

Lost Creek ISR, LLC  
Project Area

**Petrotek** 10288 West Chatfield Ave., Ste 201  
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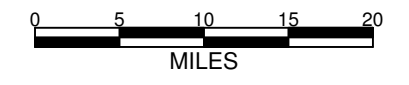
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Figure 1-1

Project Location Map

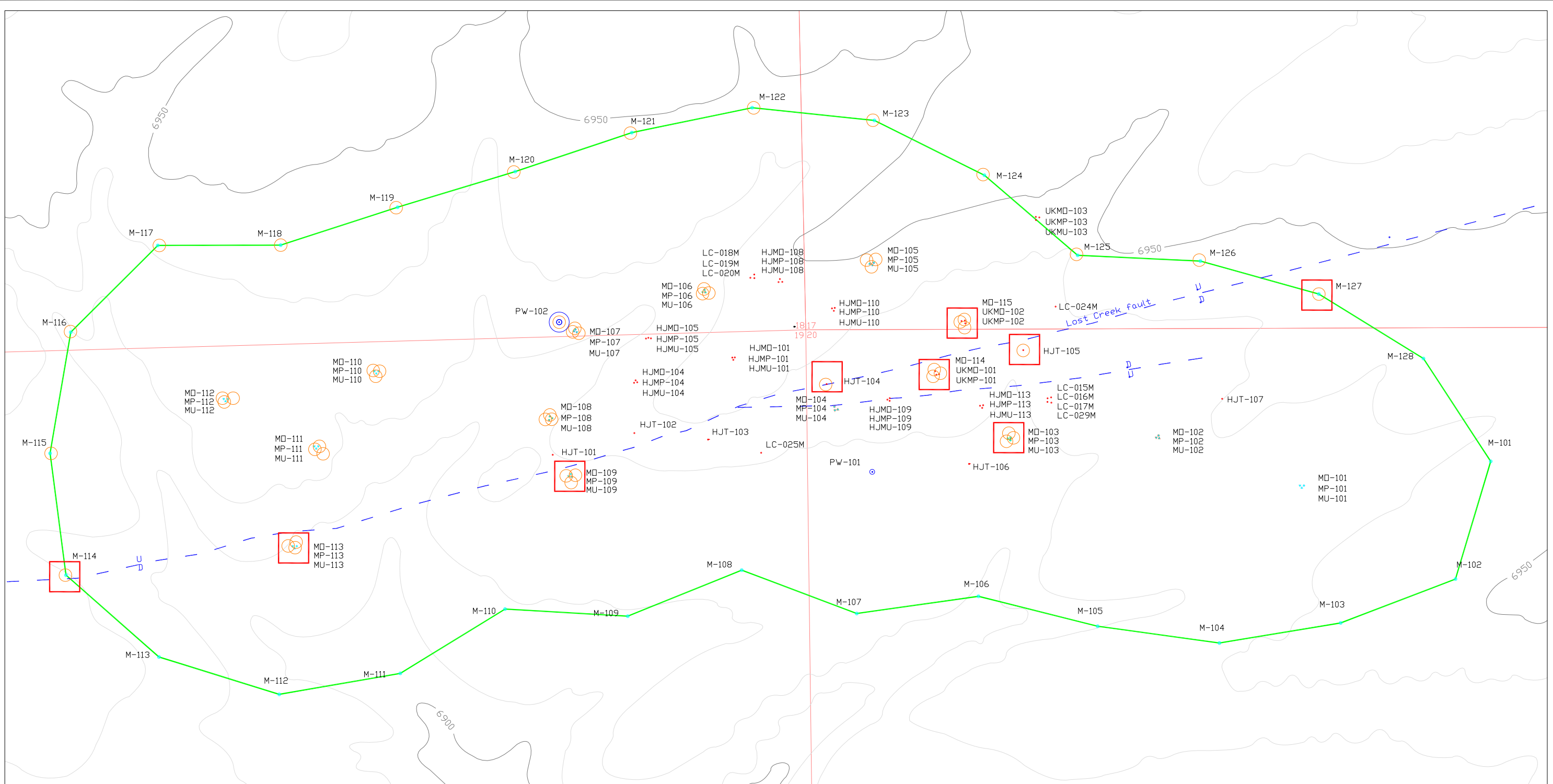
By: KRS Checked: HPD

Ratio Scale = 1 : 720,000




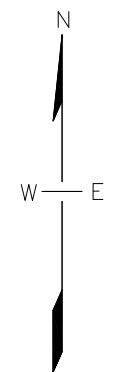
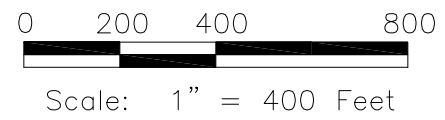
Coordinate System: NAD 83 WY SPWC





**Legend**

-  Pumping Well
-  Wells monitored with LevelTROLLS during North Test
-  Wells monitored with LevelTROLLS during both Tests



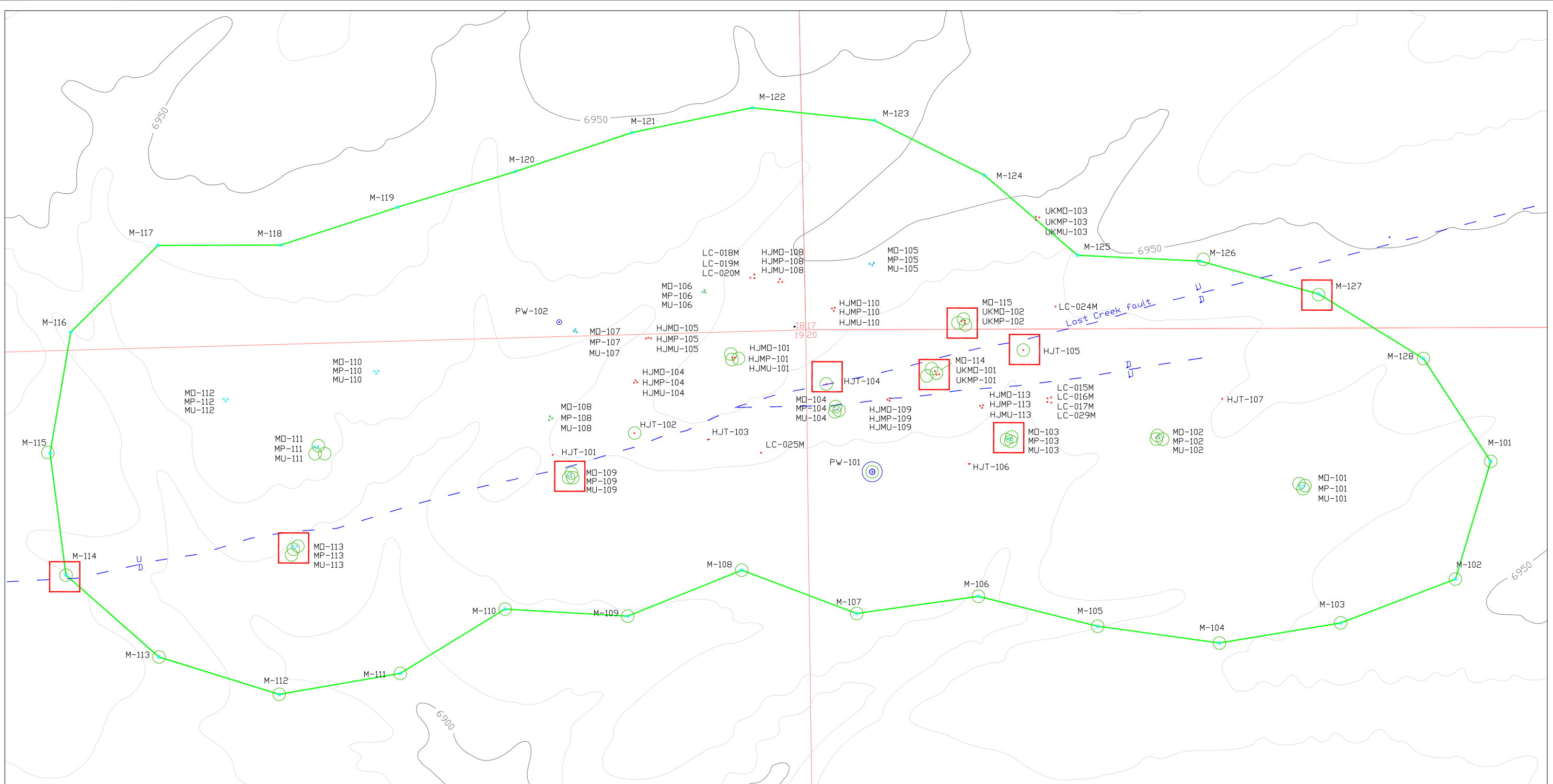
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Figure 1-2  
Lost Creek Mine Unit 1 Pump Test Layout  
North Test

Project: MU1 PTests	Date: October 2009
MU1_PTRpt_Fig_123	By: KRS   Checked: AAP

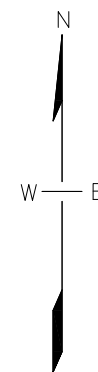
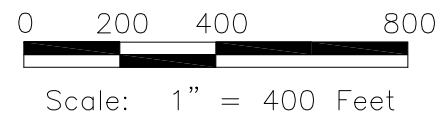
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Coordinate System: NAD 83 WY SPWC



**Legend**

-  Pumping Well
-  Wells monitored with LevelTROLLS during South Test
-  Wells monitored with LevelTROLLS during both Tests



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Figure 1-3  
Lost Creek Mine Unit 1 Pump Test Layout  
South Test

Project: MU1 PTests	Date: October 2009
MU1_PTRpt_Fig_123	By: KRS   Checked: AAP



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**TYPE LOG – LOST CREEK PROJECT**

WELL # HJMU-110

E 2,212,004 / N 595,897 (NAD 83)  
 E 743,685 / N 535,195 (NAD 27)

**HJMU-110**

**Battle Springs Formation – Typical Lithology**

**SANDSTONE:** arkosic; medium to very coarse-grained, locally fine-grain; poorly-sorted; subangular to angular; weakly to moderately consolidated, moderately firm.  
 Represents bed-load to mixed-load, channel-fill fluvial environments within a distal alluvial fan system.

**MUDSTONE,** commonly very silty and/or sandy; soft to very firm; and  
**CLAYSTONE,** moderately firm to very firm, dense, blocky.  
 Secondary amounts of **SILTSTONE,** commonly very sandy, firm to very firm.

Represents inter-channel and overbank fluvial environments.

Considerable lateral facies changes, inter-tonguing, and overlapping occurs between the two dominant lithologies. This can be very dramatic within short distances.

**DE Horizon:** Multiple sandstone units interbedded with mudstones  
 Host to secondary amounts of uranium mineralization.

**EF:(upper No-Name Shale):** Mudstone and claystone, commonly silty and/or sandy; locally with interbedded very fine-grained sands. Does not exhibit lateral continuity throughout project area. Represents a series of overlapping shaley units.

**FG Horizon:** Multiple sandstone units interbedded with mudstones  
 Host to secondary amounts of uranium mineralization.

**LCS (Lost Creek Shale):** Mudstone and claystone, commonly silty and/or sandy; locally with interbedded very fine-grained sands. Exhibits lateral continuity throughout project area. Commonly intertongues with upper portions of the HJ and lower portions of the FG.

**HJ Horizon:** Multiple sandstone units interbedded with mudstones  
 Primary host to uranium mineralization.

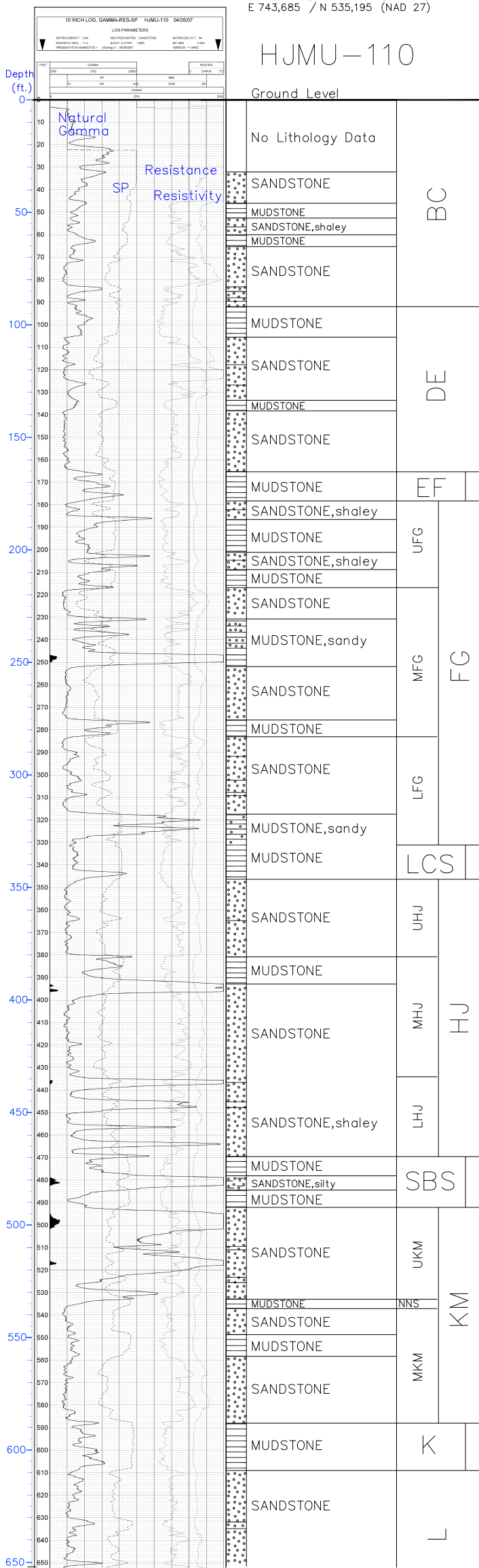
**SBS (Sagebrush Shale):** Mudstone and claystone, commonly silty and/or sandy; locally with interbedded very fine-grained sands. Exhibits lateral continuity throughout project area. Commonly intertongues with upper portions of the KM and lower portions of the HJ.

**KM Horizon:** Multiple sandstone units interbedded with mudstones  
 Host to significant uranium mineralization.

Includes NNS (No Name Shale) separating UKM from MKM.  
 Does not exhibit regional continuity.

(Note: MKM has recently been renamed LKM).

**K (K Shale):** Mudstone and claystone, commonly silty and/or sandy.



Vertical Scale: 1"=50' (TD 850)



