LIMITED HYDROGEOLOGIC INVESTIGATION

BMI COMMON AREAS (EASTSIDE) HENDERSON, NEVADA

Prepared for:

Basic Remediation Company 875 West Warm Springs Road Henderson, NV 89015

Converse Project No. 09-33220-01

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Mr. Ranajit Sahu Basic Remediation Company 875 West Warm Springs Road Henderson, NV 89015

Subject: Limited Hydrogeologic Investigation

BMI Common Areas (Eastside)

Henderson, Nevada

Dear Mr. Sahu:

Converse Consultants (Converse) is pleased to present our Limited Hydrogeologic Investigation for the BMI Common Areas (Eastside) in Henderson, Nevada.

Presented in this report are results of field work performed in accordance with our proposal dated September 10th, 2009. Our work consisted of reviewing existing information, surveying select monitor well locations, monitor well development, conducting slug tests and an aguifer (pump) test. This report contains a site map, survey coordinates, slug test data, and aquifer testing results.

Respectfully Submitted

CONVERSE CONSULTANTS

Jason Dixon, P.E. Principal Engineer

JMD:ACD:ls





Limited Hydrogeologic Investigation

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Limited Hydrogeologic Investigation

1.0 Background

The purpose of this investigation was to provide hydrogeologic information, specifically transmissivity and hydraulic conductivity for the alluvial unconfined aquifer and to determine if a hydraulic connection exists with the underlying Muddy Creek Formation (aquitard) within the Basic Management Inc. (BMI) Common Areas (Eastside).

1.1 Introduction

Converse was retained by BRC to conduct a limited hydrogeologic investigation for the project site located within the BMI Common Areas (Eastside), Henderson, Nevada. Converse surveyed monitor well locations throughout the BMI Common Areas (Eastside), oversaw development of recently installed monitor wells, collected groundwater measurements, conducted slug testing and performed an aquifer (pump) test. The subsurface conditions observed while performing slug testing (Appendix A) were used in conjunction with the results of the aquifer (pump) test to estimate hydraulic conductivity and transmissivity for the shallow unconfined alluvial aquifer and determine if a hydraulic connection with the underlying Muddy Creek Formation (aquitard) was observed.

2.0 Scope of Services

Our work consisted of surveying the locations of twelve (12) monitor wells, the successful development of one (1) monitor well, slug testing of eleven (11) monitor wells and conducting an aquifer (pump) test on one (1) monitor well (see Table 1). Converse subcontracted WDC Exploration and Wells (WDC) for the purpose of well development and for equipping and running the aquifer (pump) test. Converse conducted all work in accordance with BRC Standard Operating Procedures.

Table 1. Scope of Work Summary

Monitor Well ID	Survey	Develop- ment	Slug Test	Aquifer (pump) Test
AA-30*	Х		х	х
MCF-24B	Х		Х	
MCF-28A	ж		×	
MCF-28B	ж		×	
MCF-29A*	Ж		Х	
MCF-29B*	Х		X	
MCF-30A*	ж		х	
MCF-30B*	×		×	
MCF-31A	х		х	
MCF-31B	×		×	
MCF-32A*	ж	ж	×	
MCF-32B	Х	X	X	

^{*}Note. Attempts to develop MCF-32A were unsuccessful; details are included in Section 4.2.

2.1 Project Background

Previous work performed by Converse, as well as others, was reviewed including the *GES Report* dated August 10th, 2009 for the *Eastside Monitor Wells*. Information obtained from the GES report included lithologic descriptions from borehole logs and well construction diagrams. It should be noted, however, that Converse cannot validate the methodology or accuracy of observations provided, therefore, this information was assumed to be representative of the subsurface conditions at this project site.

Geologic and Hydrogeologic Conditions 3.0

3.1 **Geologic Setting**

The BMI Common Areas (Eastside) property is located in a section of the Las Vegas Valley which is underlain by two major geologic units, Quaternary Alluvium and the Pliocene Muddy Creek Formation. Alluvial deposits predominantly composed of sands and gravels overly the fine-grained predominantly clay deposits of the Muddy Creek Formation. The Muddy Creek Formation which is composed of finegrained sediments mostly interbedded sand, silt, and clay were deposited in a lake environment starting about 11.5 mya (Bohannon and others, 1993). Two dominant types of contacts have been observed between the Muddy Creek Formation and the overlying Quaternary Alluvium in this region of the Las Vegas Valley. The first is typical of a dry lake bed with alluvial sediments deposited on top of evaporative mineralized playa deposits and with the second unconformable contact characterized by a series of steeply down-cut erosional surfaces, the remnants of meandering drainage channels filled with coarse grain wash deposits.

Previous studies conducted by Converse (2004 & 2005) within the surrounding area (Weston Hills property) observed steep drainage channels scoured into the relatively undisturbed clay sequences of the Muddy Creek Formation. These features create highly variable unconformable contacts with the overlying alluvial material often directing the movement of groundwater along its surface. The Muddy Creek Formation underlying the area in the vicinity of the BMI project site is composed of fine grained lacustrine deposits characterized by a sequence of reddish brown and off-white clay having concentrations of gypsum deposits and isolated sand lenses, with some zones exhibiting bedding characteristics, underlain by light green clay. Evaporite deposits of gypsum/selenite crystals have been observed within clay beds encountered along portions of the contact between the Muddy Creek and the overlying alluvium, as well as, concentrated within micro-fractures throughout the green clay beds as observed during work performed by Converse in the adjacent Weston Hills property.

3.2 Hydrogeologic Conditions

The BMI Common Areas (Eastside) property is located within Las Vegas Valley hydrographic basin. The Valley is a structural basin typical of the Basin and Range Province and is located within the northern Mojave Desert. Groundwater within the BMI Common Areas (Eastside) area is dominated by two hydrogeologic units. The first is composed of unconfined alluvial sands and gravels underlain by a leaky confined aquitard primarily consisting of fine-grained silts and clays of the Pliocene Muddy Creek Formation. The groundwater flow direction throughout the project site is generally from the southwest to the northeast draining towards the Las Vegas Wash. The Las Vegas Wash flows in a northeasterly direction approximately 1,000 to 2,000 feet from the nearest and furthest edges of the northern site property line, respectively (see Plate 1).

4.0 Field Investigation

Converse conducted field work between September 16th – October 5th, 2009, which consisted of surveying monitor well locations, conducting slug testing, well development and performing an aquifer (pump) test.

4.1 Wonitor Well Field Survey

On September 23rd, 2009, Converse conducted a survey of select monitor wells located throughout the BMI Common Areas (Eastside). Converse utilized a Trimble Rover 5800 survey unit and recorded measurements of the ground surface elevation and the top of casing elevation for each well. It should be noted that Converse is not a registered land surveyor and if legal descriptions are required or if additional survey data is needed, a licensed surveyor should be consulted. Table 2 contains a summary of the monitor well survey data and Table 3 summarizes static groundwater level observations.

Table 2. Survey Data for Monitor Well Locations

Monitor Well	Location	Northing	Easting	Elev. (ft AMSL)
MCF-24b	Ground	26725619.730	833839.708	1,680.00
MCF-24b toc	TOC	26725619.340	833839.355	1,684.60
MCF-28a	Ground	26732314.240	830679.562	1,564.73
MCF-28a toc	TOC	26732313.650	830679.597	1,569.16
MCF-28b	Ground	26732313.460	830661.613	1,565.24
MCF-28b toc	TOC	26732313.020	830661.572	1,568.94
MCF-29a	Ground	26733436.440	833957.555	1,543.48
MCF-29a toc	TOC	26733436.560	833957.868	1,547.57
MCF-29b	Ground	26733444.820	833954.627	1,543.52
MCF-29b toc	TOC	26733444.920	833954.698	1,547.83
AA-30	Ground	26733692.130	836125.850	1,529.84
AA-30 toc	TOC	26733691.700	836125.912	1,533.34
MCF-30a	Ground	26733724.190	836135.500	1,527.60
MCF-30a_toc	TOC	26733724.110	836135.154	1,530.87
MCF-30b	Ground	26733707.480	836130.584	1,528.84
MCF-30b_toc	TOC	26733707.020	836130.632	1,532.32
MCF-31a	Ground	26733550.750	838327.311	1,523.82
MCF-31a_toc	TOC	26733550.260	838327.149	1,528.04
MCF-31b	Ground	26733552.750	838313.754	1,523.95
MCF-31b_toc	TOC	26733552.240	838313.963	1,528.21
MCF-32b	Ground	26724066.470	835743.081	1,727.88
MCF-32b_toc	TOC	26724066.560	835743.747	1,732.26
MCF-32a	Ground	26724074.840	835752.581	1,728.31
MCF-32a_toc	TOC	26724074.910	835753.144	1,732.70

*Note. Survey locations obtained by a Trimble Rover 5800 with a TSC2 Data Collector referencing the LVVWD Base Stations, reported in NAD-83, State Plane NV East. Top of Casing (TOC), below ground surface (bgs), Above Mean Sea Level (AMSL). Horizontal and vertical accuracy within 0.1 ft.

Well ID	Ground Surface Elevation (ft-AMSL)	Top of Casing Elevation (ft-AMSL)	Total Well Depth (ft-bgs)	Screened Interval (ft-bgs)	Static Water Level (ft-bgs)	Static Water Level Elevation (ft-AMSL)
MCF-24B	1,680.00	1,684.60	170	150-170	61.48	1,618.52
MCF-28A	1,564.73	1,569.16	390	370-390	11.33	1,553.40
MCF-28B	1,565.24	1,568.94	188	168-188	-0.94*	1,566.18
MCF-29A	1,543.48	1,547.57	379	359.5-379.5	3.15	1,540.33
MCF-29B	1,543.52	1,547.83	175	155-175	13.61	1,529.91
AA-30	1,529.84	1,533.34	32	11.7-31.7	17.6	1,512.24
MCF-30A	1,527.60	1,530.87	370	350-370	23.27	1,504.33
MCF-30B	1,528.84	1,532.32	164	144-164	15.58	1,513.26
MCF-31A	1,523.82	1,528.04	381	361-381	0.7	1,523.12
MCF-31B	1,523.95	1,528.21	230	210-230	43.91	1,480.04
MCF-32A	1,728.31	1,732.70	371	351-371	36.06	1,692.25
MCF-32B	1,727.88	1,732.26	160	140-160	66.38	1,661.50

Table 3. Static Groundwater Level Observations (September 23, 2009)

 \pm Note. MCF-28B, artesian conditions resulted in the water table rising above the top of the ground surface while still being contained within the well casing resulting in a negative depth.

4.2 Monitoring Well Development

WDC conducted well development using a CME 85 drill rig equipped with a swab tool and bailer for monitor wells MCF-32A & MCF-32B (locations shown in Plate 1). The objective for well development is to remove any residual drilling fluids that may have been left from drilling operations and to re-sort the filter pack around the well screens to re-establish the hydraulic connection with the surrounding formation so water can flow more freely through the screen.

Development was performed by first swabbing the well (with a swab tool) steadily for 1 to 2 minutes, then bailing the water out of the well and allowing water to recover. This process forces the groundwater in and out of the well through the gravel pack. This cycle of swabbing and bailing was repeated for MCF-32B until the discharge water from the bailer was noticeably clear. Groundwater discharged during well development was initially murky and contained some sand, but cleared up within approximately 20 minutes.

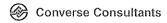
Attempts to develop MCF-23A were not successful. An obstruction within the well casing at approximately 100 feet (bgs) prevented the swab tool and bailer from reaching the screened interval located at approximately 351 feet (bgs). MCF-32A remains un-developed following several attempts by WDC. According to BRC, GES conducted a video log of the well to determine the reason for the physical obstruction and to determine if the well could be repaired. The findings of the video log are unknown and therefore not included in this report.

4.3 Slug Testing

Slug testing is field test method used to estimate the rate in which an aquifer transmits groundwater, the results of which provide approximate ranges of field horizontal hydraulic conductivity (K) measured in feet per day (ft/d). Converse personnel conducted slug tests for monitoring wells AA-30, MCF-24B, MCF-28A & B, MCF-29A & B, MCF-30A & B, MCF-31 A & B and MCF-32B located in the BMI Common Areas (Eastside), see Plate 1 for well locations.

Each slug test was conducted by submerging a "slug" constructed of rigid, sealed PVC pipe of known dimensions and volume below the water table. Two types of slug tests were performed at each well, slugin and slug-out, each of which causes an instantaneous change in water level. The rate at which the disturbed water level recovers to static conditions is a function of the hydraulic conductivity of the aquifer material near the well screen. Changes in water level over time were observed using a rapid-sample electronic pressure transducer with a self-contained data logger, programmed and connected to a handheld computer at the surface. Each test (slug-in and slug-out) is repeated for multiple repetitions until results show little variation in the rate of water level recovery.

