

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

FORM 3

AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL						1. WELL NAME and NUMBER UIC Well #1				
2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>						3. FIELD OR WILDCAT DEVILS PLAYGROUND				
4. TYPE OF WELL Water Injection Well Coalbed Methane Well: NO						5. UNIT or COMMUNITIZATION AGREEMENT NAME				
6. NAME OF OPERATOR AMERICAN GILSONITE CO						7. OPERATOR PHONE 435 790-1930				
8. ADDRESS OF OPERATOR 29950 South Bonanza Highway, Bonanza, UT, 84008						9. OPERATOR E-MAIL nlott@amgc.com				
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) FEE			11. MINERAL OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>			12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>				
13. NAME OF SURFACE OWNER (if box 12 = 'fee') American Gilsonite Company						14. SURFACE OWNER PHONE (if box 12 = 'fee') 435-790-1930				
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee') 29950 South Bonanza Hwy, Bonanza, UT 84008						16. SURFACE OWNER E-MAIL (if box 12 = 'fee') nlott@amgc.com				
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN')			18. INTEND TO COMMINGLE PRODUCTION FROM MULTIPLE FORMATIONS YES <input type="checkbox"/> (Submit Commingling Application) NO <input checked="" type="checkbox"/>			19. SLANT VERTICAL <input checked="" type="checkbox"/> DIRECTIONAL <input type="checkbox"/> HORIZONTAL <input type="checkbox"/>				
20. LOCATION OF WELL		FOOTAGES		QTR-QTR	SECTION	TOWNSHIP	RANGE	MERIDIAN		
LOCATION AT SURFACE		475 FSL 1785 FEL		SWSE	3	9.0 S	24.0 E	S		
Top of Uppermost Producing Zone		475 FSL 1785 FEL		SWSE	3	9.0 S	24.0 E	S		
At Total Depth		475 FSL 1785 FEL		SWSE	3	9.0 S	24.0 E	S		
21. COUNTY UINTAH			22. DISTANCE TO NEAREST LEASE LINE (Feet) 475			23. NUMBER OF ACRES IN DRILLING UNIT 40				
			25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 5400			26. PROPOSED DEPTH MD: 1570 TVD: 1570				
27. ELEVATION - GROUND LEVEL 5210			28. BOND NUMBER LC SBPUT300608			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 49-222				
Hole, Casing, and Cement Information										
String	Hole Size	Casing Size	Length	Weight	Grade & Thread	Max Mud Wt.	Cement	Sacks	Yield	Weight
COND	20	14	0 - 80	55.0	B Casing	8.8	Class A	78	1.18	15.6
I1	12.25	9.625	0 - 1450	49.0	B Casing	8.8	Class A	390	1.18	15.6
OPEN	8.75	0	1450 - 1570	0.0	No Pipe Used	8.8	No Used	0	0.0	0.0
ATTACHMENTS										
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES										
<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 David R. Friz			TITLE Senior Associate, Stantec Consultant			PHONE 801 261-0090				
SIGNATURE			DATE 02/19/2016			EMAIL david.friz@stantec.com				
API NUMBER ASSIGNED 43047555240000			APPROVAL  Permit Manager							

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

AMENDED REPORT
(highlight changes)

APPLICATION FOR PERMIT TO DRILL		5. MINERAL LEASE NO: Not applicable	6. SURFACE:
1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>		7. IF INDIAN, ALLOTTEE OR TRIBE NAME: 	
B. TYPE OF WELL: OIL <input type="checkbox"/> GAS <input type="checkbox"/> OTHER <u>Injection Well</u> SINGLE ZONE <input checked="" type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		8. UNIT or CA AGREEMENT NAME: Not applicable	
2. NAME OF OPERATOR: American Gilsonite Company		9. WELL NAME and NUMBER: AGC UIC Well #1	
3. ADDRESS OF OPERATOR: 29950 South Bonanza H _{CITY} Bonanza STATE UT ZIP 84008		PHONE NUMBER: (435) 790-1930	10. FIELD AND POOL, OR WILDCAT: Not Applicable
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 1785 FEL & 475 FSL AT PROPOSED PRODUCING ZONE: 1785 FEL & 475 FSL		11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SWSE 3 9S 24E S	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: Approximately 3 miles N of Bonanza, UT		12. COUNTY: Uintah	13. STATE: UTAH
15. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) 475 Feet	16. NUMBER OF ACRES IN LEASE: 40	17. NUMBER OF ACRES ASSIGNED TO THIS WELL: 40	
18. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET)	19. PROPOSED DEPTH: 1,570	20. BOND DESCRIPTION:	
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 5210 GR	22. APPROXIMATE DATE WORK WILL START: 3/1/2016	23. ESTIMATED DURATION: 1 month	

24. **PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT	SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT
20 inch	14-in A53B 55 lbs	80	portland neat cement 63 cu ft 1.18cu ft/sk 15.6#/gal
12-1/4	9-5/8 A53B 49 lbs	1,450	portland neat cement 262 cu ft 1.18cu ft/sk 15.6#/gal
8	OH	1,570	Not applicable

25. **ATTACHMENTS**

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN
<input checked="" type="checkbox"/> EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER	<input type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER

NAME (PLEASE PRINT) David R. Friz TITLE Senior Associate, Stantec Consulting Services

SIGNATURE David R. Friz 801-261-0090 DATE Feb 16, 2016

(This space for State use only)

API NUMBER ASSIGNED: _____ APPROVAL: _____

American Gilsonite Company UIC Well #1

Well Owner

The proposed well is owned by American Gilsonite Company (AGC). Contact information for AGC is:

Nicholas Lott, Chief Operating Officer
American Gilsonite Company
29950 South Bonanza Highway
Bonanza, UT 84008
Phone: 435-790-1930
Email: nlott@amgc.com

Location of Well

The location of the proposed AGC Underground Injection Control (UIC) Well #1 is SW/4, SE/4, Section 3, T 9 S, R 24 E, SLB&M. The well site is 475 feet from the south line and 1,785 feet from the east line of the section. Figure 1 is a surveyed plat showing the well location.

Water Rights Approval

AGC anticipates using water from its dewatering processes at the nearby Gilsonite mine. AGC's approved water right number is 49-222.

Estimated Geologic Markers

Figure 2 is a geologic structure map of the area based on the Geologic Map of the Bonanza Quadrangle (Cashion, W.B., 1986). Structure contours drawn on top of the Mahogany Oil-Shale bed are shown. Figure 3 shows the location of cross-section lines A-A' and B-B'. Geologic cross-sections A-A' and B-B' are illustrated on Figures 4 and 5, respectively.

The proposed injection and confining intervals for the Area of Review (AOR) are listed in Table 1 below. The AOR, as defined under the UIC Permit application, is a ¼ mile radius around the AGC property on which the proposed injection well is located. The depths of the formations are based on information gained from the drilling of a test well at the site.

Table 1 – Estimated Tops of Geologic Markers

Formation	Depth (feet below land surface)
Uinta Formation	Surface to 1,410
Top of Green River	1,410
Top of Upper Confining	1,410
Base of Upper Confining	1,446
Top of Lower Birds Nest	1,446
Base of Lower Birds Nest	1,569
Top of Lower Confining	1,569
Base of Lower Confining	1,729
Approximate TD	1,600

Estimated Top and Bottom of Anticipated Water, Oil, Gas, other Mineral Zones and Plans for Protection

A confined groundwater aquifer is located at approximately 1,350-1,450 feet. This zone will be cased off and sealed before drilling into the Birds Nest Zone. No oil, gas, or other mineral zones are anticipated to be encountered with the proposed drilling depth.

Proposed Drilling Program

1. Drill a 20-inch Conductor Hole to +/- 80 feet below ground surface with total depth (TD) in competent shale.
2. Run 80 feet of 14-inch outside diameter (OD), 0.250-inch wall conductor pipe and cement in place with redi-mix cement.
3. Drill a 12-1/4-inch hole using a polycrystalline diamond compact (PDC) bit and Mud Motor to approximately 1,350 feet. Deviation checks will be run at sufficiently frequent intervals to assure that vertical avenues for fluid migration are not created during drilling.
4. Pump viscous sweeps to ensure hole is clean. Continue drilling to +/- 1450 feet at a reduced rate of penetration (ROP). Monitor fluid returns closely and catch cuttings samples to determine the Green River/Birds Nest transition. TD the well at the top of the Birds Nest zone.
5. Pull out of hole (POOH) and run geophysical logs: gamma ray, density, neutron, spontaneous potential, and resistivity logs, 1450 to surface.

6. Make up 9 5/8" Guide Shoe, two joints of casing and float collar with 4 1/2" opening. Baker Lock shoe joints and FE. Place centralizers on 1st, 3rd and every other collar for a total of 10 centralizers. Tag bottom and lay down last joint if necessary. Replace with 10' pup joint.
7. Rig up cementing contractor and circulate hole prior to start of cement job.
8. Cement 9-5/8" casing back to surface per the cement program. Reciprocate casing while cementing. It may be necessary to maintain casing pressure, 100-200 psi, until the cement slurry reaches its initial set. Install casing flange.
9. Wait for cure of concrete a minimum of 72 hrs. Run Cement Bond Log and gamma ray log to surface.
10. Move in and rig up drilling rig. PU 8 3/4" bit and run in hole and tag bottom Drill out shoe joint with 8-3/4-inch bit and drill approximately 120 feet of open hole to 1,570 feet. Loss of circulation is expected in the Birds Nest. If necessary aerate the drilling fluid. Clean the hole of drill cuttings and POOH laying down the drill string. Run geophysical logs: gamma ray, density, neutron, spontaneous potential, and resistivity logs, 1,570 to 1,450.
11. Install casing flange and demobilize drilling rig and associated equipment.

Note: All depths are estimates based on nearby logs. Some variance in depths is likely to occur.

Figure 6 shows proposed well construction details.

Plan for Pressure Control

The proposed total depth of the well, and the formations anticipated to be encountered are such that AGC believes pressure control will not be needed. In addition, the proposed depth of the injection well is a depth to which experienced water well drillers often complete wells without the use of pressure control. Based on this premise we anticipate water well drillers would be capable of drilling this well.

Description of Mud System

Drilling mud will be water-based, low solids, with mud weight of 8.4-8.7 pounds per gallon. Bentonite and/or liquid polymer such as EZ Mud may be added to improve control of the borehole.

Plans for Testing, Logging, and Coring

Drill cuttings will be collected at approximate 10-foot intervals for description. Samples will be collected by the drilling crews for logging by the field geologist.

Prior to placement of the casing, the following logs will be conducted: resistivity, spontaneous potential, gamma ray, neutron, density, and caliper logs. After the casing is set and cemented, the following logs will be run: cement bond log and temperature log. If appropriate a density log may be run.

Following completion of well construction, injection will begin. It is anticipated that commissioning/testing of the injection well will require several weeks or months to reach a dynamic equilibrium before sustainable capacity of the injection well is understood.

Expected Bottomhole Pressure

A test hole drilled by AGC in May 2015 near the proposed location of the injection well, demonstrated that the bottom hole pressure of the Birds Nest Zone is anticipated to be negative, or essentially a vacuum.

Current Surface Use

The surface land is owned by AGC. The surface land is currently undeveloped.

Proposed Surface Disturbance

AGC has constructed a drill pad and plans to use an existing road for access to the well site. Location of the drill pad is shown on Figure 7. The pipeline that will convey the water for injection, and the electrical power line will be constructed along existing roads and right of ways. Figure 8 illustrates the locations of the pipeline and electrical power line.

Existing Wells

Existing wells within approximately one mile of the proposed drill site are shown on Figure 9. There are no water wells within one mile of the proposed drill site, although an existing, perfected underground water right point of diversion is located approximately 970 feet away from AGC UIC Well #1. AGC conducted a diligent search for this well in May 2015, but did not locate anything in the field at the published location that would

indicate the presence of a well or pump station. The proposed depth of the well (approximately 1,600 feet below ground surface) is above the depths of existing producing oil/gas wells in the vicinity, and therefore will not impact producing oil/gas wells.