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Figure 2-1

Lost Creek Stratigraphic Section

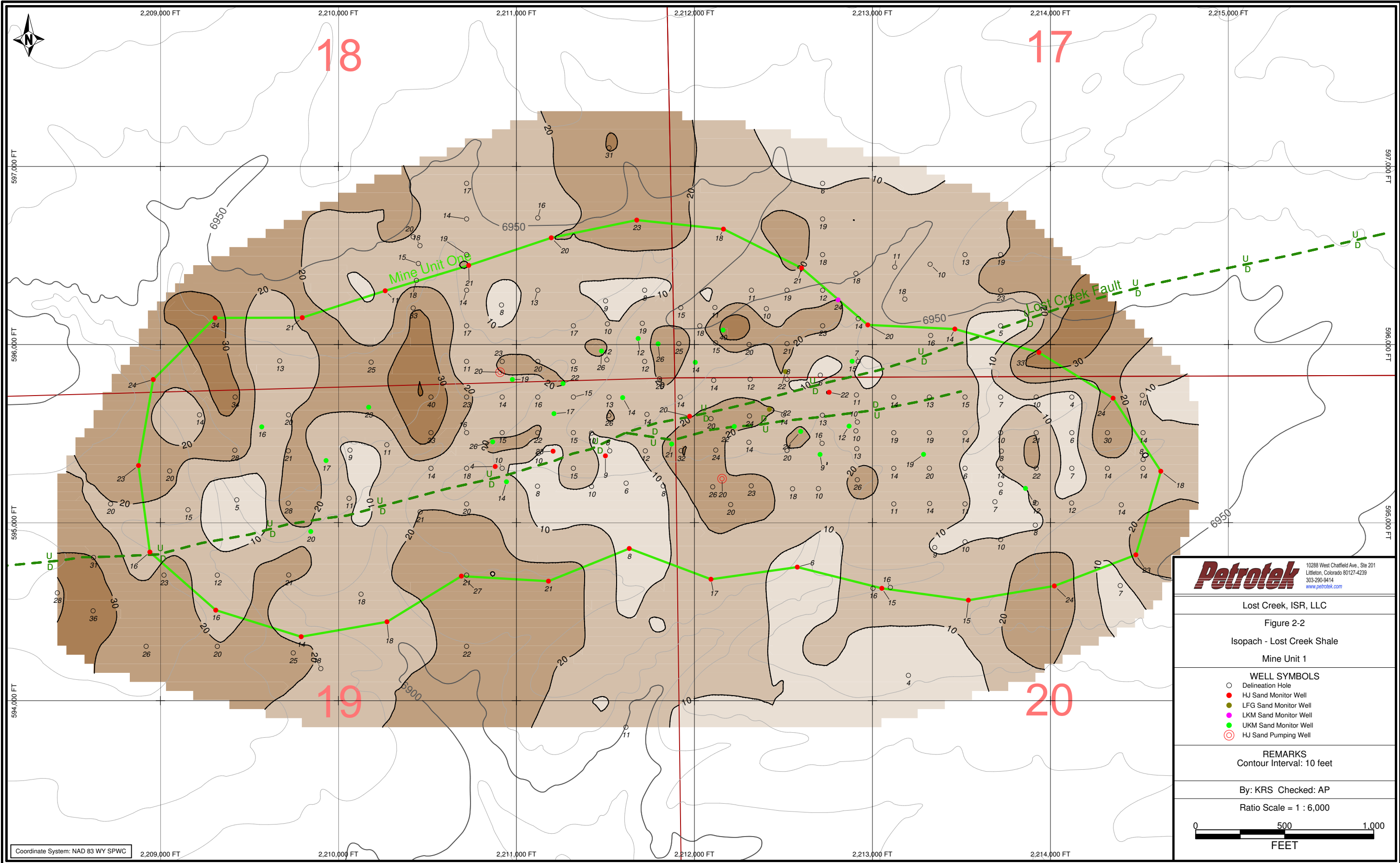
Project: MU1 PTests Date: October 2009

UrEMU1PTPlanFig2-1 By: CVH



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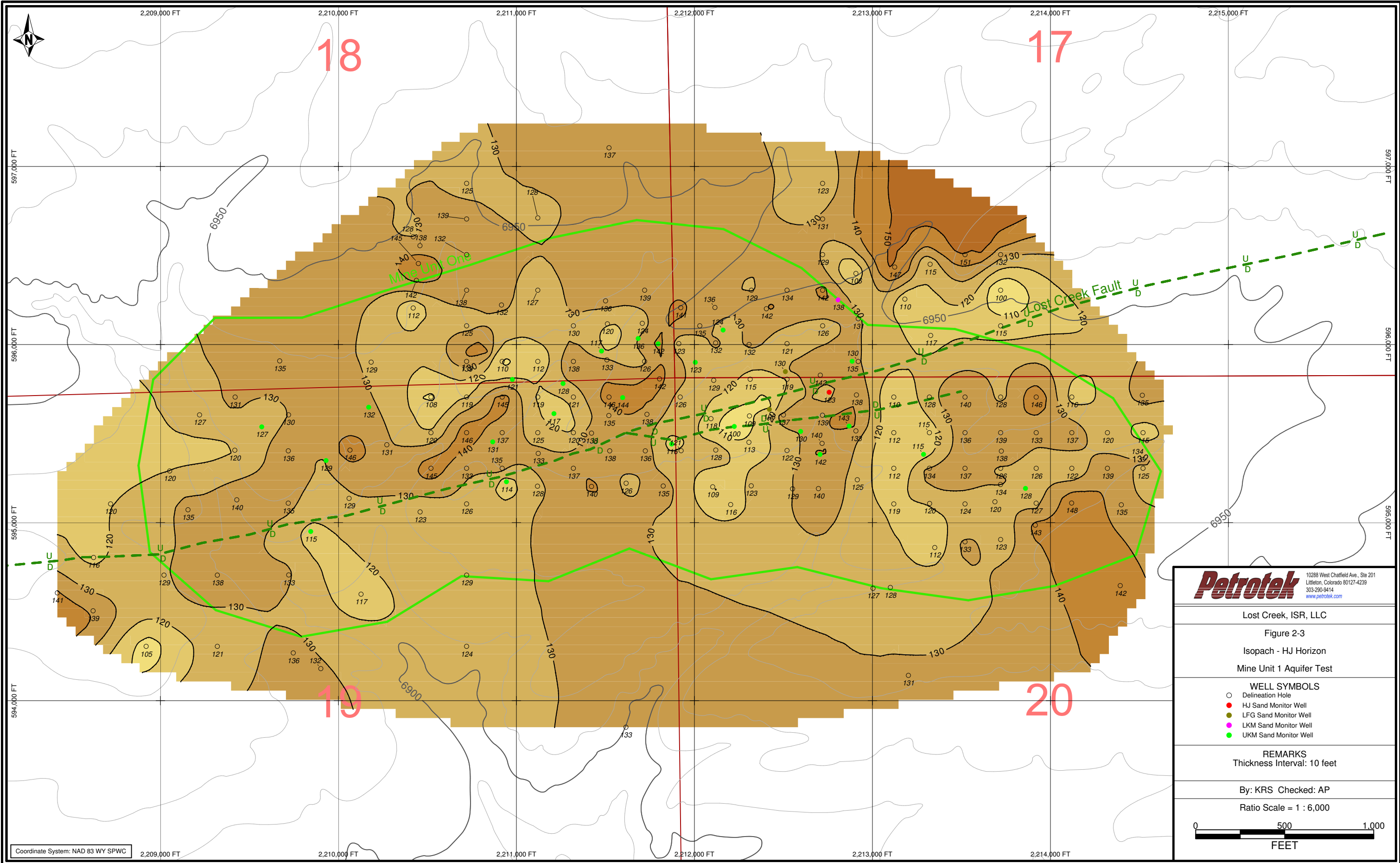


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Figure 2-2	
Isopach - Lost Creek Shale	
Mine Unit 1	
<b>WELL SYMBOLS</b>	
○	Delineation Hole
●	HJ Sand Monitor Well
●	LFG Sand Monitor Well
●	LKM Sand Monitor Well
●	UKM Sand Monitor Well
⊙	HJ Sand Pumping Well
<b>REMARKS</b>	
Contour Interval: 10 feet	
By: KRS Checked: AP	
Ratio Scale = 1 : 6,000	

Coordinate System: NAD 83 WY SPWC





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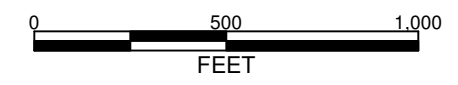
Lost Creek, ISR, LLC  
 Figure 2-3  
 Isopach - HJ Horizon  
 Mine Unit 1 Aquifer Test

- WELL SYMBOLS**
- Delineation Hole
  - HJ Sand Monitor Well
  - LFG Sand Monitor Well
  - LKM Sand Monitor Well
  - UKM Sand Monitor Well

**REMARKS**  
 Thickness Interval: 10 feet

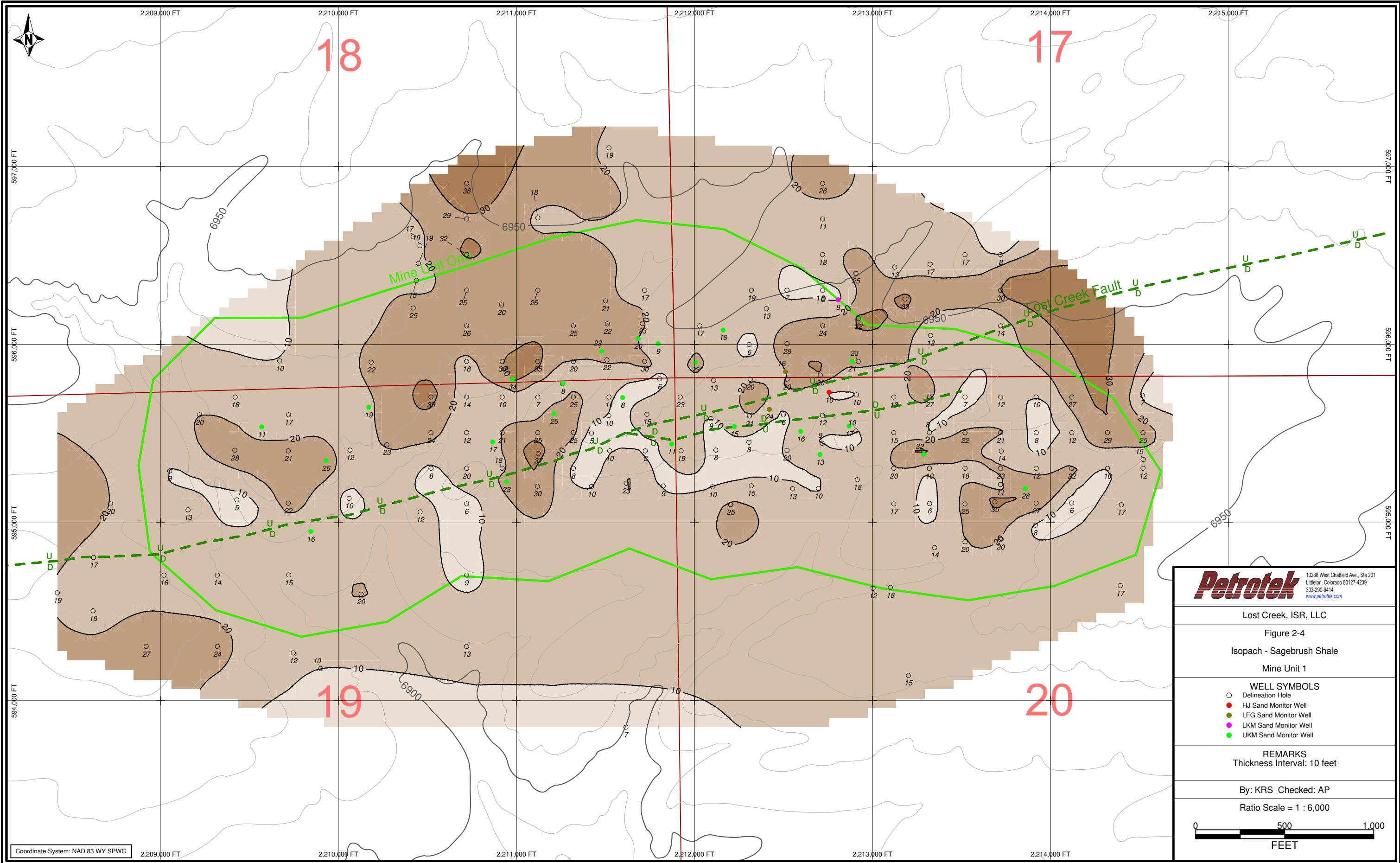
By: KRS Checked: AP

Ratio Scale = 1 : 6,000



Coordinate System: NAD 83 WY SPWC





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Figure 2-4  
 Isopach - Sagebrush Shale  
 Mine Unit 1

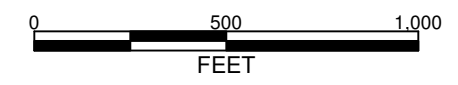
**WELL SYMBOLS**

- Delineation Hole
- HJ Sand Monitor Well
- LFG Sand Monitor Well
- LKM Sand Monitor Well
- UKM Sand Monitor Well

**REMARKS**  
 Thickness Interval: 10 feet

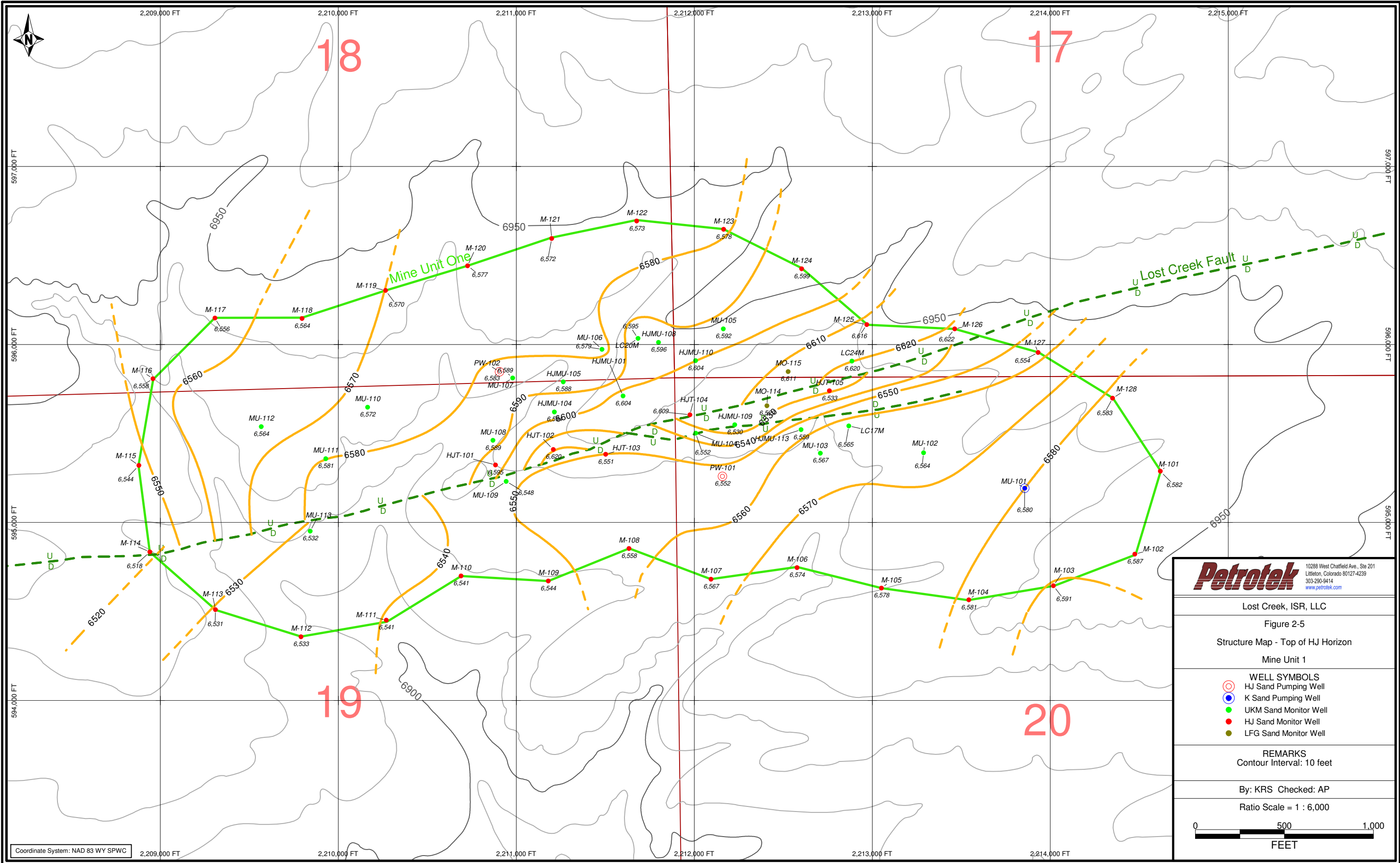
By: KRS Checked: AP

Ratio Scale = 1 : 6,000










Coordinate System: NAD 83 WY SPWC

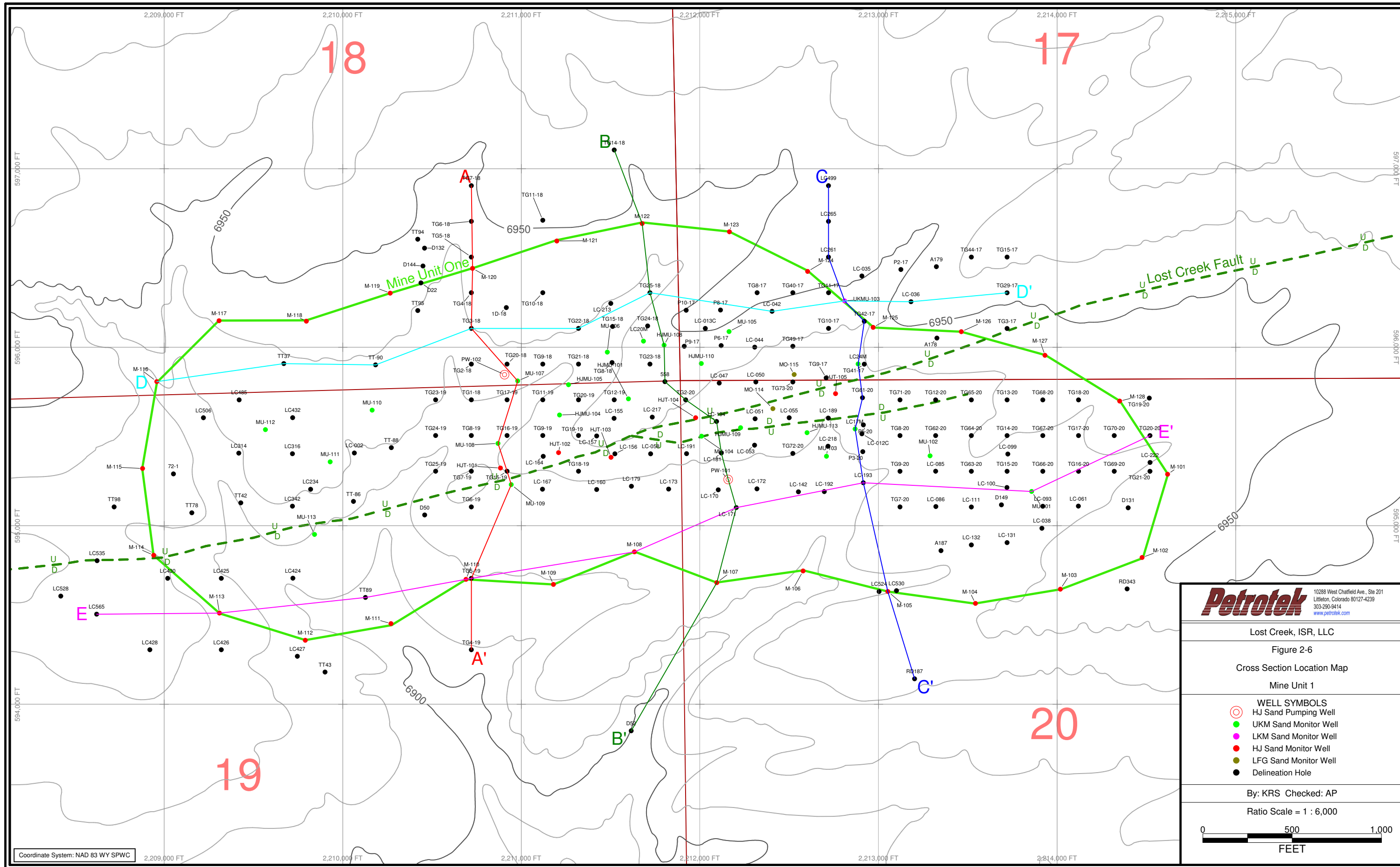




Coordinate System: NAD 83 WY SPWC

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<p>Figure 2-5</p>	
<p>Structure Map - Top of HJ Horizon</p>	
<p>Mine Unit 1</p>	
<p><b>WELL SYMBOLS</b></p> <ul style="list-style-type: none"> <li> HJ Sand Pumping Well</li> <li> K Sand Pumping Well</li> <li> UKM Sand Monitor Well</li> <li> HJ Sand Monitor Well</li> <li> LFG Sand Monitor Well</li> </ul>	
<p><b>REMARKS</b></p> <p>Contour Interval: 10 feet</p>	
<p>By: KRS Checked: AP</p>	
<p>Ratio Scale = 1 : 6,000</p>	
 <p>0 500 1,000 FEET</p>	