Slug test data was analyzed using the Hvorslev (1951) and Bouwer and Rice (1976) methods in Aquifer Test (version 4.2) a computer program designed to analyze slug test data and estimate hydraulic conductivity.



It should be noted that values of hydraulic conductivity determined from slug testing represents near borehole (<1 foot radius) averages, and may not be representative of aquifer materials outside this effective well radius. This is especially true for non-homogeneous and anisotropic aquifers such as the shallow unconfined aquifer, which encompasses most of the Las Vegas Valley and includes the study site. These aquifer conditions can often result in significant spatial variability of hydraulic conductivity. Values of hydraulic conductivity derived from these slug tests should be considered as an order of magnitude range for the material encountered in the formation around each well screen. Results of the slug testing for the above mentioned wells are presented in Table 4 and a complete set of slug test analyses are included in Appendix A.

Table 4. Slug Test Results

Summary of Average Hydraulic Conductivity Estimates					
	(ft/day)	(cm/sec)	(ft/day)	(cm/sec)	
na productivi produkti kalenda	AA-	30	MCF-	24B*	
Hvorslev	2.96E+01	2.96E+01	1.89E-02	6.68E-06	
Bouwer & Rice	2.41E+01	2.41E+01	2.50E-02	8.84E-06	
	MCF-	28A	WCF	-28B	
Hvorslev	3.86E-03	1.36E-06	5.49E-02	1.94E-05	
Bouwer & Rice	4.12E-03	1.45E-06	5.36E-02	1.89E-05	
ACCOMMODISTICS CONTRACTOR STATES OF THE PROPERTY OF THE PROPER	MCF-	·29A	MCF.	-29B	
Hvorslev	1.03E-01	3.63E-05	1.60E-02	5.65E-06	
Bouwer & Rice	1.00E-01	3.53E-05	1.80E-02	6.37E-06	
<u> </u>	MCF-	-30A	MCF-30B		
Hvorslev	4.52E-02	1.60E-05	4.16E-02	1.47E-05	
Bouwer & Rice	4.63E-02	1.63E-05	4.07E-02	1.44E-05	
	MCF.	-31A	MCF	-31B	
Hvorslev	8.06E-03	2.85E-06	1.57E-02	5.53E-06	
Bouwer & Rice	8.32E-03	2.94E-06	1.65E-02	5.84E-06	
Control and the Control of the Contr	MCF-32A**		MCF	-32B	
Hvorslev	NA	NA	8.54E-02	3.01E-05	
Bouwer & Rice	NA	NA	7.60E-02	2.68E-05	

*Note. Slug In results were inconclusive and therefore not relied upon for MCF-24B.

**Note. MCF-32A could not be slug tested due to the physical condition of the well casing.

Interpretation of slug test results involves eliminating inconclusive and/or misrepresentative tests in order to best reflect the aquifer's response to slug testing. For instance, slug-in test results are generally used only for comparison, as they are considered less reliable than slug-out tests due to the partial saturation of unsaturated materials that occurs from increasing the elevated water level upon slug insertion. The displacement in the wellbore when the pressure head is rising is always smaller than when the head is falling, and this produces a loop-like, hysteresis when displacement is plotted as a function of pressure. In other words, water can adhere to voids in the vadose (unsaturated) zone, not returning to the well. Therefore, data from the slug-in tests may overestimate saturated aquifer permeability. In addition, while conducting a slug test human error may result in a less desirable data curves and in some cases, reliable estimates of hydraulic conductivity can not be made, these results were excluded from our analysis. Table 5 provides a summary of test results for slug tests that could be interpreted.

Table 5. Interpretive Average Hydraulic Conductivity

Hyd	Hydraulic Conductivity (ft/day)					
Wells	Hvorslev	Bouwer & Rice	Method Average			
MCF-24B	0.005	0.006	0.006			
MCF-28A	0.004	0.004	0.004			
MCF-28B	0.044	0.043	0.043			
MCF-29A	0.077	0.066	0.071			
MCF-29B	0.021	0.020	0.021			
AA-30	29.600	24.050	26.825			
MCF-30A	0.032	0.034	0.033			
MCF-30B	0.030	0.029	0.030			
MCF-31A	0.005	0.005	0.005			
MCF-31B	0.007	0.009	0.008			
MCF-32B	0.077	0.076	0.077			

<u>Note.</u> Monitor well MCF-32A could not be slug tested due to the physical condition of the pvc well casing.

4.4 Aquifer (Pump) Testing

Stepped-rate and constant-rate aquifer (pump) tests were conducted at test well AA-30 to evaluate the unconfined aquifer and to better understand the hydraulic connection between the shallow alluvial aquifer and the underlying Muddy Creek aquitard. The stepped-rate test was designed to evaluate potential aquifer yields while approximating dynamic equilibrium conditions for various pumping rates. The constant-rate test was then conducted to evaluate local hydrogeologic conditions during sustained pumping.

The test well (AA-30) was equipped with a 6 horse power sump pump connected to a 3 inch discharge line to convey pumped groundwater into a 21,000 gallon baker tank. Pumped water was then removed from the baker tank and used for dust control by ENTACT, the on-site construction manager. Pumping rates were observed with an in-line totalizing flow meter mounted within the discharge line. The production rate was controlled with the throttle on the sump pump. Table 6 summarizes total production during aquifer testing.

 Date
 Discharge (gallons)

 09-24-09
 150

 09-25-09
 1,290

 10-01-09
 18,330

Table 6. Test Pumping Discharge

Note. Discharge occurred on multiple days while adjusting the test pump settings.

19,770

Test well AA-30 located on the north central portion of the study area is in close proximity to monitoring wells (MCF-30B & MCF-30A) located at distances of approximately 20 and 40 feet away, respectively (see Plate 1). It should be noted that these nearby wells were used as observation wells to determine if the groundwater level fluctuations in the alluvial aquifer would impact the groundwater levels in the underlying Muddy Creek aquitard.

Total Discharge

In addition to the observation wells within the Muddy Creek aquitard, an alluvial well (HMW-8 adjacent to MCF-29A) located approximately 1,100 ft to the west of AA-30, was monitored during pump testing. Considering the aquifer conditions and limited pumping capacity at this site it would have been preferred to monitor an adjacent alluvial well within 100 ft of the pumping well, however HMW-8 was the closest alluvial well available. Unfortunately, water level data collected from HMW-8 indicated no discernable drawdown as a result of the aquifer (pump) testing of test well AA-30.

During the stepped-rate and constant-rate pump tests, water level fluctuations for AA-30, MCF-30A, MCF-30B, and HMW-8 were monitored electronically using In-Situ Inc. LevelTrolls equipped with self-contained data loggers and pressure transducers.

4.4.1 Stepped-Rate Test

The stepped-rate test was conducted to evaluate the shallow aquifer response to various pumping rates and to determine the appropriate setting for the constant rate test. The test well (AA-30) was pumped at successively increasing rates as shown in Figure 1 & Table 7 from 4 to 35 gallons per minute (gpm). While conducting Steps 1 and 2 similar drawdown, less than 1 ft was observed. Step 4 was initially targeted at a rate of 40 (gpm), however due to the pumps inability to sustain a higher pumping rate, 35 gpm was used resulting in similar drawdown for Steps 3 and 4. Test pumping rates were controlled by toggling the valve to increase back-pressure on the discharge line while monitoring the in-line flow-meter. Results of the stepped-rate test are summarized in Table 7 with time drawdown and specific capacity plots presented on Figures 1 & 2, respectively.

Table 7	7.	Test	Well	AA-30	Stepped-	Rate	Test	Data
---------	----	------	------	--------------	----------	------	------	------

Step Number	Discharge (gpm)	Measured Drawdown (ft)	Specific Capacity-Sc (gpm/ft)
1	4	0.22	18.18
2	15	0.81	18.52
3	22	0.89	24.72
4	35	2.1	16.66

Specific capacity (Sc) is a parameter that describes the well's potential yield in terms of drawdown at various pumping rates and is a function of the well construction and the aquifer's ability to release water from storage. Sc is obtained by dividing the rate of discharge of water from the well by the drawdown based on observed water level response in the well. Based on the stepped-rate test, a rate of 35 gpm was used for the constant-rate test.

BRC Aquifer Test - AA-30 Stepped-Rate Pump Test, September 25 & 30, 2009

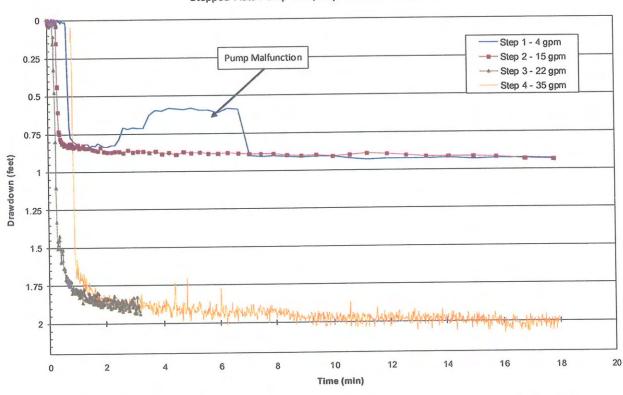
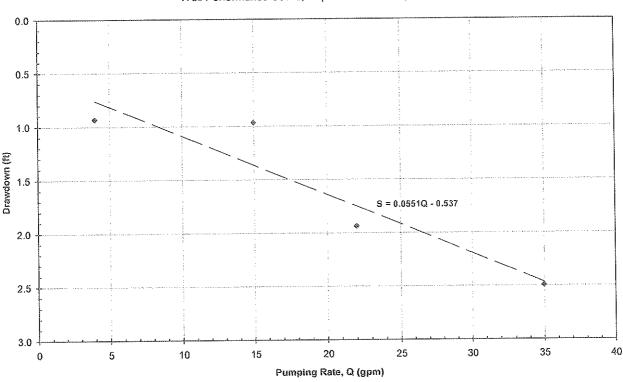


Figure 1. Step Test Time Drawdown for the Test Well AA-30. Note similar drawdown observed during Steps 1 & 2 due to minimal pumping rates. Step 3 stopped short once seeing stabilization within 2 ft of drawdown. Step 4 maximized pump performance at 35 gpm.



BRC Aquifer Test - Well AA-30 Well Performance Curve, September 25 & 30, 2009

Figure 2. Well performance curve for Step Test: s = Drawdown Q = Pumping Rate. The equation shown in this Figure is based on a linear regression analysis of the step test performance and can be used to predict well performance at various pumping rates for this specific aquifer.

4.4.2 Constant-Rate Test

The constant-rate test was initiated after approximately 18 hours of water level recovery (return to static conditions) following the stepped-rate test. For the constant-rate test, the test well (AA-30) was pumped at a selected maximum (based on the test pump) rate of approximately 35 (gpm). The constant-rate test was conducted for approximately 8 hours with a sustained pumping rate that averaged 35 gpm. During the test, time drawdown data for the test well (AA-30) and Observation Wells (MCF-30A & MCF-30B) was recorded using In-Situ, Inc. LevelTroll devices and plotted as shown in Figure 3. Time-drawdown data was plotted on semi-logarithmic graphs for interpretation as shown in Figure 4. Following shutdown, water levels were monitored in each well for approximately 30 minutes as the aquifer recovered (see Figure 5). A summary of the constant-rate test is presented in Table 8.





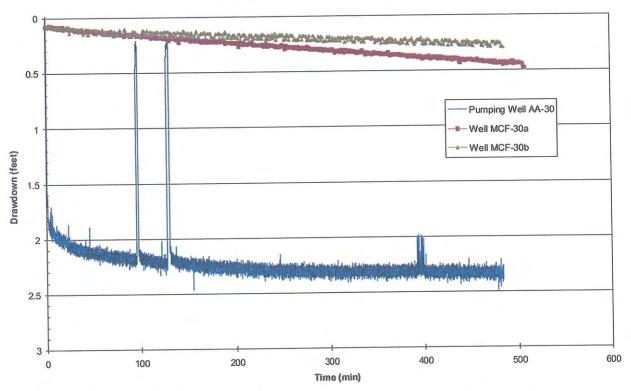
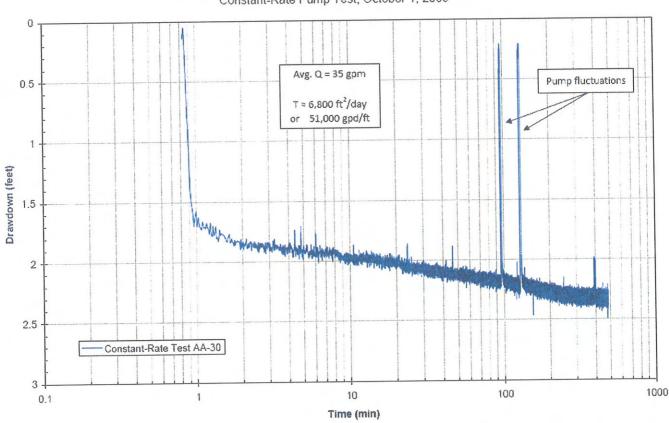


Figure 3. Drawdown for the test well (AA-30) and observation wells (MCF-30A & 30B) during the constant-rate test. Water level fluctuations as a result of temporary pump failure did not impact the overall drawdown data. Note greater drawdown observed in MCF-30A than in MCF-30B. This is unexpected since MCF-30A is located farther away from the test well (AA-30). Preferential pathways within the Muddy Creek Formation may have created a greater hydraulic connection between MCF-30A and the unconfined aquifer.

