic, will be installed on the ram type preventers. A valve will be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve shall be maintained in the open position and shall be closed only when the power source for the accumulator system is inoperative.
- H. **Remote controls** will be readily accessible to the driller and will be capable of both opening and closing all preventers. Master controls shall be at the accumulator and shall be capable of opening and closing all preventers and the choke line valve.
- I. **Well control equipment testing** will be performed using clear water when the equipment is initially installed, whenever any seal subject to test pressure is broken, following related repairs, and as a minimum, every 30-day interval. The tests will apply to all related well control equipment.

Ram type preventers and associated equipment will be isolated and tested to 2000 psi. Pressure shall be maintained for at least 10 minutes or until requirements of test are met, whichever is longer, for all tests. A casing head valve will be open below the test plug during testing of the BOP stack. Valves will be tested from the working pressure side with all down-stream valves open. Kill line valves will be tested with the check valve held open or the ball removed.

Pipe and blind rams will be activated each trip, but not more than once a day. A pit level drill will be conducted weekly for each crew. All BOPE drills and tests will be recorded in the IADC driller's log.

Summit Operating, LLC  
 APD Drilling Program  
 Cactus Park 7-7-36-25

### III. Casing and Cementing:

#### A. Casing Program (all new casing):

<u>Hole Size</u>	<u>Casing Size</u>	<u>Weight</u>	<u>Grade</u>	<u>Connection</u>	<u>Coupling Diameter</u>	<u>Setting Depth</u>
20"+	14"+					0' - 40' GL
12.25"	9.625"	36.0	J-55	STC	10.625"	0' - 2230' KB
7.875"	5.500"	17.0	J-55	LTC	6.050"	0' - 5200' KB

	<u>Surface</u>	<u>Production</u>
Casing O. D. (in)	9.625	5.500
Casing Grade	J-55	J-55
Weight of Pipe (lbs/ft)	36.0	17.0
Connection	STC	LTC
Top Setting Depth - MD (ft)	0	0
Top Setting Depth - TVD (ft)	0	0
Bottom Setting Depth - MD (ft)	2230	5200
Bottom Setting Depth - TVD (ft)	2230	5200
Maximum Mud Weight - Inside (ppg)	9.2	9.2
Maximum Mud Weight - Outside (ppg)	9.2	9.2
Design Cement Top - TVD (ft)	0	2100
Design Cement Top - MD (ft)	0	2100
Max. Hydrostatic Inside w/ Dry Outside (psi)	1067	2488
Casing Burst Rating (psi)	3520	5320
<b>Burst Safety Factor (1.10 Minimum)</b>	<b>3.30</b>	<b>2.14</b>
Max. Hydrostatic Outside w/ Dry Inside (psi)	1067	2488
Collapse Rating	2020	4910
<b>Collapse Safety Factor (1.125 Minimum)</b>	<b>1.89</b>	<b>1.97</b>
Casing Weight in Air 1000 lbs	80.3	88.4
Body Yield 1000 lbs	564.0	273.0
Joint Strength 1000 lbs	394.0	247.0
<b>Tension Safety Factor (1.70 Minimum)</b>	<b>4.91</b>	<b>2.79</b>

Casing having same or greater burst, collapse, and tension rating may be substituted for any of the planned casing sizes depending on availability and actual conditions.

Summit Operating, LLC  
 APD Drilling Program  
 Cactus Park 7-7-36-25

#### B. Cementing Program

<u>Casing Size</u>	<u>Cement Slurry</u>	<u>Quantity (sks)</u>	<u>Density (ppg)</u>	<u>Yield (ft<sup>3</sup>/sk)</u>
14"+	Lead: Ready-mix or neat Class G	to surface	15.0+	NA
9.625"	Lead: Class G extended with Poz and Bentonite	450	12.40	1.90
	Tail: Class G w/ 2% CaCl <sub>2</sub>	175	15.60	1.20
5.500"	Lead: Premium Lite	240	12.30	2.10
	Tail: Type III w/ add.	85	14.20	1.47

**Surface Casing:** 9-5/8" surface casing will be cemented from setting depth (2230') to surface and topped out with premium cement if necessary. Slurry volume for cementing surface casing will be gauge hole volume plus 50%. Surface casing hardware will include a guide shoe, float collar, top plug, and a minimum of one centralizer per joint on the bottom three (3) casing joints. Water or other preflush fluid pumped ahead of the slurry will separate cement from the drilling fluids.

**Production Casing:** 5-1/2" production casing will be run and cemented in one stage from a setting depth of 5200' to 2100'. Slurry volumes will be based on callipered hole size plus 15% excess. Hardware will include a guide shoe, float collar, top plug, and centralizers as needed across pay zones. The lead cement will be Premium Lite cement to cover from 4600' to 2100', and the tail cement will be 50:50:2 Type III:poz cement to cover from 5200' to 4600'. Water and preflush fluid pumped ahead of the slurry will separate cement from the drilling fluids.

Other: - The BLM will be notified at least twenty-four hours prior to running and cementing the surface and production casing strings.

Actual cement slurries for all casing will be based on final service company recommendations.

The size, weight, grade, type of thread, number of joints, and footage of all casing run will be recorded in the driller's log. The amount and type of all cement pumped will be recorded in the driller's log.

Adequate time will be allowed before drilling out for the cement at the casing shoe to achieve a minimum 500-psi compressive strength.

All casing strings will be tested to 1500 psi before drilling out and if pressure declines by more than 10 percent in 30 minutes, corrective action will be taken.

A pressure integrity test of the casing shoe will be performed before drilling more than 20 feet of new hole below each casing string to a minimum of the mud weight equivalent anticipated for controlling the pore pressure to the next casing depth or at total depth of the well.

#### IV. Mud Program:

<u>Depth</u>	<u>Mud Weight (ppg)</u>	<u>Mud Type</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0 - 2230'	8.4 - 8.8	Water/Air	27 - 36	N/C
2230' - 4400'	8.4 - 8.8	Water/LSND	27 - 45	N/C
4400' - 5200'	8.8 - 9.2	LSND/Lightly Dispersed	34 - 45	6 - 10 cc

A. After mudding up, slow pump rates will be taken daily and recorded in the driller's log.

- B. Visual mud monitoring equipment will be in place to detect volume changes indicating loss or gain of circulating fluid volume.
- C. Abnormal pressures are not anticipated. In the event such pressures are to be anticipated, electronic/mechanical mud monitoring equipment will be in place and include as a minimum, pit volume totalizer (PVT), stroke counter, and flow sensor.
- D. A mud test will be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtrate, and pH.
- E. Gas detecting equipment will be installed in the mud return system, and hydrocarbon gas shall be monitored for pore pressure changes.
- F. The need to vent combustible or noncombustible gas is not expected. If needed, a flare system designed to gather and burn all gas will be available. The flare line discharge will be located more than 100 feet from the well head and it will be positioned downwind of the prevailing wind direction. The flare line will have straight lines unless turns are targeted with running tees and it will be anchored. The flare system will have an effective method for ignition.
- G. Abnormal pressure is not expected. If abnormal pressure is to be anticipated, a mud-gas separator (gas buster) will be installed and operable beginning at a point at least 500 feet above any anticipated hydrocarbon zone of interest.

**V. Evaluation:**

- A. Mud Log: A mud logging unit will be in operation from surface casing depth to TD. Samples will be caught, cleaned, bagged, and marked as required.
- B. Drill Stem Tests: No DST's are expected.
- C. Coring: No whole cores are planned. Rotary side-wall cores may be taken at select intervals in conjunction with open-hole logging operations.
- D. Wireline Logs: Wireline logs will be run as hole conditions allow from total depth to surface casing to assist in determining lithology and potential for hydrocarbon recovery. The logging tools will at a minimum survey resistivity and gamma radiation.

**VI. Expected Bottom-Hole Pressure and Abnormal Conditions:**

- A. Hydrogen Sulfide: Hydrogen Sulfide (H<sub>2</sub>S) gas has not been present in other wells in this area and is therefore not expected to be present in this well.
- B. Pressure: No abnormal pressures are expected to be encountered based on data from offset well. The pressure gradient for the formations in this well is not expected to exceed 0.43 psi/ft.
- C. Temperature: No abnormally high temperatures are expected. Bottom-hole temperature is expected to be approximately 140 °F.