Coordinate System: NAD 83 WY SPWC

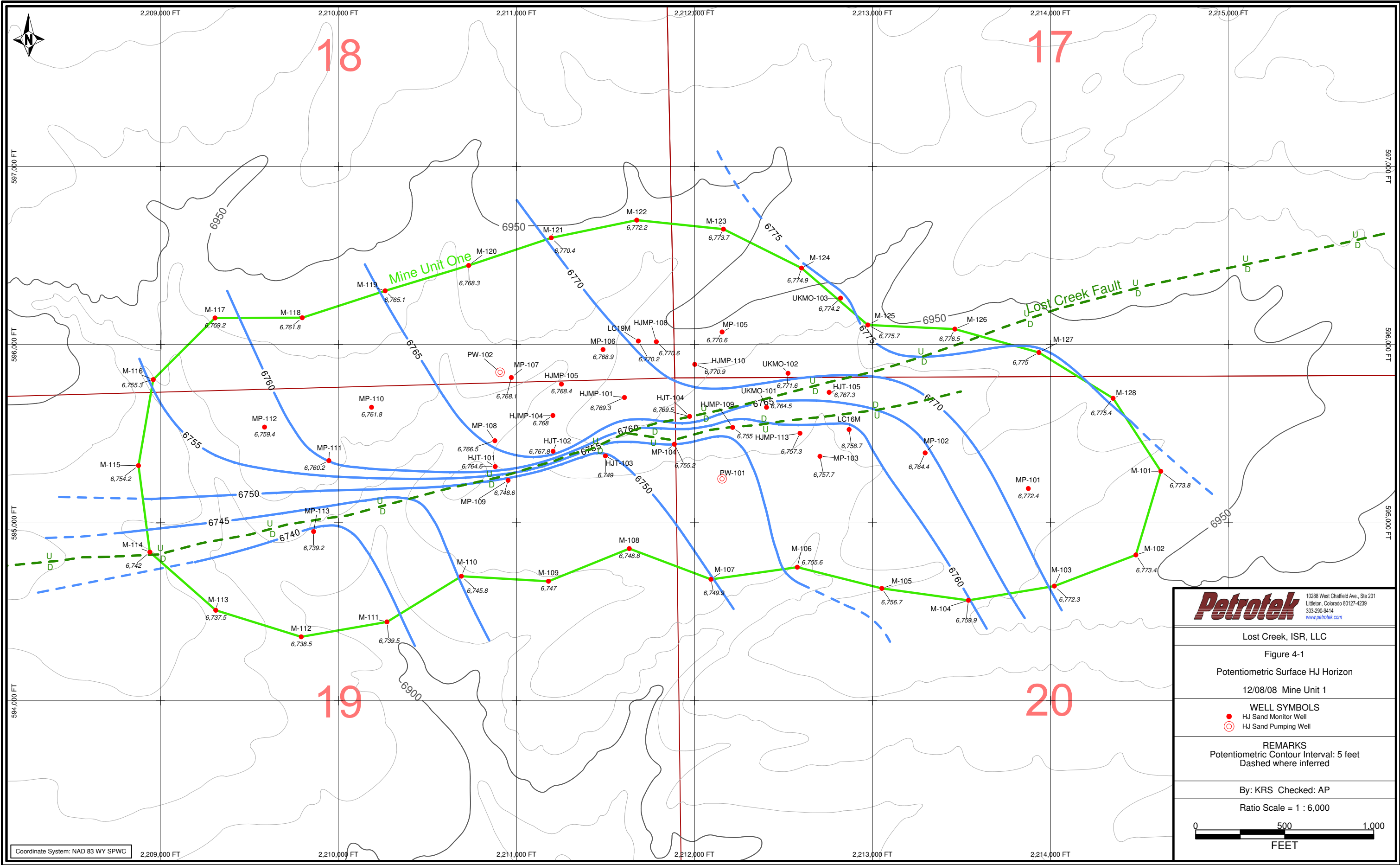
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 Figure 2-6  
 Cross Section Location Map  
 Mine Unit 1

- ⊙ WELL SYMBOLS
- ⊙ HJ Sand Pumping Well
- LKM Sand Monitor Well
- LKM Sand Monitor Well
- HJ Sand Monitor Well
- LFG Sand Monitor Well
- Delineation Hole

By: KRS Checked: AP  
 Ratio Scale = 1 : 6,000

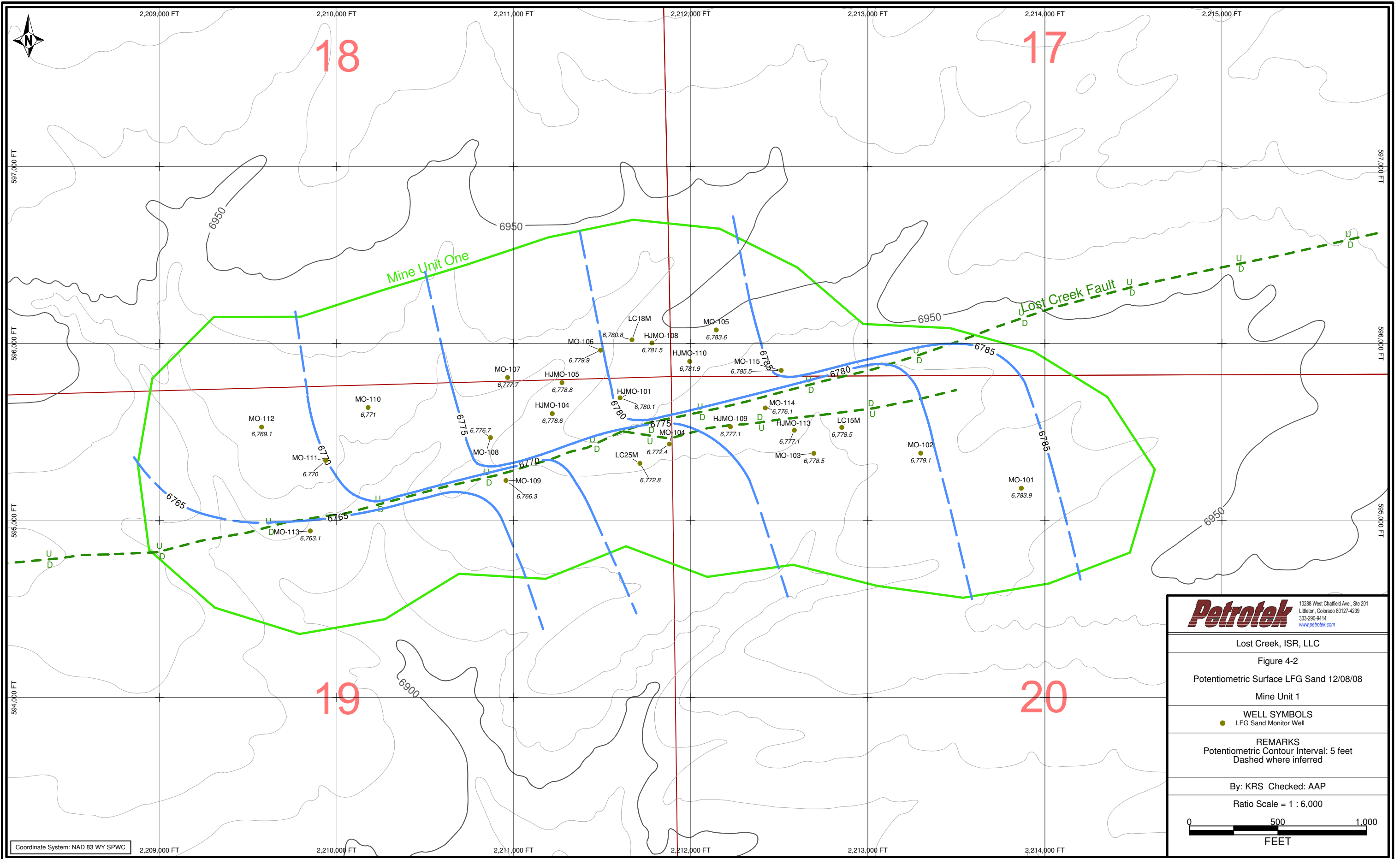




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Figure 4-1	
Potentiometric Surface HJ Horizon	
12/08/08 Mine Unit 1	
WELL SYMBOLS	
	HJ Sand Monitor Well
	HJ Sand Pumping Well
REMARKS	
Potentiometric Contour Interval: 5 feet	
Dashed where inferred	
By: KRS Checked: AP	
Ratio Scale = 1 : 6,000	
	

Coordinate System: NAD 83 WY SPWC





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 Figure 4-2  
 Potentiometric Surface LFG Sand 12/08/08  
 Mine Unit 1

**WELL SYMBOLS**  
 ● LFG Sand Monitor Well

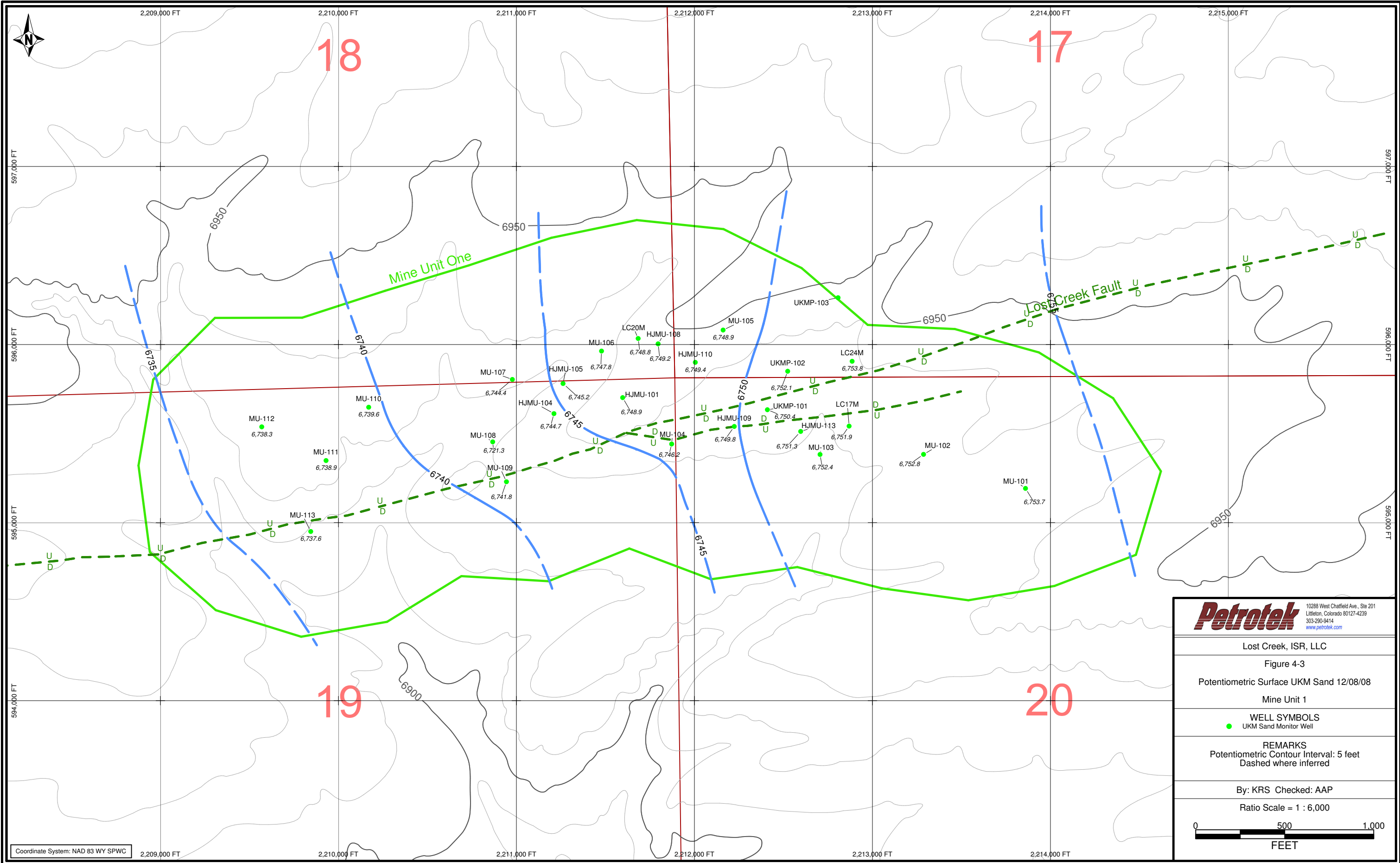
**REMARKS**  
 Potentiometric Contour Interval: 5 feet  
 Dashed where inferred

By: KRS Checked: AAP



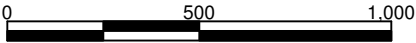
Ratio Scale = 1 : 6,000



Coordinate System: NAD 83 WY SPWC



Coordinate System: NAD 83 WY SPWC

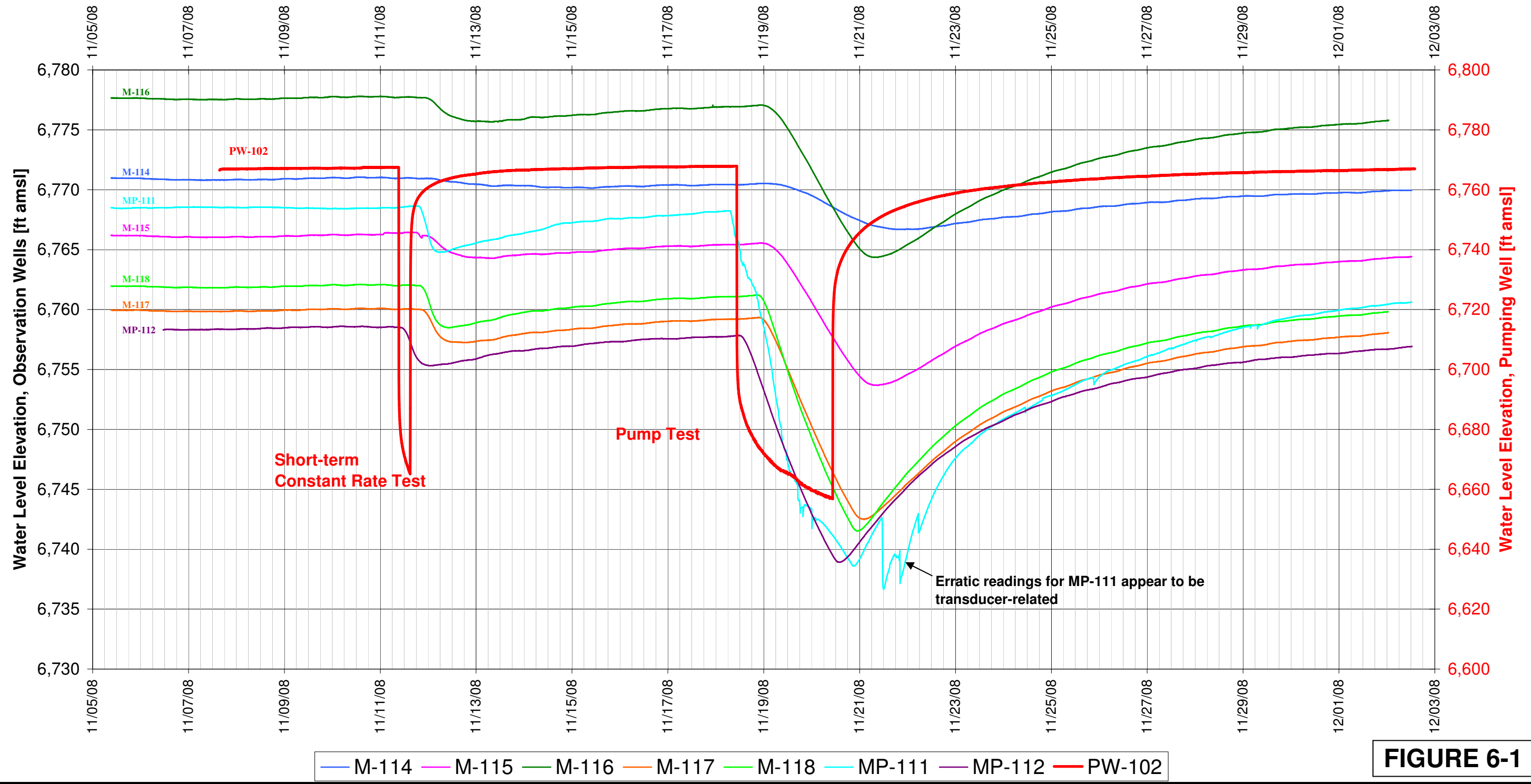
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Figure 4-3	
Potentiometric Surface UKM Sand 12/08/08	
Mine Unit 1	
<b>WELL SYMBOLS</b>  UKM Sand Monitor Well	
<b>REMARKS</b> Potentiometric Contour Interval: 5 feet Dashed where inferred	
By: KRS Checked: AAP	
Ratio Scale = 1 : 6,000	
 FEET	