Production Facilities and Pipelines

The pipeline to convey water for injection from the mine dewatering facilities to the injection well will be constructed of 6-inch diameter HDPE pipe. The pipeline will be within the existing AGC right-of-way roads, on BLM right of ways, and SITLA right of ways (Figure 8). A pump house will be located near the well, and will be equipped with a 200-horsepower pump, motor, flowmeter, transformer, starting gear, pressure transmitter, automatic drain valve, temperature sensor, alarms, and remote telemetry system.

Waste Management Plan

A reserve pit will be constructed for water and drilling fluids. The pit will be approximately 10 feet deep with at least half the depth below the ground surface. One half of the reserve pit will be used as a fresh water storage area. The other half will be used to store non-flammable items such as cuttings and drilling fluids.

Prior to the onset of drilling, a "stock tight" fence shall be installed on three sides of the reserve pit. This fence will be either (1) woven wire at least 28 inches high and within 4 inches of ground surface with two strands of barbed wire above the woven wire with 10-inch spacing, or, (2) at least five strands of barbed wire spaced, starting from the ground, at approximately 6-, 8-, 10-, and 12-inch intervals. At the completion of drilling operations, the fourth side of the reserve pit will be fenced and allowed to dry completely before the pit is backfilled.

Site Clean-up - Immediately after the rig is moved out, the area around the well site will be cleaned and all refuse properly disposed.

A portable chemical toilet will be provided for human waste. Garbage and related refuse will be transported and disposed of in waste containers at the AGC headquarters in Bonanza, Utah. AGC contracts with a waste disposal company who provides waste containers and transports full waste containers to a local municipal landfill.

Affected Floodplains/Wetlands

The proposed water injection pipeline and electrical power line will cross an ephemeral drainage tributary to Coyote Wash (Figure 8). AGC has received communications from the US Army Corps of Engineers (Corps). The drainage does not appear to have an ordinary high water mark (OHWM) based on the presence of upland vegetation, no low flow channels or change in sediment texture, and no bed and bank. The corps does not require notification (submission of a Nationwide Permit 12) for utility crossings of ephemeral drainages. Therefore no permit is required.

Flora/Fauna

AGC has conducted two biological resource studies in preparation for drilling the UIC Well #1. The vegetation within the survey area consists of black sagebrush shrubland at the higher elevations and greasewood at the lower elevations.

The areas mapped as black sagebrush shrubland were dominated by black sagebrush (*Artemisia nova*). Other common plants found in this community include: shadscale saltbush (*Atriplex confertifolia*), rubber rabbitbrush (*Ericameria nauseosa*), broom snakeweed (*Gutierrezia sarothrae*), prickly pear cactus (*Opuntia polyacantha*), and cheatgrass (*Bromus tectorum*). Greasewood (*Sarcobatus vermiculatus*) and Great Basin sagebrush (*Artemisia tridentata* ssp. *tridentata*) were also found occasionally throughout the black sagebrush plant community.

Dominant plant species in the greasewood flat community are greasewood, and Great Basin sagebrush. A tall row of saltcedar (*Tamarix chinensis*), a State of Utah–designated noxious weed, grows right along the bank of Coyote Wash in the western portion of the survey area. The state-designated noxious weed species perennial pepperweed (*Lepidium latifolium*) is also common in this plant community.

Wildlife observed within 0.5 mile of the project area during the two site visits included the bird species brewers sparrow (*Spizella breweri*), Say's phoebe (*Sayornis saya*), lark sparrow (*Chondestes grammacus*), golden eagle (*Aquila chrysaetos*), rock wren (*Salpinctes obsoletus*), sage thrasher (*Oreoscoptes montanus*), red-winged blackbird (*Agelaius phoeniceus*), cliff swallow (*Petrochelidon pyrrhonota*), killdeer (*Charadrius vociferous*), loggerhead shrike (*Lanius ludovicianus*), northern harrier (*Circus cyaneus*), red-tailed hawk (*Buteo jamaicensis*), black-billed magpie (*Pica hudsonia*), spotted towhee (*Pipilo maculatus*), great horned owl (*Bubo virginianus*), European starling (*Sturnus vulgaris*), white –crowned sparrow (*Zonotrichia leucophrys*), dark-eyed junco (*Junco hyemalis*), sage sparrow (*Aremisiospiza nevadensis*), northern flicker (*Colaptes auratus*), common raven (*Corvus corax*), and horned lark (*Eremophila alpestris*). Other wildlife observed included: sagebrush lizard (*Sceloporus graciosus*), desert cottontail (*Sylvilagus audubonii*), and pronghorn (*Antilocapra americana*). Evidence of coyote (*Canis latrans*), woodrat (*Neotoma cinerea*), and small rodents were also observed.

AGC has discussed the results of the biological surveys with BLM and EPA personnel, and will coordinate drilling activities with these agencies.

Paleontological Potential

The area of the drill pad is within siltstones of the Uinta Formation. Utah Geological Survey information indicates there are potential paleontological resources in the region of the project site. Likely resources include turtle shells, although more significant resources may be found. The drill pad is already constructed and no paleontological resources were identified during construction of the well pad.

Surface Restoration

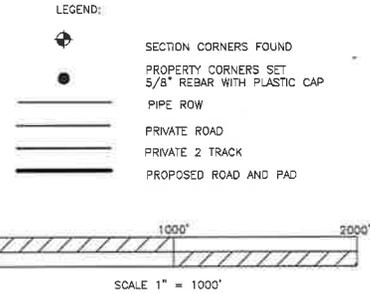
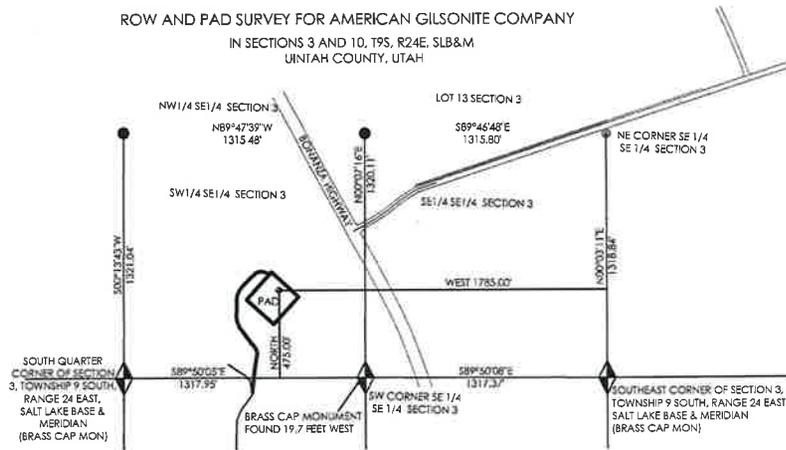
AGC anticipates the injection well and related facilities will be used for the foreseeable future. Therefore, surface restoration will be limited after well completion.

The platform and pit areas no longer required for the injection well will be backfilled, re-contoured, existing top soil will be replaced and the area will be seeded.

If the well is abandoned, the entire disturbed area (including roads) will be restored by: (1) backfilling; (2) re-contouring; (3) restoring top soil; (4) seeding. Restoration of the location and access road will begin within 90 days after completion of the well.

The BLM representative will be notified prior to starting the rehabilitation operations. The seed mixture to be used will be discussed with the BLM at the time of abandonment. Seed will be planted after September 1 and prior to ground frost; or seed will be planted after the frost has left and before May 15. Seed will be drilled into the soil at a depth of approximately 4 inches; seed drilling rows will follow elevation contours. Slopes too steep or rocky for machinery will be broadcast and the seed hand raked into the soil. When broadcasting the seed, the rate per acre will be doubled.

ROW AND PAD SURVEY FOR AMERICAN GILSONITE COMPANY
 IN SECTIONS 3 AND 10, T9S, R24E, SLB&M
 UTAH COUNTY, UTAH



SURVEYOR'S CERTIFICATE

I, GREGORY A. CATES, A PROFESSIONAL LAND SURVEYOR HOLDING LICENSE NUMBER 161226 IN ACCORDANCE WITH THE LAWS OF THE STATE OF UTAH, HEREBY CERTIFY THAT THIS EXHIBIT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND IS A TRUE AND CORRECT REPRESENTATION TO THE BEST OF MY KNOWLEDGE AND BELIEF.

NARRATIVE

THE PURPOSE OF THIS SURVEY WAS TO SHOW THE LOCATION OF THE AMERICAN GILSONITE COMPANY'S UIC WELL #1 IN RELATIONSHIP TO THE SECTION CORNERS ADJACENT TO THE SITE.

THE INFORMATION SHOWN HEREON WAS NOT FIELD VERIFIED.

THIS IS NOT A BOUNDARY SURVEY PLAT.

GREGORY A. CATES
 P.L.S. No. 161226

FEB. 2, 2016
 Date



January 29, 2016
 205303062

Client/Project

AMERICAN GILSONITE COMPANY
 SECTIONS 3 & 10, T9S, R24E, SLB&M
 UTAH COUNTY, UTAH

Figure No.

1.0

Title

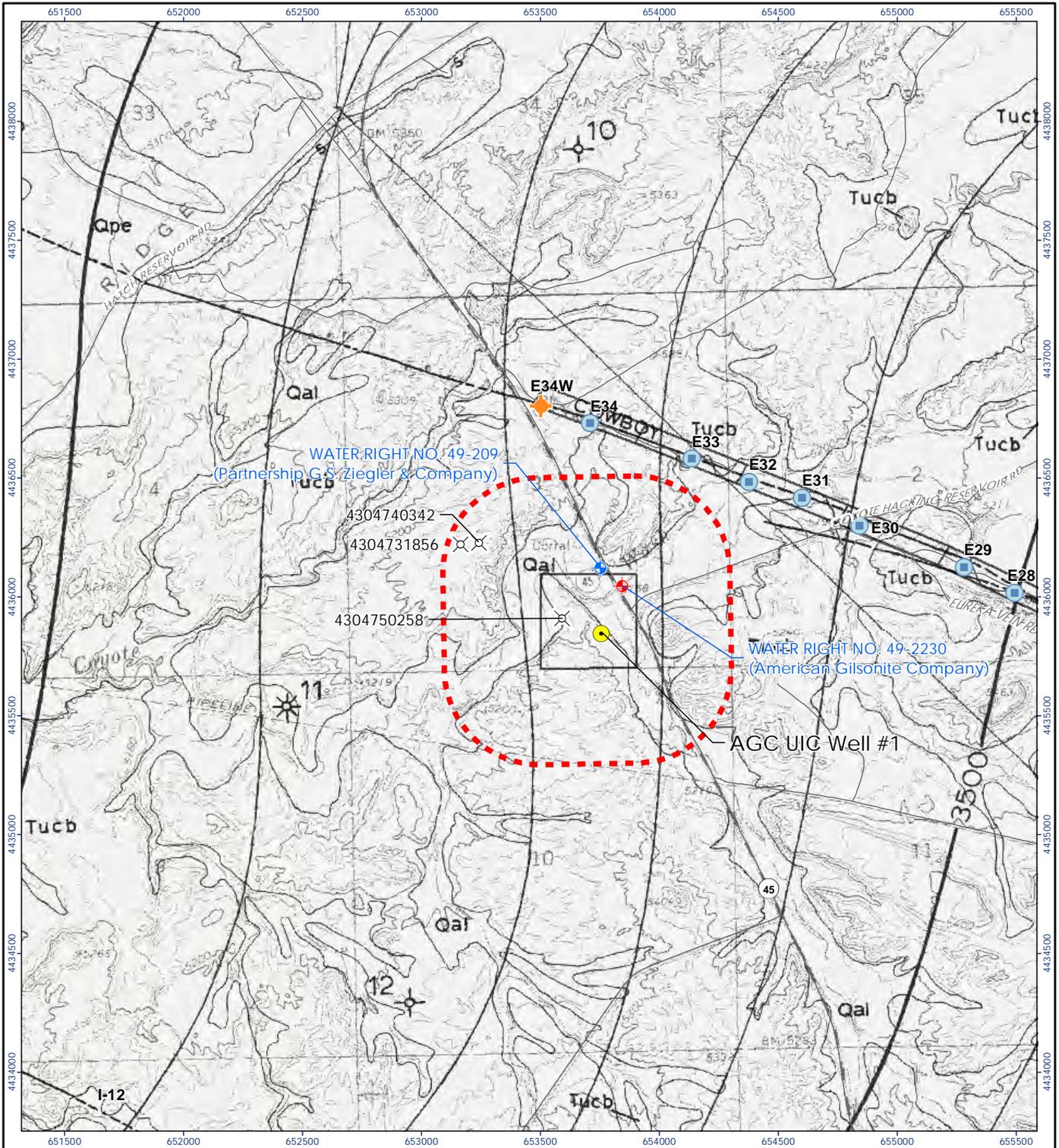
UIC WELL #1
 LOCATION MAP

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ORIGINAL SHEET - ANS1 A



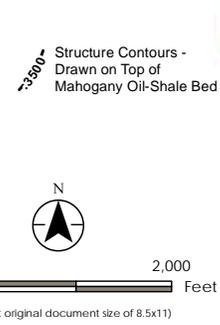
3995 South 700 East, Suite 300
 Salt Lake City UT
 www.stantec.com