Table 8. Constant-Rate Test Drawdown (ft-bgs)

Elapsed Time (min)	AA-30	MCF-30A	мсг-зов
1	1.58	0.08	0.09
10	1.97	0.08	0.09
20	1.99	0.11	0.10
40	2.08	0.11	0.11
80	2.19	0.14	0.15
180	2.24	0.23	0.20
280	2.30	0.29	0.18
380	2.30	0.37	0.25
480	2.37	0.43	0.25



BRC Aquifer Test - Well AA-30 Constant-Rate Pump Test, October 1, 2009

Figure 4. Drawdown observations from the Test Well during the constant-rate test. Discharge Q = 35 gpm. Pump fluctuations occurred due to motor failure, however once back on-line there were minimal impacts to the drawdown data.

4.4.3 Aquifer Test Analysis

Aquifer test results were analyzed by utilizing the Cooper-Jacob (Jacob, 1946) modification of Theis (1935) as documented in Driscoll (1986). The Cooper and Jacob method (1946) known as the 'straight-line' method is used to analyze time-drawdown data from test pumping. This method of analysis is based on the following assumptions:

- 1. Flow to the pumping well is horizontal and unsteady.
- 2. Each well fully penetrates the aquifer.
- 3. The aquifer is isotropic, homogeneous, and infinite in horizontal extent.
- 4. The aquifer is flat lying and uniformly thick.



- 5. Water is released instantly from storage when the head is lowered with no formation water being received from recharge.
- Discharge is constant.
- 7. Head losses due to the well are negligible, and the well is 100% efficient.
- 8. Each well was fully developed prior to testing.
- 9. The aquifer is at steady state with respect to new pumping stresses.

Most of these assumptions were partially satisfied at the site during the aquifer test. As shown in Figure 4, the time-drawdown curve was projected by extending (in time) a logarithmic trend line to the total test pumping time (480 minutes). Analyzing the time-drawdown data resulted in an estimate of transmissivity for the shallow aquifer to be 51,000 gallons per day per foot of drawdown (gpd/ft) or 6,800 ft²/day. Storativity was not able to be calculated since drawdown was not observed in the adjacent alluvial monitor well HMW-8. In addition, analysis of the drawdown data revealed no discernable impact from nearby hydrologic boundaries (Las Vegas Wash and/or the C-1 Channel).

Recovery data was collected following pump shut off as plotted in Figure 5 to show the amount of time it took for groundwater to recover to static water levels. Recovery is plotted against the time since pumping stopped on a semi-log plot. From this graph transmissivity can be calculated using the change in water level recovery over one logarithmic cycle. Analyzing the time-drawdown data using the Cooper-Jacob modification method resulted in an estimate of transmissivity for the shallow aquifer to be 91,000 gpd/ft or 12,000 ft2/day. It should be noted that transmissivity values estimated from the pumping (test) well can be on the order of magnitude less than values estimated from nearby observation wells. This is because of the inherent inefficiencies of the pumping (test) well, which may be less pronounced during recovery. The nearest alluvial well (HMW-8) was located outside of the radius of influence from the pumping well (AA-30). Therefore, data was not available to calculate transmissivity based on observed drawdown in an adjacent observation well.

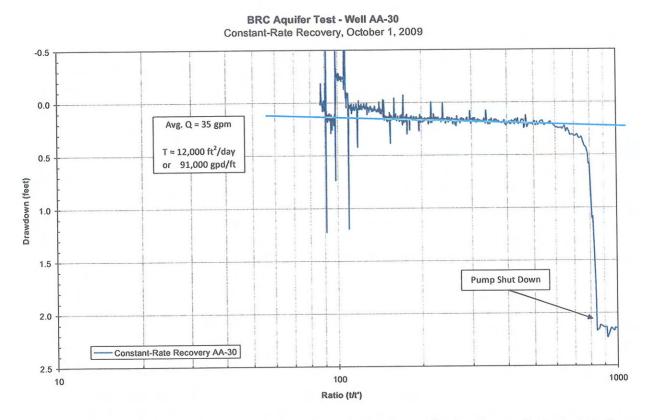


Figure 5. Groundwater recovery observations from the Test Well following the constant-rate test. Pump shut down indicated on the right side of the graph with drawdown indicated on the x axis in feet. The straight line fitted to calculate Transmissivity within one log cycle.

Based on the aquifer test analyses, the transmissivity of the shallow aquifer within the study area is estimated to be approximately 51,000 to 91,000 gpd/ft (6,800 to 12,000 ft²/day). Hydraulic conductivity is a soil property that describes the ease with which the soil pores permit groundwater movement. Once determining the transmissivity for horizontal flow with a known saturated aquifer thickness the horizontal hydraulic conductivity was calculated by dividing the transmissivity by the aquifer thickness. Transmissivity is directly proportional to horizontal permeability and thickness of the aquifer. Based on the lithologic log of MCF-30A (GES, 2009) it is assumed that the saturated aquifer thickness is 32 feet. Therefore, the hydraulic conductivity of the shallow unconfined aquifer was estimated to be approximately 210 to 375 ft/day.

5.0 Discussion

Typically, aquifer testing involves pumping of a test well with at least two adjacent observation wells completed within the same aquifer. This work included pump testing of the shallow aquifer (AA-30) with monitoring of the deeper Muddy Creek aquitard (MCF-30A & MCF-30B) to determine if hydraulic communication exists between the hydrogeologic units. Since pumping of the shallow unconfined aquifer resulted in observed drawdown within the underlying Muddy Creek aquitard it is therefore concluded that there is a hydraulic connection between these two units. The extent of the hydraulic communication can only be inferred based on the locations of the wells and the strata intercepted by the well screen.

Future studies would require the installation of additional alluvial observation wells within 100 feet of the existing monitor well AA-30. In addition, higher pumping rates would allow for the aquifer to be stressed increasing drawdown and providing a more accurate estimate of transmissivity. It should also be noted that pumping at higher rates would require additional groundwater discharge management. The use of a baker tank limits the amount of water that can be discharged. To achieve higher rates of pumping, an alternative for discharge would need to be investigated.

6.0 Summary

The following summarizes the findings of this limited hydrologic investigation:

1. Surveyed ground surface elevations for the monitoring wells AA-30, MCF-24B, MCF-28A, MCF-28B, MCF-29A, MCF-29B, MCF-30A, MCF-30B, MCF-31A, MCF-31B and MCF-32B located in the BMI Common Areas (Eastside) ranged from 1,524 to 1,680 ft (AMSL) (see Table 2).

- 2. The static groundwater table for the shallow unconfined aquifer as observed in the alluvial well AA-30 is located at 17.6 ft (bgs) at an elevation of approximately 1,512 ft (AMSL) (see Table 3).
- 3. Static groundwater observations for the MCF wells included in this study indicate that groundwater within the deep Muddy Creek aquitard underlying the alluvial aquifer ranges in depth from artesian conditions as observed in MCF-28B with static groundwater at 0.94 ft above ground surface to 66.38 ft (bgs) as observed in MCF-32B. Groundwater elevations for the Muddy Creek aquitard range from approximately 1,692 to 1,480 ft (AMSL), as observed in MCF-32A and MCF-31B, respectively (see Table 3).
- 4. The results of the slug test analyses for monitor well AA-30 indicates that on average the shallow unconfined aquifer has an average hydraulic conductivity of 26 ft/day (Table 5).
- 5. The results of the slug test analyses conducted on the monitor wells completed within the Muddy Creek aquitard (see Table 5) resulted in an average hydraulic conductivity range of 0.021 to 0.008 ft/day.
- 6. Based on the aquifer test analyses, the transmissivity of the shallow aquifer within the study area is estimated to be approximately 51,000 to 91,000 gpd/ft or 6,800 to 12,000 ft²/day. Hydraulic conductivity was estimated assuming a saturated aquifer thickness of 32 feet based on the borehole log for MCF-30A provided by GES, to be approximately 210 to 375 ft/day.
- 7. Aquifer (pump) testing of the shallow aquifer (AA-30) with monitoring of the deeper Muddy Creek aquitard through observing adjacent wells (MCF-30A & MCF-30B) confirms that a hydraulic connection does exist between the hydrogeologic units.
- 8. In order to fully understand this hydraulic connection, future studies could benefit from the installation of additional alluvial observation well(s) within 100 feet of the existing monitor well



AA-30. In addition, pump testing conducted at higher pumping rates could potenitally increase drawdown allowing for further observations of the extent of the hydraulic connection between the alluvial unconfined aquifer and the underlying Muddy Creek aquitard. A more efficient disposal method or larger temporary storage container, for discharge should be identified in order to accommodate higher pumping rates.

7.0 References

- Bohannon and others, 1993 Bohannon, R.G., Grow, J.A., Miller, J.J., and Blank, R.H., Jr., 1993, Seismic stratigraphy and tectonic development of Virgin River depression and associated basins, southeastern Nevada and northwestern Arizona: Geological Society of America Bulletin, v. 105, p. 501–520.
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- Theis, C.V., 1935. The Relation Between the Lowering of the Piezometric Surface and the Rate and Duration of Discharge of a Well Using Ground Water Storage. Transactions, American Geophysical Union, Washington D.C., p. 518-524.

8.0 Closure

Our assumptions and conclusions presented herein are: (1) based upon our evaluation and interpretation of the results of the limited field exploration and our hydrologic experience in the local area; and (2) prepared in accordance with generally accepted professional hydrologic principles and practice. We make no warranty, either express or implied.

The limited hydrologic investigation provided in this report is intended to illustrate the use of the information and data developed to provide an estimate of horizontal hydraulic connectivity and transmissivity.

Respectfully submitted,

CONVERSE CONSULTANTS

Anna Draa

Project Geologist

Reviewed and Approved by:

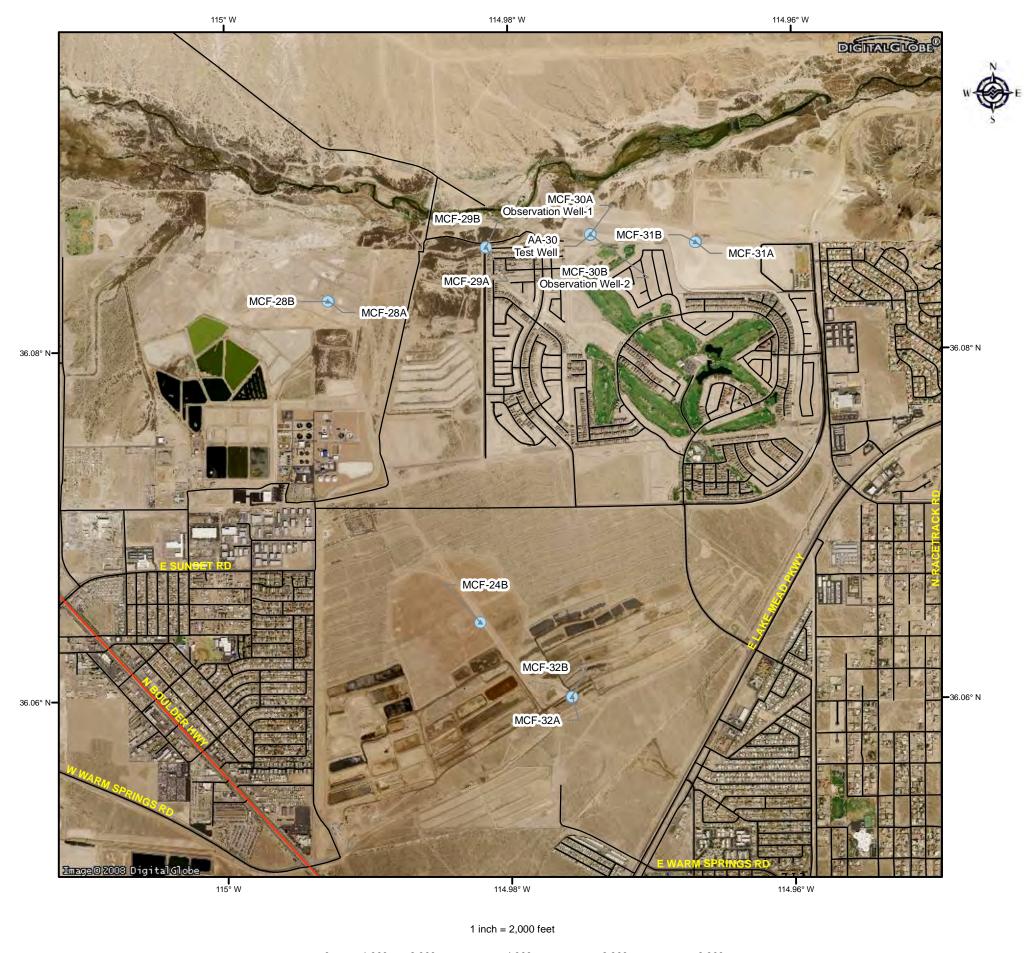
Jason Dixon, P.E. Principal Engineer

ACD:JLW:ls

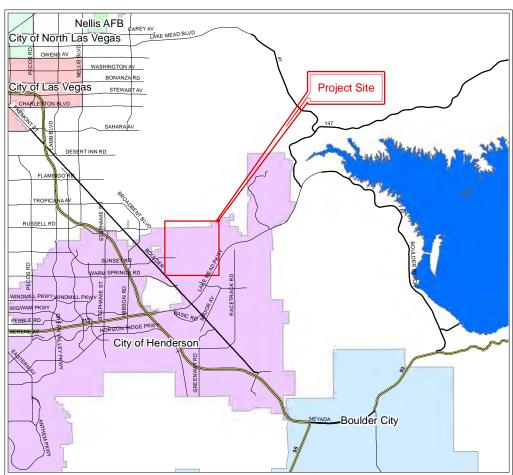
Encl: Plate No. 1

Appendix A

Dist: 5/Addressee







1 inch = 4 miles

Legend

Well Locations

SITE MAP

BMI COMMON AREAS (EASTSIDE)

Henderson, Nevada

Plate 1

11/02/09 Date Created:

Project No: 09-33220-01

BRC_Eastside_Wells.mxd

8,000 Feet 1,000 2,000 4,000 6,000



Appendix A Slug Test Results



Wells

Project: BMI Common Areas / East Side

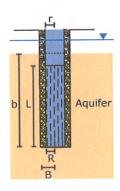
Number: 09-33220-01

Client: BRC

Location:

Partially-penetrating Wells

Drawing-1



Name	R [ft]	L [ft]	r [ft]	B [ft]	b [ft]
MCF-28A	0.1667	20	0.1667	0.25	346
MCF-28B	0.1667	20	0.1667	0.25	144
MCF-29B	0.1667	20	0.1667	0.25	317
MCF-29A	0.1667	20	0.1667	0.25	113
MCF-31A	0.1667	20	0.1667	0.25	374.5
MCF-31B	0.1667	20	0.1667	0.25	223.5
MCF-24B	0.1667	20	0.1667	0.25	121.5
MCF-30B	0.1667	20	0.1667	0.25	132
MCF-30A	0.1667	20	0.1667	0.25	338
AA-30	0.1667	20	0.1667	0.25	30
MCF-32B	0.1667	20	0.1667	0.25	104.5



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Slug Test Analysis Report

Figure-1

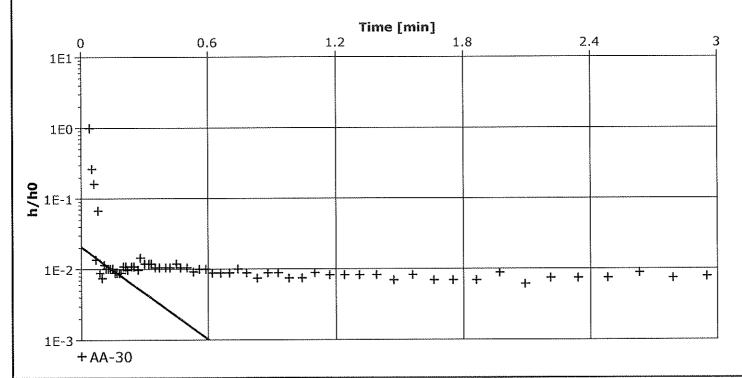
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 1 In	Test Well: AA-30
Test Conducted by: MBT	Test Date: 9/17/2009	
Analysis Performed by: KJH	Analysis Date: 9/25/2009	

Aquifer Thickness: 31.00 ft



Calculation	after	Hyorsley
Calculation	auci	1110013101

Observation Well	Hydraulic Conductivity	
	[ft/d]	
AA-30	2.41 × 10 ¹	



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Slug Test Analysis Report

Project: BMI Common Areas / East Side

Figure-2

Number: 09-33220-01

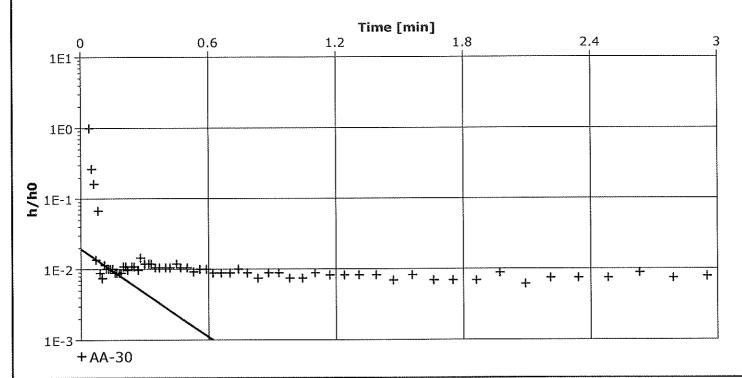
Client: BRC

 Location:
 Sfug Test: Slug 1 In
 Test Well: AA-30

 Test Conducted by: MBT
 Test Date: 9/17/2009

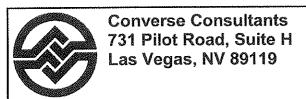
 Analysis Performed by: KJH
 Bouwer & Rice
 Analysis Date: 9/25/2009

Aquifer Thickness: 31.00 ft



Calculation after Bouwer & Rice

Observation Well	Hydraulic Conductivity	
	[ft/d]	
AA-30	1.79 × 10 ¹	



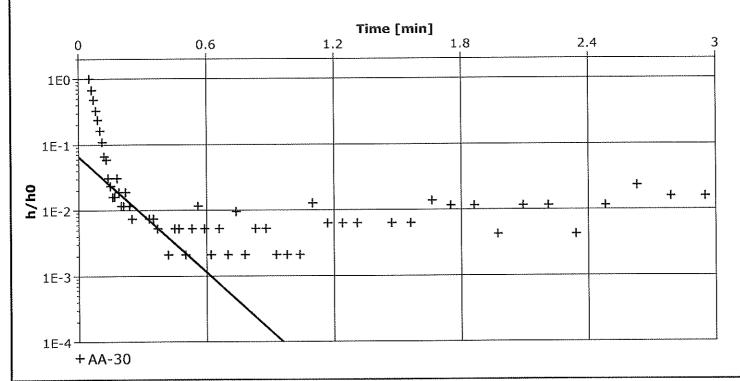
Slug Test Analysis Report Figure-3
Project: BMI Common Areas / East Side

Number: 09-33220-01

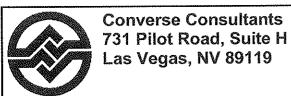
Client: BRC

Location:	Slug Test: Slug 1 Out	Test Well: AA-30
Test Conducted by: MBT		Test Date: 9/17/2009
Analysis Performed by: KJH	~~~~~	Analysis Date: 9/25/2009

Aquifer Thickness: 31.00 ft



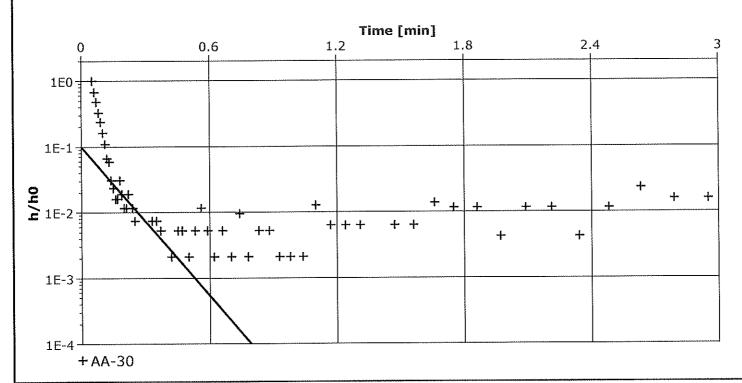
Observation Well	Hydraulic Conductivity	
	[ft/d]	
AA-30	3.25 × 10 ¹	



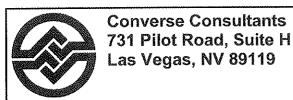
Slug Test Analysis Report Figure-4
Project: BMI Common Areas / East Side
Number: 09-33220-01
Client: BRC

١	Location:	Slug Test: Slug 1 Out	Test Well: AA-30
- 1	Test Conducted by: MBT		Test Date: 9/17/2009
	Analysis Performed by: KJH	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Analysis Date: 9/25/2009

Aquifer Thickness: 31.00 ft



Calculation after Bouwer & Rice			
	Observation Well	Hydraulic Conductivity	
		[ft/d]	
	AA 20	3.25 × 10 ¹	



Slug Test Analysis Report Figure-5

Project: BMI Common Areas / East Side

Client: BRC

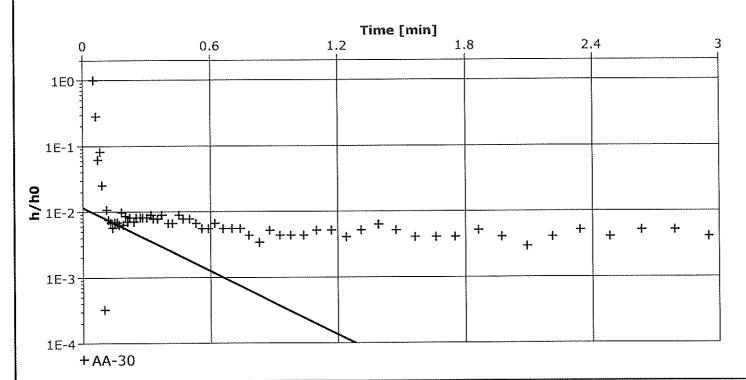
Number: 09-33220-01

 Location:
 Slug Test: Slug 2 In
 Test Well: AA-30

 Test Conducted by: MBT
 Test Date: 9/17/2009

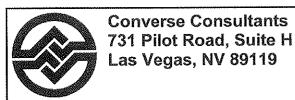
 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/25/2009

Aquifer Thickness: 31.00 ft



Calculation after Hvorslev

	Observation Well	Hydraulic Conductivity	
-		[ft/d]	
	AA-30	1.79 × 10 ¹	



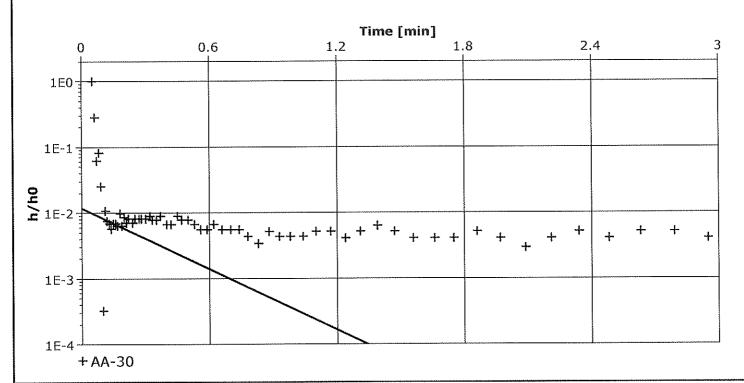
Slug Test Analysis Report Figure-6
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

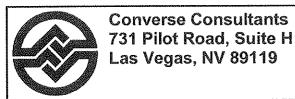
Location:	Slug Test: Slug 2 In	Test Weil: AA-30
Test Conducted by: MBT		Test Date: 9/17/2009
Analysis Performed by: KJIH		Analysis Date: 9/25/2009