End

**NOTIFICATIONS**

Notify the Monticello Field Office at 435-587-1500 for the following:

2 days prior to commencement of dirt work, construction or reclamation;

1 day prior to spudding;

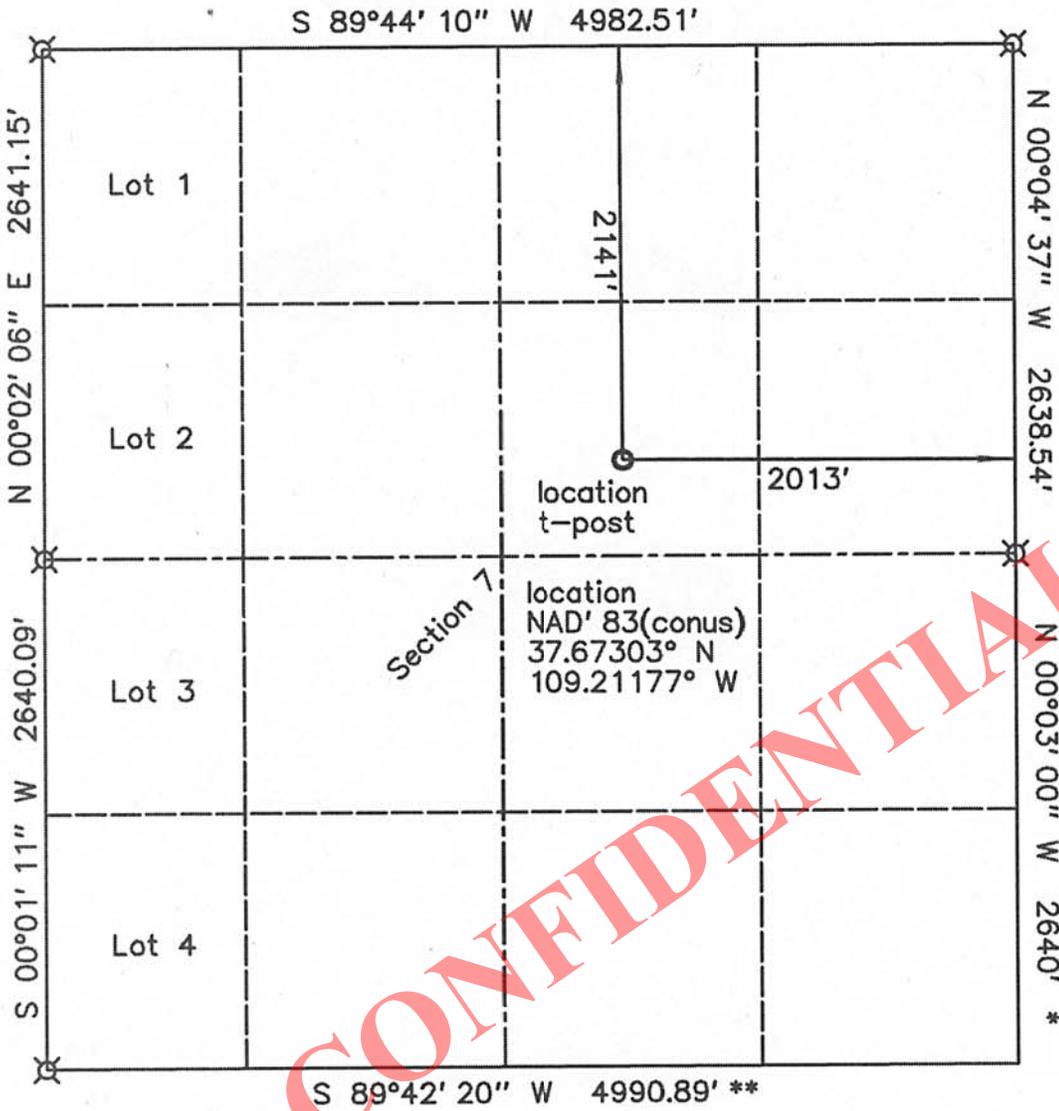
50 feet prior to reaching surface casing depth;

3 hours prior to testing BOP;

12 hours prior to reaching kickoff point depth (if applicable).

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WELL LOCATION PLAT



0' 1000'

Scale: 1" = 1000'

Bearings from GPS True North, as shown.

⊗ standard GLO/BLM monument  
 \* from GLO/BLM  
 \*\* calculated

CONFIDENTIAL

SUMMIT OPERATING, LLC  
 Cactus Park 7-7-36-25  
 2141' FNL & 2013' FEL  
 Section 7, T.36 S., R.25 E., SLM  
 San Juan County, UT  
 6484' grd. el. NAVD '88 (from OPUS)

Notes:  
 Distances/dimensions are perpendicular to section/aliquot lines.



SURVEYORS CERTIFICATE: date of survey : 05/15/2012  
 I, Gerald G. Huddleston, do hereby certify that I am a registered Utah land surveyor holding certificate number 161297 as prescribed under the laws of the State of Utah, and I further certify that under authority of the operator I have surveyed the well location shown hereon and that the same is correct and true to the best of my knowledge and belief.

proposed pipeline  
10,405.05 total L.F.

proposed  
Cactus Park 7-7-36-25  
location & well pad

proposed pipeline/  
access along seismic  
trail

proposed pipeline  
along existing roads

**CONFIDENTIAL**

S 12 S 7  
S 13 S 18

S 7 S 8  
S 18 S 17

R.24 E.

R.25 E.

proposed pipeline  
along existing road

BOL at existing  
pipeline

existing  
pipeline  
Cactus

**SUMMIT OPERATING LLC**

proposed  
Cactus Park 7-7-36-25  
location, access road,  
and pipeline

Sections 7 & 18, T.36 S., R.25 E.,  
Section 13, T.36 S., R.24 E., SLM,  
San Juan County, Utah

Summit Operating, LLC  
Cactus Park 7-7-36-25  
2141' FNL & 2013' FEL  
Sec. 7, T. 36 S., R. 25 E.  
San Juan County, Utah

PAGE 1

Surface Use Plan

BEFORE CONSTRUCTION STARTS...

A breeding season raptor survey will be conducted by Summit before construction starts. A qualified biologist will follow BLM protocol. Summit's contract biologist will contact BLM biologist Mandy Scott (435 587-1500) in advance to coordinate the survey. (Permits West (505 466-8120) can provide a wildlife biologist.) Based on the results of the survey, BLM will determine appropriate buffers and timing limits.

The proposed project is within the area designated by the BLM as crucial deer winter range. No surface disturbing activities can occur between November 15 and April 15 to minimize stress and disturbance to deer.

No construction, drilling, production or routine maintenance activities will be performed during periods when the soil is too wet to adequately support construction equipment and vehicles. If such equipment and vehicles create ruts in excess of 4 inches deep, the soil shall be deemed too wet. This applies to San Juan County B and D roads. If wet weather access is necessary, the roads will be upgraded to an all weather surface. The operator will be responsible for the prompt repair of any road damage caused by the project.

All employees, contractors, and subcontractors of the project will be informed that cultural sites are to be avoided by all personnel, personal vehicles and company equipment. Employees will also be notified that it is illegal to collect, damage, or disturb cultural resources. If any new cultural sites are encountered, the contractor will immediately stop all construction activities and notify the BLM (435 587-1500). BLM will then evaluate the site. Should a site be evaluated as eligible for inclusion on the National Register of Historic Places, it will be treated in the proper manner to mitigate any effects of construction, according to the guidelines set by BLM.

Summit Operating, LLC  
 Cactus Park 7-7-36-25  
 2141' FNL & 2013' FEL  
 Sec. 7, T. 36 S., R. 25 E.  
 San Juan County, Utah

Utah Air Conservation Regulation R307-205 prohibits the use, maintenance, or construction of roadways or the clearing of land areas  $> \frac{1}{4}$  acre without taking appropriate dust abatement measures. Summit will use water for dust control.

Summit will conduct all activities (construction, drilling, completion, production, reclamation) in accordance with the standards and guidelines in the Gold Book, 2007. Summit will use erosion control measures as appropriate or as directed by BLM to reduce accelerated erosion and sediment-laden run-off.

1. DIRECTIONS & ROADS (See PAGES 10 - 13)

From the Junction of US 491 and US 191 in Monticello...  
 Go East 11.2 miles on US 491

Then turn right onto the paved Eastland Road (County Road 312)

Go South 11.8 miles on County Road 312 to a 2 story metal red roof building

Then turn bear right and go SW 3-1/4 miles on dirt County Road 312

Then turn right and go NW  $\approx 1,425'$  on a dirt road

Then turn right and go Northeast  $\approx 750'$  to the proposed pad

This last segment starts on a reclaimed seismic trail, but then detours to avoid archaeology.

Roads will be maintained to at least equal to their present condition.