V:\2015\Active\205303062_GIS\mxd\APD_App_Well1\Bonanza_geologic_1_s.mxd Revised: 2016-01-27 By: dbccc



- Legend**
- Proposed AGC UIC Well
 - AGC Dewatering Well
 - Active AGC Mine Shaft
 - Approved, Underground Point of Diversion
 - ⊕ Perfected, Underground Point of Diversion
 - ⊗ Location Abandoned (Oil or Gas Well)
 - Area of Review
 - American Gilsonite Property



Project Location
 Utah County, Utah

Client/Project
 American Gilsonite Corporation
 Utah Division of Oil, Gas and Mining
 Application for Permit to Drill

Figure No.
 2

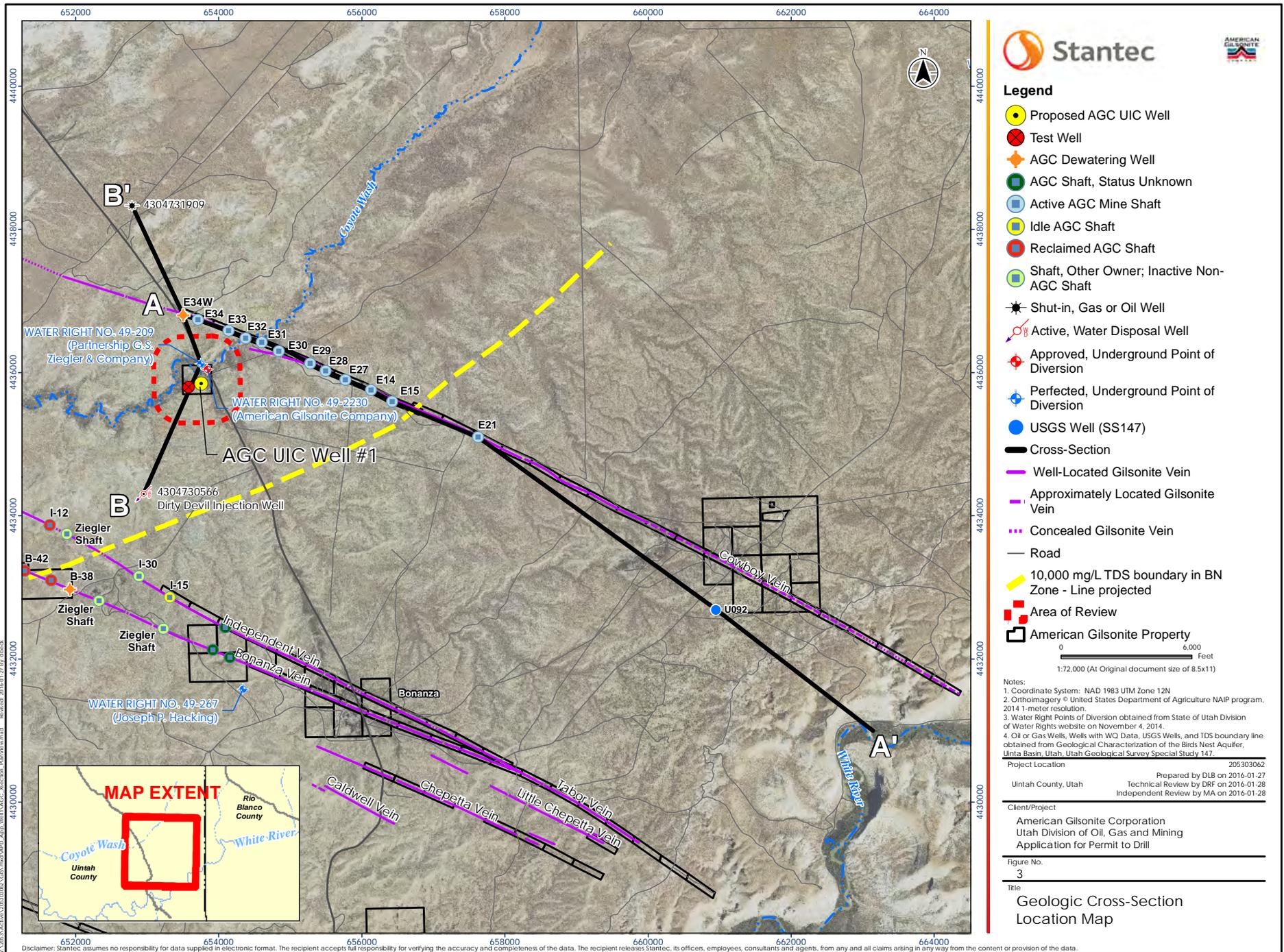
Title
 American Gilsonite Corporation
 UIC Permit Application Well #1
 Geologic Structure Map of the Area

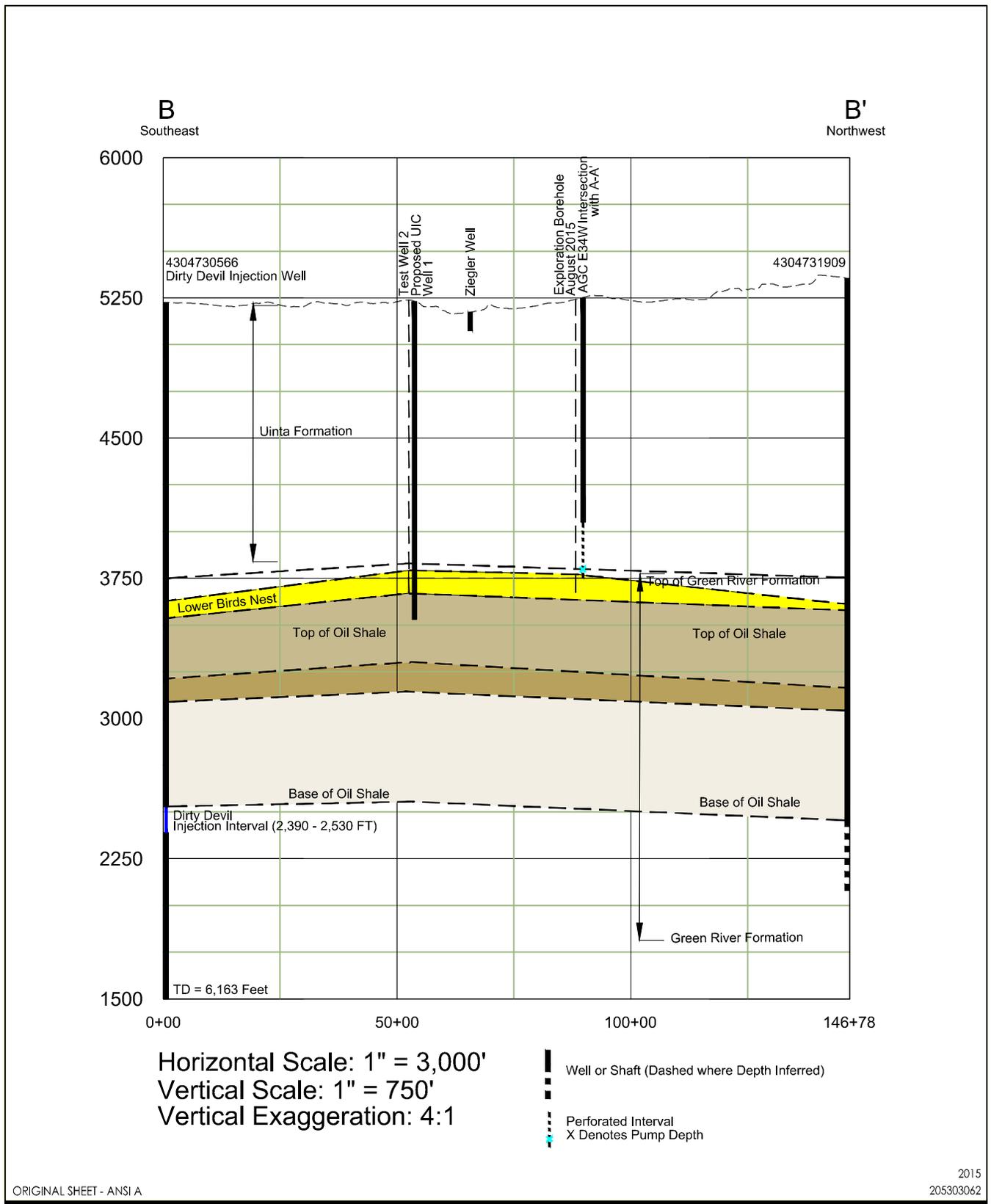
205303062
 Prepared by DLB on 2016-01-27
 Technical Review by DRF on 2016-01-28
 Independent Review by MA on 2016-01-28

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Notes

1. Coordinate System: NAD 1983 UTM Zone 12N
2. Orthimagery © Google Earth 2015.
3. Cashion, W. B., 1986; Geologic Map of the Bonanza Quadrangle, Utah County, Utah; USGS Miscellaneous Field Studies Map MF-1865 United States Geological Survey, Reston, Virginia.