Aquifer Thickness: 31.00 ft



Calculation after Bouwer & Rice

Observation Well	Hydraulic Conductivity	
	[tAq]	
AA-30	1.33 × 10 ¹	



Slug Test Analysis Report
Project: BMI Common Areas / East Side

Figure-7

Number: 09-33220-01

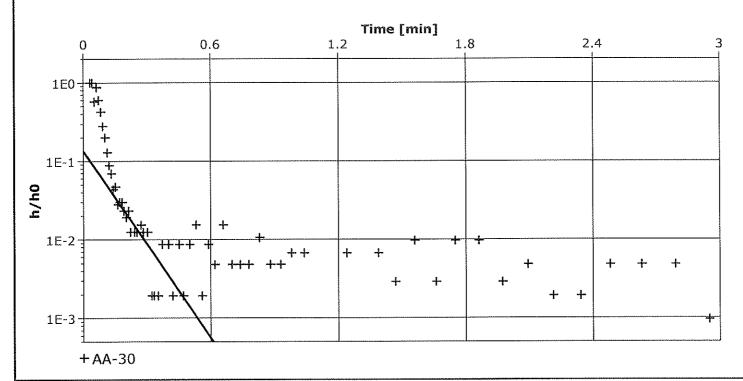
Client: BRC

 Location:
 Slug Test: Slug 2 Out
 Test Well: AA-30

 Test Conducted by: MBT
 Test Date: 9/17/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/25/2009

Aquifer Thickness: 31.00 ft



Calculation after Hvorslev

Observation Well	Hydraulic Conductivity	
	[ft/d]	
AA-30	4.39 × 10 ¹	



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Slug Test Analysis Report

Project: BMI Common Areas / East Side

Figure-8

Number: 09-33220-01

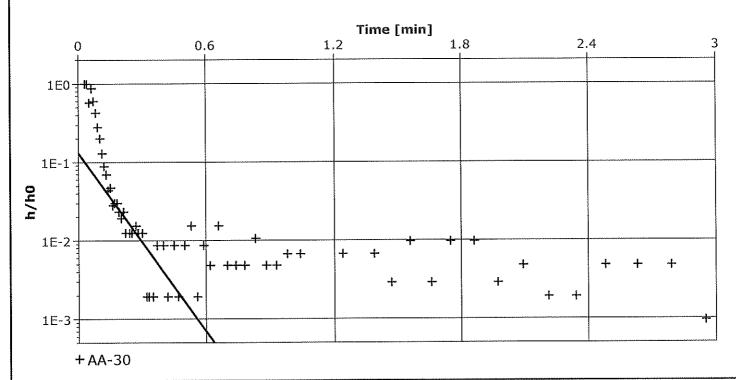
Client: BRC

 Location:
 Slug Test: Slug 2 Out
 Test Well: AA-30

 Test Conducted by: MBT
 Test Date: 9/17/2009

 Analysis Performed by: KJH
 Bouwer & Rice
 Analysis Date: 9/25/2009

Aquifer Thickness: 31.00 ft



Calculation	ofter Rouwer & Rice

Observation Well	Hydraulic Conductivity			
	[ft/d]			
AA-30	3.25 × 10 ¹			



Slug Test Analysis Report Figure-9

Project: BMI Common Areas / East Side

Client: BRC

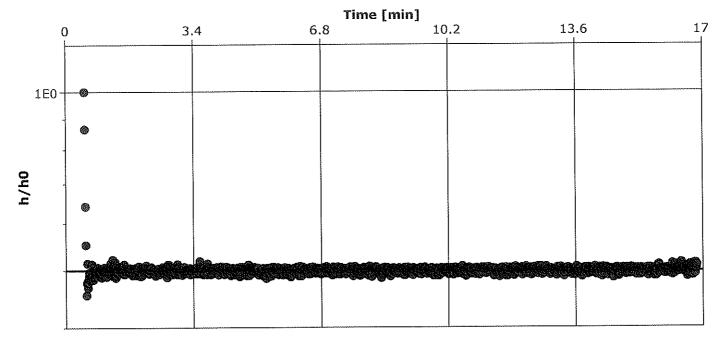
Number: 09-33220-01

 Location:
 Slug Test: Slug 1 In
 Test Well: MCF-24B

 Test Conducted by: MBT
 Test Date: 10/1/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 10/2/2009

Aquifer Thickness: 121.90 ft



● MCF-24B

Calculation	after	Hvorslev	

Observation Well	Hydraulic Conductivity			
	[ft/d]			
MCF-24B	1.61 × 10 ⁻³			



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Slug Test Analysis Report

Project: BMI Common Areas / East Side

Figure-10

Number: 09-33220-01

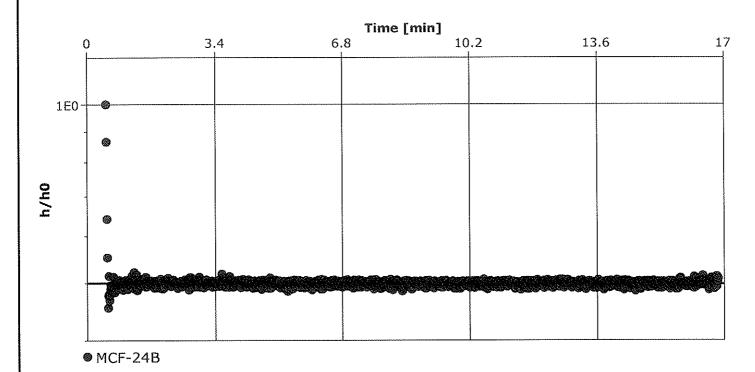
Client: BRC

 Location:
 Slug Test: Slug 1 In
 Test Well: MCF-24B

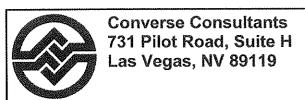
 Test Conducted by: MBT
 Test Date: 10/1/2009

 Analysis Performed by: KJH
 Bouwer & Rice
 Analysis Date: 10/2/2009

Aquifer Thickness: 121.90 ft



Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-24B	1.54 × 10 ⁻³	



Slug Test Analysis Report Figure-11

Project: BMI Common Areas / East Side

Client: BRC

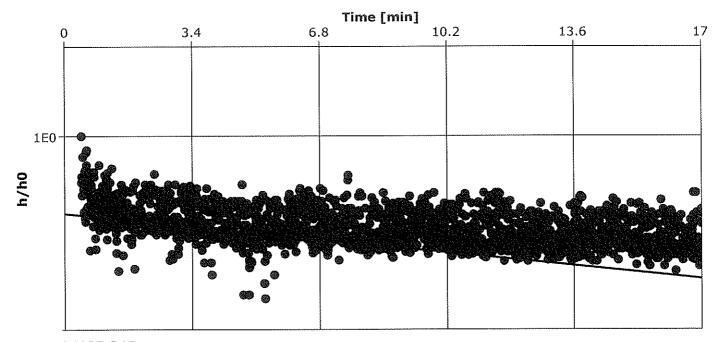
Number: 09-33220-01

 Location:
 Slug Test: Slug 1 Out
 Test Well: MCF-24B

 Test Conducted by: MBT
 Test Date: 10/1/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 10/2/2009

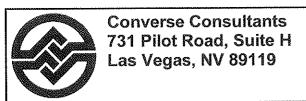
Aquifer Thickness: 121.90 ft



MCF-24B

1.01 × 10⁻²

Calculation after Hyorslev		
Observation Well	Hydraulic Conductivity	
	[ft/d]	



Slug Test Analysis Report			
Project:	BMI Common Areas / East Side		

Figure-12

Project: Bivil Common Areas / East Side

Client: BRC

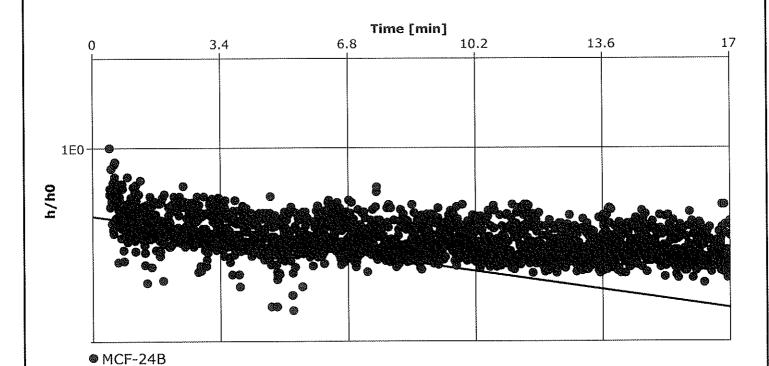
Number: 09-33220-01

 Location:
 Slug Test: Slug 1 Out
 Test Well: MCF-24B

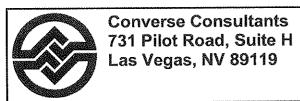
 Test Conducted by: MBT
 Test Date: 10/1/2009

 Analysis Performed by: KJH
 Bouwer & Rice
 Analysis Date: 10/2/2009

Aquifer Thickness: 121.90 ft



Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-24B	1.36 × 10 ⁻²	



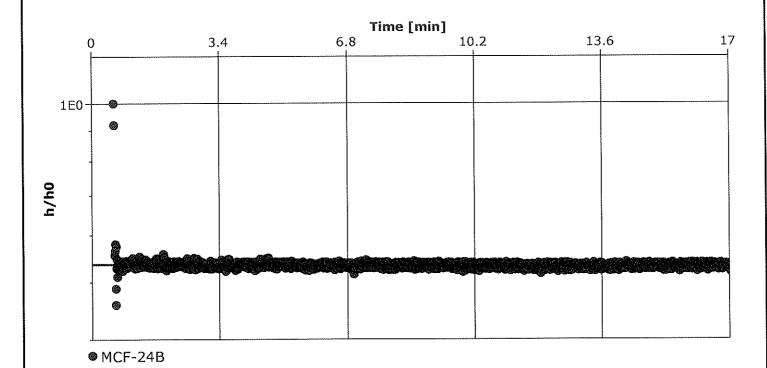
Slug Test Analysis Report Figure-13
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

İ	Location:	Slug Test: Slug 2 In	Test Well: MCF-24B
Ì	Test Conducted by: MBT	Test Date: 10/1/2009	
	Analysis Performed by: KJH Hvorslev		Analysis Date: 10/2/2009

Aquifer Thickness: 121.90 ft



Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-24B	3.36 × 10 ⁻³	



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Slug Test Analysis Report

Project: BMI Common Areas / East Side

Figure-14

Number: 09-33220-01

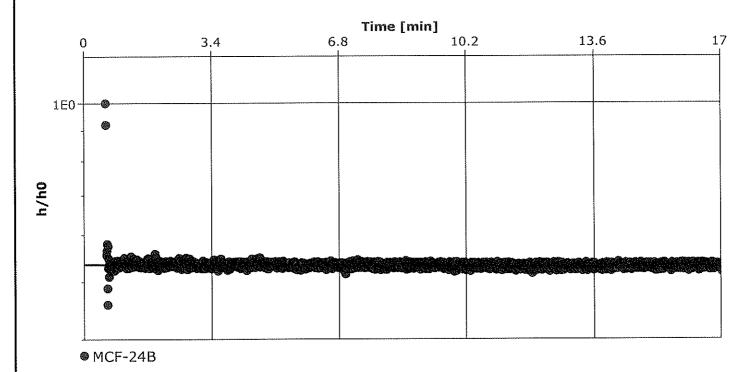
Client: BRC

 Location:
 Slug Test: Slug 2 In
 Test Well: MCF-24B

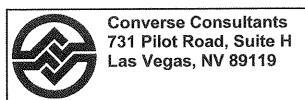
 Test Conducted by: MBT
 Test Date: 10/1/2009

 Analysis Performed by: KJH
 Bouwer & Rice
 Analysis Date: 10/2/2009

Aquifer Thickness: 121.90 ft



Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-24B	3.22 × 10 ⁻³	



Slug Test Analysis Report Figure-15

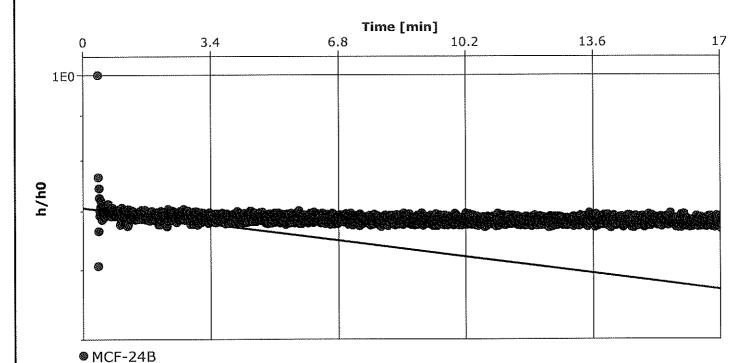
Project: BMI Common Areas / East Side

Number: 09-33220-01

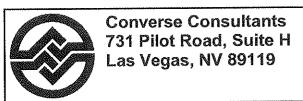
Client: BRC

Location:	Slug Test: Slug 2 Out	Test Well: MCF-24B
Test Conducted by: MBT	Test Date: 10/1/2009	
Analysis Performed by: KJH Hvorslev		Analysis Date: 10/2/2009