# Water Level Elevation vs. Time

## North Test, West Side and North of Fault

### 'HJ' Horizon Production Zone Monitor Wells

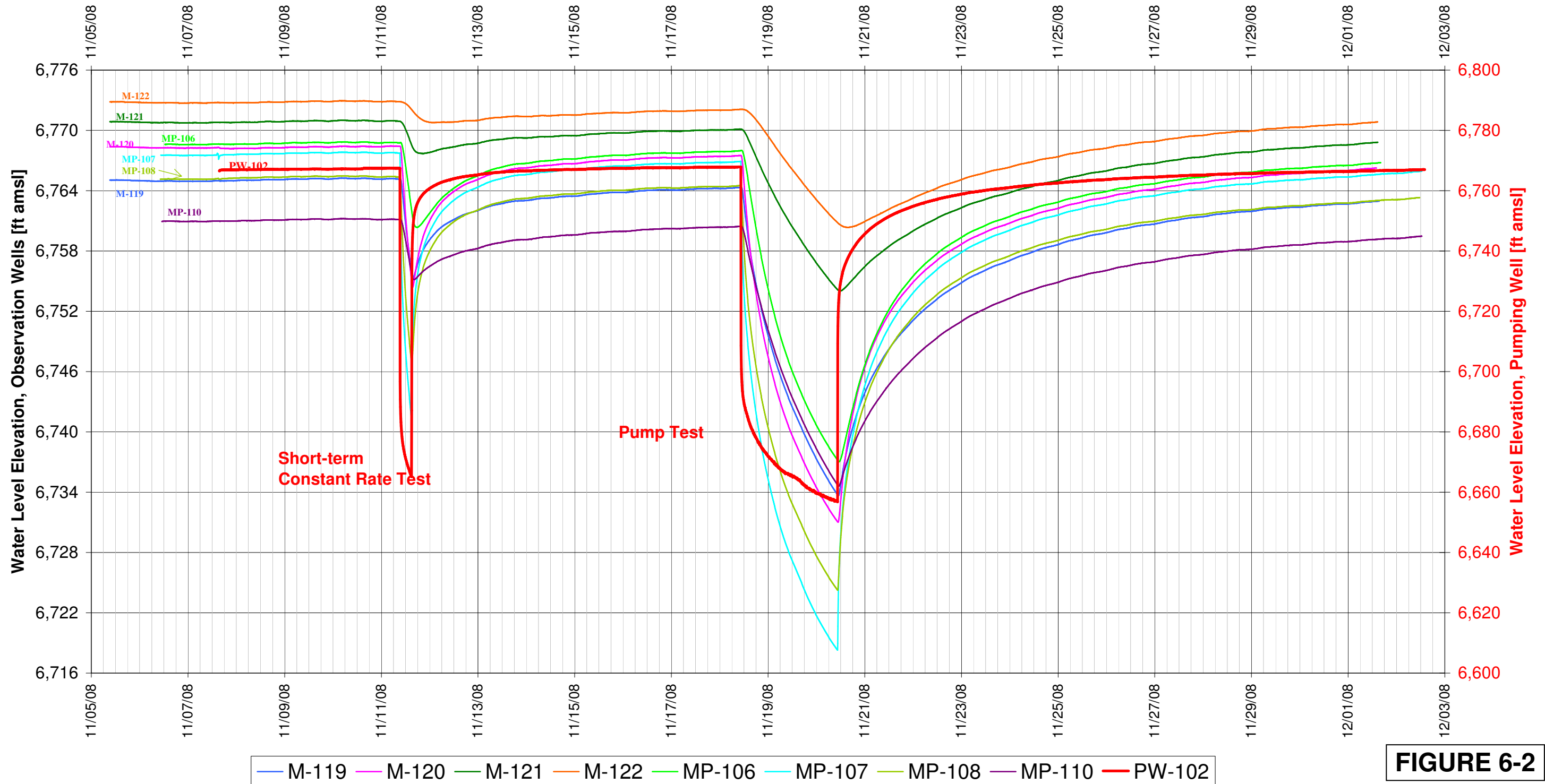


**FIGURE 6-1**

# Water Level Elevation vs. Time

## North Test, Central and North of Fault

### 'HJ' Horizon Production Zone Monitor Wells



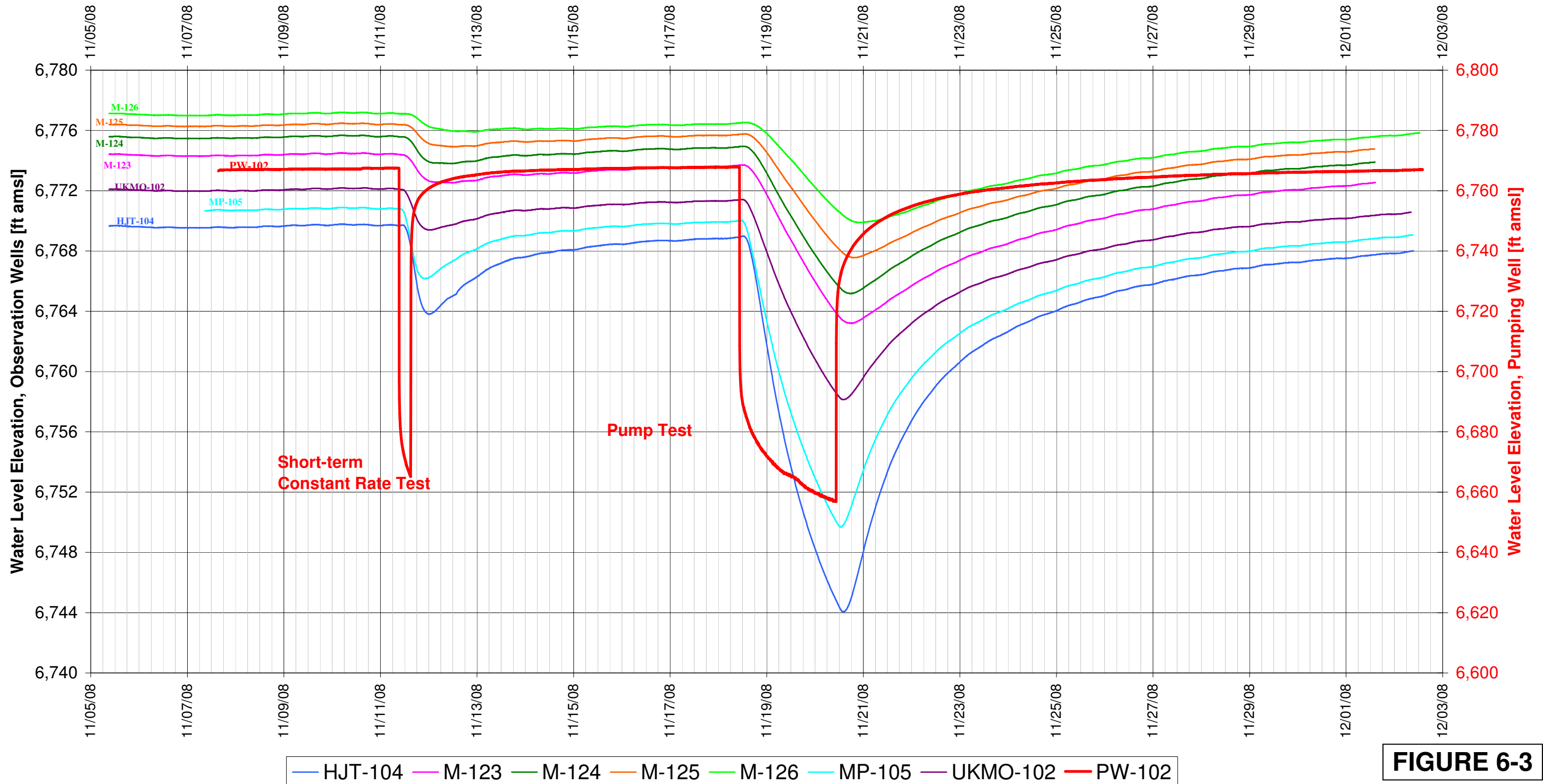
**FIGURE 6-2**



# Water Level Elevation vs. Time

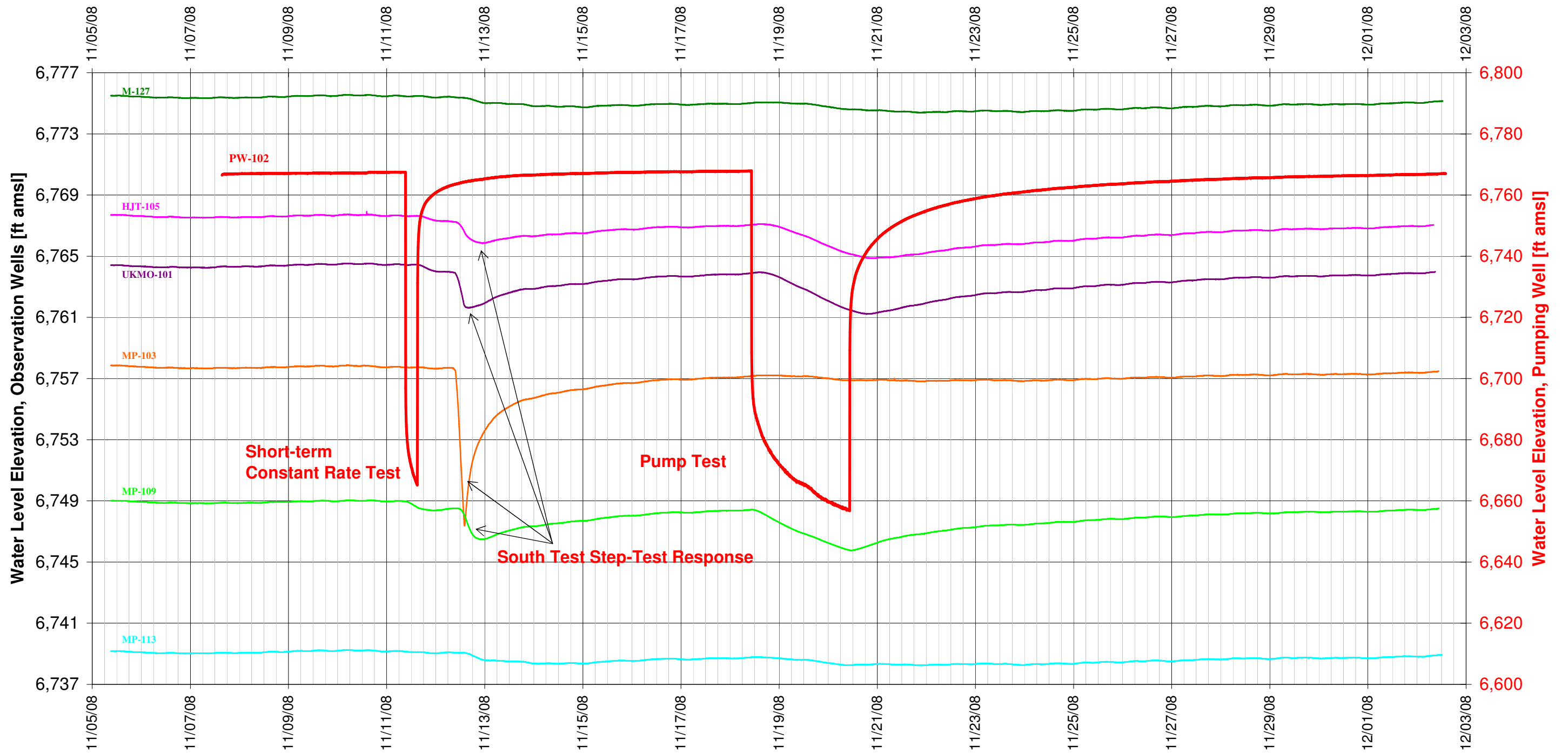
## North Test, East Side and North of Fault

### 'HJ' Horizon Production Zone Monitor Wells



**FIGURE 6-3**

# Water Level Elevation vs. Time North Test, South of Fault 'HJ' Horizon Production Zone Monitor Wells

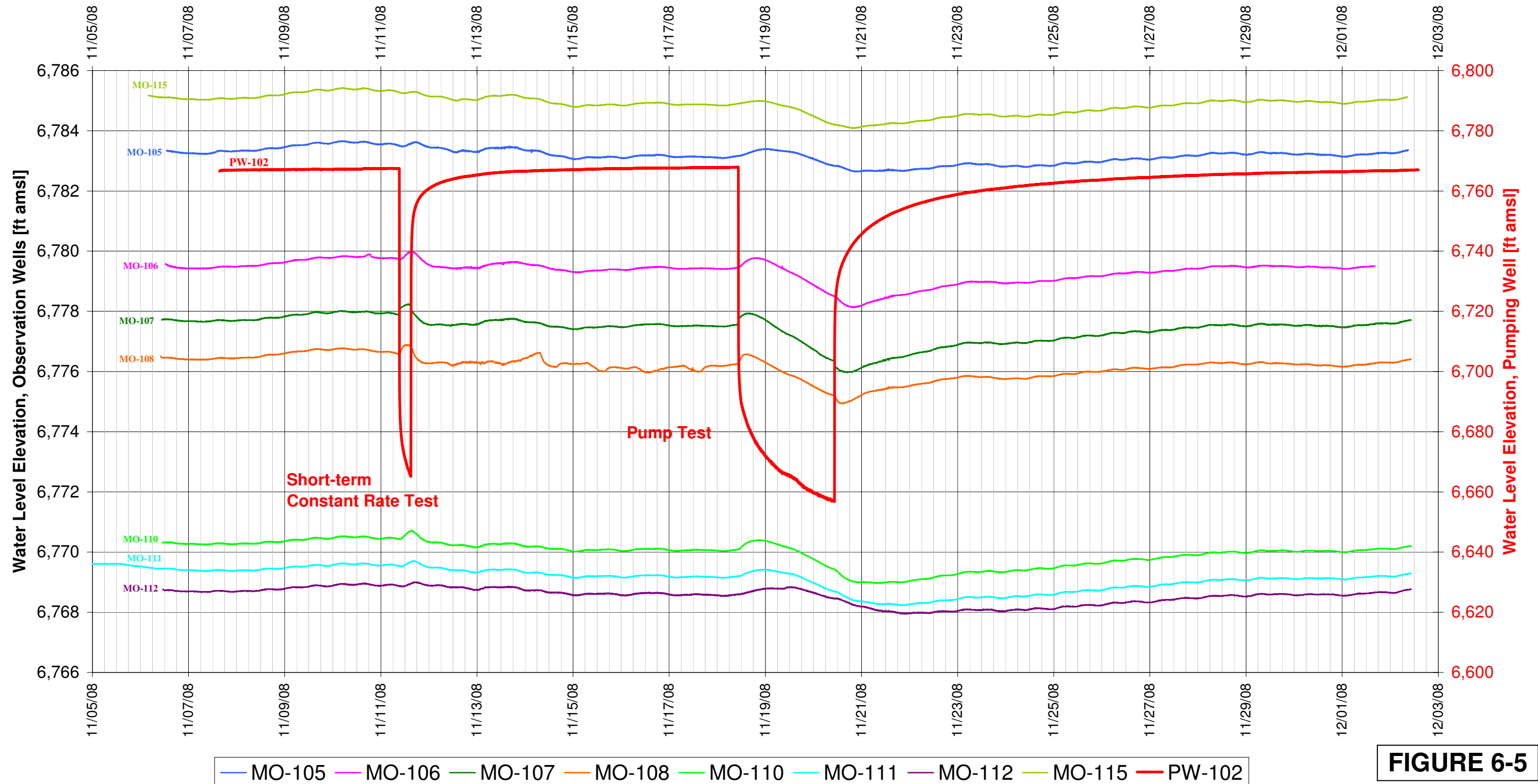


— HJT-105 — M-127 — MP-103 — MP-109 — MP-113 — UKMO-101 — PW-102

**FIGURE 6-4**

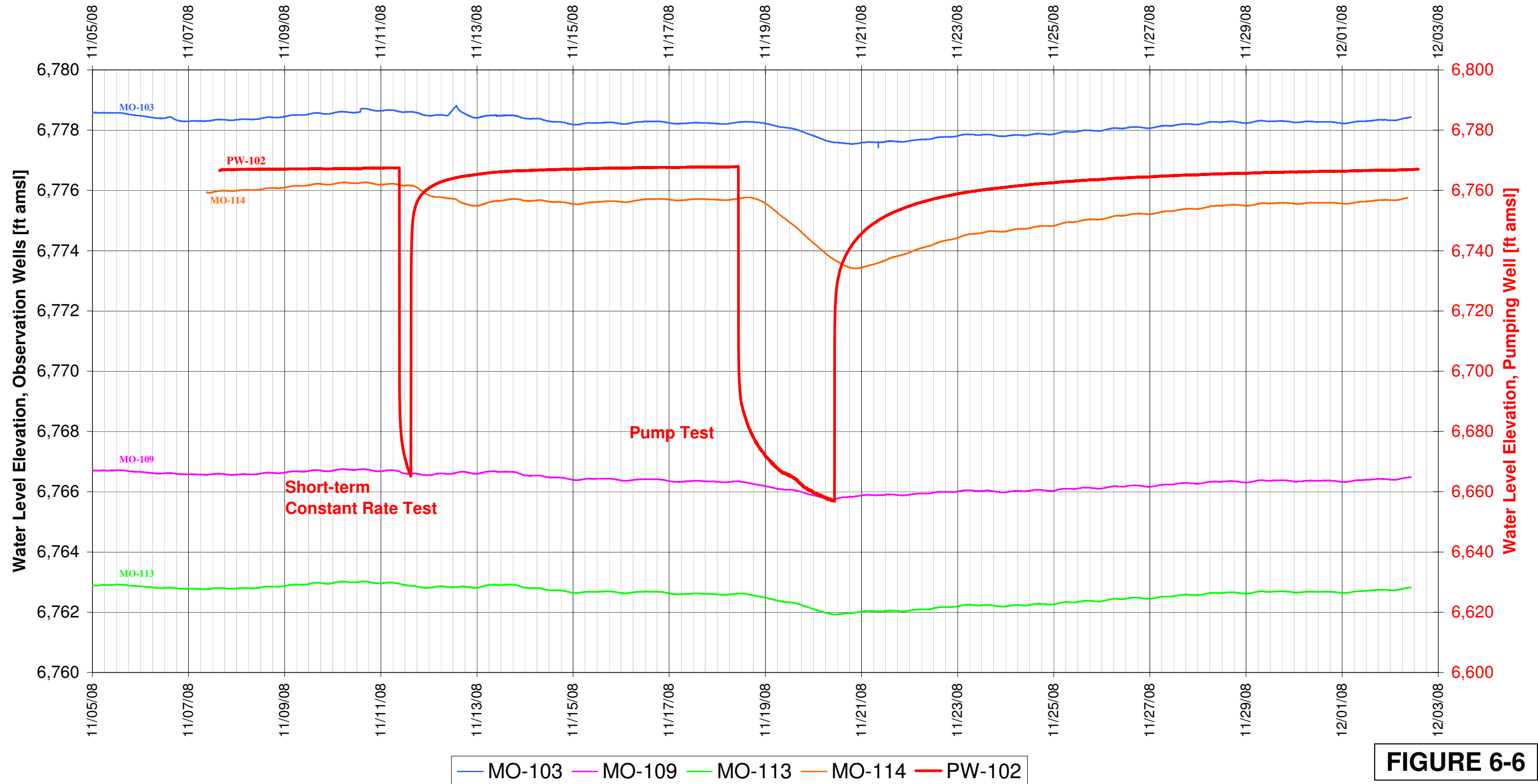


# Water Level Elevation vs. Time North Test, North of Fault 'LFG' Sand Overlying Monitor Wells



**FIGURE 6-5**

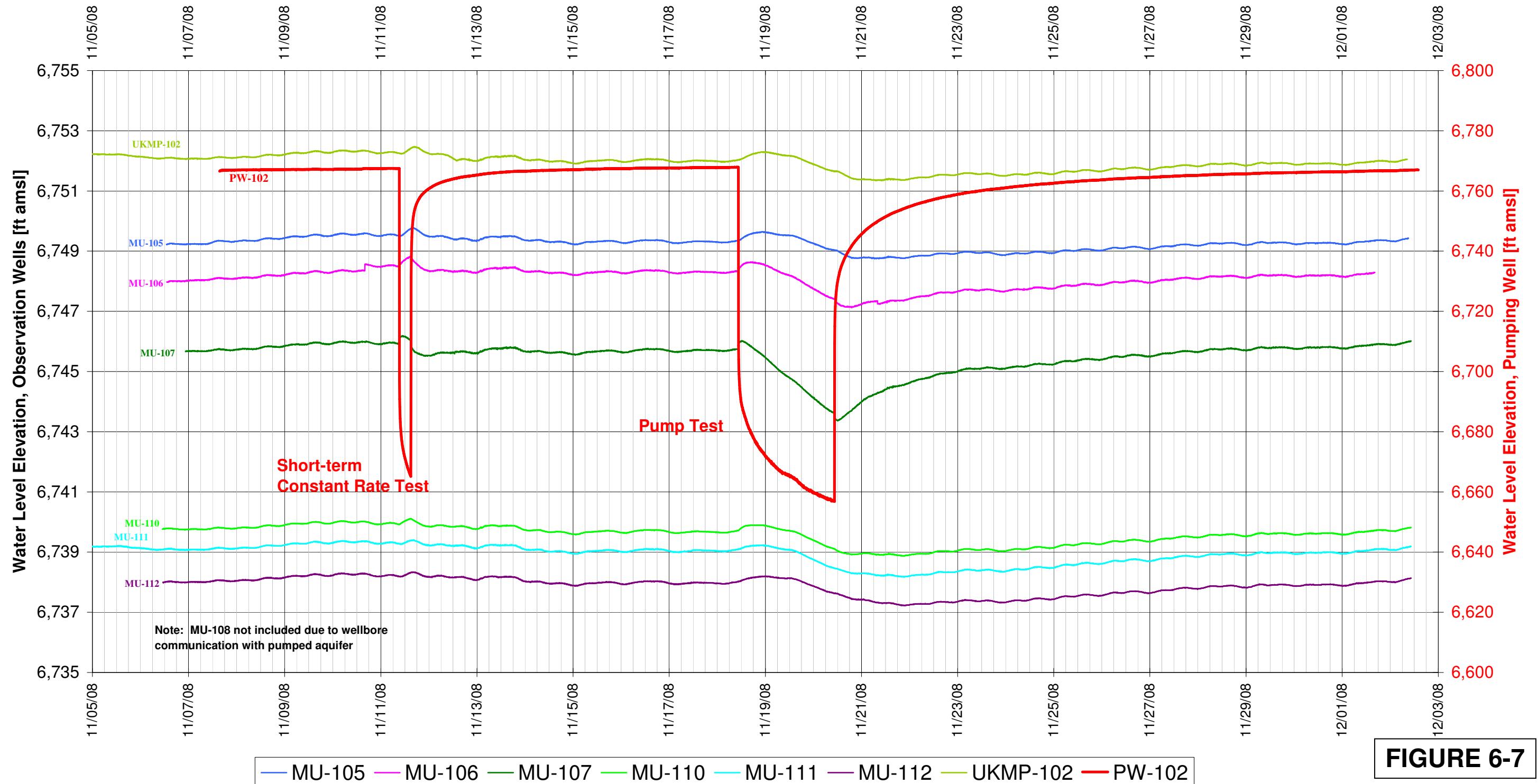
# Water Level Elevation vs. Time North Test, South of Fault 'LFG' Sand Overlying Monitor Wells