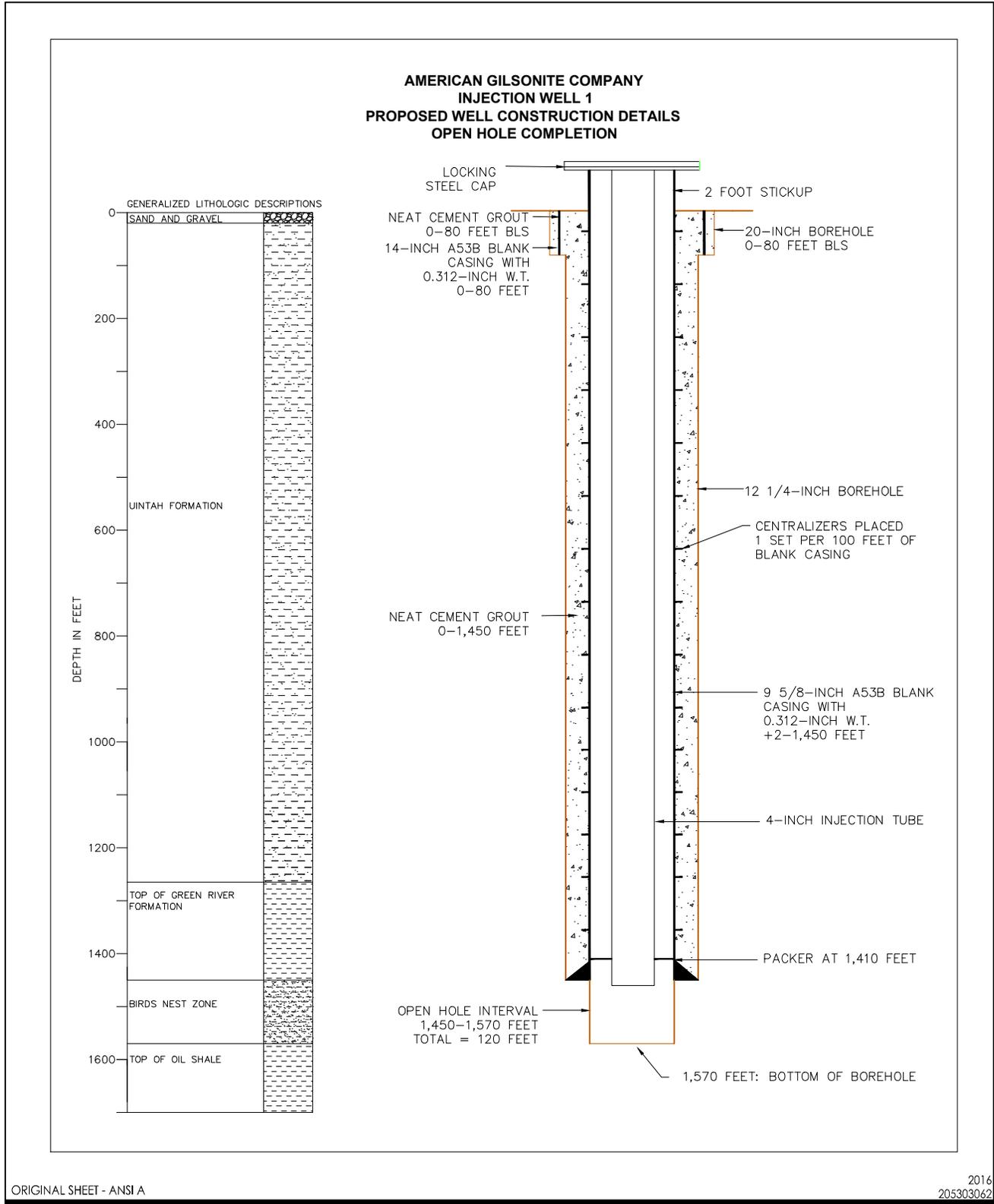


3995 South 700 East, Suite 300
Salt Lake City UT
Tel.
www.stantec.com

Client/Project
American Gilsonite Company
Utah Division of Oil, Gas and Mining
Application for Permit to Drill

Figure No.
5

Title
Cross-Section B-B'



3995 South 700 East, Suite 300
Salt Lake City UT

Client/Project

American Gilsonite Company
Utah Division of Oil, Gas and Mining
Application for Permit to Drill

Figure No.

6

Title

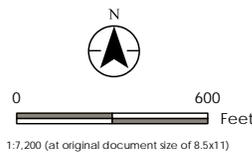
Well Construction Details
Proposed Injection Well #1



Legend

- Proposed AGC UIC Well
- ✗ Test Well
- Active AGC Mine Shaft
- Ex. Power Line
- Major Contour - 5 FT
- Minor Contour - 1 FT
- Proposed Access Road
- State Road (SR)
- Area of Review
- Proposed Drill Pad
- American Gilsonite Property

Notes
 1. Coordinate System: NAD 1983 UTM Zone 12N
 2. Orthomagery © Google Earth 2015



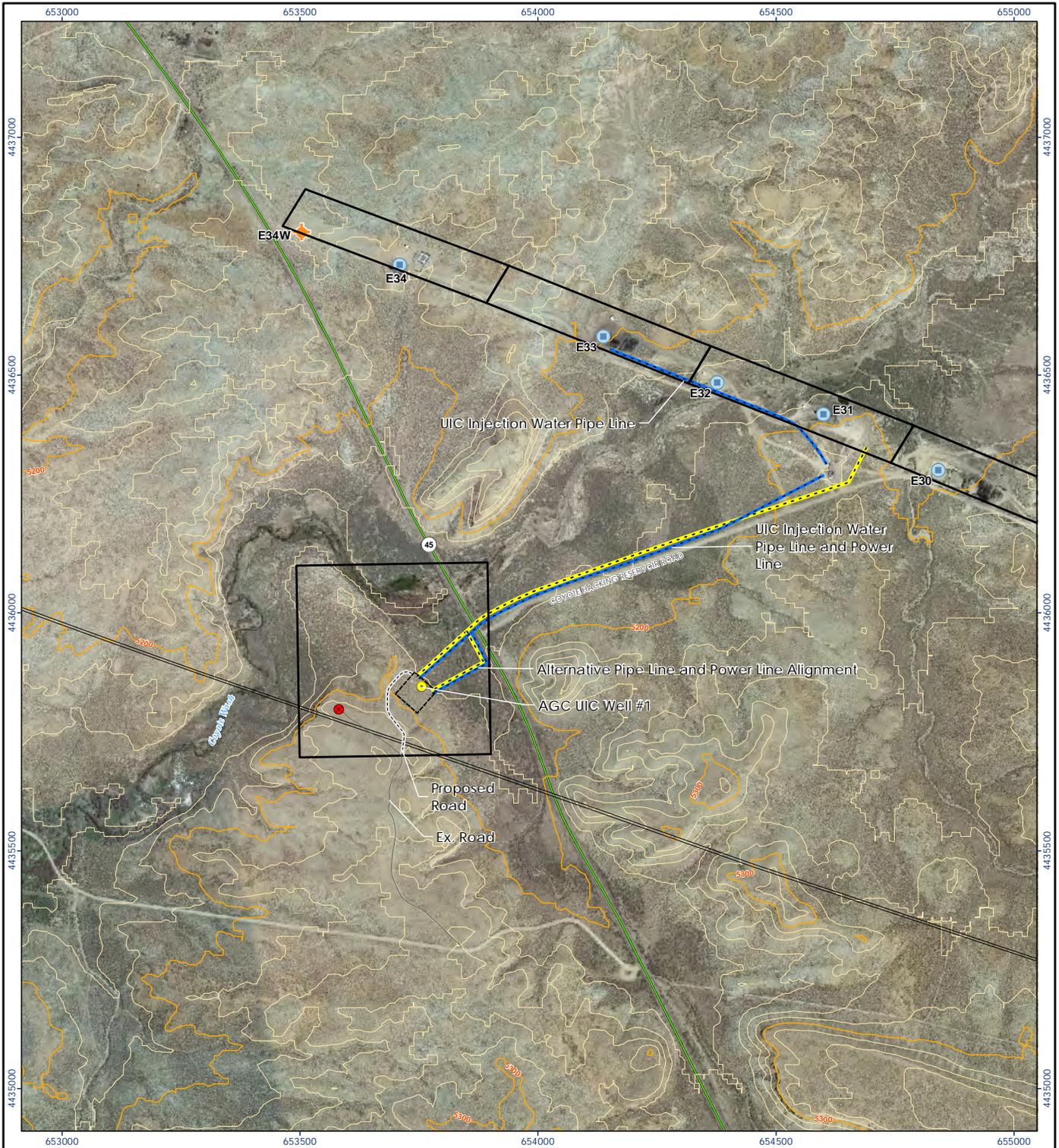
Project Location: 205303062
 Uintah County, Utah
 Prepared by DLB on 2015-03-26
 Technical Review by DRF on 2015-03-29
 Independent Review by MA on 2015-03-31

Client/Project: American Gilsonite Corporation
 Utah Division of Oil, Gas and Mining
 Application for Permit to Drill

Figure No. 7

Title: American Gilsonite Corporation
 Proposed Injection Site 1

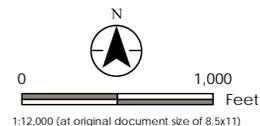
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Legend

- Proposed AGC UIC Well
- Test Well
- AGC Dewatering Well
- Active AGC Mine Shaft
- Ex. Power Line
- Major Contour - 5 FT
- Minor Contour - 1 FT
- Proposed Access Road
- Existing Road
- Proposed Pipe Line
- Proposed Power Line
- State Road (SR)
- Proposed Drill Pad
- American Gilsonite Property

Notes
 1. Coordinate System: NAD 1983 UTM Zone 12N
 2. Orthorectified © Google Earth 2015



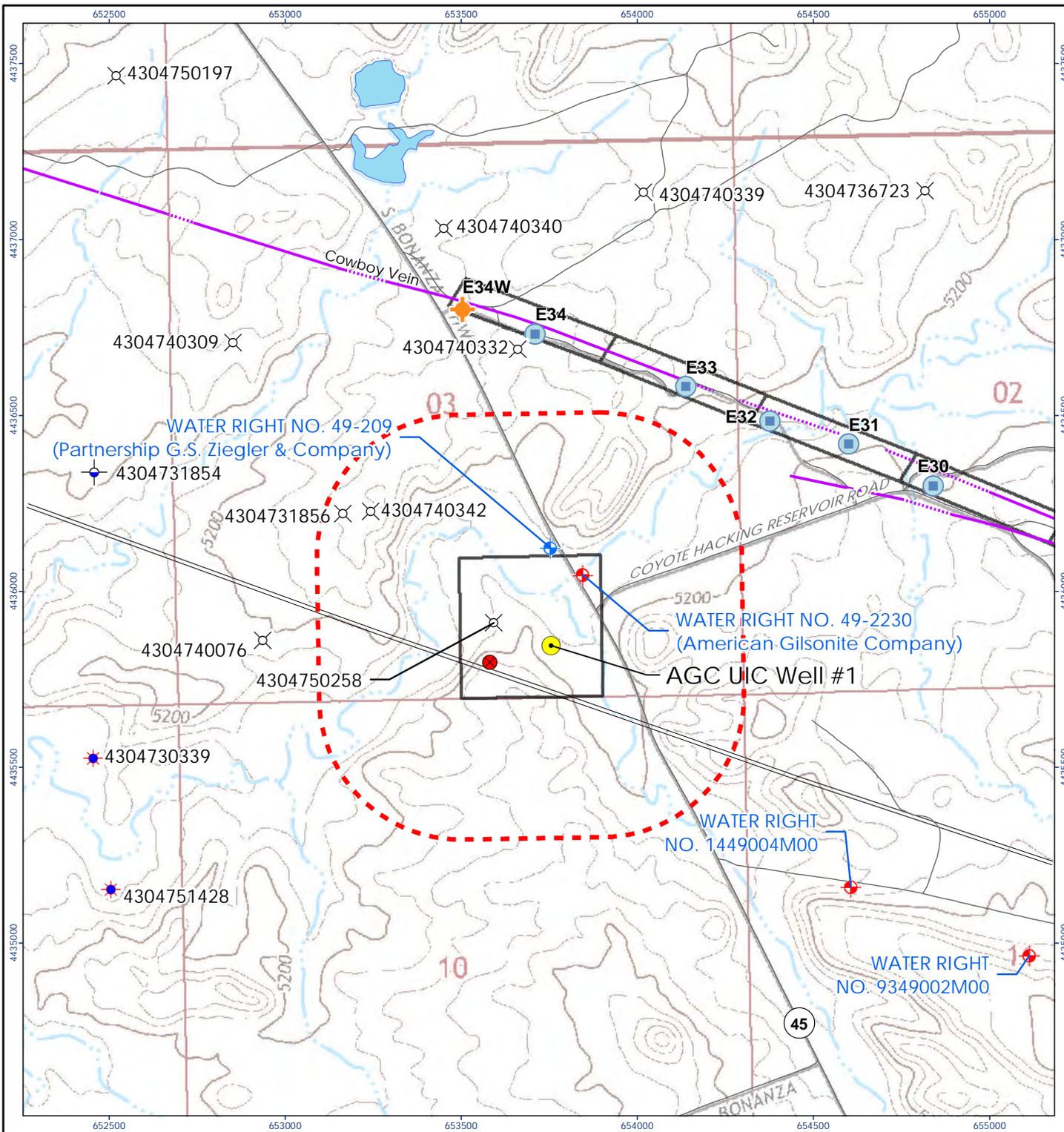
Project Location: 205303062
 Uintah County, Utah
 Prepared by DLB on 2016-01-27
 Technical Review by DRF on 2016-01-28
 Independent Review by MA on 2016-01-28