Aquifer Thickness: 121.90 ft



Cultural and Tradition		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-24B	6.06 × 10 ⁻²	



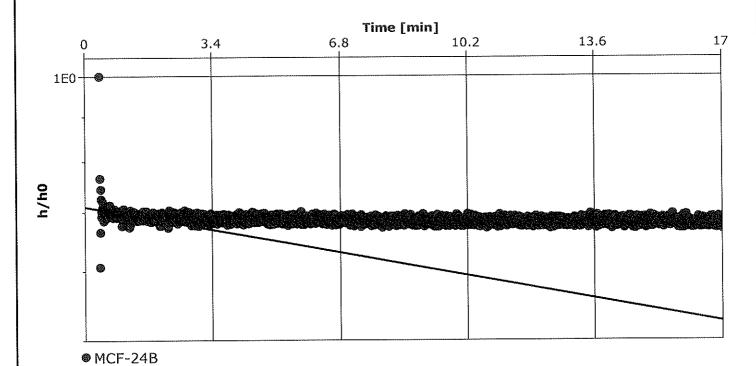
Slug Test Analysis Report Figure-16
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 2 Out	Test Well: MCF-24B
Test Conducted by: MBT		Test Date: 10/1/2009
Analysis Performed by: KJH Bouwer & Rice		Analysis Date: 10/2/2009

Aquifer Thickness: 121.90 ft



Calculation after bodwer & rice			
	Observation Well	Hydraulic Conductivity	
i		[ft/d]	
	MCF-24B	8.18 × 10 ⁻²	



Slug Test Analysis Report Figure-17

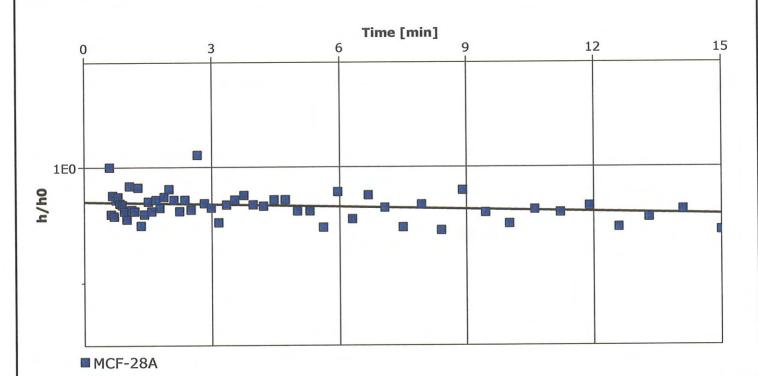
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 1 In	Test Well: MCF-28A
rest conducted by. Not		Test Date: 9/18/2009
		Analysis Date: 9/22/2009

Aquifer Thickness: 346.40 ft



Observation Well	Hydraulic Conductivity [ft/d]	
MCF-28A	3.77 × 10 ⁻³	



Figure-18

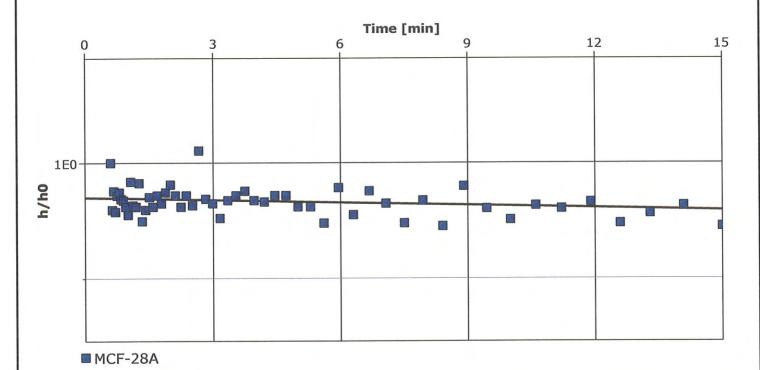
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 1 In	Test Well: MCF-28A
Test Conducted by: KJH		Test Date: 9/18/2009
Analysis Performed by: KJH	Bouwer & Rice	Analysis Date: 9/22/2009

Aquifer Thickness: 346.40 ft



Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-28A	4.03 × 10 ⁻³	



Slug Test Analysis Report Figure-19

Project: BMI Common Areas / East Side

Client: BRC

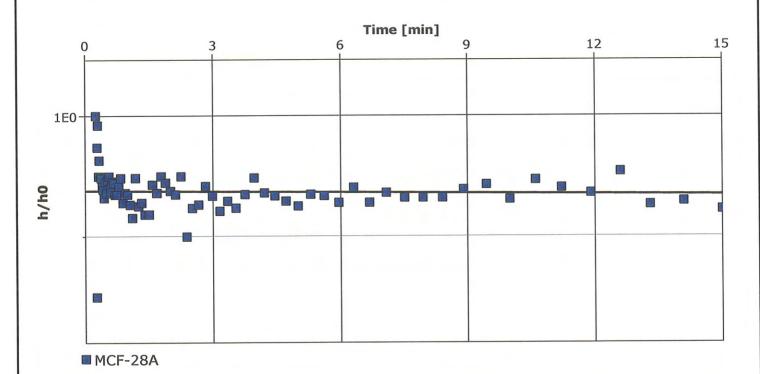
Number: 09-33220-01

 Location:
 Slug Test: Slug 1 Out
 Test Well: MCF-28A

 Test Conducted by: KJH
 Test Date: 9/18/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/22/2009

Aquifer Thickness: 346.40 ft



		100		
Calcu	lation	after	Hvorsle	V

Observation Well	Hydraulic Conductivity	
8)	[ft/d]	
MCF-28A	1.14 × 10 ⁻³	



Project: BMI Common Areas / East Side

Figure-20

Number: 09-33220-01

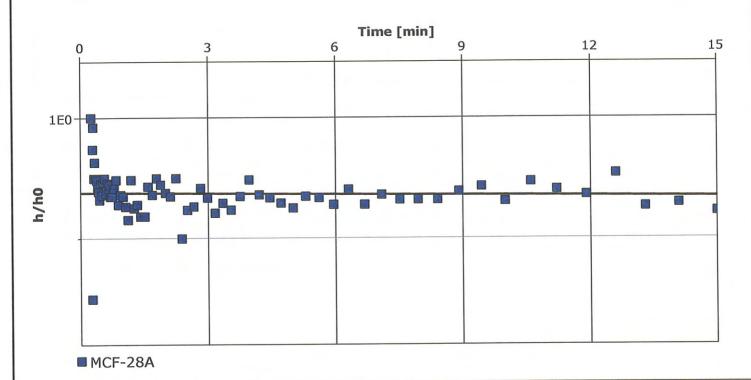
Client: BRC

 Location:
 Slug Test: Slug 1 Out
 Test Well: MCF-28A

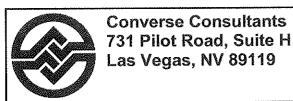
 Test Conducted by: KJH
 Test Date: 9/18/2009

 Analysis Performed by: KJH
 Bouwer & Rice
 Analysis Date: 9/22/2009

Aquifer Thickness: 346.40 ft



Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-28A	1.21 × 10 ⁻³	



Project: BMI Common Areas / East Side

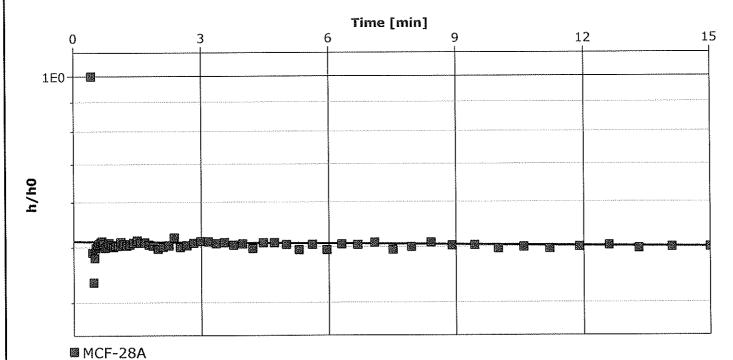
Figure-21

Number: 09-33220-01

BRC Client:

Slug Test: Slug 2 In Test Weil: MCF-28A Test Date: 9/18/2009 Test Conducted by: Analysis Date: 9/22/2009 Hvorslev Analysis Performed by: KJH

Aquifer Thickness: 346.40 ft



Calculation after Hvorslev	V	
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-28A	7.33 × 10 ⁻³	



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Slug Test Analysis Report

Project: BMI Common Areas / East Side

Figure-22

Number: 09-33220-01

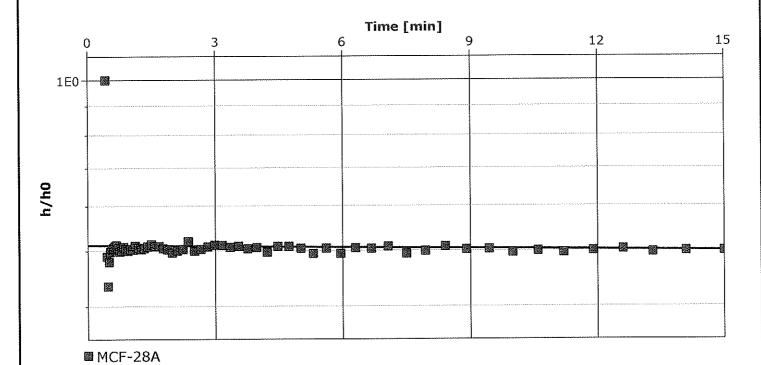
Client: BRC

 Location:
 Slug Test: Slug 2 In
 Test Well: MCF-28A

 Test Conducted by:
 Test Date: 9/18/2009

 Analysis Performed by: KJH
 Bouwer & Rice
 Analysis Date: 9/22/2009

Aquifer Thickness: 346.40 ft



Observation Well	Hydraulic Conductivity	
	[ft/d]	
	3	
MCF-28A	7.84 × 10 ⁻³	



Slug Test Analysis Report Figure-23

Project: BMI Common Areas / East Side

Number: 09-33220-01

BRC

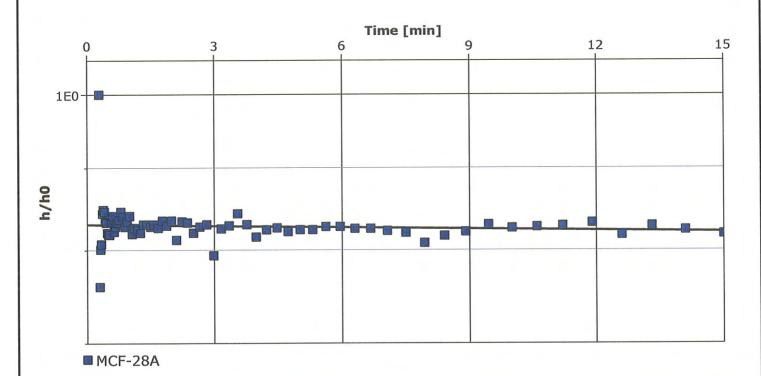
 Location:
 Slug Test: Slug 2 Out
 Test Well: MCF-28A

 Test Conducted by:
 Test Date: 9/18/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/22/2009

Client:

Aquifer Thickness: 346.40 ft



Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-28A	3.19 × 10 ⁻³	



Figure-24

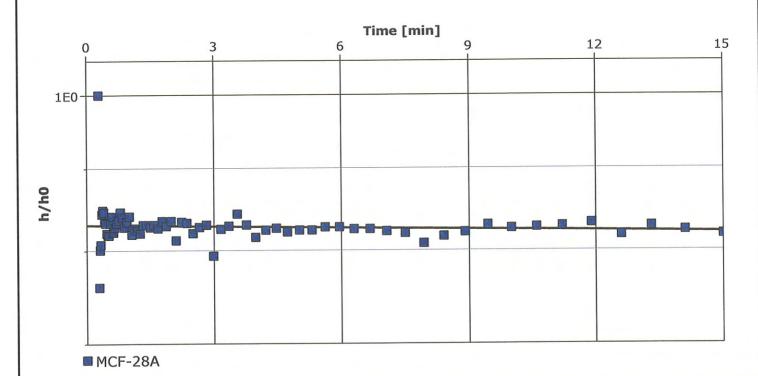
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 2 Out	Test Well: MCF-28A
Test Conducted by:		Test Date: 9/18/2009
Analysis Performed by: KJH	Bouwer & Rice	Analysis Date: 9/22/2009