*This APD will also double as a road right-of-way application. Right-of-way will be 30' x 1,650' (= 1.14 acres) and cross NWSE 7-36s-25e.*

2. ROAD TO BE BUILT OR UPGRADED (See PAGE 12)

A BLM approved archaeologist will monitor construction from the county road to and including the well pad.

Summit Operating, LLC  
Cactus Park 7-7-36-25  
2141' FNL & 2013' FEL  
Sec. 7, T. 36 S., R. 25 E.  
San Juan County, Utah

PAGE 3

New and reconstructed roads will be built and maintained to BLM Road Manual 9113 and Gold Book resource road standards. Upgrades will include installing a minimum 30' x 36" culvert, grading out ruts and rocks, widening the turns at the county road and seismic trail junctions, and repairing 3 cattle guards. Running surface will be 14' wide. Maximum land use width will be 30', except at the culvert and county road and seismic trail junctions. Maximum land use at those 3 locations will be 50' wide.

The access from the county road to the pad will be upgraded and built to BLM Gold Book standards. This will consist of crowning and ditching with a  $\approx 14'$  wide running surface. Trees will be pushed aside, but not crushed. Top 8" of soil will be windrowed beside the borrow ditch. Topsoil will later be spread on the outside slope of each borrow ditch. Borrow ditches will be turned out at least once on each side and skewed to drain. Maximum cut or fill = 5'. Maximum grade = 7%. Maximum disturbed width will be  $\approx 40'$  (includes all of the proposed pipeline corridor). No new cattle guard or vehicle turnout will be needed.

### 3. EXISTING WELLS (See PAGE 13)

Two gas wells and one plugged well are within a mile radius. There are no oil, water, or disposal wells within a mile.

### 4. PROPOSED PRODUCTION FACILITIES (See PAGES 12, 17, & 18)

Two  $\leq 400$  barrel tanks (1 water & 1 gas liquids) gas meter, and a separator will be installed on the well pad. All will be painted a flat juniper green. There will be no engines. All emission control rules will be followed.

The tank battery will be enclosed within a compacted earth berm (secondary containment) to contain any potential spills. The berm will comply with 40 CFR

**Summit Operating, LLC  
Cactus Park 7-7-36-25  
2141' FNL & 2013' FEL  
Sec. 7, T. 36 S., R. 25 E.  
San Juan County, Utah**

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112 that requires that the berm have the capacity of the largest single container and sufficient freeboard to contain precipitation.

A  $\approx 4$ " O. D. steel gas pipeline will be laid on the surface from the pad along roads to Summit's existing surface gas pipeline in NESE 13-36s-24e. Pipeline length will be 10,362.24'. Pipeline will be buried  $>36$ " at road crossings.

*Pipe will tie into Summit's pipeline right-of-way UTU-082376. The off-lease portion of the proposed pipeline will require a BLM right-of-way. This APD is doubling as a BLM pipeline right-of-way application in lieu of a SF-299. Right-of-way will be  $\approx 9,862.24' \times 10'$  (= 2.26 acres). It will cross W2SE4 7-36s-25e; W2NE4, NWSE, NESW, & Lot 3 18-36s-25e; and NESE 13-36s-24e.*

During pipeline construction, equipment will stay on the driving surface of the road to the extent possible. The soil surface of the pipeline ROW will not be bladed. Clearing of vegetation will be minimized. Pruning will be done before felling trees. Felling trees will be done instead of grading. The corridor for the road and pipeline will not exceed 40 feet in width. The pipe would be placed on or as near to the surface of the ground as is practical. The pipe will not be supported in an elevated position by rocks, trees, or other obstacles. Steel T posts may be used to keep the pipeline moving downhill.

Only material and equipment necessary for daily production activities will be kept on location. All other materials and equipment would be removed.

Secondary containment trays will be used for all chemical containers. Covered drip pans will be used for oil and produced water load out points. Trays will be equipped with protection to prevent animals from gaining access to contents. The operator will promptly empty these trays of any spills or precipitation that may accumulate. The operator will maintain all equipment free of oil and produced water leaks. If leaks develop, Summit will promptly repair the leaks and any contaminated soil will be removed and properly disposed.

Summit Operating, LLC  
Cactus Park 7-7-36-25  
2141' FNL & 2013' FEL  
Sec. 7, T. 36 S., R. 25 E.  
San Juan County, Utah

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#### 5. WATER SUPPLY

Water ( $\approx 6,000$  barrels = 0.77 acre-feet) will be trucked from fire hydrants in the Cities of Monticello or Dove Creek via existing roads. Both cities have agreed to provide water. The City of Monticello has multiple water sources and rights (09-777, 09-881, 09-1029, 09-1278, 09-2190, 09-2009, 09-2136, et al) that are commingled.

#### 6. CONSTRUCTION MATERIALS & METHODS (see PAGES 14 & 15)

Trees will be rolled (not crushed) to the west side of the pad, especially around the northwest corner. The top 8" of soil and brush will be bladed and piled north and east of the pad. A diversion ditch will be cut on the east side of the pad. The reserve pit will be lined with a  $\geq 12$  mil liner. No liquid hydrocarbons will be discharged to the pit, pad, or road. Should hydrocarbons escape, they will be cleaned up and removed within 48 hours.

The pit will be fenced 48" high on 3 sides with 32" high woven wire topped with 2 barbed or twisted smooth wire stands 4" and 16" above the woven wire. Steel T posts will be set  $\approx 16.5'$  apart. Corner posts will be  $\geq 6"$  O. D. wood and anchored with a dead man.

When fencing is completed, netting will be placed over the pit and fence, extending to below the ground level, to prevent birds and small animals from gaining access to and becoming trapped in the contents of the pit. The net will be supported to maintain adequate clearance between the net and the contents of the pit. The fence and net will be maintained until the pit is closed and reclaimed. Emergency pits associated with production will be subject to the same fence and net requirements as the reserve pit. The fourth side will be fenced and netted in the same manner when drilling stops.

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Surfacing material will be commercially sourced. Current plans are to surface just the traffic portions of the pad once it goes into production. The well will be shut-in when roads are too muddy.

#### 7. WASTE DISPOSAL

All trash will be placed in a portable trash cage. It will be hauled to a state approved landfill or transfer station. There will be no burial or burning. Human waste will be disposed of in chemical toilets or holding tanks. Their contents will be hauled to a state approved dump station. Reserve pit contents will be buried in the pit and covered with at least 2 feet of soil.

#### 8. ANCILLARY FACILITIES

There will be no off pad camp, airstrip, or staging area. Camper trailers will be parked only on the pad for the company man, tool pusher, and mud logger.

#### 9. WELL SITE LAYOUT (See PAGES 14 - 16)

See attached drawings for depictions of the well pad, reserve pit, access onto the pad, cross section, cuts and fills, drill rig, diversion ditch, and soil piles.

#### 10. RECLAMATION (See PAGE 18)

Interim reclamation will begin as soon as practicable after production has been established and will include all disturbed areas of the road and well pad not needed for travel or production. Interim reclamation consists of backfilling the reserve pit with subsoil from the pit, contouring with excess pit subsoil, ripping areas where the soil has become compacted by the operation of equipment and

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vehicles, evenly spreading the reserved topsoil, seeding the prepared areas, and scattering previously cleared trees. Seed can be drilled or broadcast. If seed is broadcast, the application rate will be doubled and the seed will be covered with some type of drag (chain, bed spring). In use area left after interim reclamation will be approximately 1-1/8 acres. Topsoil will be spread on the outside slope of each road borrow ditch and seeded.

Reclamation of the reserve pit would be accomplished in accordance with Onshore Order #1, XII, B., and the guidelines in the Gold Book. Closure and reclamation of the reserve pit will not occur until the pit contents are sufficiently dry. Any hydrocarbons must be removed and the pit liner removed to the solids level prior to back filling with excavated material. Earthwork for pit closure and reclamation will be completed within six months of well completion or well plugging, provided weather and wildlife restrictions allow. If necessary, pit fluids would be pumped off and properly disposed of to allow for timely closure of the pit.

All disturbed areas will be reclaimed once the well is plugged and abandoned. Final reclamation will include:

- Removal of gravel or stone that may have been placed on the road or pad to allow for all weather operations
- Reserving any topsoil that was spread during interim reclamation
- Contouring all disturbed areas to the original contour or a contour that blends with the surrounding topography
- Spreading reserved topsoil evenly over all disturbed areas
- Seeding all disturbed areas. Seed can be drilled or broadcast. If seed is broadcast, the application rate will be doubled and the seed would be covered with some type of drag.
- The new road will be barricaded with a large berm, trees, or rocks to prevent vehicle access.