Client/Project: American Gilsonite Corporation
 Utah Division of Oil, Gas and Mining
 Application for Permit to Drill

Figure No. 8
 Title

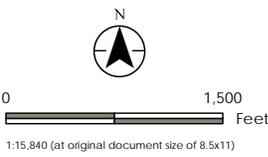
American Gilsonite Corporation
 Surface Impacts

V:\205303062\Active\205303062_GIS\mxd\APD_App_Well\VA_GC_Surface_Impacts.mxd Revised: 2016-01-27 By: dbeck



- Legend**
- Test Well
 - Proposed AGC UIC Well
 - AGC Dewatering Well
 - Active AGC Mine Shaft
 - ◆ Approved, Underground Point of Diversion
 - ◆ Perfected, Underground Point of Diversion
 - ◆ Producing, Gas or Oil Well
 - ◆ Shut-in, Gas or Oil Well
 - ⊗ Location Abandoned (Oil or Gas Well)
 - ◆ Plugged and Abandoned Gas or Oil Well
 - ◆ Well-Located Gilsontite Vein
 - ◆ Concealed Gilsontite Vein
 - ◆ Area of Review
 - ◆ American Gilsontite Property

- Notes**
1. Coordinate System: NAD 1983 UTM Zone 12N
 2. Water Right Points of Diversion obtained from State of Utah Division of Water Rights.
 3. Oil and Gas Wells obtained from the Utah Department of Natural Resources, Division of Oil, Gas, and Mining.
 4. Topographic Map obtained from United States Geological Survey.






Project Location: 205 303062
 Uintah County, Utah
 Prepared by DLB on 2016-01-28
 Technical Review by DRF on 2016-01-29
 Independent Review by MA on 2016-01-29

Client/Project:
 American Gilsontite Corporation
 Utah Division of Oil, Gas and Mining
 Application for Permit to Drill

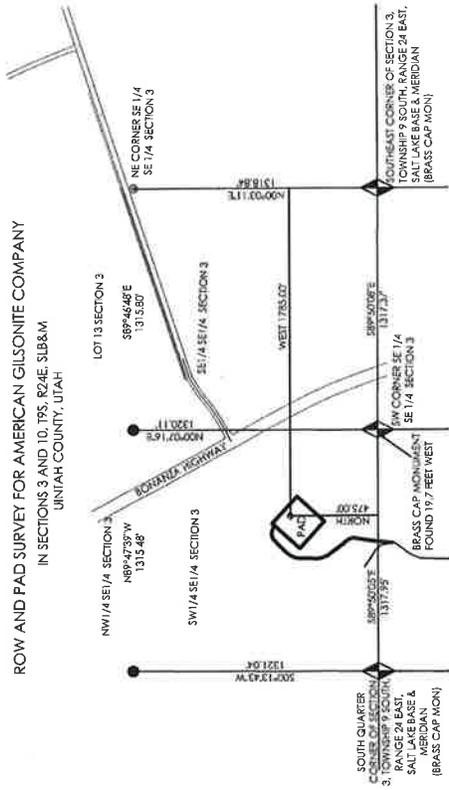
Figure No.
 9

Title:
 American Gilsontite Corporation
 UIC Permit Application Well #1
 Nearby PODs and Oil and Gas Wells

Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

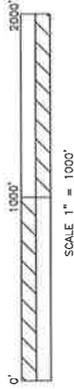
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ROW AND PAD SURVEY FOR AMERICAN GILSONITE COMPANY
IN SECTIONS 9 AND 10, T9S, R24E, SLB&M
JUNTAH COUNTY, UTAH



LEGEND:

- SECTION CORNERS FOUND
- PROPERTY CORNERS SET
- 5/8" REBAR WITH PLASTIC CAP
- PIPE ROW
- PRIVATE ROAD
- PRIVATE 2 TRACK
- PROPOSED ROAD AND PAD



SURVEYORS CERTIFICATE

I, GREGORY A. CATES, A PROFESSIONAL LAND SURVEYOR
HOLDING LICENSE NUMBER 161226 IN ACCORDANCE
WITH THE PROVISIONS OF THE UTAH SURVEYING
ACT, HAVE CONDUCTED A SURVEY OF THE PROPERTY
THAT THIS EXHIBIT WAS PREPARED BY ME OR UNDER MY
DIRECT SUPERVISION, AND IS A TRUE AND CORRECT
REPRESENTATION TO THE BEST OF MY KNOWLEDGE AND
BELIEF.



GREGORY A. CATES
P.L.S. No. 161226

Feb. 2, 2016
Date

NARRATIVE

THE PURPOSE OF THIS SURVEY WAS TO SHOW THE
LOCATION OF THE AMERICAN GILSONITE COMPANY'S UIC
PROPERTY AND ADJACENT TO THE SECTION CORNERS
ADJACENT TO THE SITE.

THE INFORMATION SHOWN HEREON WAS NOT FIELD
VERIFIED.

THIS IS NOT A BOUNDARY SURVEY PLAT.

January 29, 2016
205303062

ORIGINAL SHEET - ANS1A

Client/Project

AMERICAN GILSONITE COMPANY
SECTIONS 9 & 10, T9S, R24E, SLB&M
JUNTAH COUNTY, UTAH

Figure No.

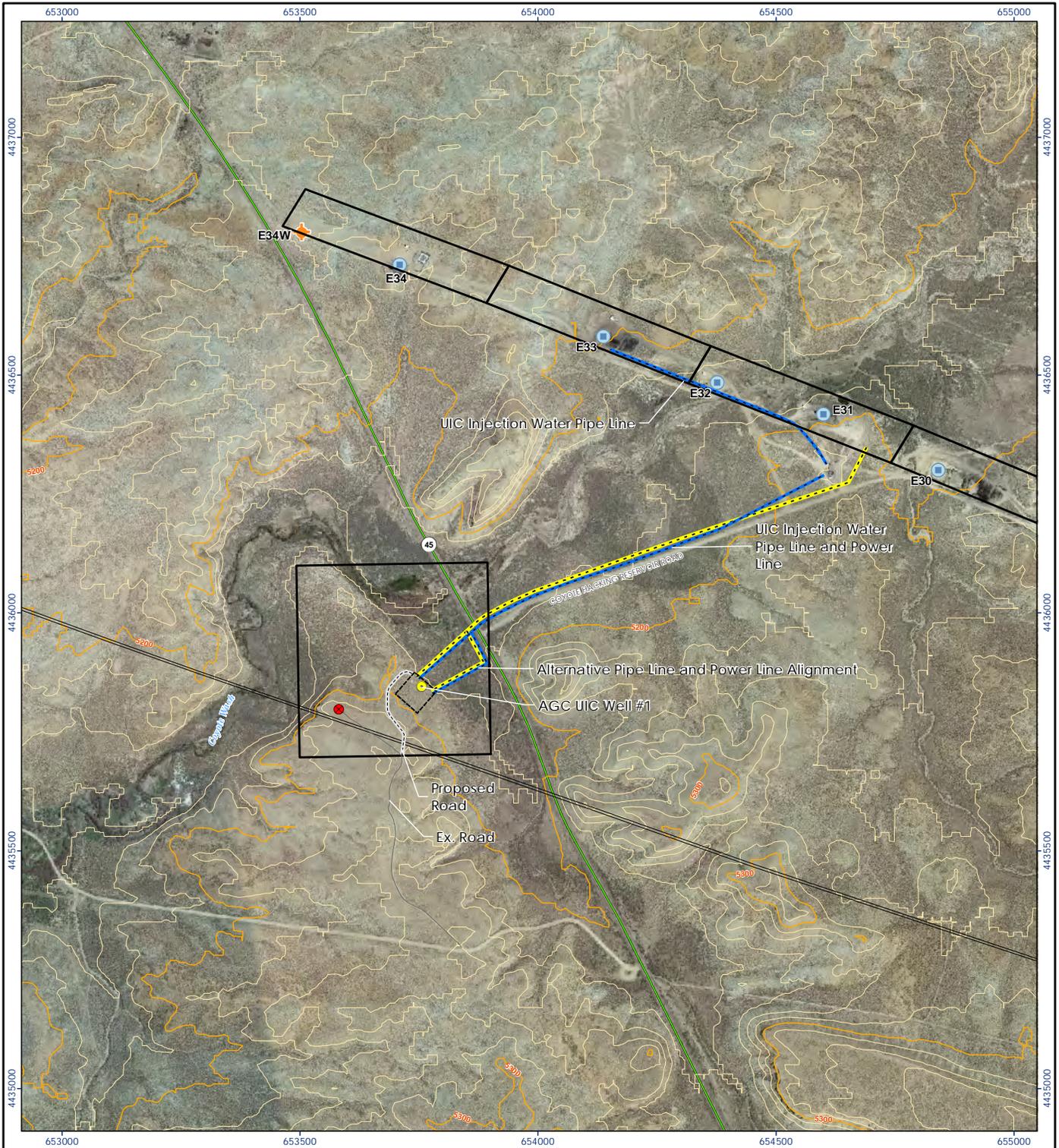
1.0

Title

UIC WELL #1
LOCATION MAP



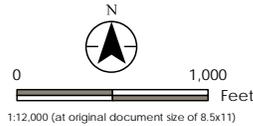
3995 South 700 East, Suite 300
Salt Lake City UT
www.stantec.com



Legend

- Proposed AGC UIC Well
- Test Well
- AGC Dewatering Well
- Active AGC Mine Shaft
- Ex. Power Line
- Major Contour - 5 FT
- Minor Contour - 1 FT
- Proposed Access Road
- Existing Road
- Proposed Pipe Line
- Proposed Power Line
- State Road (SR)
- Proposed Drill Pad
- American Gilsonite Property

Notes
 1. Coordinate System: NAD 1983 UTM Zone 12N
 2. Orthorectification © Google Earth 2015