Aquifer Thickness: 346.40 ft



Observation Well	Hydraulic Conductivity [ft/d]	
MCF-28A	3.40 × 10 ⁻³	



Slug Test Analysis Report Figure-25

Project: BMI Common Areas / East Side

Number: 09-33220-01

BRC

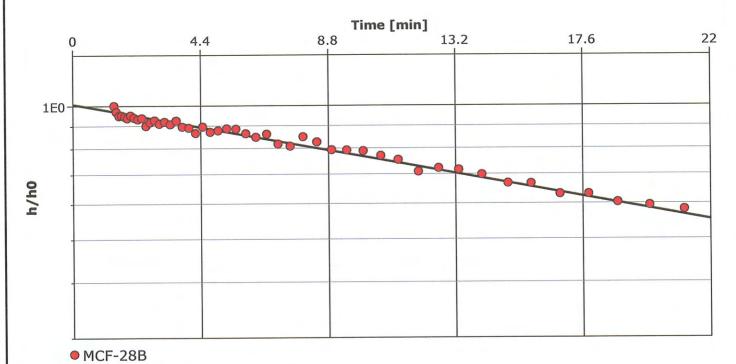
Client:

 Location:
 Slug Test: Slug 1 In
 Test Well: MCF-28B

 Test Conducted by: KJH
 Test Date: 9/18/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/22/2009

Aquifer Thickness: 144.40 ft



Calculation after Hvorslev		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-28B	1.31 × 10 ⁻¹	



Slug Test Analysis Report Figure-26
Project: BMI Common Areas / East Side

Number: 09-33220-01

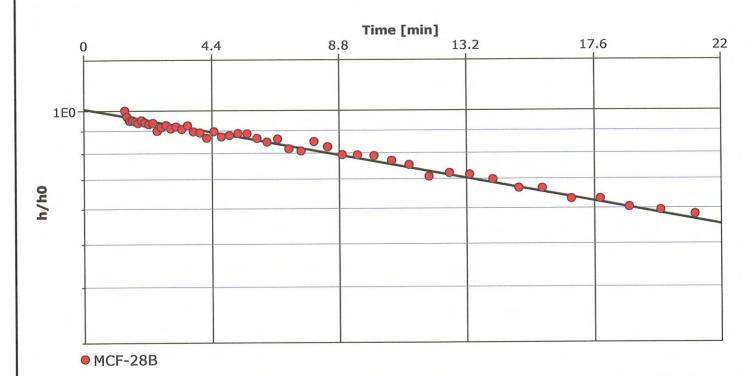
Client: BRC

 Location:
 Slug Test: Slug 1 In
 Test Well: MCF-28B

 Test Conducted by: KJH
 Test Date: 9/18/2009

 Analysis Performed by: KJH
 Bouwer & Rice
 Analysis Date: 9/22/2009

Aquifer Thickness: 144.40 ft



Observation Well	Hydraulic Conductivity [ft/d]	
MCF-28B	1.28 × 10 ⁻¹	



Figure-27

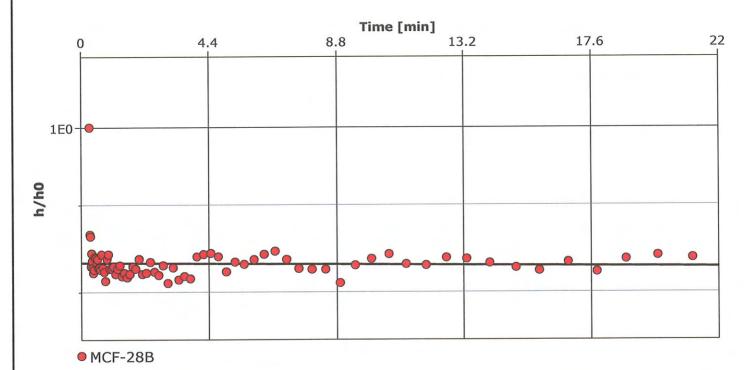
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 1 Out	Test Well: MCF-28B
Test Conducted by: KJH		Test Date: 9/18/2009
Analysis Performed by: KJH	Hvorslev	Analysis Date: 9/22/2009

Aquifer Thickness: 144.40 ft



Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-28B	1.24 × 10 ⁻³	

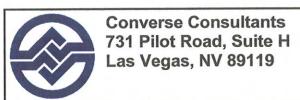


Figure-28

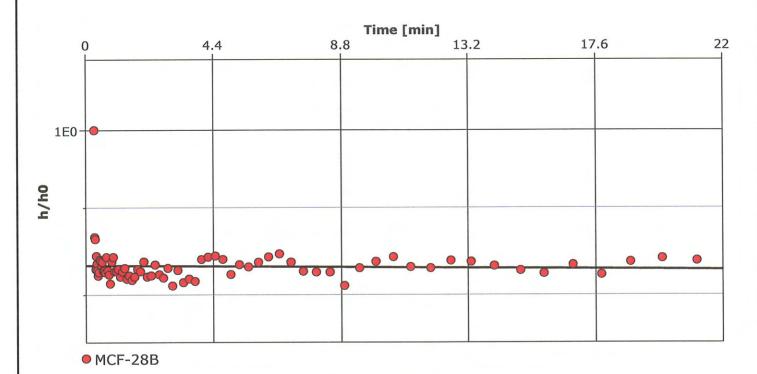
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 1 Out	Test Well: MCF-28B
Test Conducted by: KJH		Test Date: 9/18/2009
Analysis Performed by: KJH	Bouwer & Rice	Analysis Date: 9/22/2009

Aquifer Thickness: 144.40 ft



Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-28B	1.24 × 10 ⁻³	



Figure-29

Project: BMI Common Areas / East Side

Number: 09-33220-01

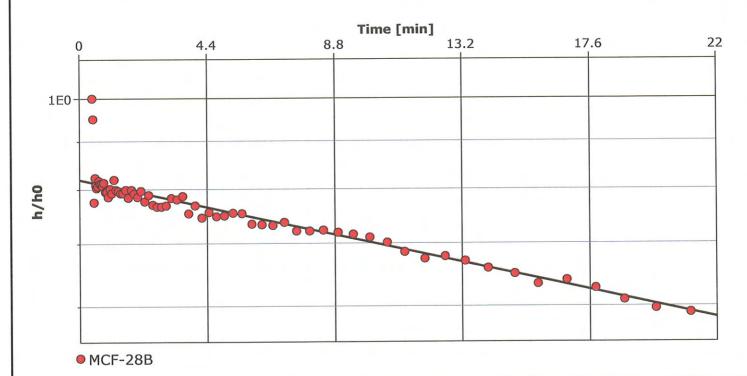
Client: BRC

 Location:
 Slug Test: Slug 2 In
 Test Well: MCF-28B

 Test Conducted by: KJH
 Test Date: 9/18/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/22/2009

Aquifer Thickness: 144.40 ft



Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-28B	7.41 × 10 ⁻²	



Slug Test Analysis Report Figure-30

Project: BMI Common Areas / East Side

Number: 09-33220-01

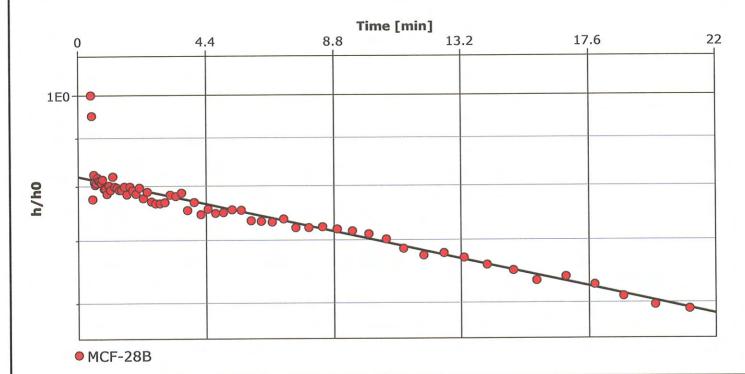
Client: BRC

 Location:
 Slug Test: Slug 2 In
 Test Well: MCF-28B

 Test Conducted by: KJH
 Test Date: 9/18/2009

 Analysis Performed by: KJH
 Bouwer & Rice
 Analysis Date: 9/22/2009

Aquifer Thickness: 144.40 ft



Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-28B	7.23 × 10 ⁻²	



Slug Test Analysis Report Figure-31

Project: BMI Common Areas / East Side

Number: 09-33220-01

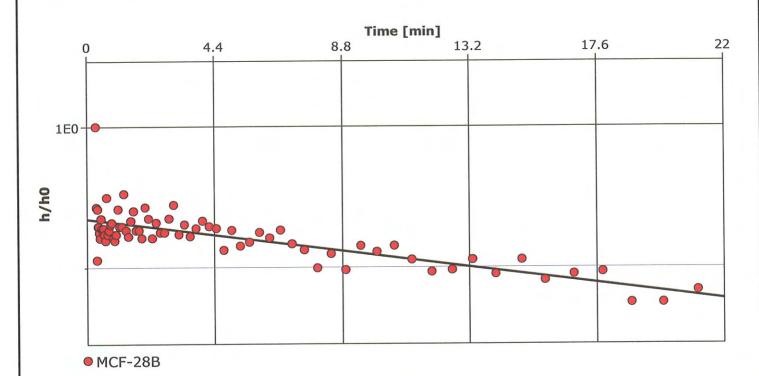
Client: BRC

 Location:
 Slug Test: Slug 2 Out
 Test Well: MCF-28B

 Test Conducted by: KJH
 Test Date: 9/18/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/22/2009

Aquifer Thickness: 144.40 ft



Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-28B	1.32 × 10 ⁻²	



Slug Test Analysis Report
Project: BMI Common Areas / East Side

Figure-32

Number: 09-33220-01

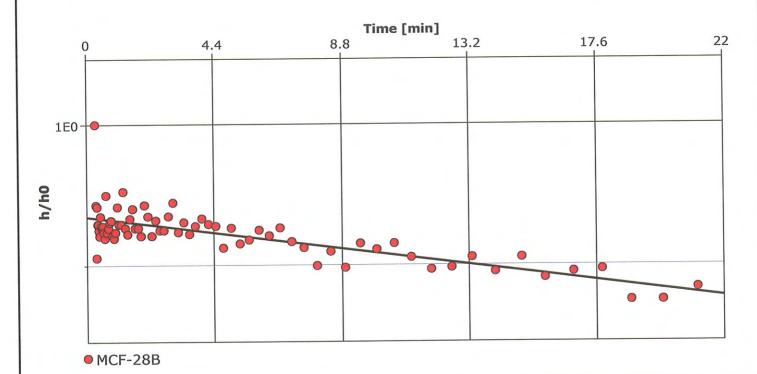
Client: BRC

 Location:
 Slug Test: Slug 2 Out
 Test Well: MCF-28B

 Test Conducted by: KJH
 Test Date: 9/18/2009

 Analysis Performed by: KJH
 Bouwer & Rice
 Analysis Date: 9/22/2009

Aquifer Thickness: 144.40 ft



Calculation and Bodwo. 4 1465		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-28B	1.29 × 10 ⁻²	

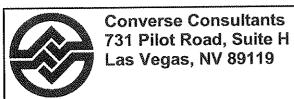


Figure-33

Project: BMI Common Areas / East Side

Number: 09-33220-01

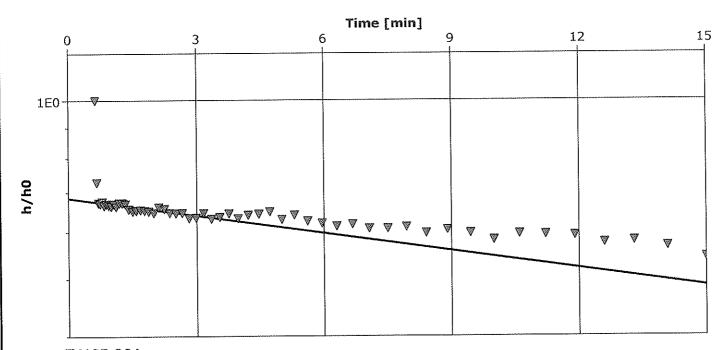
Client: BRC

 Location:
 Slug Test: Slug 1 In
 Test Well: MCF-29A

 Test Conducted by: KJH
 Test Date: 9/16/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/24/2009