Summit Operating, LLC  
 Cactus Park 7-7-36-25  
 2141' FNL & 2013' FEL  
 Sec. 7, T. 36 S., R. 25 E.  
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The seed mix to be used in interim and final reclamation is:

<u>Species</u>	<u>Variety or Cultivator</u>	<u>pounds pure live seed per acre</u>
Four wing saltbush	Atriplex canescens	2.0
Antelope bitter brush	Purshia tridentata	2.0
Crested wheatgrass	Agropyron desertorum	2.0
Indian ricegrass	Oryzopsis hymenoides	2.0
Galleta grass	Hilaria jamesii	1.0
Scarlet globemallow or	Sphaeralcea coccinea	1.0
Cicer milkvetch	Astragalus sabulosus	1.0

Trees, rocks, etc. that were rolled to the side during construction will be scattered after seeding operations are completed.

#### 11. SURFACE OWNER

All construction will be on BLM. Land use will be:

$\leq 230' \times \leq 300'$  well pad = 1.37 acres  
 10' x 9,612.24' pipeline corridor = 2.21 acres  
 40' x 1,775 pipeline & road corridor = 1.63 acres  
+ 50' wide tree & soil piles on 3 sides of pad = 0.84 acres  
 Land use = 6.05 acres

#### 12. OTHER INFORMATION

The nearest hospital is a  $\frac{3}{4}$ -hour drive away in Monticello. It is 3 blocks northwest of the intersection of US 491 and US 191. Hospital phone number is (435) 587-2116.

Summit Operating, LLC  
Cactus Park 7-7-36-25  
2141' FNL & 2013' FEL  
Sec. 7, T. 36 S., R. 25 E.  
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13. CERTIFICATION & REPRESENTATION

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U. S. C. 1001 for the filing of false statements. Executed this 9th day of February, 2013.



-----  
Brian Wood, Consultant  
Permits West, Inc.

37 Verano Loop, Santa Fe, NM 87508

(505) 466-8120

FAX: (505) 466-9682

Cellular: (505) 699-2276

The field representative will be:

Ellis Peterson

Summit Operating, LLC

1245 Brickyard Road, Suite 210

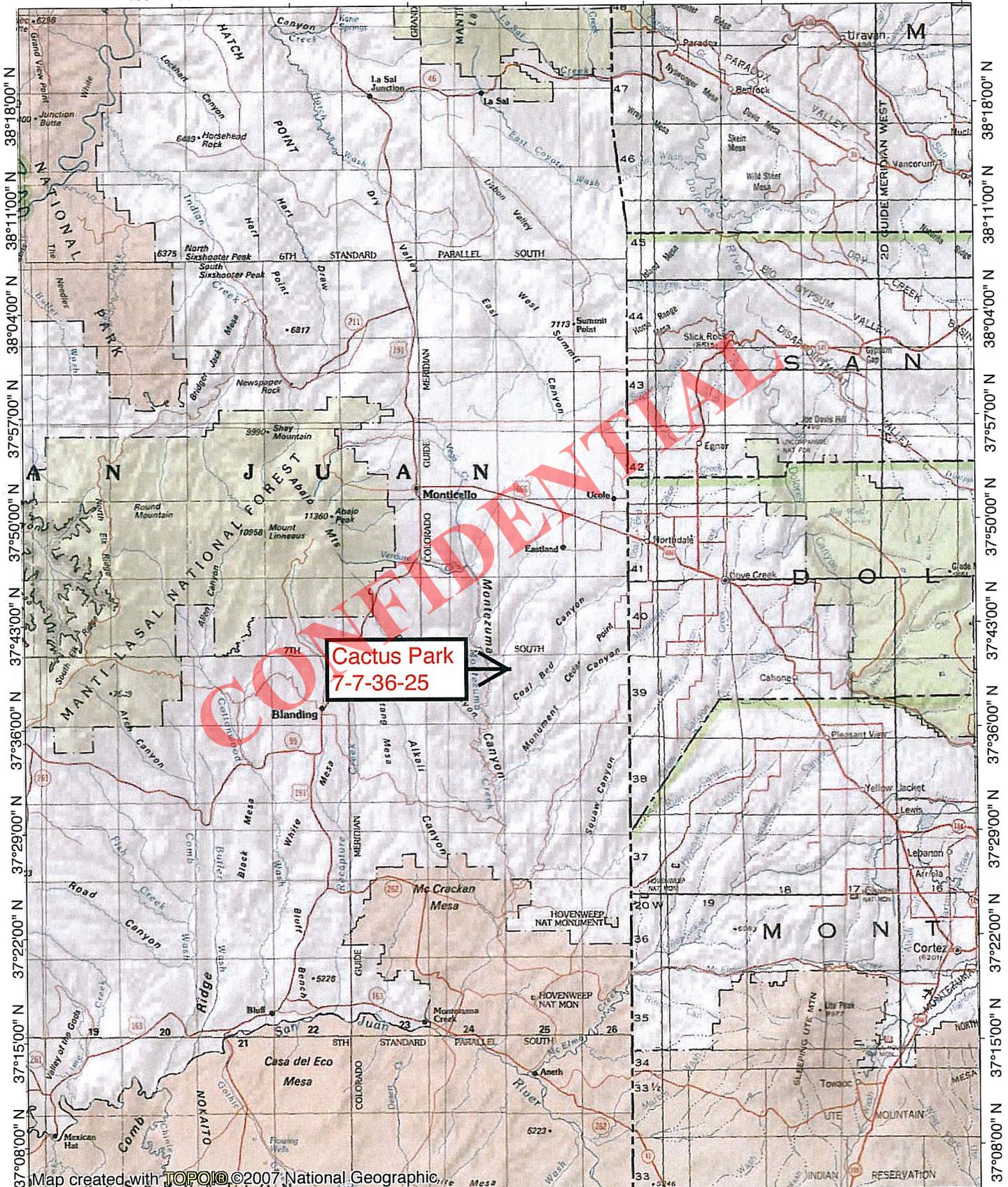
Salt Lake City, UT 84106

Office: (435) 940-9001

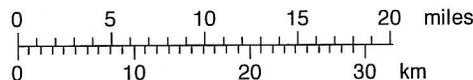
FAX: (435) 940-9001

TOPO! map printed on 07/11/10 from ".tpo"

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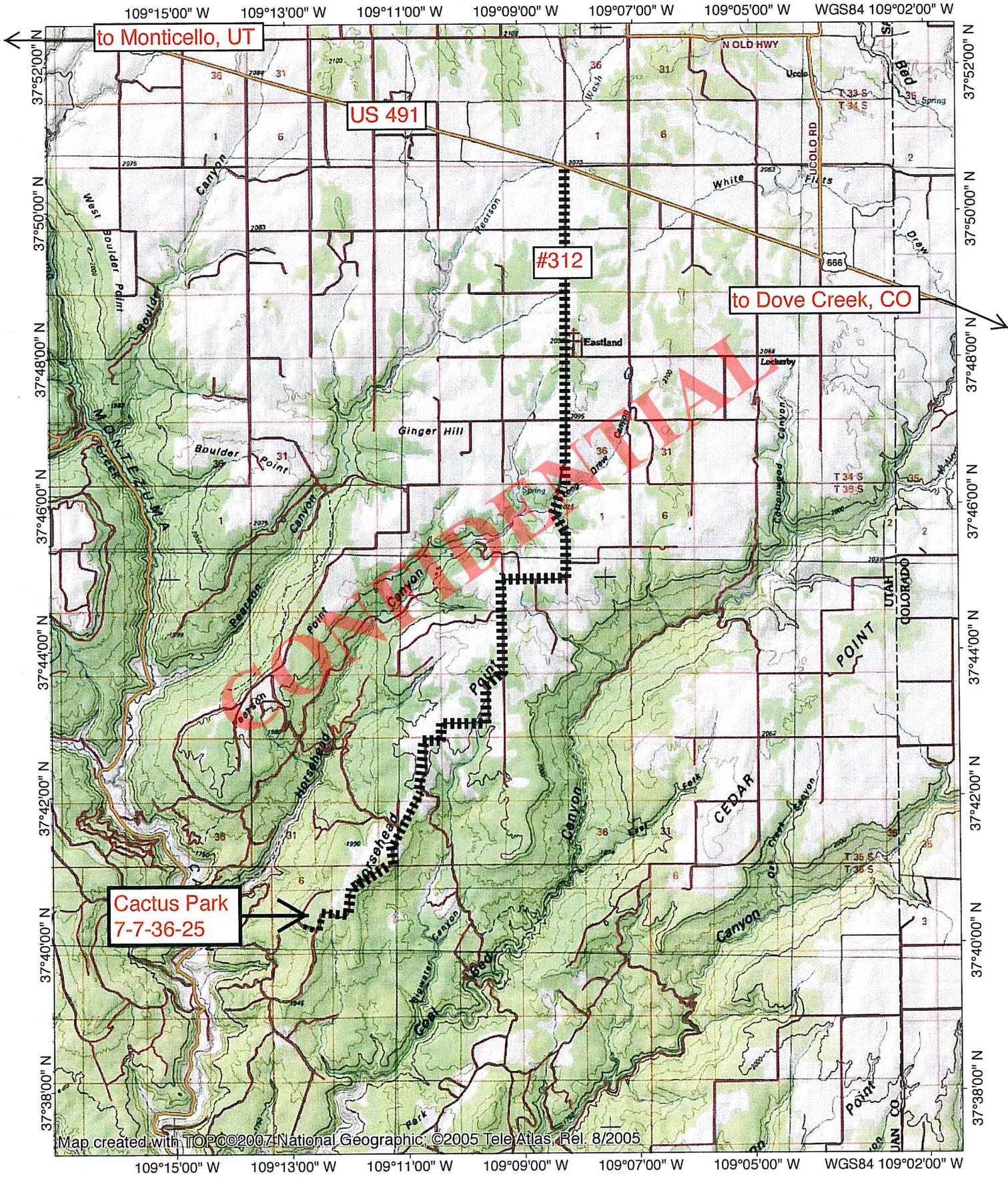