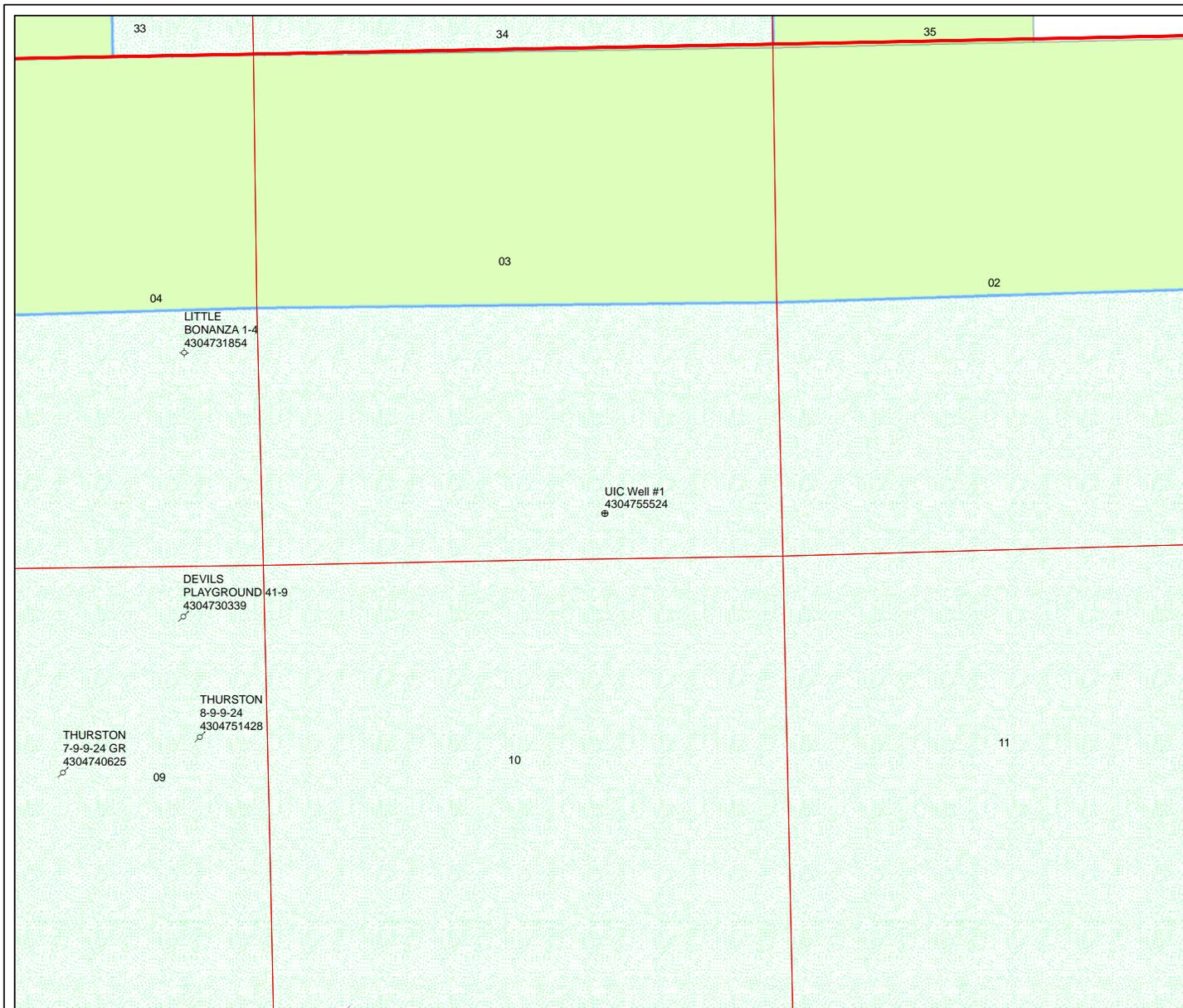
Project Location: 205303062
 Prepared by DLB on 2016-01-27
 Utah County, Utah
 Technical Review by DRF on 2016-01-28
 Independent Review by MA on 2016-01-28

Client/Project
 American Gilsonite Corporation
 Utah Division of Oil, Gas and Mining
 Application for Permit to Drill

Figure No.
 8
 Title

American Gilsonite Corporation
 Surface Impacts

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API Number: 4304755524

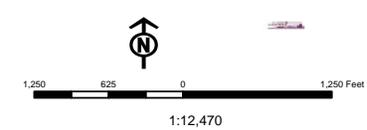
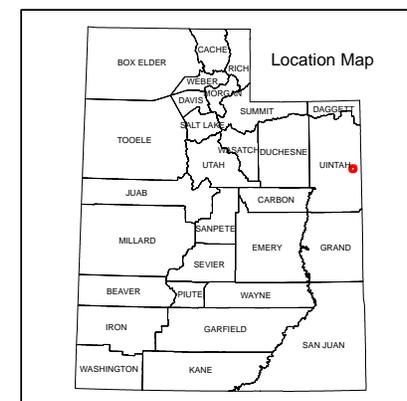
Well Name: UIC Well #1

Township: T09.0S Range: R24.0E Section: 03 Meridian: S

Operator: AMERICAN GILSONITE CO

Map Prepared: 2/25/2016
Map Produced by Diana Mason

Wells Query		Units	
Status		STATUS	
◆	APD - Approved Permit	▨	ACTIVE
○	DRL - Spudded (Drilling Commenced)	▨	EXPLORATORY
↗	GIW - Gas Injection	▨	GAS STORAGE
★	GS - Gas Storage	▨	NF PP OIL
⊕	LOC - New Location	▨	NF SECONDARY
⊖	OPS - Operation Suspended	▨	PI OIL
⊗	PA - Plugged Abandoned	▨	PP GAS
⊙	PGW - Producing Gas Well	▨	PP GEOTHERML
⊚	POW - Producing Oil Well	▨	PP OIL
⊛	SGW - Shut-in Gas Well	▨	SECONDARY
⊜	SOW - Shut-in Oil Well	▨	TERMINATED
⊝	TA - Temp. Abandoned		
○	TW - Test Well	Fields STATUS	
⊖	WDW - Water Disposal	▨	Unknown
⊗	WW - Water Injection Well	▨	ABANDONED
●	WSW - Water Supply Well	▨	ACTIVE
		▨	COMBINED
		▨	INACTIVE
		▨	STORAGE
		▨	TERMINATED



Well Name	AMERICAN GILSONITE CO UIC Well #1 43047555240000			
String	COND	11	OPEN	
Casing Size(")	14.000	9.625	0.000	
Setting Depth (TVD)	80	1450	1570	
Previous Shoe Setting Depth (TVD)	0	80	1450	
Max Mud Weight (ppg)	8.8	8.8	8.8	
BOPE Proposed (psi)	0	0	0	
Casing Internal Yield (psi)	1875	3627	0	
Operators Max Anticipated Pressure (psi)	100		1.2	

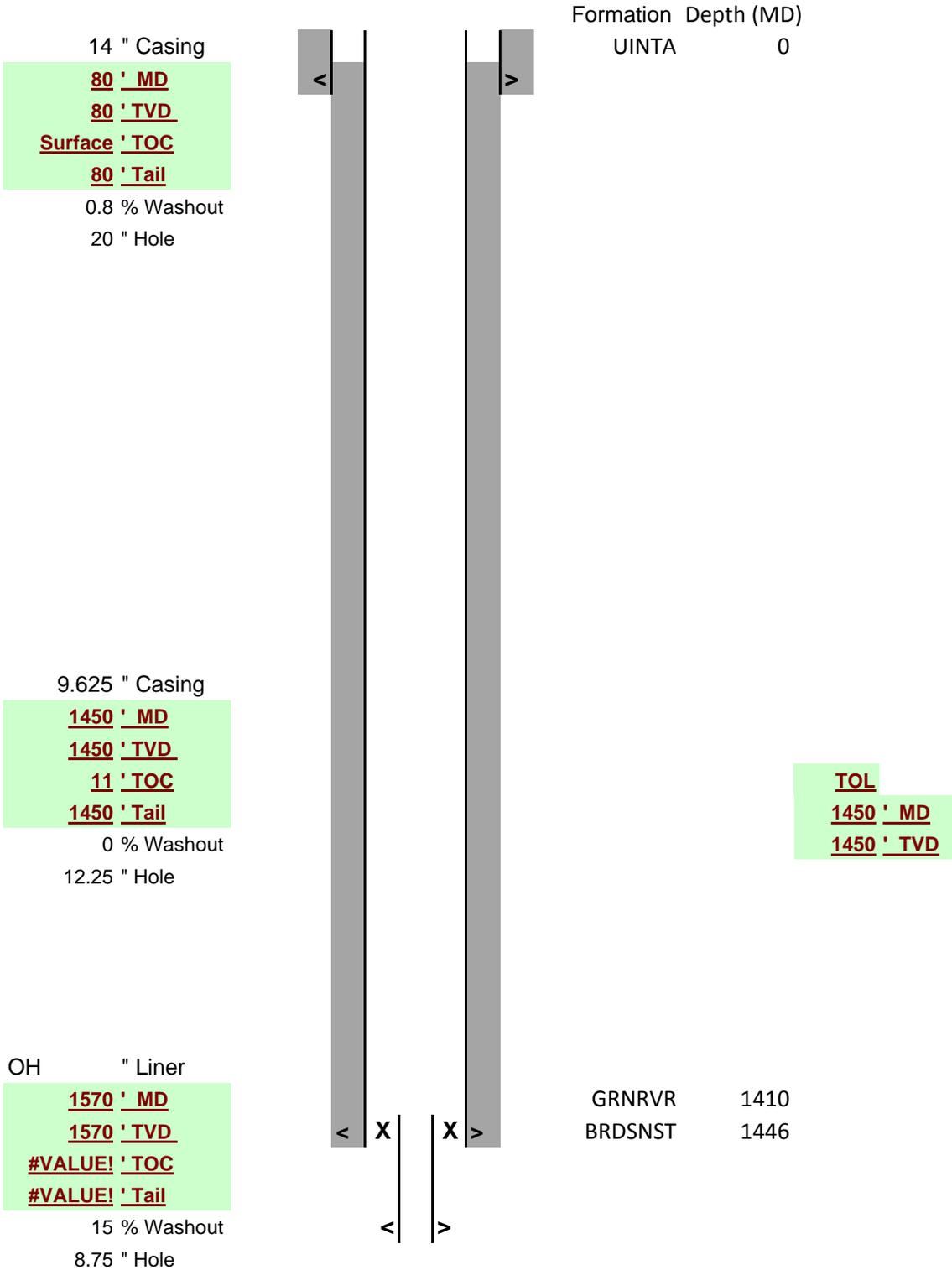
Calculations	COND String	14.000	"
Max BHP (psi)	.052*Setting Depth*MW=	37	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	27	NO None proposed
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	19	NO
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	19	NO
Required Casing/BOPE Test Pressure=		0	psi
*Max Pressure Allowed @ Previous Casing Shoe=		0	psi *Assumes 1psi/ft frac gradient

Calculations	11 String	9.625	"
Max BHP (psi)	.052*Setting Depth*MW=	664	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	490	NO None proposed
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	345	NO
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	363	NO
Required Casing/BOPE Test Pressure=		0	psi
*Max Pressure Allowed @ Previous Casing Shoe=		80	psi *Assumes 1psi/ft frac gradient

Calculations	OPEN String	0.000	"
Max BHP (psi)	.052*Setting Depth*MW=	718	
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=	530	NO None proposed
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=	373	NO No expected pressure
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=	692	YES
Required Casing/BOPE Test Pressure=		0	psi
*Max Pressure Allowed @ Previous Casing Shoe=		1450	psi *Assumes 1psi/ft frac gradient

Calculations	String		"
Max BHP (psi)	.052*Setting Depth*MW=		
			BOPE Adequate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		NO
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Setting Depth)=		NO
			*Can Full Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP-.22*(Setting Depth - Previous Shoe Depth)=		NO
Required Casing/BOPE Test Pressure=			psi
*Max Pressure Allowed @ Previous Casing Shoe=			psi *Assumes 1psi/ft frac gradient