**FIGURE 6-6**

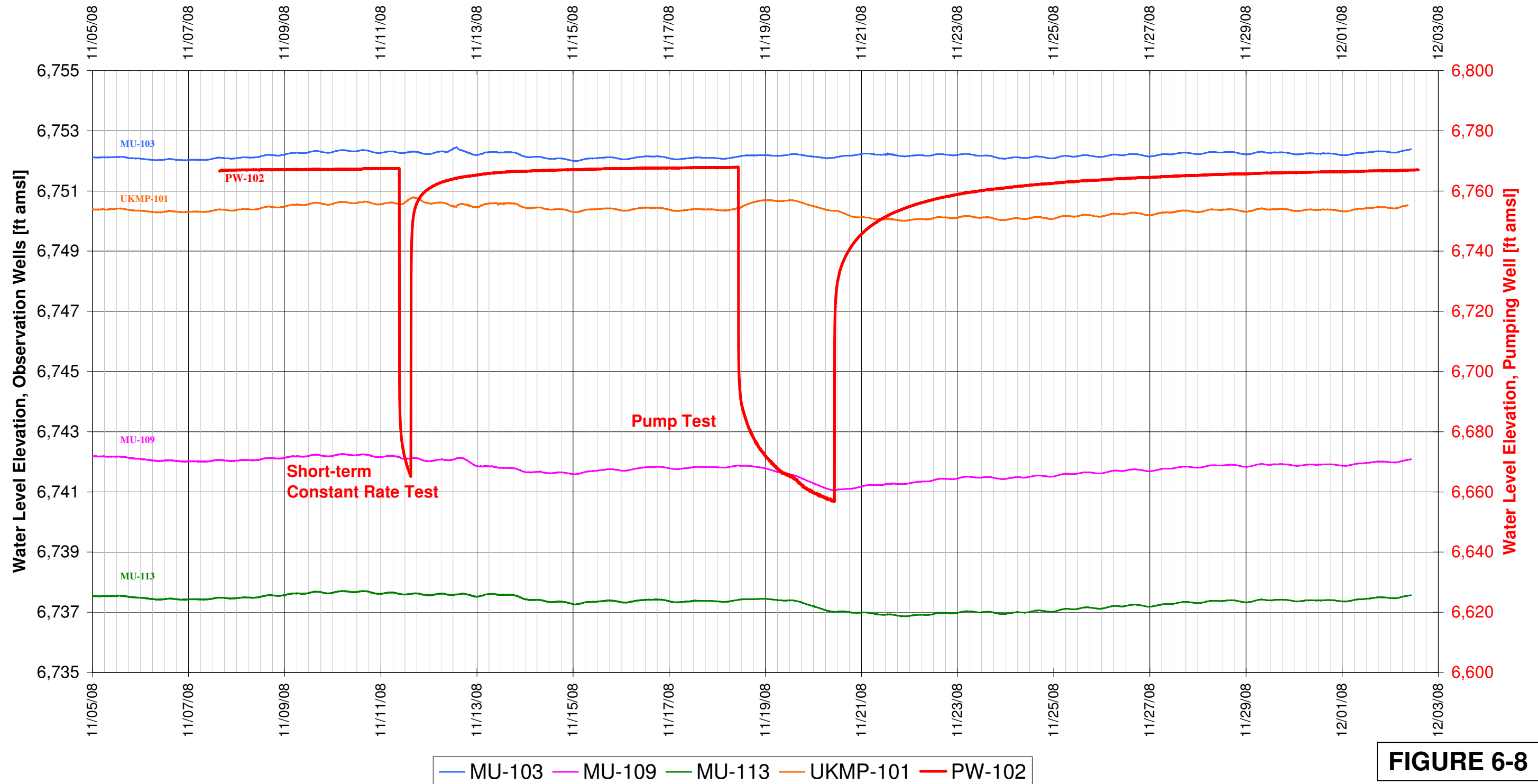


# Water Level Elevation vs. Time North Test, North of Fault 'UKM' Sand Underlying Monitor Wells



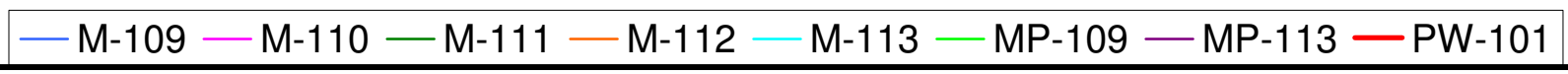
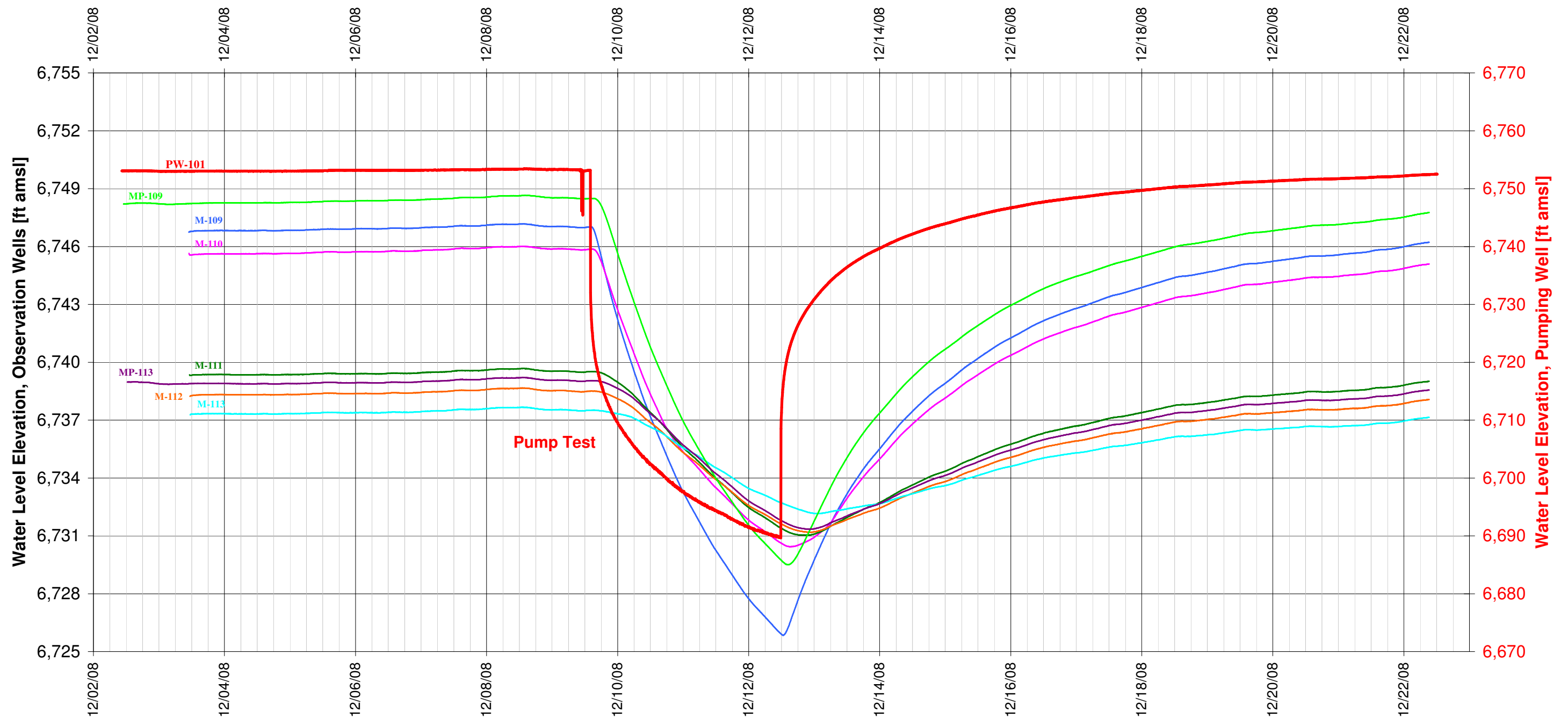
**FIGURE 6-7**

# Water Level Elevation vs. Time North Test, South of Fault 'UKM' Sand Underlying Monitor Wells



**FIGURE 6-8**

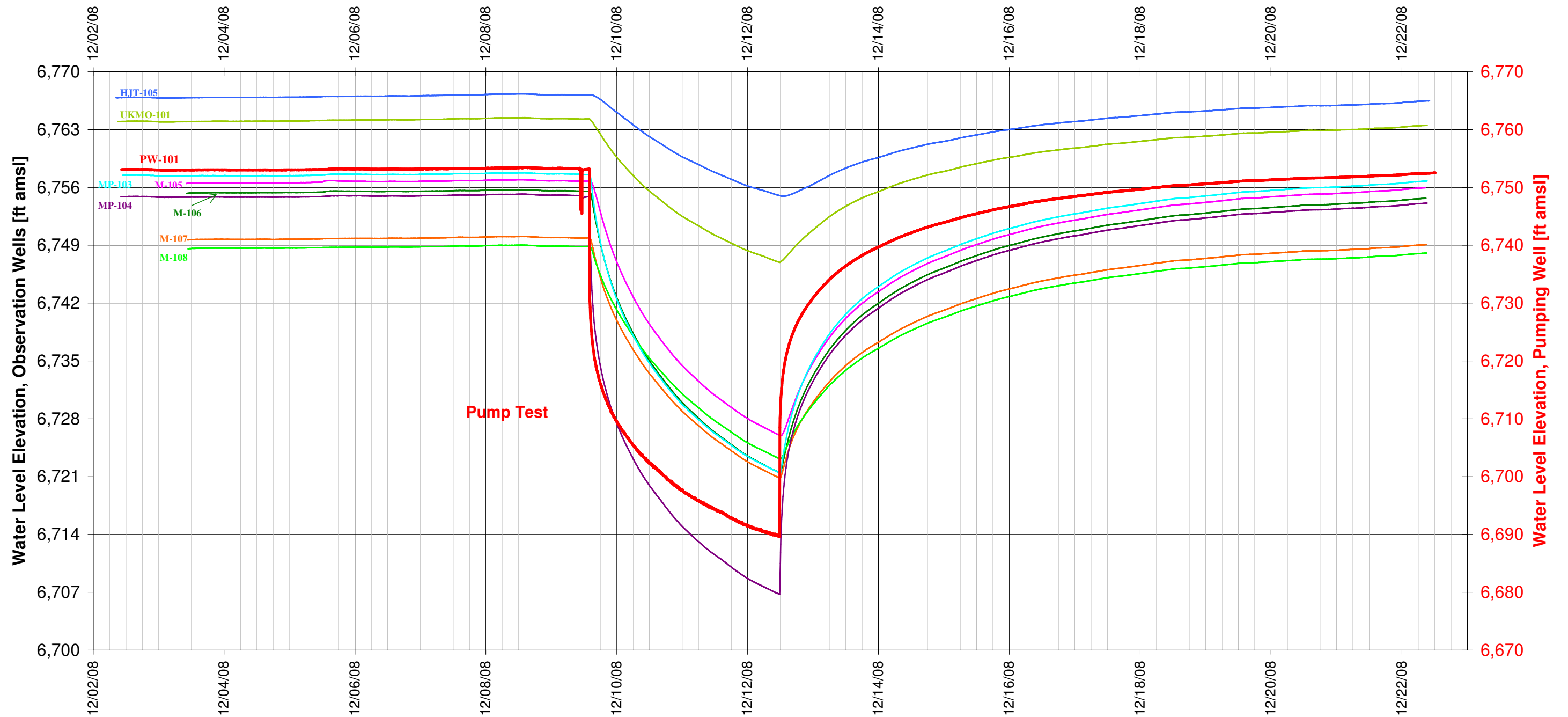
### Water Level Elevation vs. Time South Test, West Side and South of Fault 'HJ' Horizon Production Zone Monitor Wells



**FIGURE 6-9**



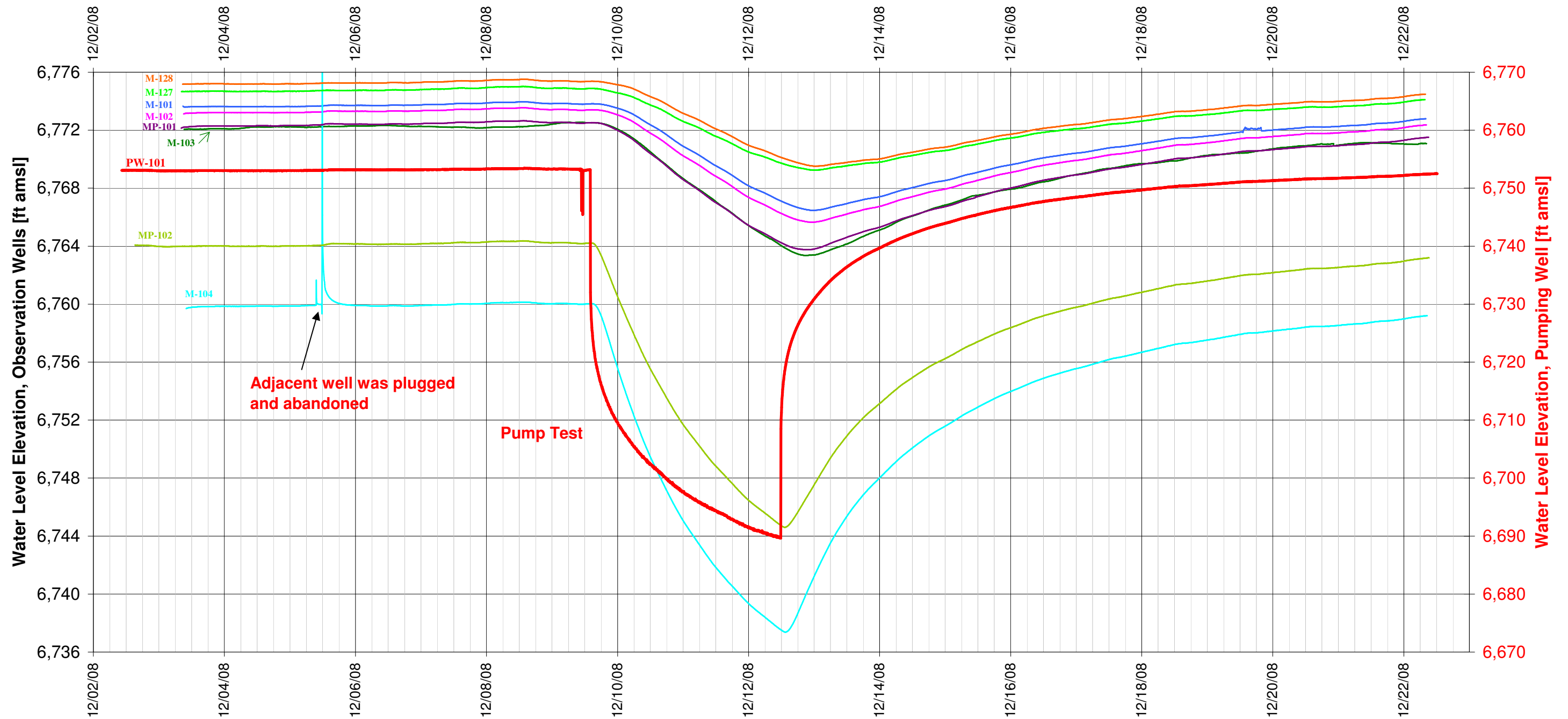
### Water Level Elevation vs. Time South Test, Central and South of Fault 'HJ' Horizon Production Zone Monitor Wells



— HJT-105   
 — M-105   
 — M-106   
 — M-107   
 — M-108   
 — MP-103   
 — MP-104   
 — UKMO-101   
 — PW-101

**FIGURE 6-10**

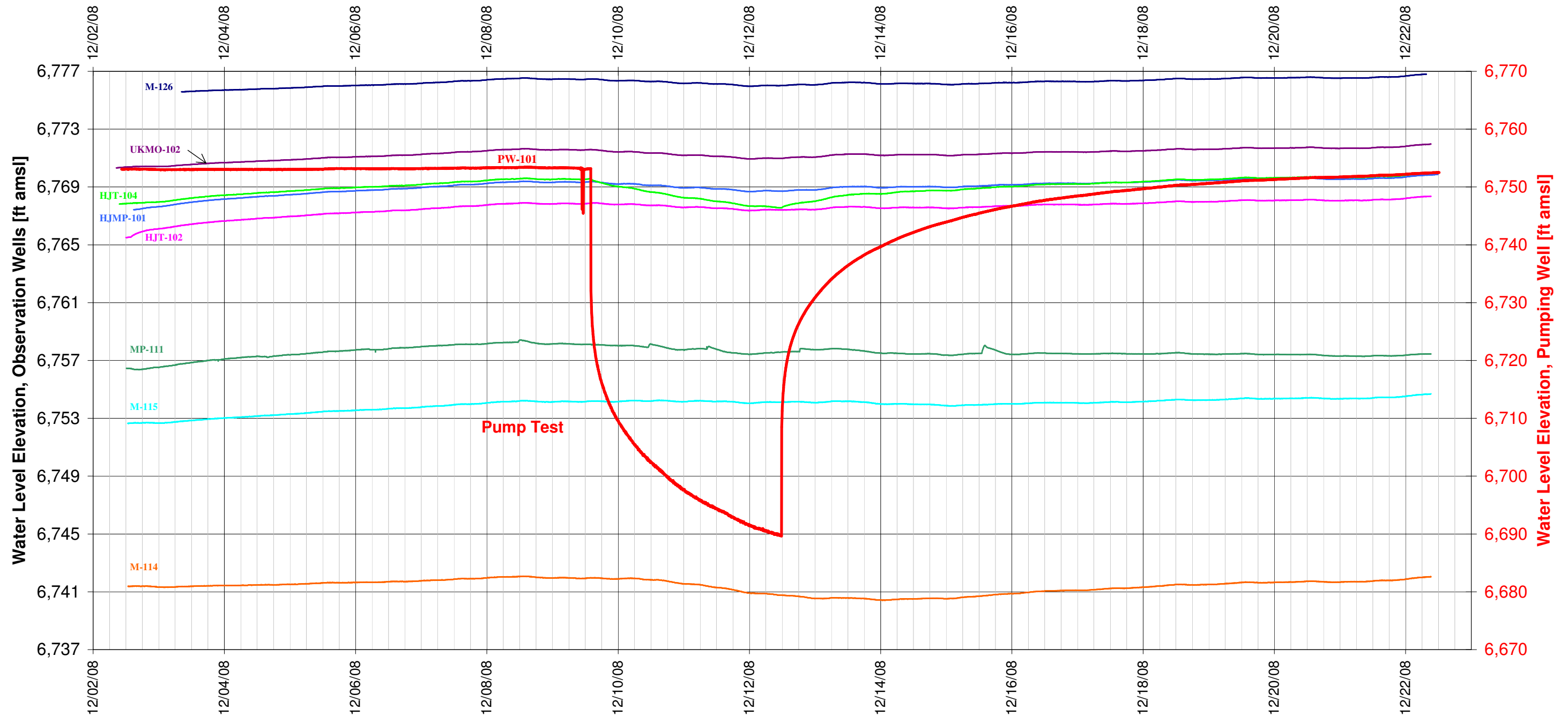
### Water Level Elevation vs. Time South Test, East Side and South of Fault 'HJ' Horizon Production Zone Monitor Wells



