

**Current Well Diagram**

8.5/8" Csg  
 Shoe @  
 301'

500' Morrison

**Well**      **Cache Unit #1**

**WELL & PROJECT DETAIL**

<b>Lease</b>	C-02763	<b>Facility ID</b>	223753	<b>Company</b>	BP Remediation Management
<b>API</b>	05-083-05153	<b>Location ID</b>	313429	<b>Project Mgr</b>	C. Michael Jackson
<b>Field</b>	Cache - 9610	<b>Permit No</b>	19650154	<b>Address</b>	201 Helios Way, 6.372C, Houston, Tx 77079
<b>County</b>	Montezuma - 083	<b>Spud Date</b>	26 April 1965	<b>Date</b>	December 2017
<b>State</b>	Colorado	<b>Pro Date</b>	28 May 1965	<b>Phone</b>	713.437.9285

**LOCATION DETAIL**

<b>Coordinates</b>	DD Latitude	37.245569	DMS Latitude	N 37° 14' 44.3724"			
	DD Longitude	-109.034003	DMS Longitude	W 109° 2' 2.4102"			
NWSE 34 35N20W N PM		<b>Section</b>	34	<b>Town</b>	35 North	<b>Range</b>	20 West
<b>Planned</b>	1980 Feet from South line and 1980 feet from East Line						
<b>Elevation</b>	4897.4'						

**COMPLETION DETAIL (COGCC dated 06 Oct 2014)**

Csg / Tbg	Depth	Weight	Grade	ID	Burst	Collapse	Capacity
8.5/8"	301	24		8.097"			0.0637
5.1/2"	5700	14		5.012"			0.0244
2.7/8"	5561						

**ORIGINAL CASING CEMENTING DETAIL**

Hole	Depth	Cement Type	Volume	Weight	Yield	TOC	
11" x 8.5/8"	301	Reg 3%	240 sacks			Surface (calc)	
7.7/8" x 5.1/2"	5,700'	Class C	250 sacks			4,026' (calc)	1st Stage
7.7/8" x 5.1/2"	3,365' DV	Class C	600 sacks			Surface (calc)	2nd Stage

**WELL BACKGROUND**

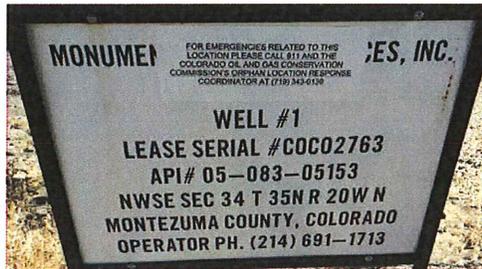
Note: Casing cement heights calculated from historical records and utilizing a typical 1.15 yield for the cement