AMERICAN GILSONITE CO
UIC Well #1
43047555240000



Federal 14-10 WDW 1.1 mi SW, 2390-2530, GRRV

**AMERICAN GILSONITE CO
UIC Well #1
4304755240000**

		1.125			1			1.8				
	MASP	Collapse Strength (psi)	Collapse Load (psi)	Collapse DF	Burst Strength (psi)	Burst Load (psi)	Burst DF	Tension Strength (kips)	Tension DF	Neutral Point (ft)	Tension Air (kips)	Tension Buoyed (kips)
14 " Casing	27	1375	37	37.60	1875	80	23.44	561	147.13	69	4.4	3.8
	MW (ppg)	Internal Grad. (psi)	Backup Mud (ppg)	Internal Mud (ppg)	Max Shoe Pressure (psi)*	CSG Wt (lbs/ft)	CSG Grade	CSG Collar	Cement Lead (sx)	Lead Yield	Cement Tail (sx)	Tail Yield
	8.8	0.12			361	55.0	B	PE	78		1.18	
	MASP	Collapse Strength (psi)	Collapse Load (psi)	Collapse DF	Burst Strength (psi)	Burst Load (psi)	Burst DF	Tension Strength (kips)	Tension DF	Neutral Point (ft)	Tension Air (kips)	Tension Buoyed (kips)
9.625 " Casing	344	10847	663	16.36	3627	691	5.25	501	8.14	1255	71.1	61.5
	MW (ppg)	Internal Grad. (psi)	Backup Mud (ppg)	Internal Mud (ppg)	Max Shoe Pressure (psi)*	CSG Wt (lbs/ft)	CSG Grade	CSG Collar	Cement Lead (sx)	Lead Yield	Cement Tail (sx)	Tail Yield
	8.8	0.22			691	49.0	B	PE	390		1.18	
	MASP	Collapse Strength (psi)	Collapse Load (psi)	Collapse DF	Burst Strength (psi)	Burst Load (psi)	Burst DF	Tension Strength (kips)	Tension DF	Neutral Point (ft)	Tension Air (kips)	Tension Buoyed (kips)
OH " Liner	372	#VALUE!	718	#VALUE!	#VALUE!	718	#VALUE!	#VALUE!	#VALUE!	1554	0.0	#VALUE!
	MW (ppg)	Internal Grad. (psi)	Backup Mud (ppg)	Internal Mud (ppg)	Max Shoe Pressure (psi)*	CSG Wt (lbs/ft)	CSG Grade	CSG Collar	Cement Lead (sx)	Lead Yield	Cement Tail (sx)	Tail Yield
	8.8	0.22			1450							

Berm Required? Y

AGC plans to berm this location to federal mining safety standards

Erosion Sedimentation Control Required? N

Paleo Survey Run? N Paleo Potential Observed? N Cultural Survey Run? N Cultural Resources? N

Reserve Pit

Site-Specific Factors

Site Ranking

Distance to Groundwater (feet)	>200	0
Distance to Surface Water (feet)	>1000	0
Dist. Nearest Municipal Well (ft)	>5280	0
Distance to Other Wells (feet)		20
Native Soil Type	High permeability	20
Fluid Type	Fresh Water	5
Drill Cuttings	Normal Rock	0
Annual Precipitation (inches)		0

Affected Populations

Presence Nearby Utility Conduits Unknown 10

Final Score 55 1 Sensitivity Level

Characteristics / Requirements

A shallow reserve pit has already been constructed and lined. The pit is in a stable location with about half the volume in cut below original grade. The liner is 30 mil.

Closed Loop Mud Required? N Liner Required? Y Liner Thickness 16 Pit Underlayment Required? N

Other Observations / Comments

Richard Powell
Evaluator

3/23/2016
Date / Time

**Application for Permit to Drill
Statement of Basis
Utah Division of Oil, Gas and Mining**

APD No	API WellNo	Status	Well Type	Surf Owner	CBM
11461	43047555240000	LOCKED	WI	P	No
Operator	AMERICAN GILSONITE CO		Surface Owner-APD	American Gilsonite Company	
Well Name	UIC Well #1		Unit		
Field	DEVILS PLAYGROUND		Type of Work	DRILL	
Location	SWSE 3 9S 24E S 475 FSL (UTM) 653755E 4435844N		1785 FEL	GPS Coord	

Geologic Statement of Basis

American Gilsonite proposes to set 1,450' of casing at this location. Total depth is estimated to be 1,570 feet. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 2,500'. EPA will re-evaluate the base of the moderately saline ground water as a part of their UIC application review process. A search of Division of Water Rights records shows 3 water wells within a 10,000 foot radius of the center of Section 3. The wells are listed as 26, 100 and 900 feet deep and used for domestic, stockwater and mining water. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The proposed casing and cement should adequately protect any usable ground water.

Brad Hill
APD Evaluator

3/24/2016
Date / Time

Surface Statement of Basis

This proposed well is on fee surface with fee minerals. The surface owner, American Gilsonite Co., is drilling this well to accommodate the injection of water from nearby mine operations. Underground water fills the mine shafts and must be removed for mining operation to proceed. Historically this water has been pumped to surface where it has primarily flowed down coyote wash which drains to the White River. American Gilsonite is being encouraged by the EPA to move to injection of this water. The well is on American Gilsonite Co. (AGC) property and is built in a stable location between drainages on the northeast slope of a moderately sloped hill along the west side of the Hwy 45 corridor approximately 3 miles north of Bonanza, UT. The location of this proposed well has already been constructed, the reserve pit built and lined, and 2-400 bbl upright tanks placed. The reserve pit has a 30 mil liner and has been constructed such that the pit volume is mostly in cut. The location has been sized to accommodate an eventual total of three injection wells, although only this well is to be drilled at this time. Top soil has been removed and placed securely on the south side of the location between the location and the reserve pit. AGC plans to build a berm of imported road base approximately 2.5 ft high around the entire location. This appears to be a good site for the placement of this well.

Richard Powell
Onsite Evaluator

3/23/2016
Date / Time

Conditions of Approval / Application for Permit to Drill

Category	Condition
Pits	A synthetic liner with a minimum thickness of 16 mils shall be properly installed and maintained in the reserve pit.
Surface	The well site shall be bermed to prevent fluids from entering or leaving the pad.
Surface	Measures (BMP's) shall be taken to protect steep slopes and topsoil pile from erosion, sedimentation and stability issues.
Surface	Drainages adjacent to the proposed pad shall be diverted around the location.
Surface	The reserve pit shall be fenced upon completion of drilling operations.

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 2/19/2016

API NO. ASSIGNED: 43047555240000

WELL NAME: UIC Well #1

OPERATOR: AMERICAN GILSONITE CO (N1690)

PHONE NUMBER: 801 261-0090

CONTACT: David R. Friz

PROPOSED LOCATION: SWSE 03 090S 240E

Permit Tech Review:

SURFACE: 0475 FSL 1785 FEL

Engineering Review:

BOTTOM: 0475 FSL 1785 FEL

Geology Review:

COUNTY: UINTAH

LATITUDE: 40.05883

LONGITUDE: -109.19724

UTM SURF EASTINGS: 653755.00

NORTHINGS: 4435844.00

FIELD NAME: DEVILS PLAYGROUND

LEASE TYPE: 4 - Fee

LEASE NUMBER: FEE

PROPOSED PRODUCING FORMATION(S): GREEN RIVER

SURFACE OWNER: 4 - Fee

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

- PLAT
- Bond: STATE/FEE - LC SBPUT300608
- Potash
- Oil Shale 190-5
- Oil Shale 190-3
- Oil Shale 190-13
- Water Permit: 49-222
- 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

This well is being drilled as an injection well to dispose of water from Gilsonite Mining. EPA will review and issue the UIC permit. Oil and gas spacing rules do not apply.

Stipulations: 5 - Statement of Basis - bhill
8 - Cement to Surface -- 2 strings - daynedoucet

RECEIVED: April 19, 2016



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

Permit To Drill

Well Name: UIC Well #1

API Well Number: 43047555240000

Lease Number: FEE

Surface Owner: FEE (PRIVATE)

Approval Date: 4/19/2016

Issued to:

AMERICAN GILSONITE CO, 29950 South Bonanza Highway, Bonanza, UT 84008

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 GREEN RIVER 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:

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Cement volumes for the 14 inch and 9.625 inch casing strings shall be determined from actual hole diameters in order to place cement from the pipe setting depths back to the surface.

Additional Approvals:

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan - contact Dustin Doucet
- Significant plug back of the well - contact Dustin Doucet
- Plug and abandonment of the well - contact Dustin Doucet

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 Alexis Huefner OR submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at <http://oilgas.ogm.utah.gov>
- 24 hours prior to testing blowout prevention equipment - contact Dan Jarvis
- 24 hours prior to cementing or testing casing - contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program
 - contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well - contact Dan Jarvis

Contact Information:

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Alexis Huefner 801-538-5302 - office
- Dustin Doucet 801-538-5281 - office
801-733-0983 - after office hours
- Dan Jarvis 801-538-5338 - office
801-231-8956 - after office hours

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



American Gilsonite

Atten: Ed Gudac

9 5/8 Casing

TD 1785 ft

Hole Size 12 1/4 in

Casing Size 9 5/8 in

Casing Weight 36 #/ft

Tail Cement Coverage 1785 ft to 785 ft

Tail Cement Excess 50 %

Lead Cement Coverage 785 ft to surface

Lead Cement Excess 50 %

Prem G Tail Cmt 410 sks 15.8 #/gal 1.15 cuft/sks 5.0 gal/sk

Premium G Cmt 100 %

Calcium Chloride 2 %

Flocele 1/4 #/sk

Prem Hifill Lead Cmt 130 sks 12.0 #/gal 2.86 cuft/sk 16.83 gal/sk

Premium Type V Cmt 100 %

Gel 16 %

Gilsonite 10 #/sk

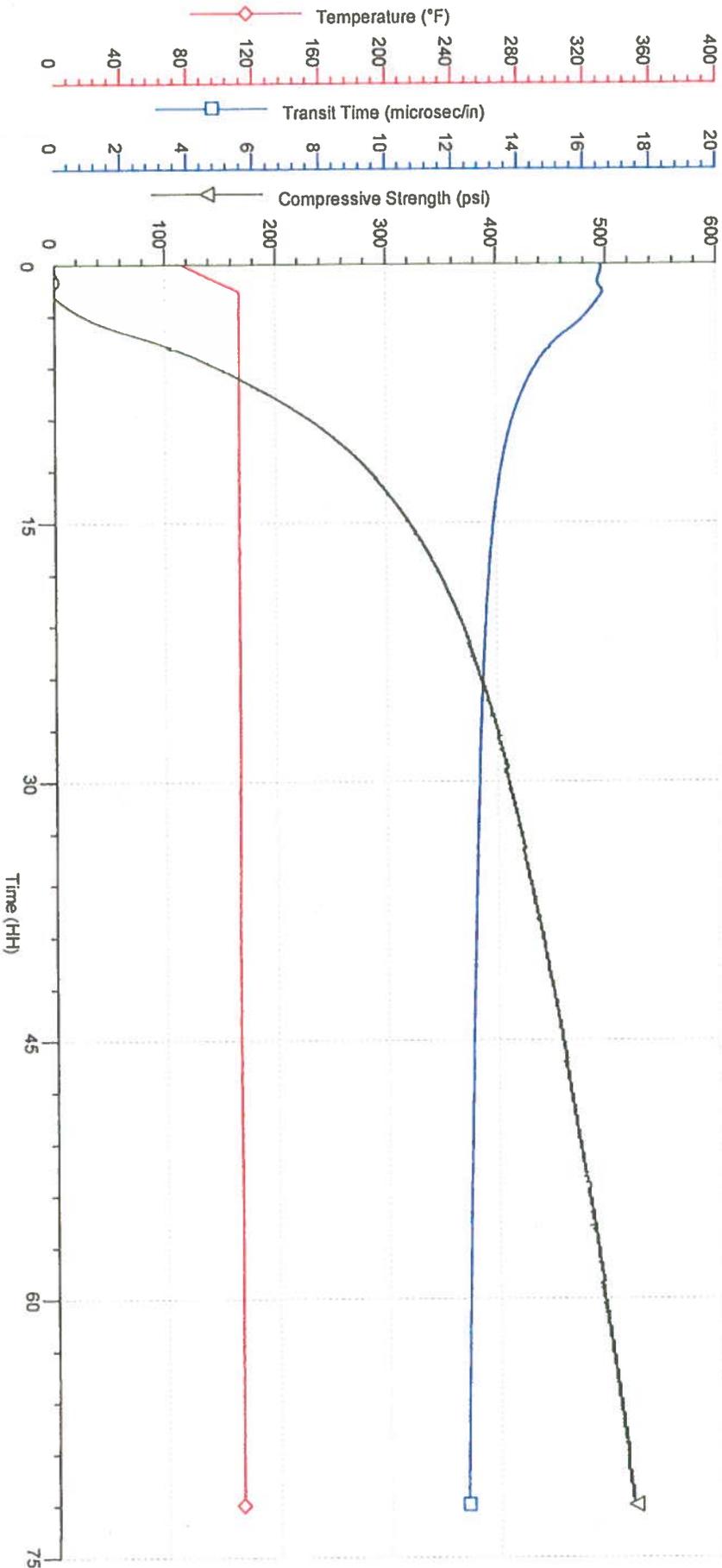
GR 3 2 #/sk

Salt 3 % (BWOC)