Map created with TOPO! ©2007 National Geographic

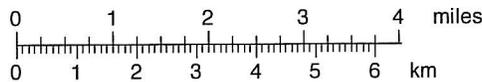


TN MN  
10.5°  
07/11/10

TOPO! map printed on 07/11/10 from ".tpo"



Map created with TOPO! ©2007 National Geographic. ©2005 Tele Atlas. Rel. 8/2005



proposed pipeline  
10,362.24 total L.F.

install minimum  
30' x 36" culvert

proposed  
Cactus Park 7-7-36-25  
location & well pad

proposed pipeline/  
access

widen corner

proposed pipeline  
along existing roads

widen corner

S 12 S 7  
S 13 S 18

S 7 S 8  
S 18 S 17

R.24 E.

R.25 E.

proposed pipeline  
along existing road

BOL at existing  
pipeline

existing  
pipeline  
Cactus

SUMMIT OPERATING LLC

proposed  
Cactus Park 7-7-36-25  
location, access road,  
and pipeline

Sections 7 & 18, T.36 S., R.25 E.,  
Section 13, T.36 S., R.24 E., SLM,  
San Juan County, Utah

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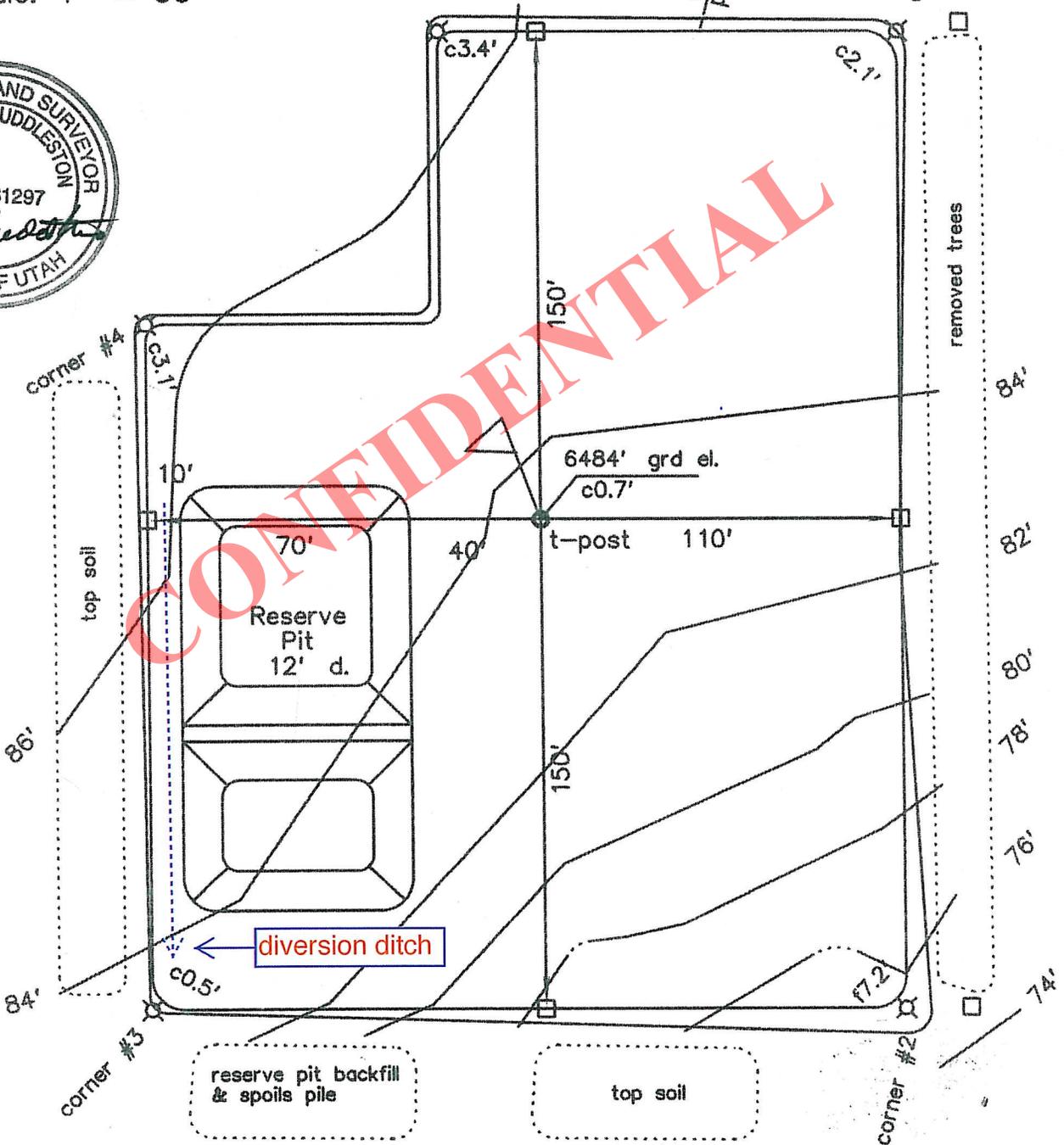
0' 50'  
Scale: 1" = 50'