— M-101   
 — M-102   
 — M-103   
 — M-104   
 — M-127   
 — M-128   
 — MP-101   
 — MP-102   
 — PW-101

**FIGURE 6-11**

### Water Level Elevation vs. Time South Test, North of Fault 'HJ' Horizon Production Zone Monitor Wells

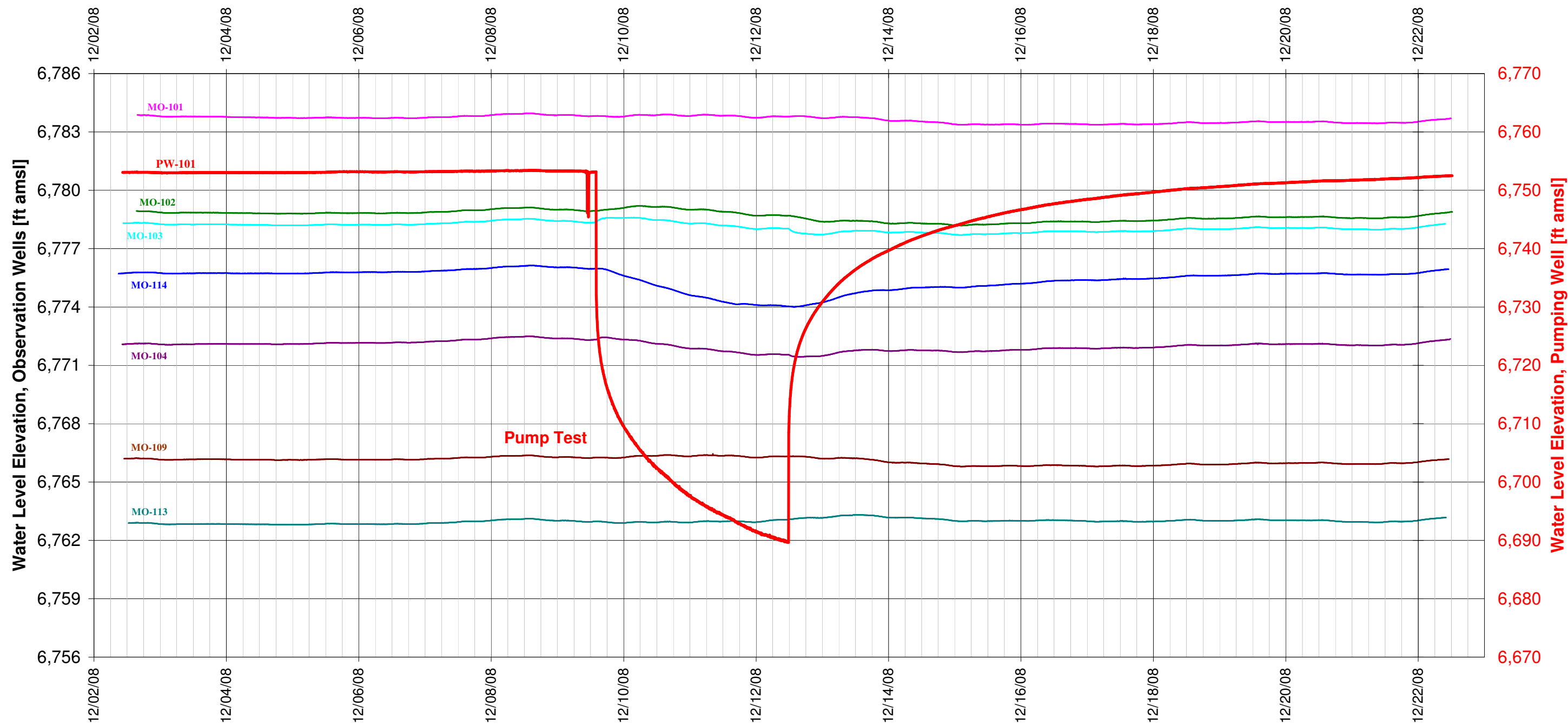


— HJMP-101   
 — HJT-102   
 — HJT-104   
 — M-114   
 — M-126   
 — M-115   
 — MP-111   
 — UKMO-102   
 — PW-101

**FIGURE 6-12**



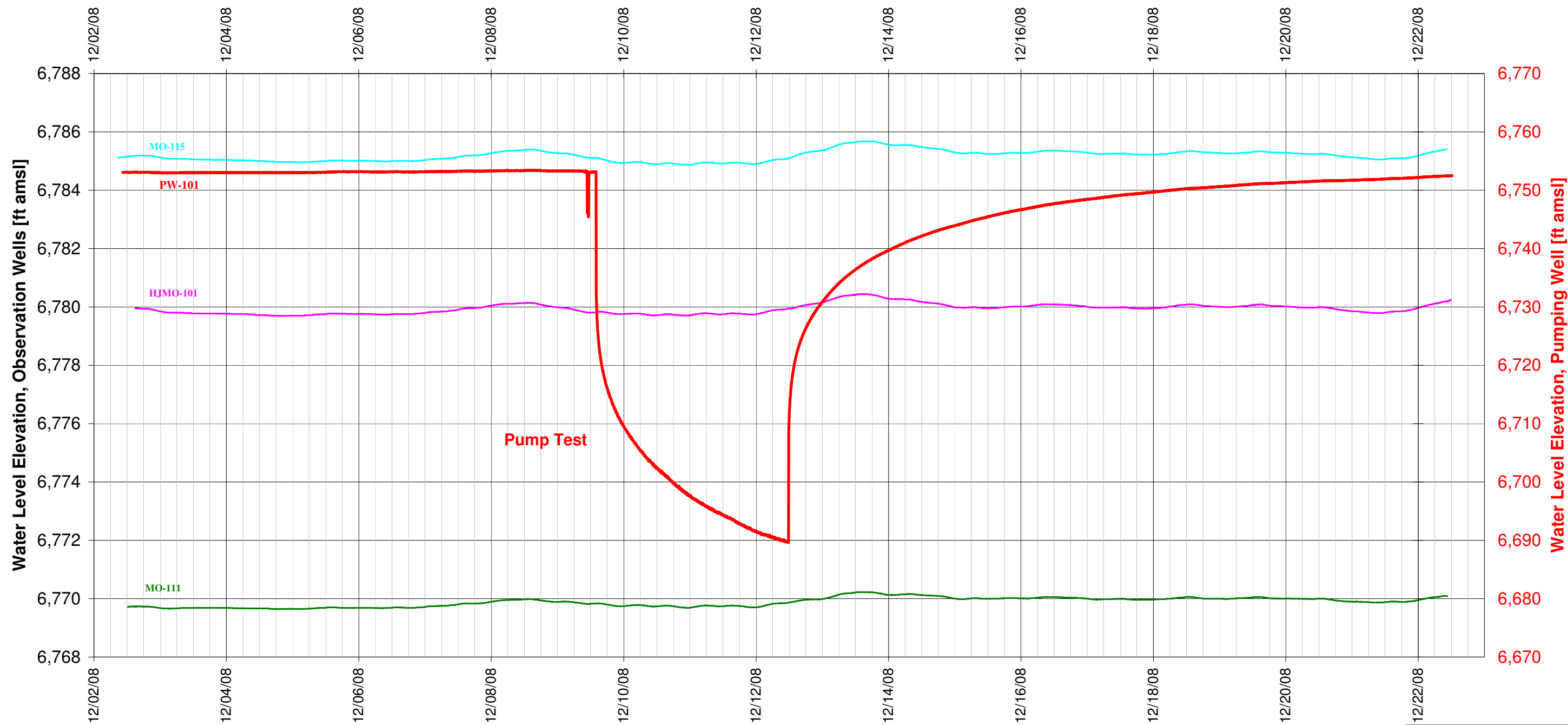
### Water Level Elevation vs. Time South Test, South of Fault 'LFG' Sand Overlying Monitor Wells



— MO-101 — MO-102 — MO-103 — MO-104 — MO-109 — MO-113 — MO-114 — PW-101

**FIGURE 6-13**

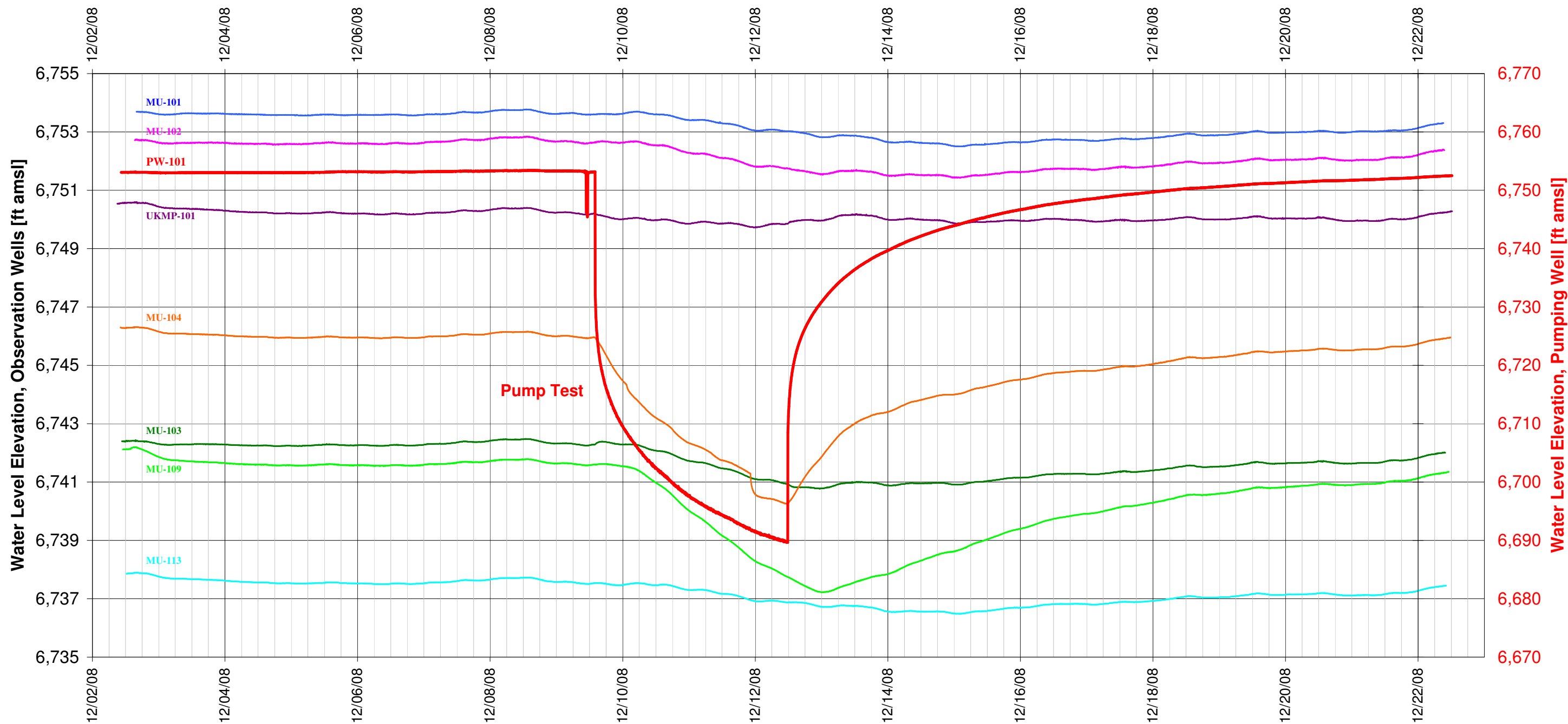
**Water Level Elevation vs. Time**  
**South Test, North of Fault**  
**'LFG' Sand Overlying Monitor Wells**



— HJMO-101 — MO-111 — MO-115 — PW-101

**FIGURE 6-14**

### Water Level Elevation vs. Time South Test, South of Fault 'UKM Sand Underlying Monitor Wells



— MU-101   
 — MU-102   
 — MU-103   
 — MU-104   
 — MU-109   
 — MU-113   
 — UKMP-101   
 — PW-101

**FIGURE 6-15**



Water Level Elevation vs. Time  
South Test, North of Fault  
'UKM Sand Underlying Monitor Wells

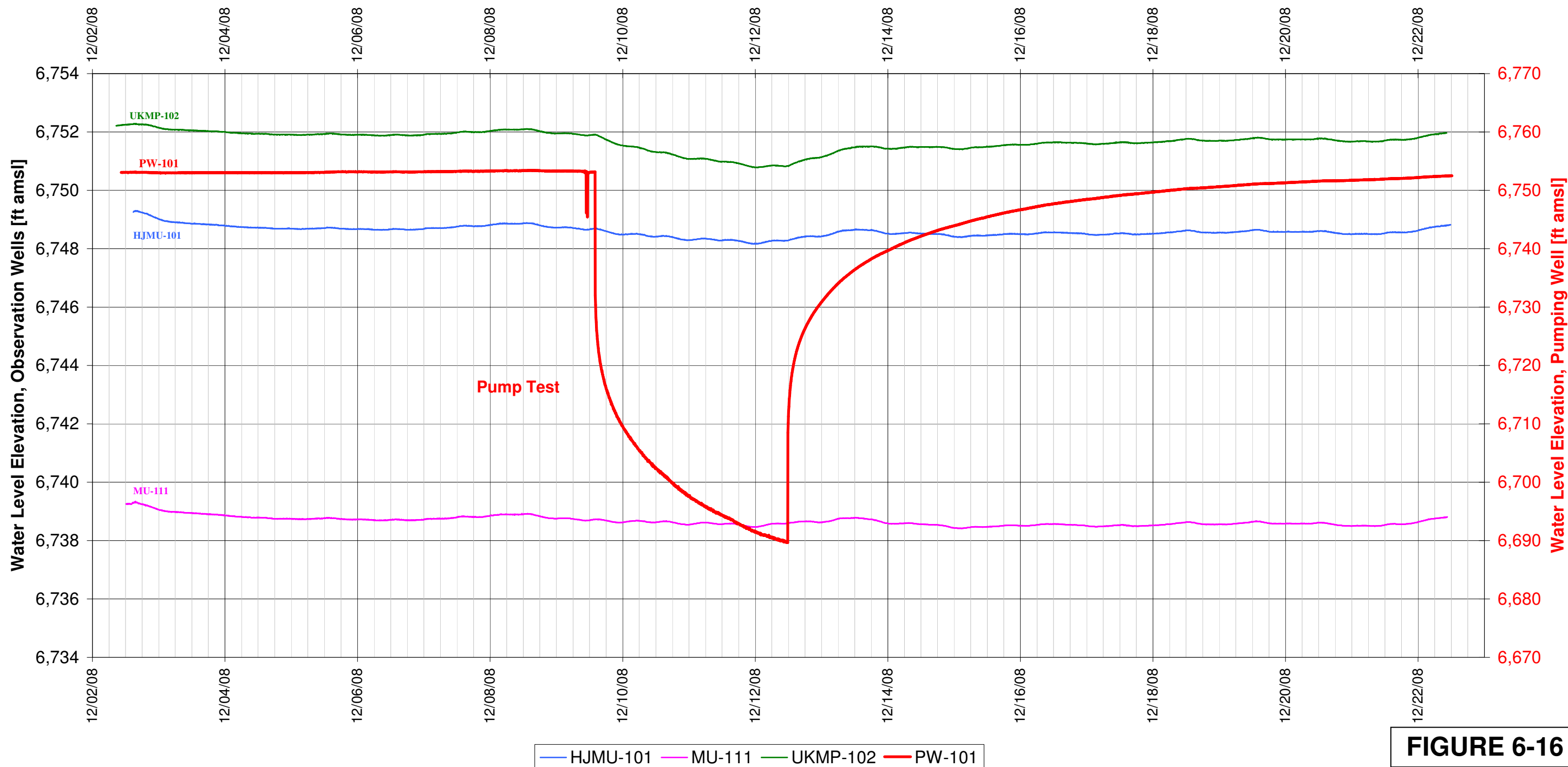
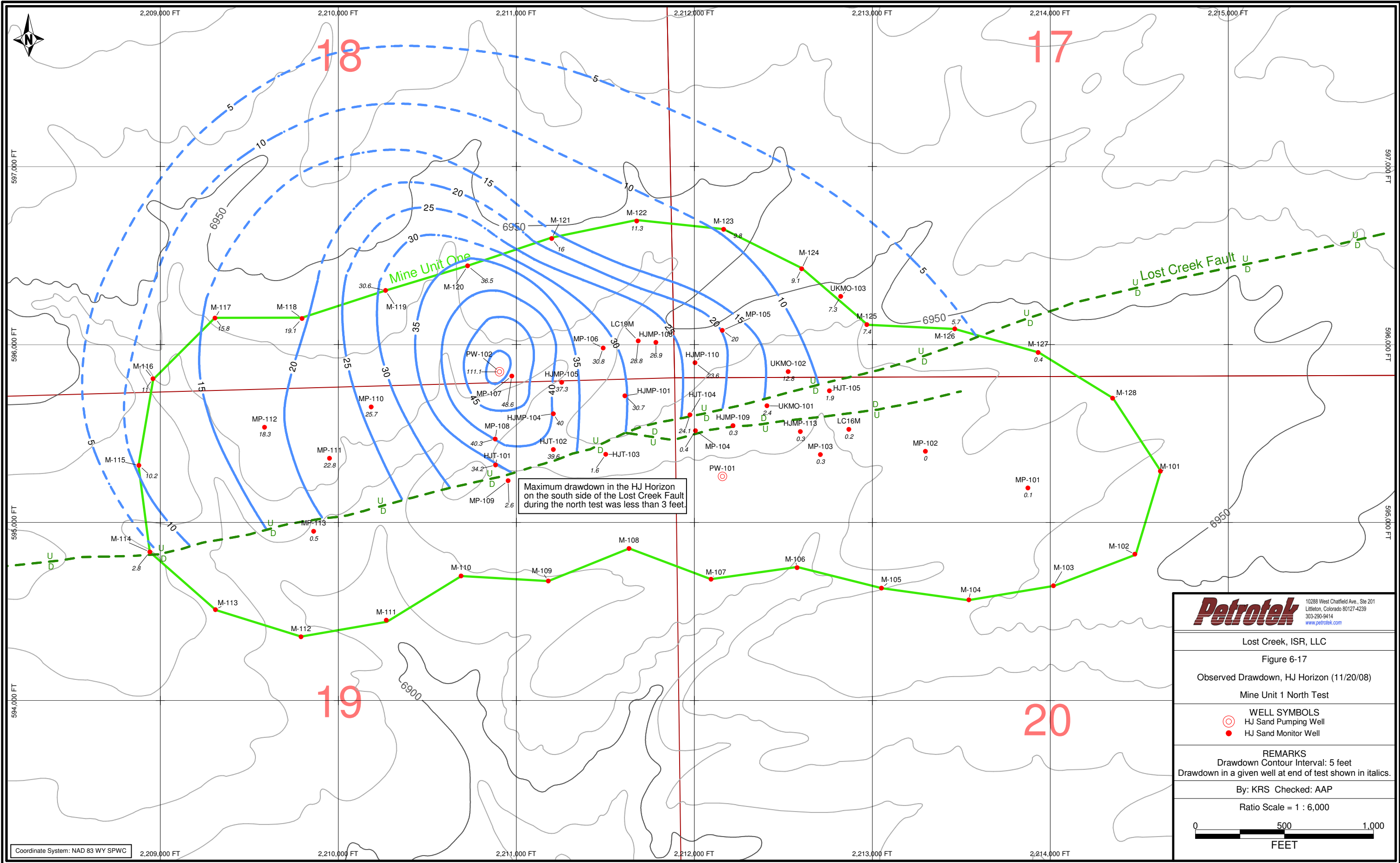