Well ID:
Class: Type V
Cement Manufacture:
Slurry: 16% gel, 10 pps Kalseal, 3% NaCl bw oc
Density: 12.0 pp9

Customer: ProPetro Services
Strength: 521 psi
Algorithm: Compressive strength type A (less than 14 lb/gal)

BHST: 110° F
50 psi @ 3:39:30
500 psi @ 61:52:00



STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: FEE
		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
1. TYPE OF WELL Water Injection Well		7. UNIT or CA AGREEMENT NAME:
2. NAME OF OPERATOR: AMERICAN GILSONITE CO		8. WELL NAME and NUMBER: UIC Well #1
3. ADDRESS OF OPERATOR: 29950 South Bonanza Highway , Bonanza, UT, 84008		9. API NUMBER: 43047555240000
PHONE NUMBER: 435 790-1930 Ext		9. FIELD and POOL or WILDCAT: DEVILS PLAYGROUND
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0475 FSL 1785 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 03 Township: 09.0S Range: 24.0E Meridian: S		COUNTY: UINTAH
		STATE: UTAH

11.

CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input checked="" type="checkbox"/> SPUD REPORT Date of Spud: 8/9/2016	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

We drilled and placed this 80 foot casing on Tuesday, 08/09/2016

**Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
September 01, 2016**

NAME (PLEASE PRINT) Michael Wilhite	PHONE NUMBER 435-781-4541	TITLE HES Manager
SIGNATURE N/A	DATE 8/31/2016	



SONIC
INJECTION WELL #1

century-geo.com

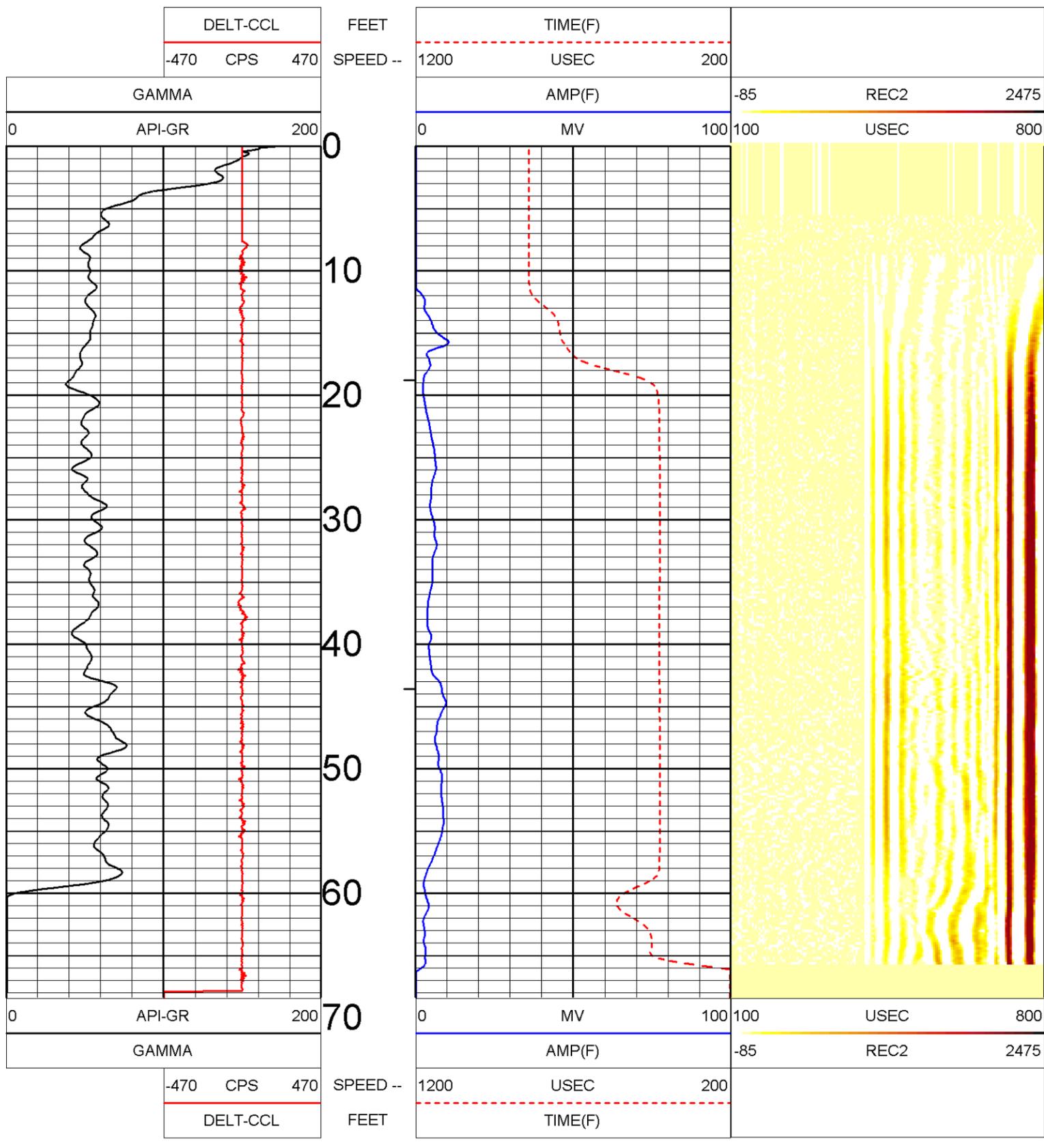
COMPANY : AMERICAN GILSONITE
 WELL : INJECTION WELL #1
 WELL EXT :
 FIELD :
 COUNTY : UINTAH
 STATE : UTAH
 COUNTRY : --
 API NO. :
 UNIQ ID :
 LOCATION :
 LAT GPS UTM :
 LON GPS UTM :
 SECTION :
 TOWNSHIP :
 RANGE :
 Version 3.65 JK999

PERMANENT DATUM	GL	Elevations:	Other Services:
DRL MEASURED FROM	GL	KB	FT
LOG MEASURED FROM	GL	DF	FT
ELEV. PERM. DATUM	FT	GL	FT
DATE	08/15/16 10:11:		
DEPTH DRILLER	77		
DEPTH LOGGER	FT		
FIRST READING	FT		
LAST READING	FT		
BIT SIZE	20.0		
CASING -- DRILLER	N/A		
CASING -- LOGGER	FT		
CASING O.D.	14.0		
CASING TYPE	STEEL		
FLUID TYPE	MUD		
FLUID DENSITY			LB/GAL
FLUID VISCOSITY			
FLUID PH			
MUD SOURCE			
RM @ MEAS TEMP	@ F		
RME @ MEAS TEMP	@ F		
RM @ MEAS TEMP	@ F		
CIRC STOPPED			
RIG NUMBER			
RECORDED BY	T NEAL		
WITNESSED BY			
REMARKS 1			
REMARKS 2			
REMARKS 3			

1:120 SONIC BOND INJECTION WELL #1 08/15/16

LOG PARAMETERS

MATRIX DENSITY : 2.65 NEUTRON MATRIX : SANDSTONE MATRIX DELTA T : 54
 MAGNETIC DECL : 0 ELECT. CUTOFF : 99999 BIT SIZE : 20.0 IN
 PRESENTATION NAME/DATE = 9321A2.0 08/16/2016 Version 3.65 JK999



1:120 SONIC BOND INJECTION WELL #1 08/15/16

LOG PARAMETERS

MATRIX DENSITY : 2.65 NEUTRON MATRIX : SANDSTONE MATRIX DELTA T : 54
 MAGNETIC DECL : 0 ELECT. CUTOFF : 99999 BIT SIZE : 20.0 IN
 PRESENTATION NAME/DATE = 9321A2.0 08/16/2016 Version 3.65 JK999

TOOL CALIBRATION INJECTION WELL #1 08/15/16 10:11:							
TOOL 9321A2 TM VERSION 3							
SERIAL NUMBER 681							
				STANDARD	RESPONSE [CPS]		
DATE	TIME	SENSOR		Point1	Point2	Point1	Point2
1 Apr19,13	10:21:58	GAMMA	[API-GR]	1.000	340.000	0.000	324

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: FEE
		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
1. TYPE OF WELL Water Injection Well		7. UNIT or CA AGREEMENT NAME:
2. NAME OF OPERATOR: AMERICAN GILSONITE CO		8. WELL NAME and NUMBER: UIC Well #1
3. ADDRESS OF OPERATOR: 29950 South Bonanza Highway , Bonanza, UT, 84008		9. API NUMBER: 43047555240000
PHONE NUMBER: 435 790-1930 Ext		9. FIELD and POOL or WILDCAT: DEVILS PLAYGROUND
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0475 FSL 1785 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 03 Township: 09.0S Range: 24.0E Meridian: S		COUNTY: UINTAH
		STATE: UTAH

11.

CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 8/27/2016	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	<input type="checkbox"/> TEMPORARY ABANDON
	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input checked="" type="checkbox"/> OTHER	OTHER: <input type="text" value="cement casing"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

We drilled to 1404 feet deep, installed the 9 5/8 inch casing and cemented. I have attached the cement bond log. Thanks

**Accepted by the
Utah Division of
Oil, Gas and Mining
FOR RECORD ONLY
September 02, 2016**

NAME (PLEASE PRINT) Michael Wilhite	PHONE NUMBER 435-781-4541	TITLE HES Manager
SIGNATURE N/A	DATE 8/29/2016	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.	5. LEASE DESIGNATION AND SERIAL NUMBER: FEE
	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	7. UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Water Injection Well	8. WELL NAME and NUMBER: UIC Well #1
2. NAME OF OPERATOR: AMERICAN GILSONITE CO	9. API NUMBER: 43047555240000
3. ADDRESS OF OPERATOR: 29950 South Bonanza Highway , Bonanza, UT, 84008	PHONE NUMBER: 435 790-1930 Ext
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0475 FSL 1785 FEL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWSE Section: 03 Township: 09.0S Range: 24.0E Meridian: S	9. FIELD and POOL or WILDCAT: DEVILS PLAYGROUND
	COUNTY: UINTAH
	STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> CASING REPAIR
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> CHANGE WELL NAME
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> CONVERT WELL TYPE
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 8/22/2016	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> NEW CONSTRUCTION
	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> PLUG BACK
	<input type="checkbox"/> PRODUCTION START OR RESUME	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION
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	<input type="checkbox"/> TUBING REPAIR	<input type="checkbox"/> VENT OR FLARE	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> WATER SHUTOFF	<input type="checkbox"/> SI TA STATUS EXTENSION	<input type="checkbox"/> APD EXTENSION
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> OTHER	OTHER: <input style="width: 100px;" type="text"/>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

We will be cementing the 9 5/8 inch casing within 24 hours. This casing will run about 1,400 feet deep depending on how deep the bird's nest is.

**Accepted by the
 Utah Division of
 Oil, Gas and Mining
 FOR RECORD ONLY
 September 12, 2016**

NAME (PLEASE PRINT) Michael Wilhite	PHONE NUMBER 435-781-4541	TITLE HES Manager
SIGNATURE N/A	DATE 8/22/2016	