- ⊠ set u-post/lath
- set stake/pin flag

South

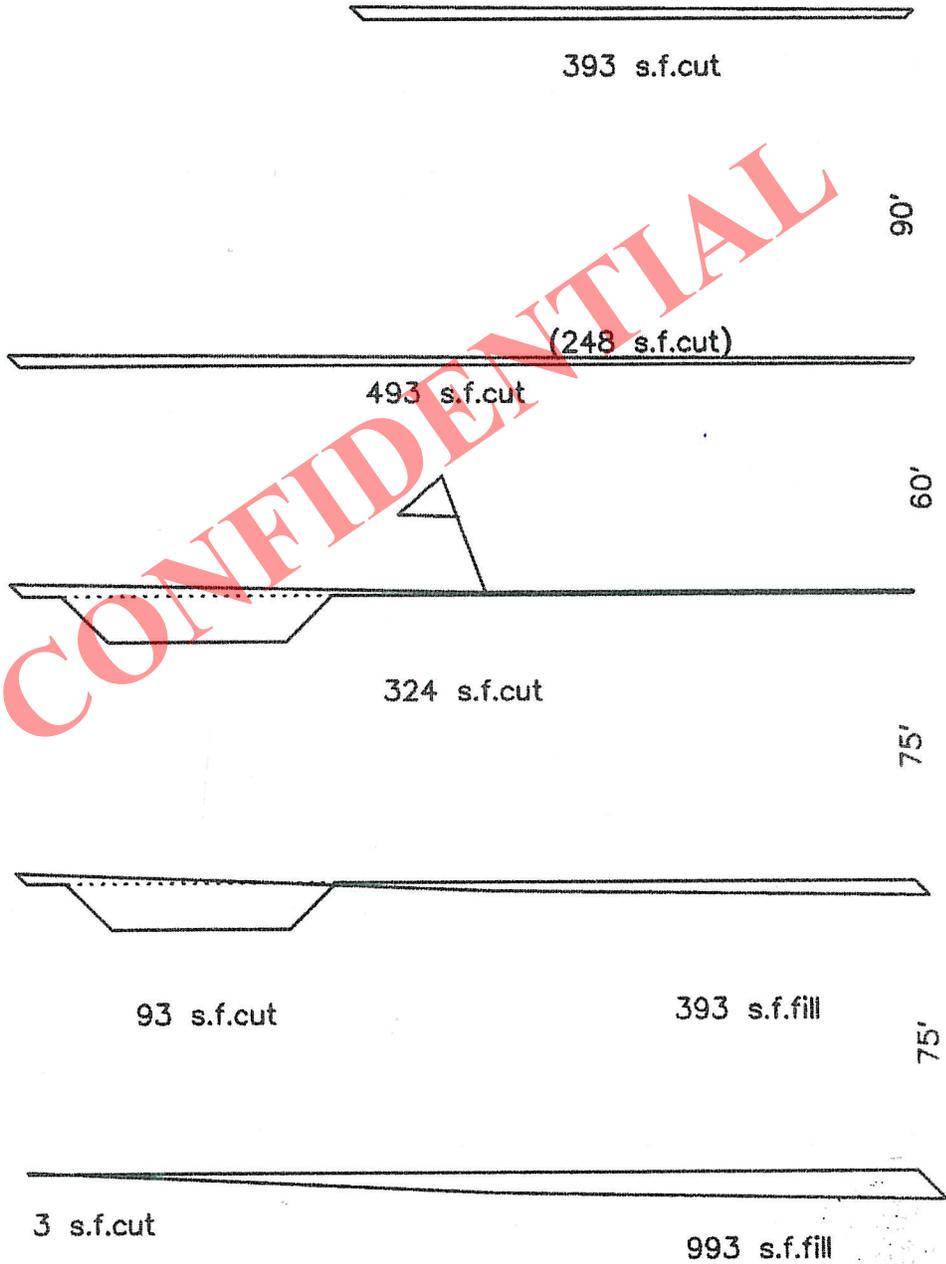
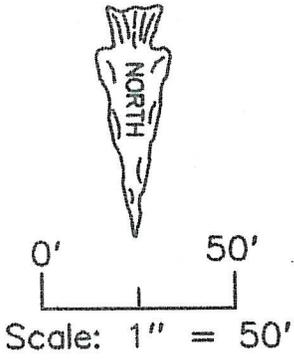
access  
pipeline

corner #1



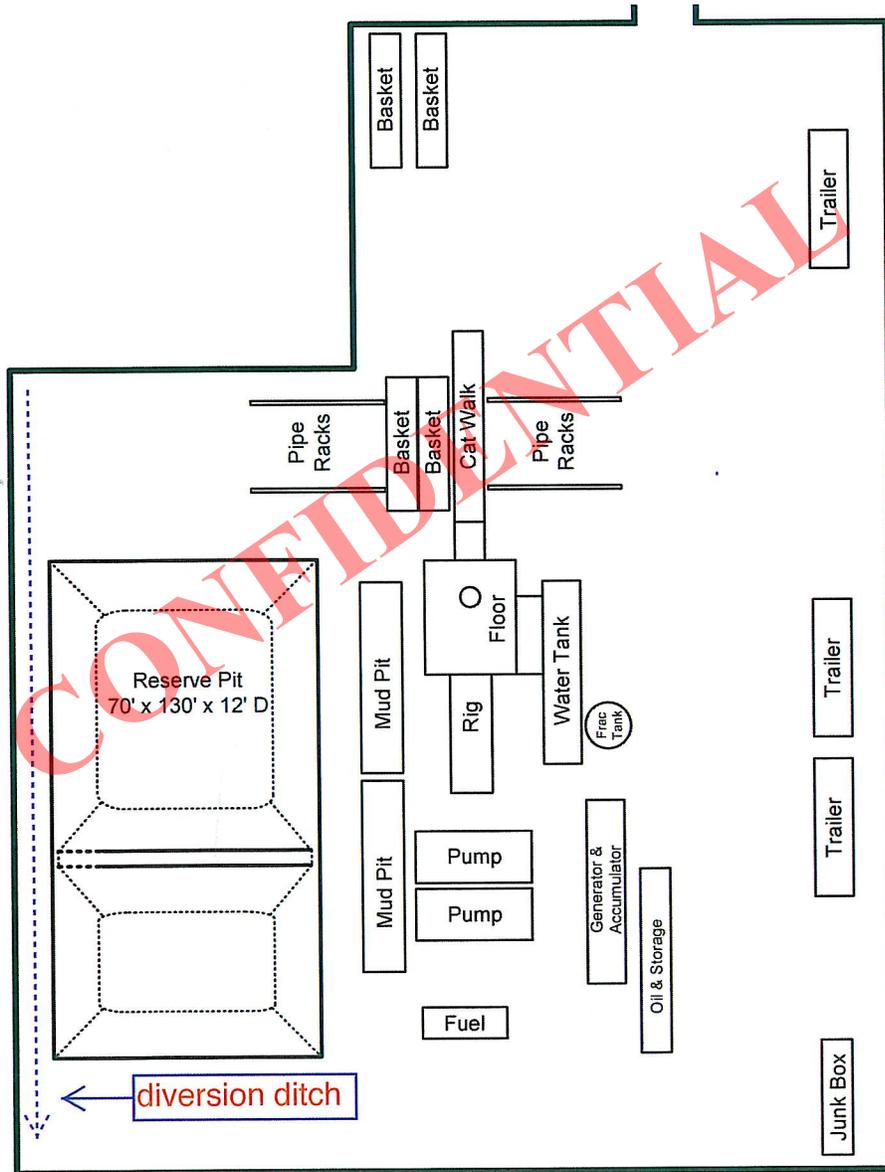
pad 1.5 acres

N 40°57' 01" W 198.30' 6473.9' el.  
 S 40°14' 39" W 199.99' 6484.6' el.