FIGURE 6-16



Coordinate System: NAD 83 WY SPWC

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Figure 6-17	
Observed Drawdown, HJ Horizon (11/20/08)	
Mine Unit 1 North Test	
<b>WELL SYMBOLS</b> HJ Sand Pumping Well HJ Sand Monitor Well	
<b>REMARKS</b> Drawdown Contour Interval: 5 feet Drawdown in a given well at end of test shown in italics.	
By: KRS Checked: AAP	
Ratio Scale = 1 : 6,000	



Lost Creek, ISR, LLC

Figure 6-18

Observed Drawdown, HJ Horizon (12/12/08)

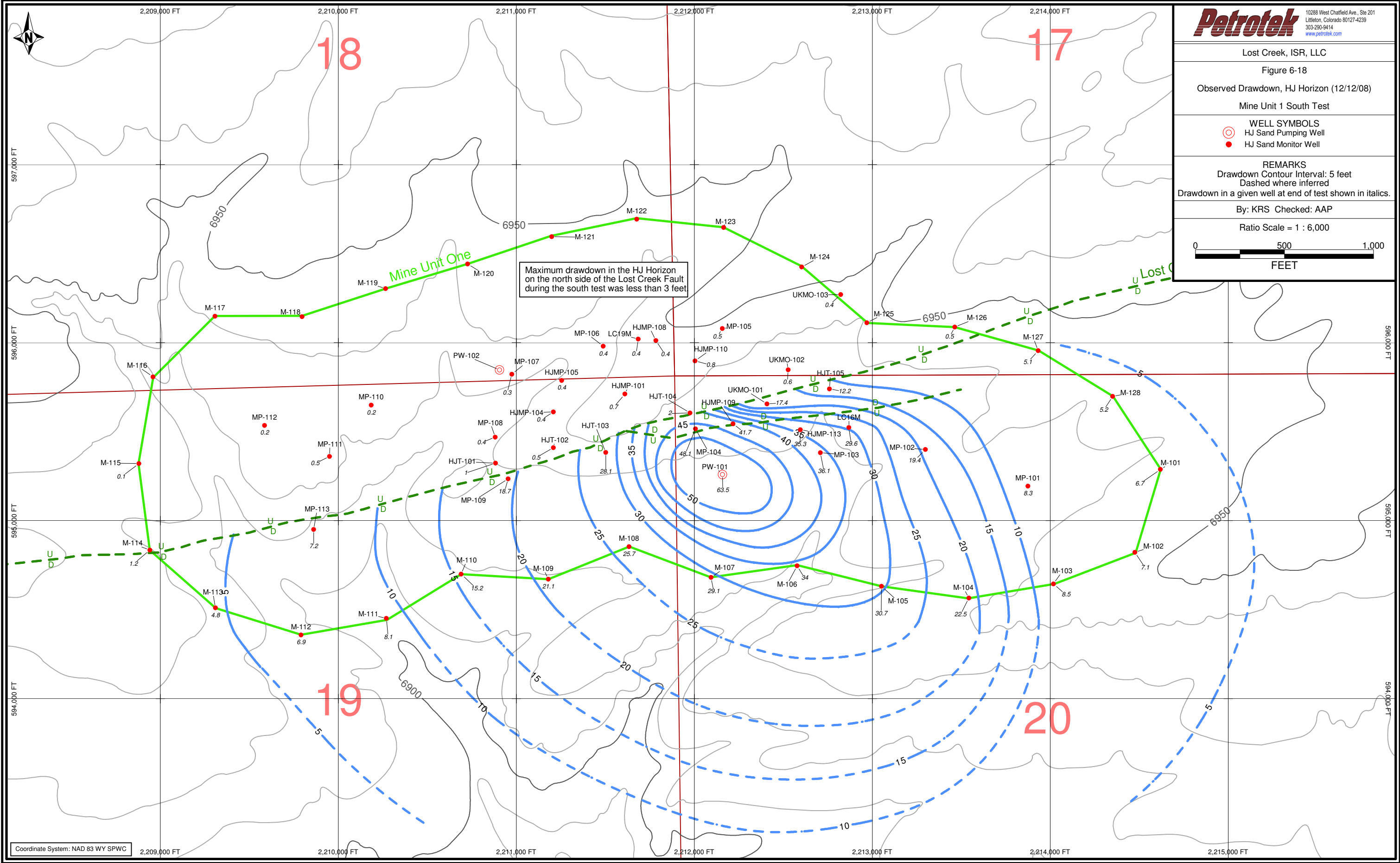
Mine Unit 1 South Test

**WELL SYMBOLS**  
 HJ Sand Pumping Well  
 HJ Sand Monitor Well

**REMARKS**  
 Drawdown Contour Interval: 5 feet  
 Dashed where inferred  
 Drawdown in a given well at end of test shown in *italics*.

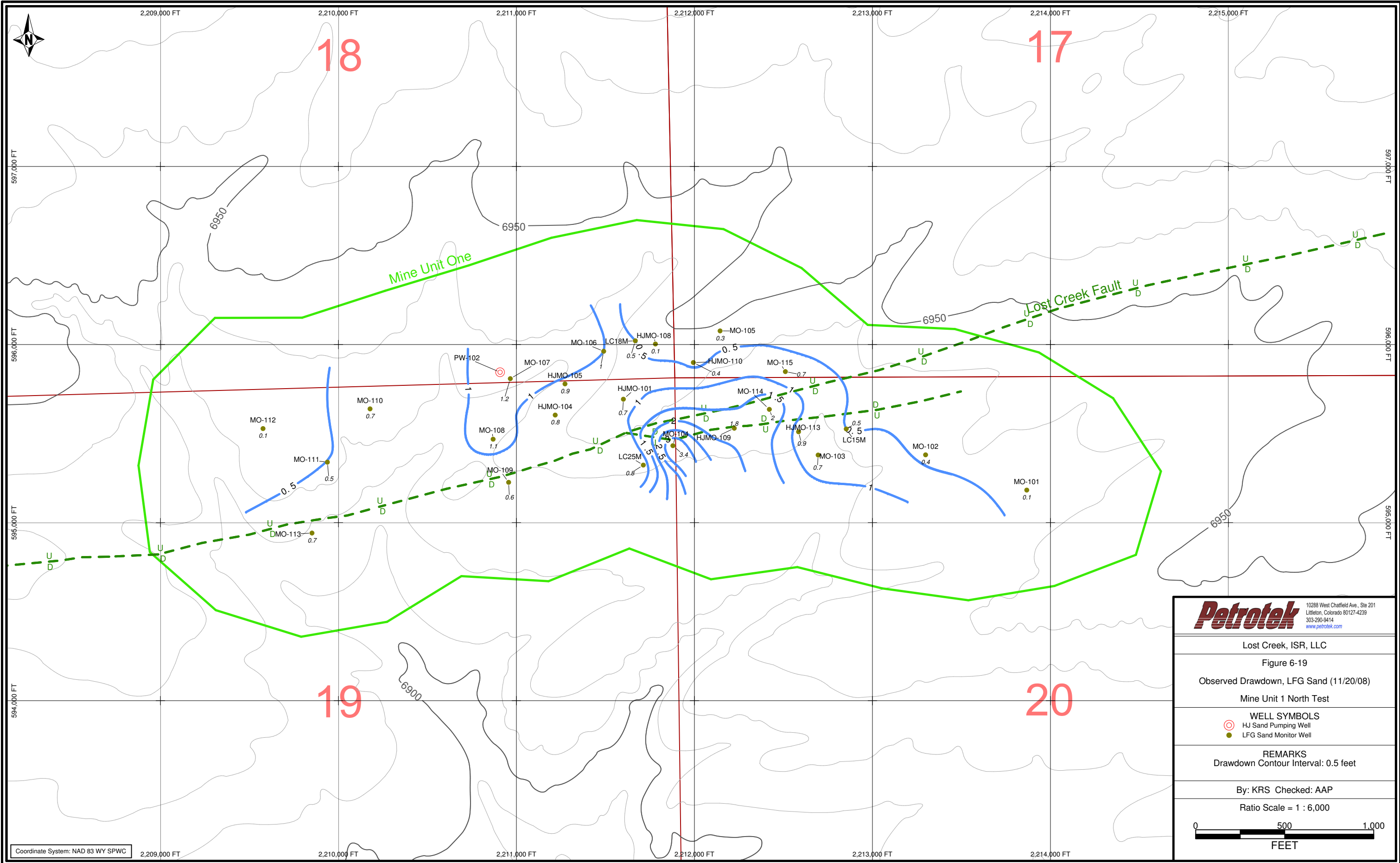
By: KRS Checked: AAP

Ratio Scale = 1 : 6,000




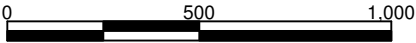


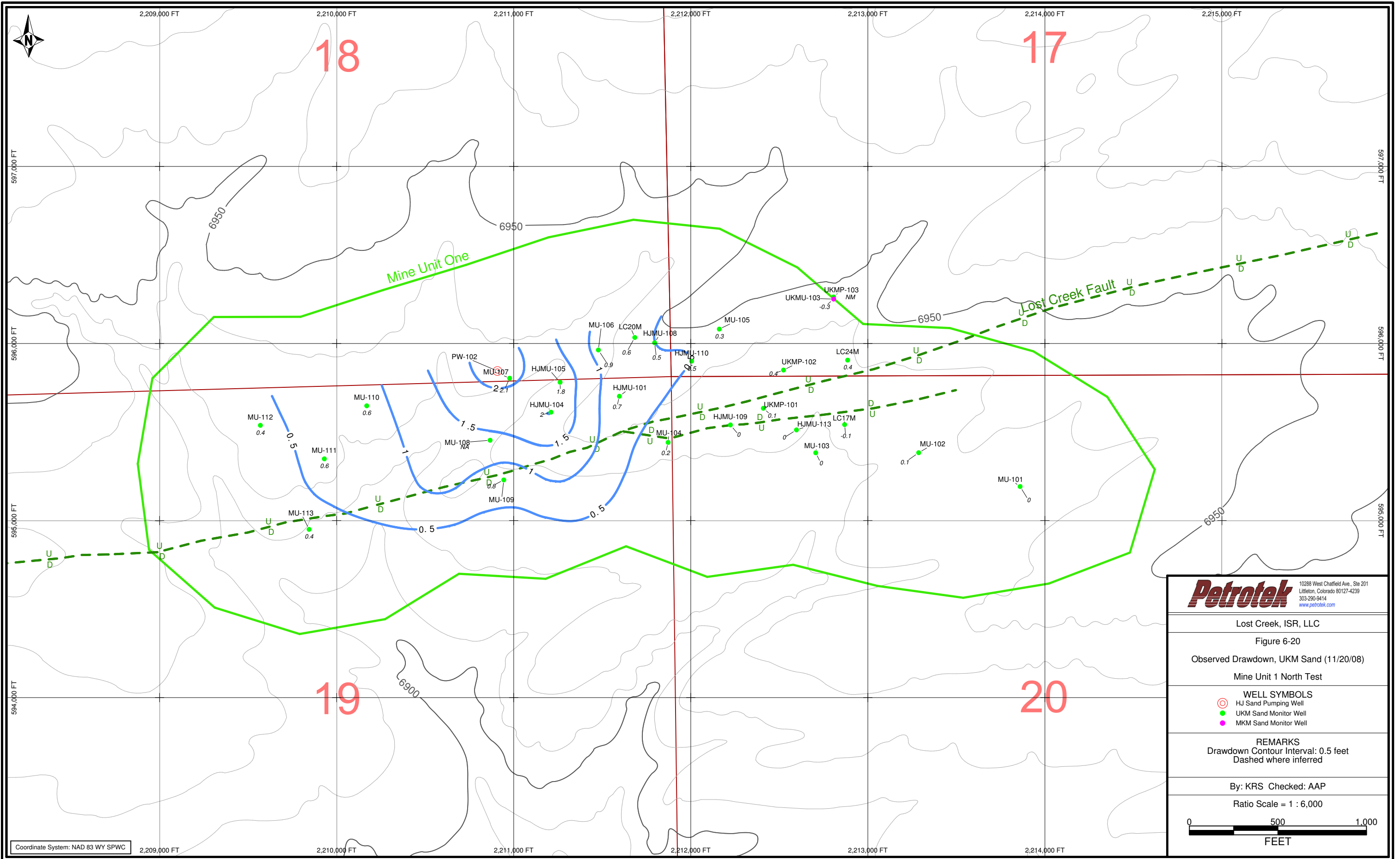
Maximum drawdown in the HJ Horizon on the north side of the Lost Creek Fault during the south test was less than 3 feet





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Figure 6-19	
Observed Drawdown, LFG Sand (11/20/08)	
Mine Unit 1 North Test	
<b>WELL SYMBOLS</b>  HJ Sand Pumping Well  LFG Sand Monitor Well	
<b>REMARKS</b> Drawdown Contour Interval: 0.5 feet	
By: KRS Checked: AAP	
Ratio Scale = 1 : 6,000	
 FEET	



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Figure 6-20

Observed Drawdown, UKM Sand (11/20/08)

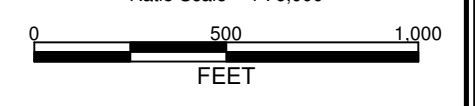
Mine Unit 1 North Test

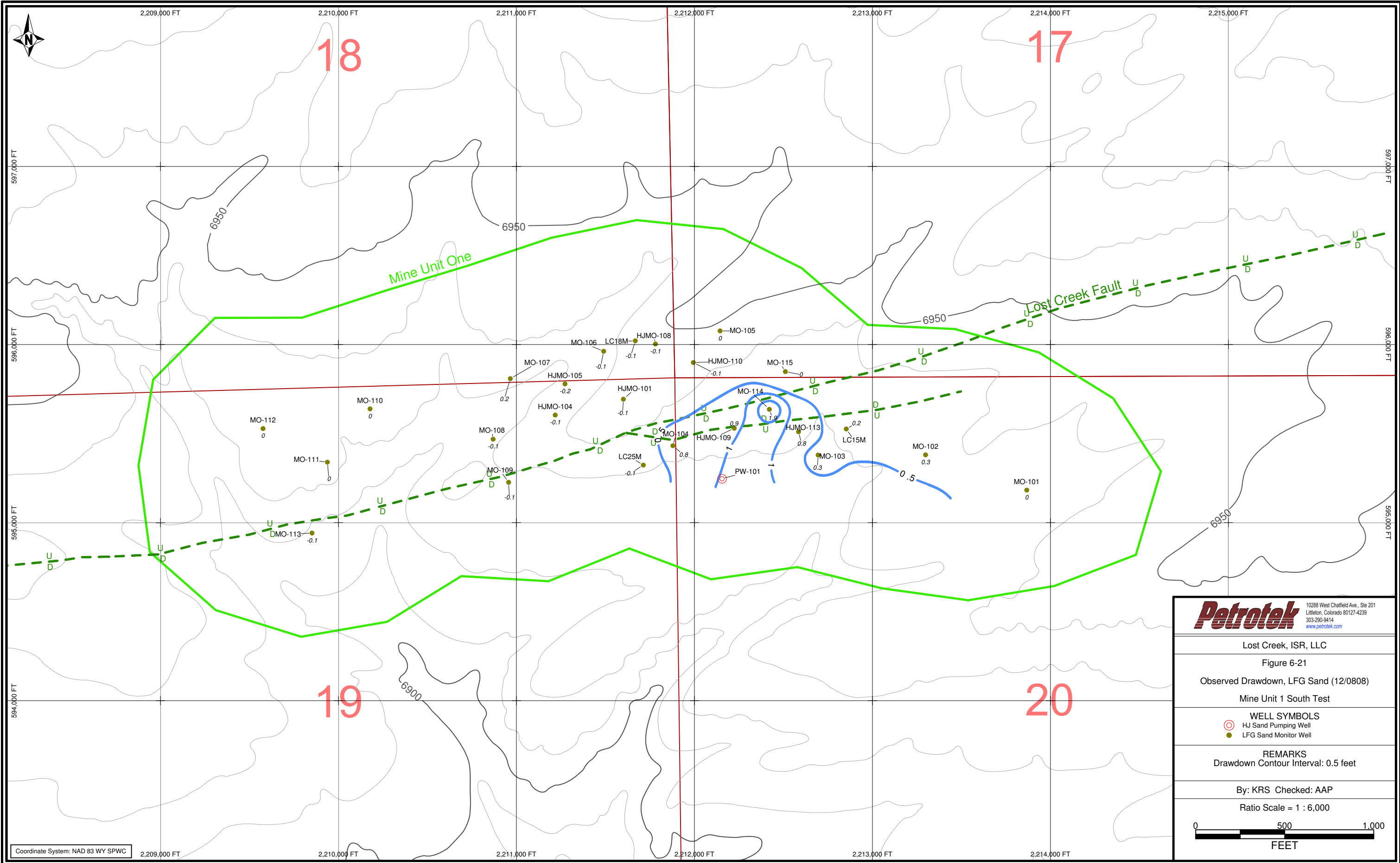
**WELL SYMBOLS**  
 HJ Sand Pumping Well  
 UKM Sand Monitor Well  
 MKM Sand Monitor Well