2,800' Cutler

3,365'  
 DV Collar

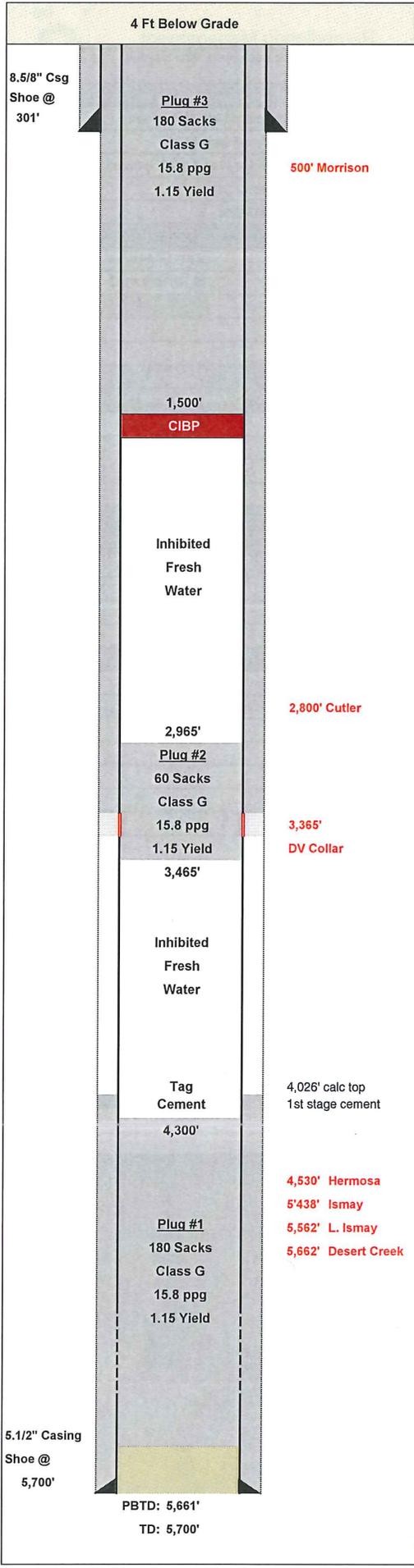
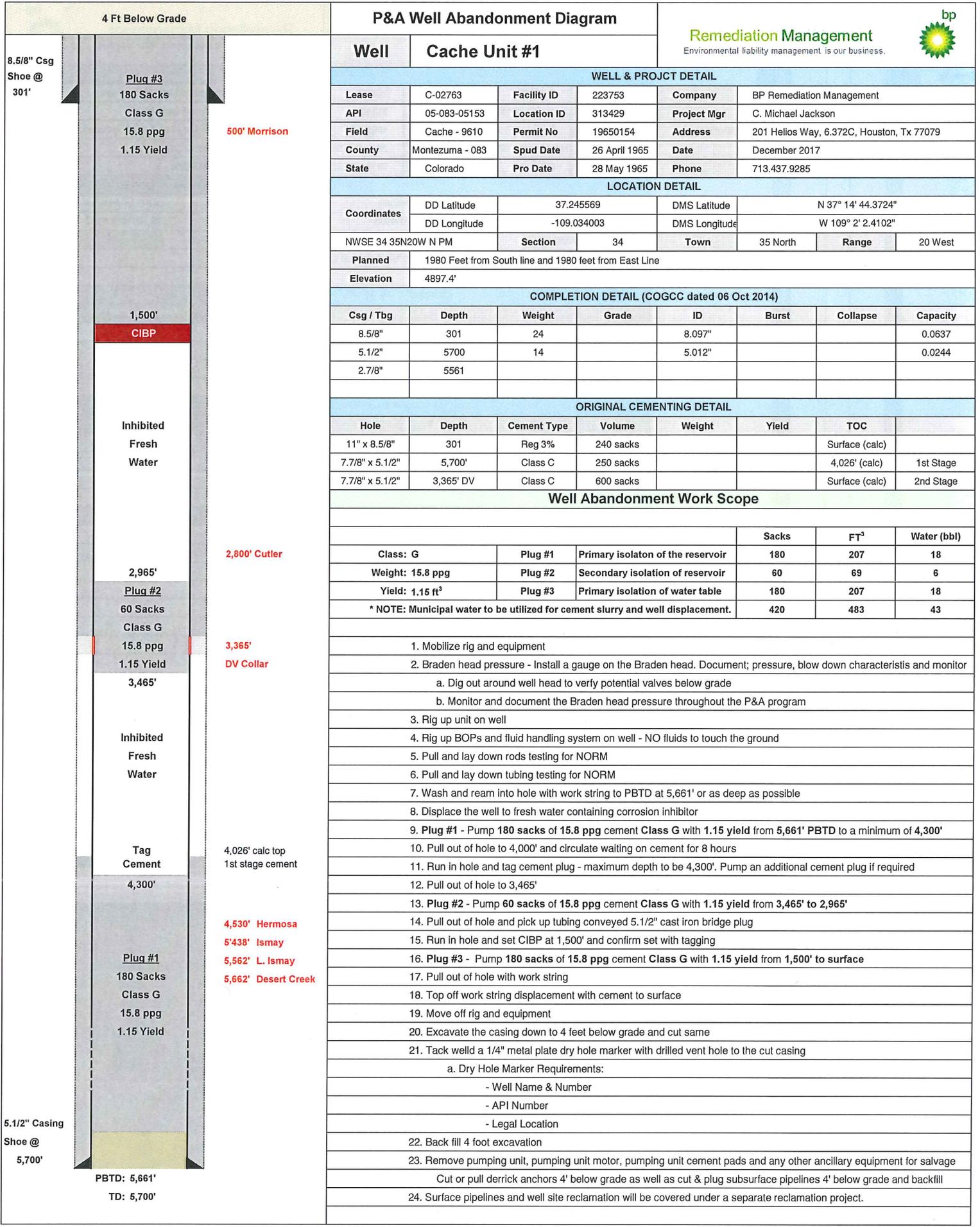
4,026' calc top  
 1st stage cement