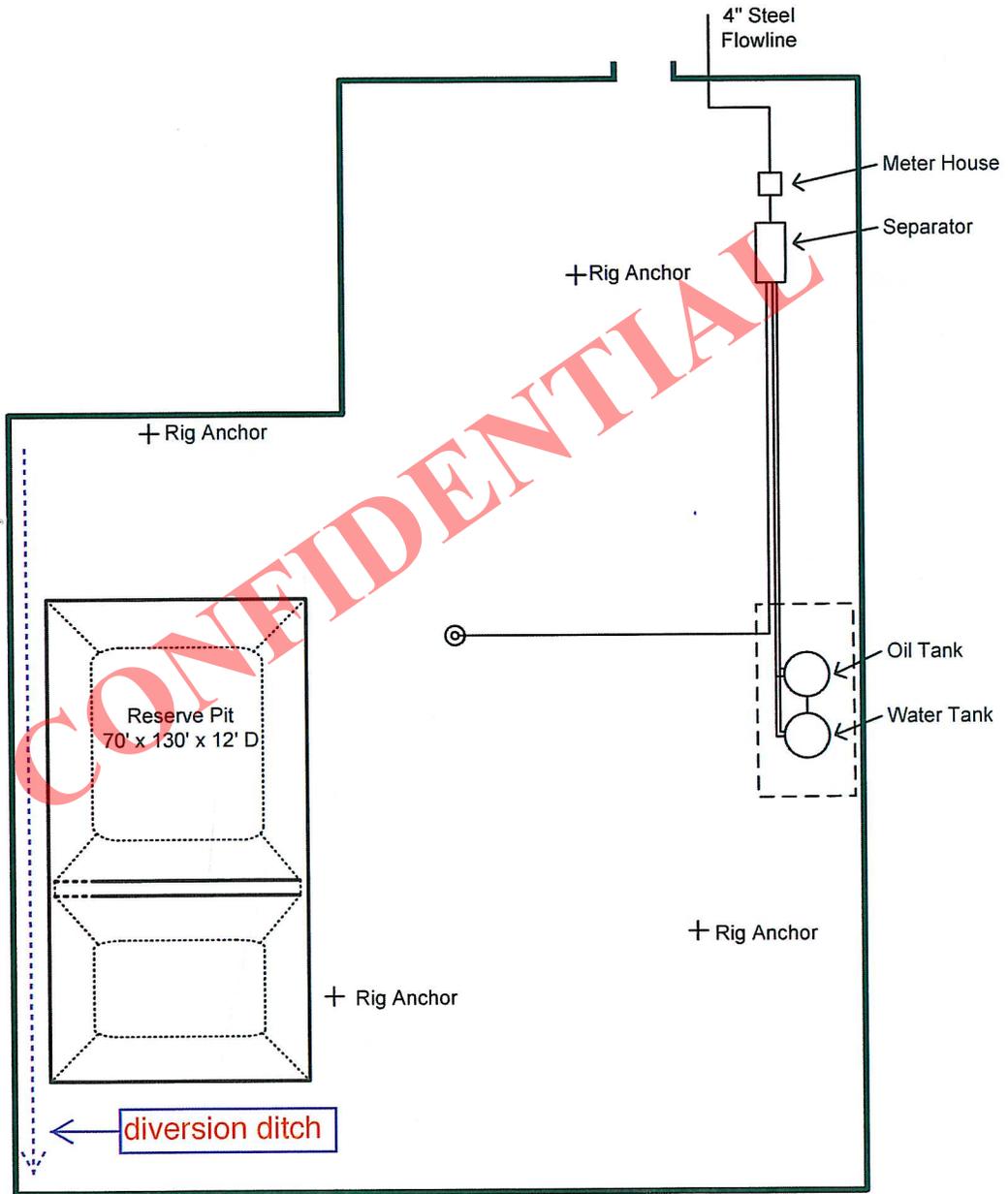


approximate dirt quantities:  
 2,667 cys. reserve pit  
 above reserve pit  
 2,715 cys. cut  
 2,287 cys. fill  
 428 cys. excess

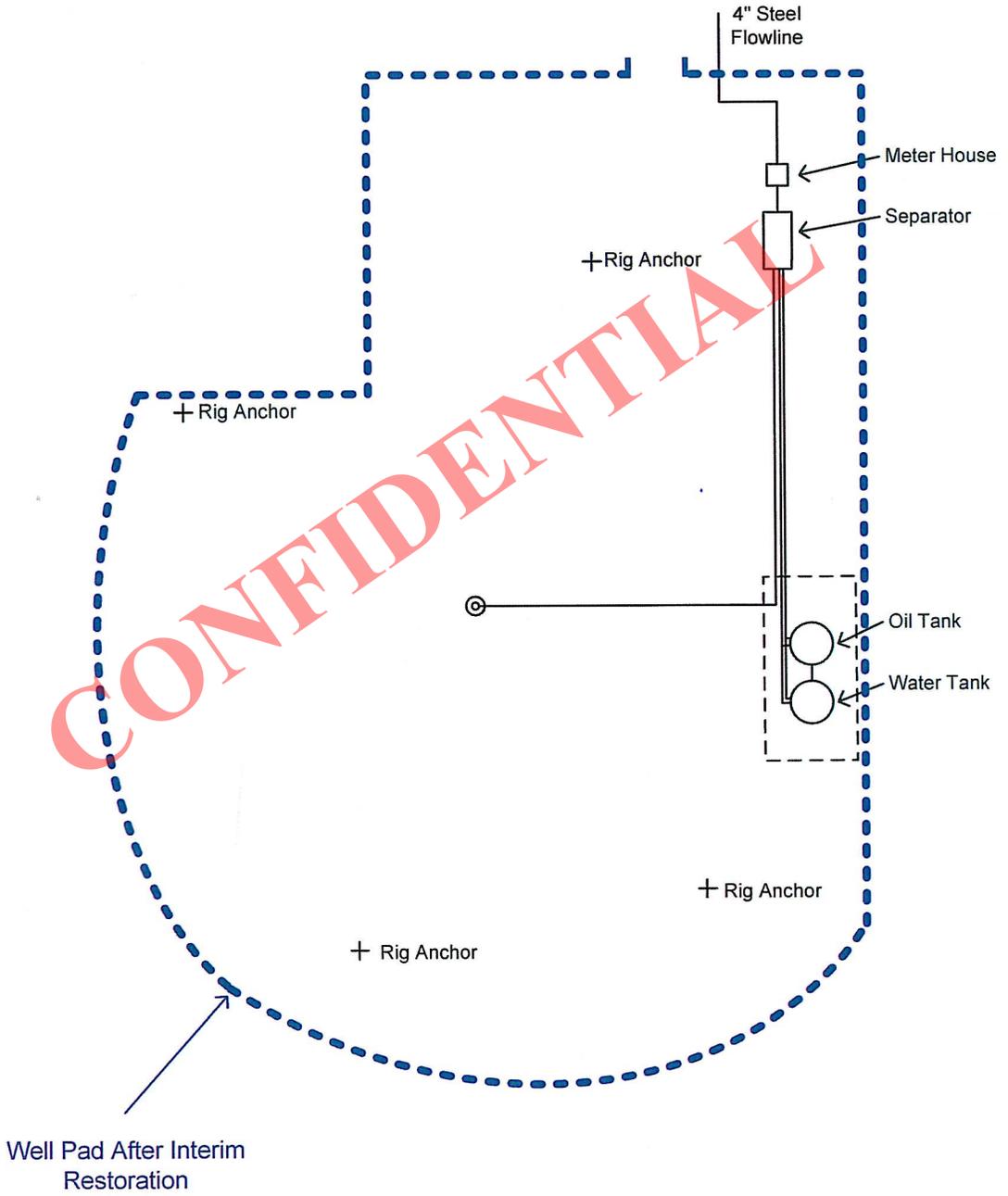
Cactus Park 7-7-36-25  
Typical Drilling Facility Layout



Cactus Park 7-7-36-25  
Planned Production Facility  
Layout



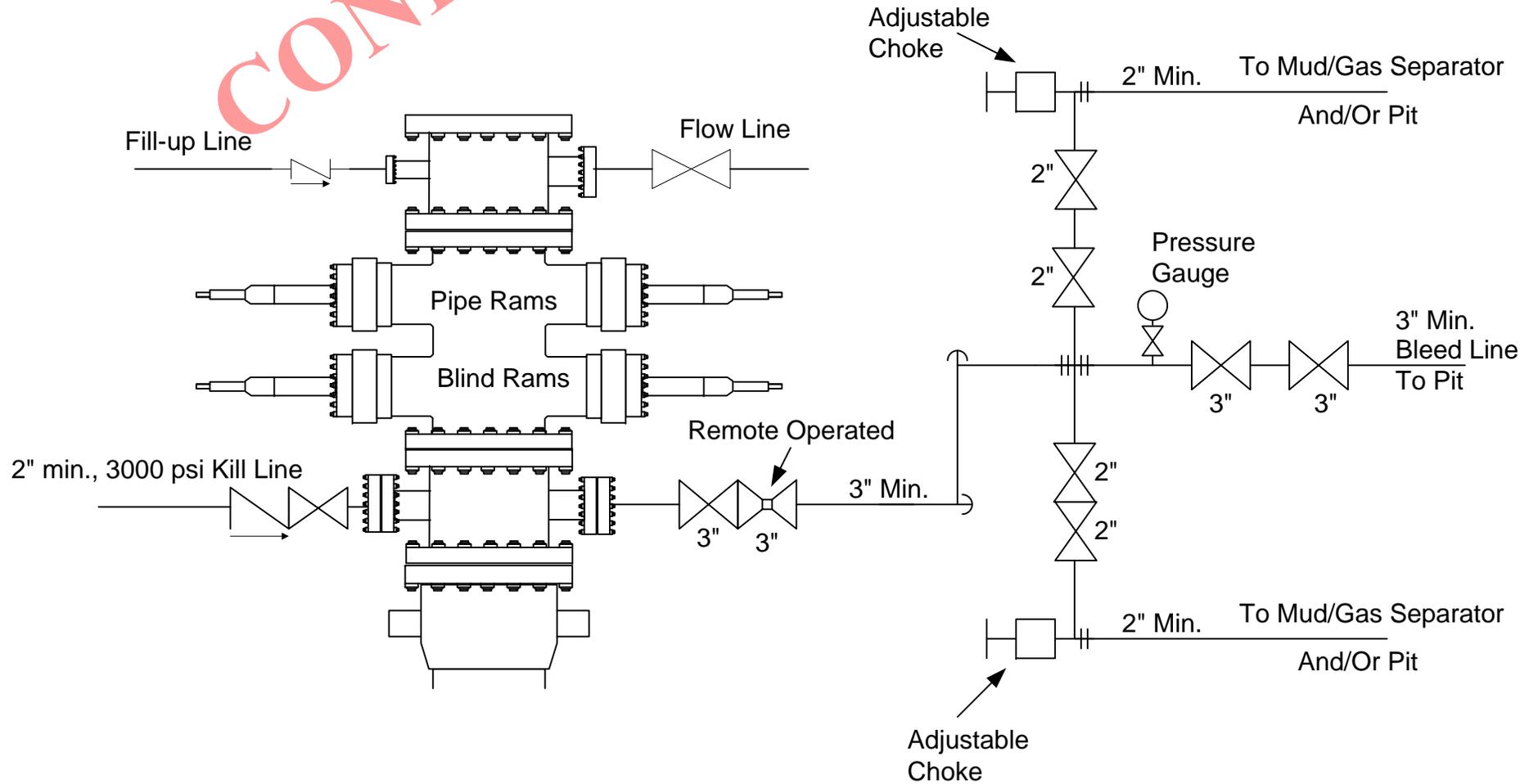
Cactus Park 7-7-36-25  
Planned Production Facility  
Layout After Interim Restoration