**REMARKS**  
 Drawdown Contour Interval: 0.5 feet  
 Dashed where inferred

By: KRS Checked: AAP

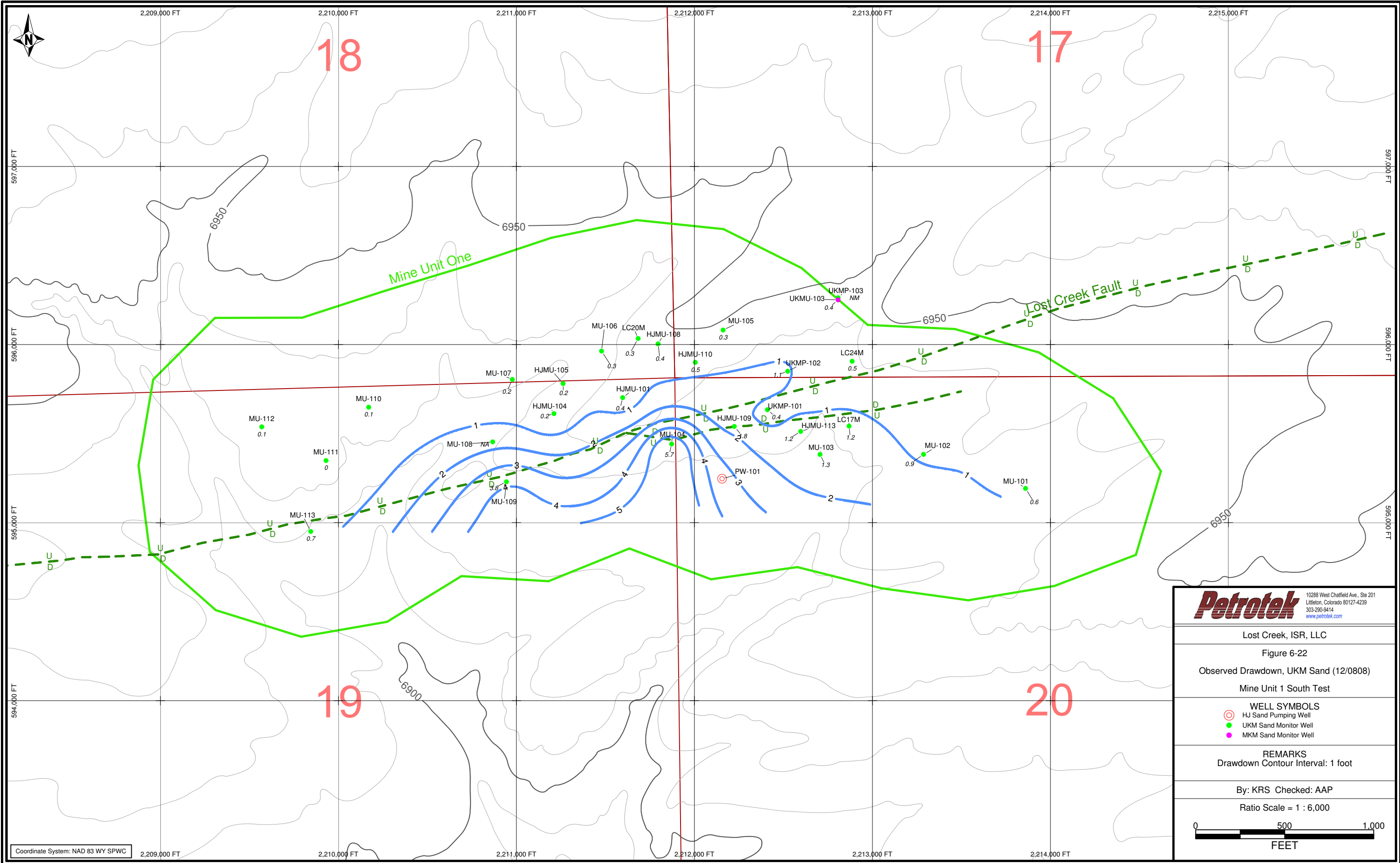
Ratio Scale = 1 : 6,000





Coordinate System: NAD 83 WY SPWC

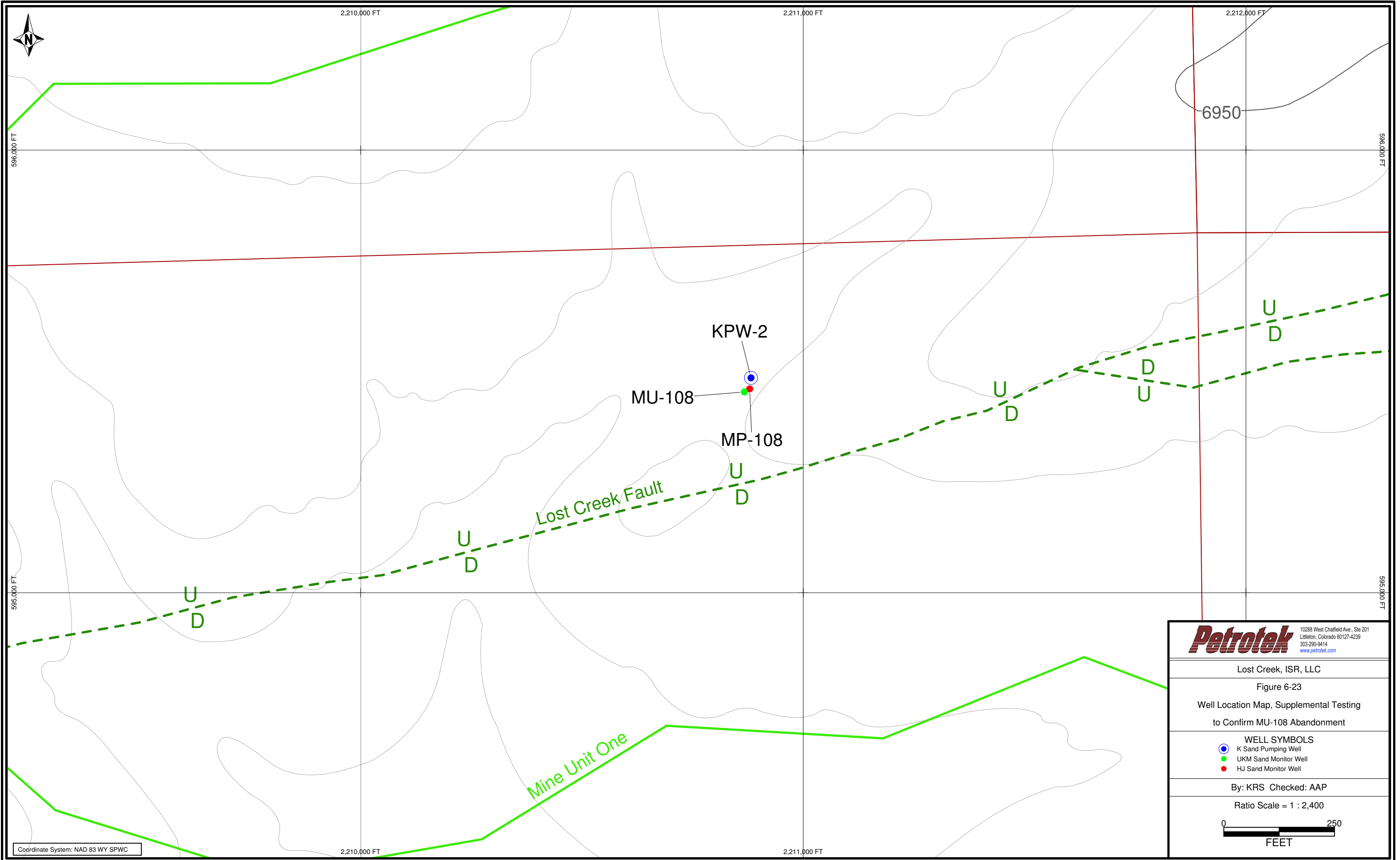
<small>10288 West Chatfield Ave., Ste 201 Littleton, Colorado 80127-4239 303-290-9414 www.petrotek.com</small>	
<b>Lost Creek, ISR, LLC</b>	
<b>Figure 6-21</b> Observed Drawdown, LFG Sand (12/0808) Mine Unit 1 South Test	
<b>WELL SYMBOLS</b> HJ Sand Pumping Well LFG Sand Monitor Well	
<b>REMARKS</b> Drawdown Contour Interval: 0.5 feet	
By: KRS Checked: AAP	
Ratio Scale = 1 : 6,000	








Coordinate System: NAD 83 WY SPWC

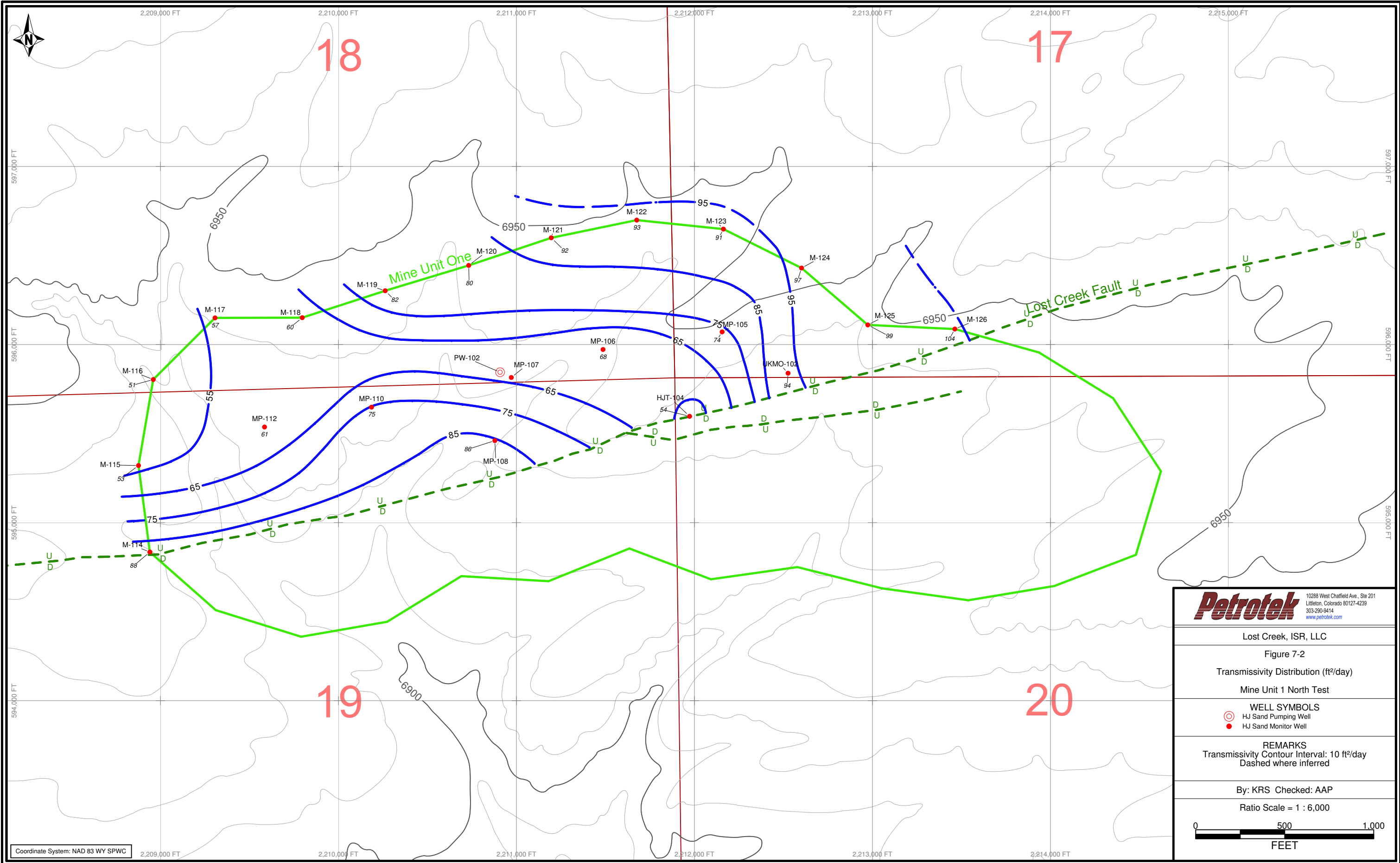
<small>10288 West Chatfield Ave., Ste 201 Littleton, Colorado 80127-4239 303-290-9414 www.petrotek.com</small>	
<p>Lost Creek, ISR, LLC</p>	
<p>Figure 6-22</p>	
<p>Observed Drawdown, UKM Sand (12/0808)</p>	
<p>Mine Unit 1 South Test</p>	
<p><b>WELL SYMBOLS</b></p>	
	HJ Sand Pumping Well
	UKM Sand Monitor Well
	MKM Sand Monitor Well
<p><b>REMARKS</b></p>	
<p>Drawdown Contour Interval: 1 foot</p>	
<p>By: KRS Checked: AAP</p>	
<p>Ratio Scale = 1 : 6,000</p>	





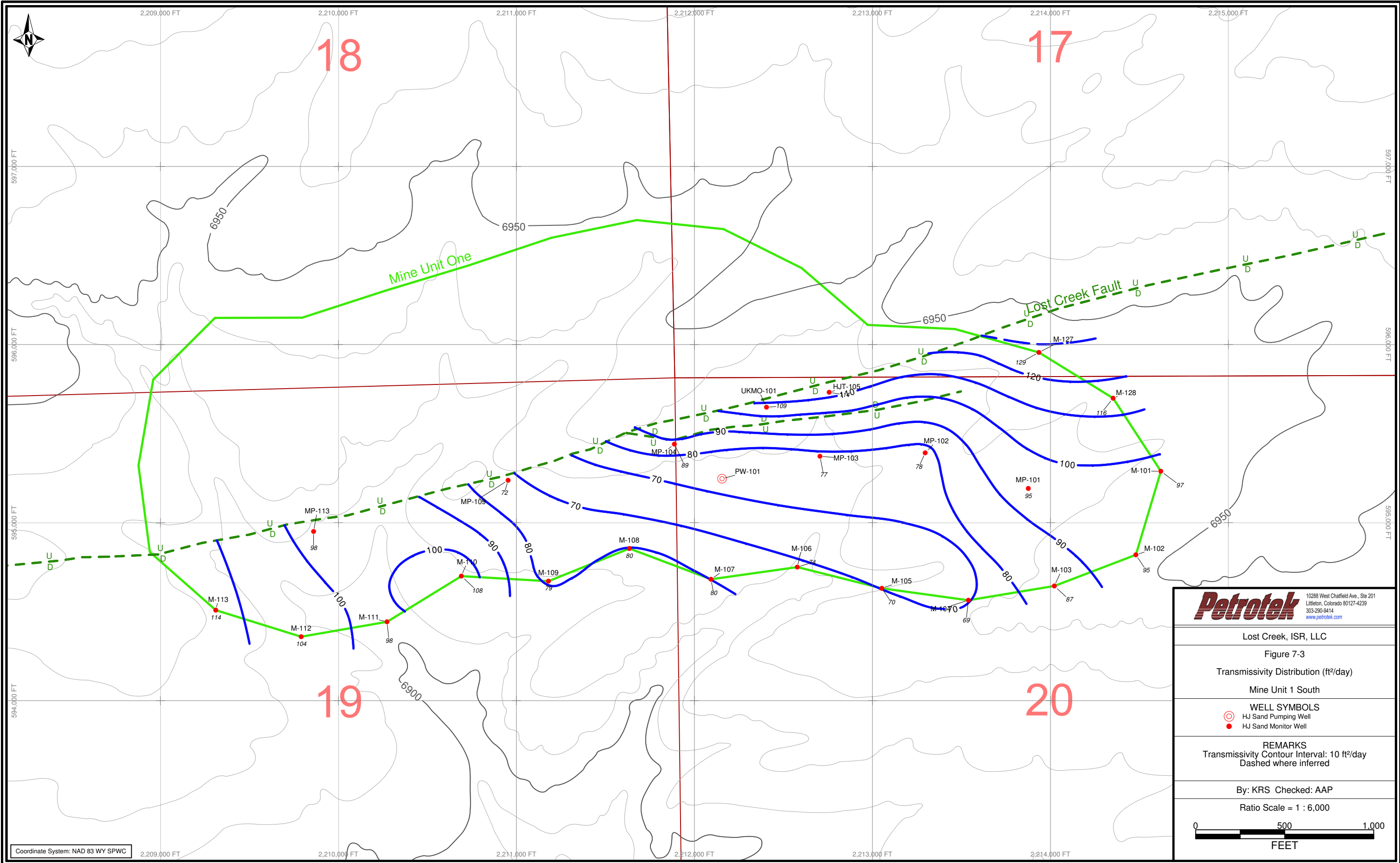
Coordinate System: NAD 83 WY SPWC

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Lost Creek, ISR, LLC	
Figure 6-23 Well Location Map, Supplemental Testing to Confirm MU-108 Abandonment	
<b>WELL SYMBOLS</b>  K Sand Pumping Well  UKM Sand Monitor Well  HJ Sand Monitor Well	
By: KRS Checked: AAP	
Ratio Scale = 1 : 2,400	
 FEET	



Coordinate System: NAD 83 WY SPWC

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Lost Creek, ISR, LLC	
Figure 7-2 Transmissivity Distribution (ft <sup>2</sup> /day)	
Mine Unit 1 North Test	
<b>WELL SYMBOLS</b> HJ Sand Pumping Well HJ Sand Monitor Well	
<b>REMARKS</b> Transmissivity Contour Interval: 10 ft <sup>2</sup> /day Dashed where inferred	
By: KRS Checked: AAP	
Ratio Scale = 1 : 6,000	



Coordinate System: NAD 83 WY SPWC

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<b>Lost Creek, ISR, LLC</b>	
<b>Figure 7-3</b> Transmissivity Distribution (ft <sup>2</sup> /day)	
Mine Unit 1 South	
<b>WELL SYMBOLS</b> 	
<b>REMARKS</b> Transmissivity Contour Interval: 10 ft <sup>2</sup> /day Dashed where inferred	
By: KRS Checked: AAP	
Ratio Scale = 1 : 6,000	