4,530' Hermosa  
 5'438' Ismay  
 5,562' L. Ismay  
 5,662' Desert Creek



5.1/2" Casing  
 Shoe @  
 5,700'

5,561'  
 2.7/8" Tubing  
 PBTD: 5,661'  
 TD: 5,700'



### P&A Well Abandonment Diagram

Well	Cache Unit #1						
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<b>Well Abandonment Work Scope</b>							
				Sacks	FT <sup>3</sup>	Water (bbl)	
Class: G		Plug #1	Primary isolaton of the reservoir	180	207	18	
Weight: 15.8 ppg		Plug #2	Secondary isolation of reservoir	60	69	6	
Yield: 1.15 ft <sup>3</sup>		Plug #3	Primary isolation of water table	180	207	18	
* NOTE: Municipal water to be utilized for cement slurry and well displacement.				420	483	43	
1. Mobilize rig and equipment							
2. Braden head pressure - Install a gauge on the Braden head. Document; pressure, blow down characteristis and monitor							
a. Dig out around well head to verify potential valves below grade							
b. Monitor and document the Braden head pressure throughout the P&A program							
3. Rig up unit on well							
4. Rig up BOPs and fluid handling system on well - NO fluids to touch the ground							
5. Pull and lay down rods testing for NORM							
6. Pull and lay down tubing testing for NORM							
7. Wash and ream into hole with work string to PBTD at 5,661' or as deep as possible							
8. Displace the well to fresh water containing corrosion inhibitor							
9. Plug #1 - Pump 180 sacks of 15.8 ppg cement Class G with 1.15 yield from 5,661' PBTD to a minimum of 4,300'							
10. Pull out of hole to 4,000' and circulate waiting on cement for 8 hours							
11. Run in hole and tag cement plug - maximum depth to be 4,300'. Pump an additional cement plug if required							
12. Pull out of hole to 3,465'							
13. Plug #2 - Pump 60 sacks of 15.8 ppg cement Class G with 1.15 yield from 3,465' to 2,965'							
14. Pull out of hole and pick up tubing conveyed 5.1/2" cast iron bridge plug							
15. Run in hole and set CIBP at 1,500' and confirm set with tagging							
16. Plug #3 - Pump 180 sacks of 15.8 ppg cement Class G with 1.15 yield from 1,500' to surface							
17. Pull out of hole with work string							
18. Top off work string displacement with cement to surface							
19. Move off rig and equipment							
20. Excavate the casing down to 4 feet below grade and cut same							
21. Tack weld a 1/4" metal plate dry hole marker with drilled vent hole to the cut casing							
a. Dry Hole Marker Requirements:							
- Well Name & Number							
- API Number							
- Legal Location							
22. Back fill 4 foot excavation							
23. Remove pumping unit, pumping unit motor, pumping unit cement pads and any other ancillary equipment for salvage							
Cut or pull derrick anchors 4' below grade as well as cut & plug subsurface pipelines 4' below grade and backfill							
24. Surface pipelines and well site reclamation will be covered under a separate reclamation project.							



**Remediation Management**  
Environmental liability management is our business.