# 3M BOPE Schematic

(Not to Scale)

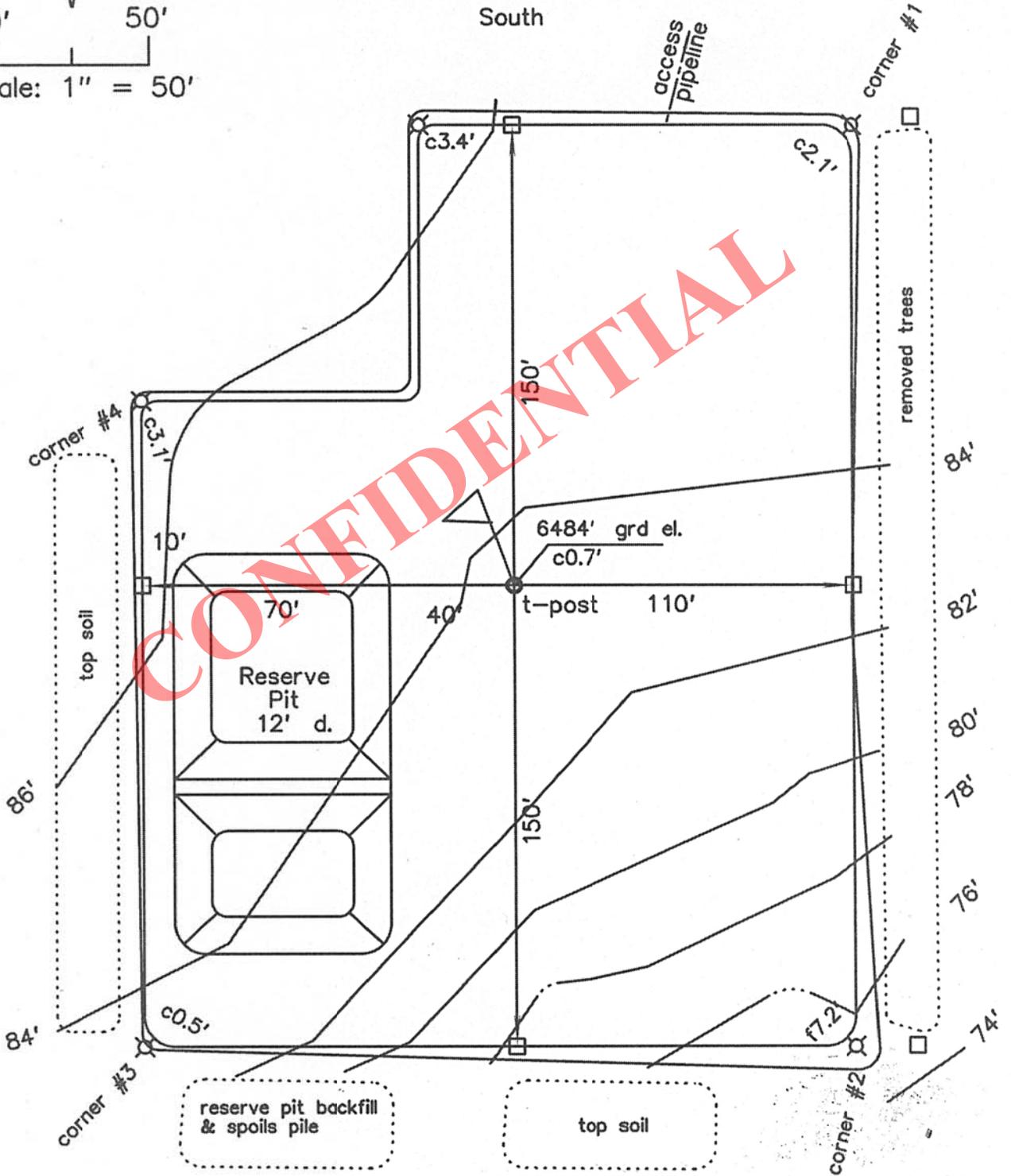
**CONFIDENTIAL**





0' 50'  
 Scale: 1" = 50'

- ⊗ set u-post/lath
- set stake/pin flag



pad 1.5 acres

N 40°57' 01" W 198.30' 6473.9' el.  
 S 40°14' 39" W 199.99' 6484.6' el.



## WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 4/25/2013

API NO. ASSIGNED: 43037500560000

WELL NAME: Cactus Park 7-7-36-25

OPERATOR: SUMMIT OPERATING, LLC (N2315)

PHONE NUMBER: 435 940-9001

CONTACT: Crystal Hammer

PROPOSED LOCATION: SWNE 07 360S 250E

Permit Tech Review: 

SURFACE: 2141 FNL 2013 FEL

Engineering Review: 

BOTTOM: 2141 FNL 2013 FEL

Geology Review: 

COUNTY: SAN JUAN

LATITUDE: 37.67300

LONGITUDE: -109.21180

UTM SURF EASTINGS: 657700.00

NORTHINGS: 4171039.00

FIELD NAME: WILDCAT

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-81762

PROPOSED PRODUCING FORMATION(S): HONAKER TRAIL

SURFACE OWNER: 1 - Federal

COALBED METHANE: NO

## RECEIVED AND/OR REVIEWED:

- PLAT
- Bond: FEDERAL - UTB-000014
- Potash
- Oil Shale 190-5
- Oil Shale 190-3
- Oil Shale 190-13
- Water Permit: City of Monticello
- RDCC Review:
- Fee Surface Agreement
- Intent to Commingle

Commingling Approved

## LOCATION AND SITING:

- R649-2-3.
- Unit:
- R649-3-2. General
- R649-3-3. Exception
- Drilling Unit
- Board Cause No: R649-3-2
- Effective Date:
- Siting:
- R649-3-11. Directional Drill

Comments: Presite Completed

Stipulations: 4 - Federal Approval - dmason  
23 - Spacing - dmason



GARY R. HERBERT  
*Governor*

GREGORY S. BELL  
*Lieutenant Governor*

# State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
*Executive Director*

Division of Oil, Gas and Mining

JOHN R. BAZA  
*Division Director*

## Permit To Drill

\*\*\*\*\*

**Well Name:** Cactus Park 7-7-36-25

**API Well Number:** 43037500560000

**Lease Number:** UTU-81762

**Surface Owner:** FEDERAL

**Approval Date:** 4/30/2013

### Issued to:

SUMMIT OPERATING, LLC, 1245 Brickyard Road, Suite 210, Salt Lake City, UT 84106

### Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of R649-3-2. The expected producing formation or pool is the HONAKER TRAIL Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

### Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

### Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

**Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well - contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available)

OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at <http://oilgas.ogm.utah.gov>

**Reporting Requirements:**

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) - due within 5 days of spudding the well
- Monthly Status Report (Form 9) - due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) - due prior to implementation
- Written Notice of Emergency Changes (Form 9) - due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) - due prior to implementation
- Report of Water Encountered (Form 7) - due within 30 days after completion
- Well Completion Report (Form 8) - due within 30 days after completion or plugging

**Approved By:**



For John Rogers  
Associate Director, Oil & Gas



GARY R. HERBERT  
Governor

SPENCER J. COX  
Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

August 20, 2014

Summit Operating, LLC  
1245 Brickyard Road, Suite 210  
Salt Lake City, UT 84106

Re: APD Rescinded – Cactus Park 7-7-36-25, Sec. 7, T.36, R.25E,  
San Juan County, Utah API No. 43-037-50056

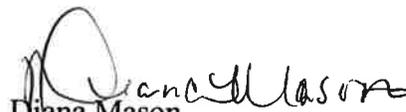
Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on April 30, 2013. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective August 20, 2014.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

  
Diana Mason  
Environmental Scientist

cc: Well File  
Bureau of Land Management, Monticello