Aquifer Thickness: 113.40 ft



▼ MCF-29A

Odiodiation area.	111010101	
Observation We	Hydraulic Conductivity	
	[ft/d]	
A40C 004	1.10 × 10 ⁻¹	
MCF-29A	1.10 ^ 10	



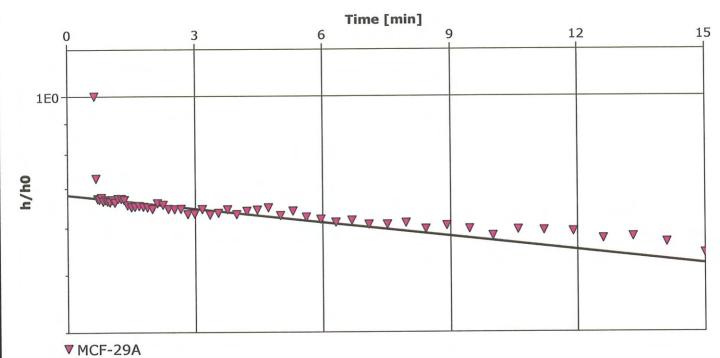
Slug Test Analysis Report Figure-34 Project: BMI Common Areas / East Side

BRC Client:

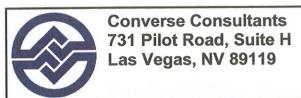
Number: 09-33220-01

Test Well: MCF-29A Slug Test: Slug 1 In Test Date: 9/16/2009 Test Conducted by: KJH Bouwer & Rice Analysis Date: 9/24/2009 Analysis Performed by: KJH

Aquifer Thickness: 113.40 ft



Calculation after Bouwer & Rice		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-29A	8.18 × 10 ⁻²	



Project: BMI Common Areas / East Side

Figure-35

Number: 09-33220-01

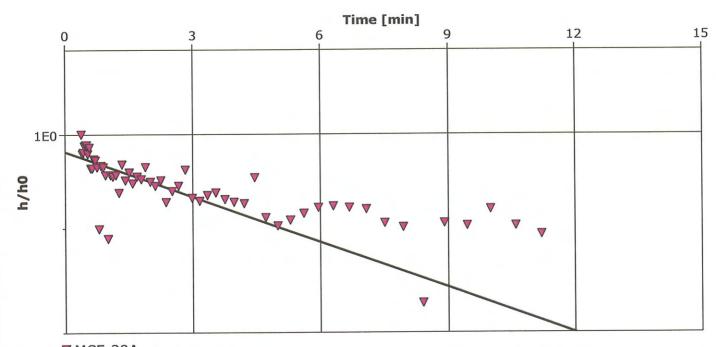
Client: BRC

 Location:
 Slug Test: Slug 1 Out
 Test Well: MCF-29A

 Test Conducted by: KJH
 Test Date: 9/16/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/24/2009

Aquifer Thickness: 113.40 ft



▼MCF-29A

Calculation after Hvorslev		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-29A	8.18 × 10 ⁻²	



Figure-36

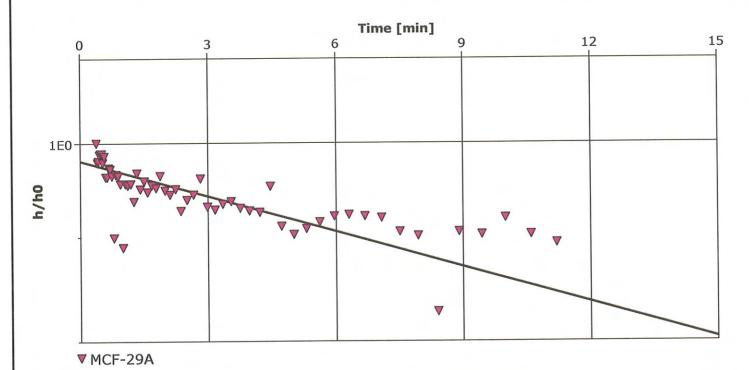
Project: BMI Common Areas / East Side

Number: 09-33220-01

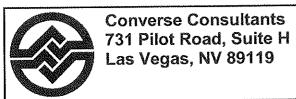
Client: BRC

Location:	Slug Test: Slug 1 Out	Test Well: MCF-29A
Test Conducted by: KJH	Test Date: 9/16/2009	
Analysis Performed by: KJH	Bouwer & Rice	Analysis Date: 9/24/2009

Aquifer Thickness: 113.40 ft



Calculation after bodwer & noo		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-29A	6.06 × 10 ⁻²	



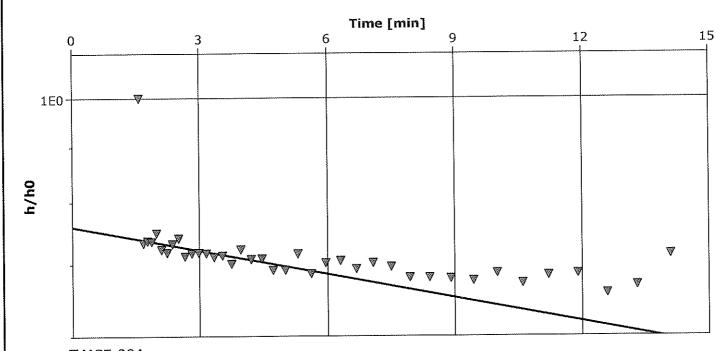
Slug Test Analysis Report Figure-37
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 2 In	Test Well: MCF-29A
Test Conducted by: KJH		Test Date: 9/16/2009
		Analysis Date: 9/24/2009

Aquifer Thickness: 113.40 ft



▼MCF-29A

Calculation after Hvorsle	v	
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-29A	8.18 × 10 ⁻²	



Slug Test Analysis Report Figure-38

Project: BMI Common Areas / East Side

Number: 09-33220-01

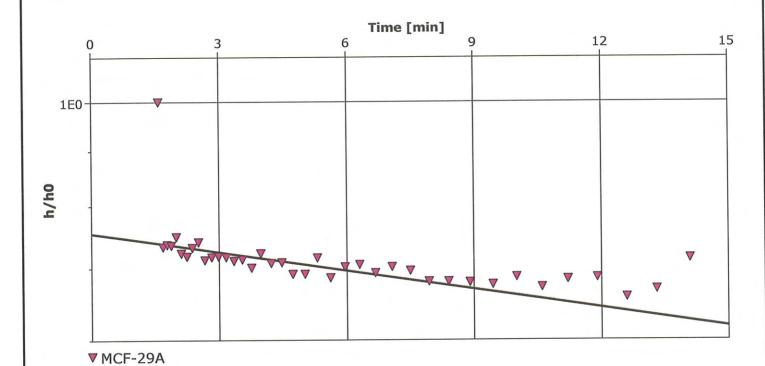
Client: BRC

 Location:
 Slug Test: Slug 2 In
 Test Well: MCF-29A

 Test Conducted by: KJH
 Test Date: 9/16/2009

 Analysis Performed by: KJH
 Bouwer & Rice
 Analysis Date: 9/24/2009

Aquifer Thickness: 113.40 ft



Observation Well	Hydraulic Conductivity [ft/d]	
MCF-29A	6.06 × 10 ⁻²	



Project: BMI Common Areas / East Side

Figure-39

Number: 09-33220-01

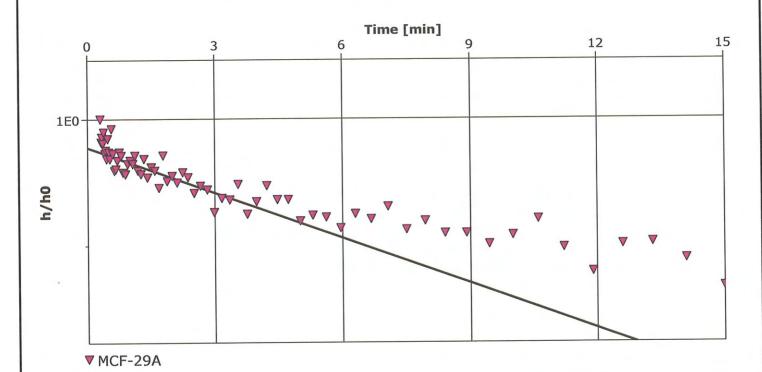
Client: BRC

 Location:
 Slug Test: Slug 2 Out
 Test Well: MCF-29A

 Test Conducted by: KJH
 Test Date: 9/16/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/24/2009

Aquifer Thickness: 113.40 ft



Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-29A	6.06 × 10 ⁻²	



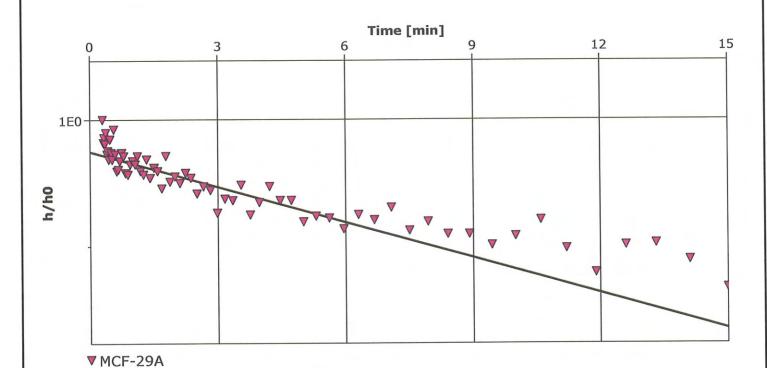
Slug Test Analysis Report Figure-40
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 2 Out	Test Well: MCF-29A
Test Conducted by: KJH		Test Date: 9/16/2009
Analysis Performed by: KJH	Bouwer & Rice	Analysis Date: 9/24/2009

Aquifer Thickness: 113.40 ft



Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-29A	4.49 × 10 ⁻²	



Project: BMI Common Areas / East Side

Figure-41

Number: 09-33220-01

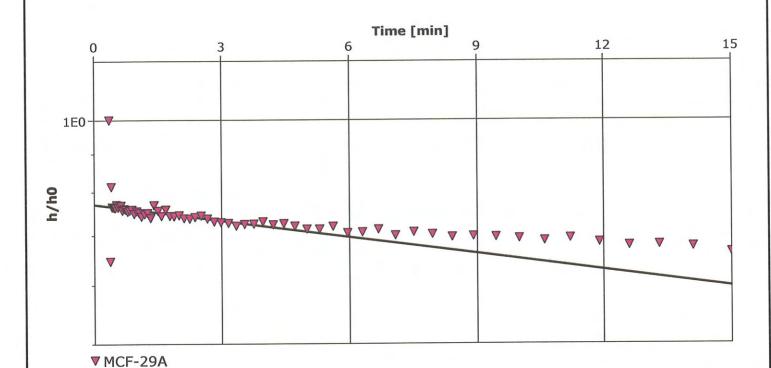
Client: BRC

 Location:
 Slug Test: Slug 3 In
 Test Well: MCF-29A

 Test Conducted by: KJH
 Test Date: 9/29/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/30/2009

Aquifer Thickness: 113.40 ft



Calculation after Tivorsiev		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-29A	8.18 × 10 ⁻²	



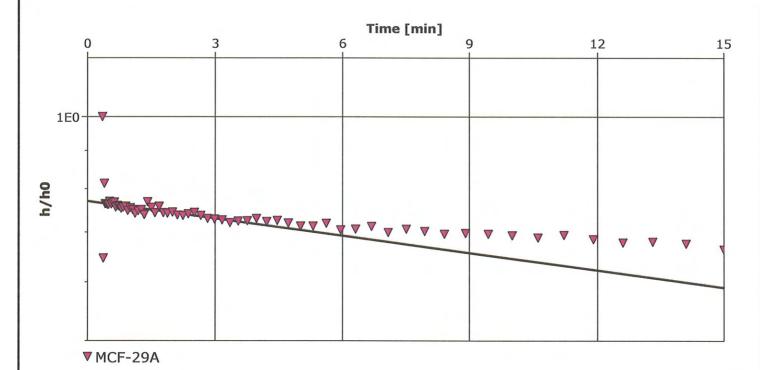
Slug Test Analysis Report Figure-42
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 3 In	Test Well: MCF-29A
Test Conducted by: KJH	Test Date: 9/29/2009	
Analysis Performed by: KJH	Bouwer & Rice	Analysis Date: 9/30/2009

Aquifer Thickness: 113.40 ft



Observation Well	Hydraulic Conductivity	
11 -	[ft/d]	
MCF-29A	8.18 × 10 ⁻²	



Slug Test Analysis Report Figure-43
Project: BMI Common Areas / East Side

Number: 09-33220-01

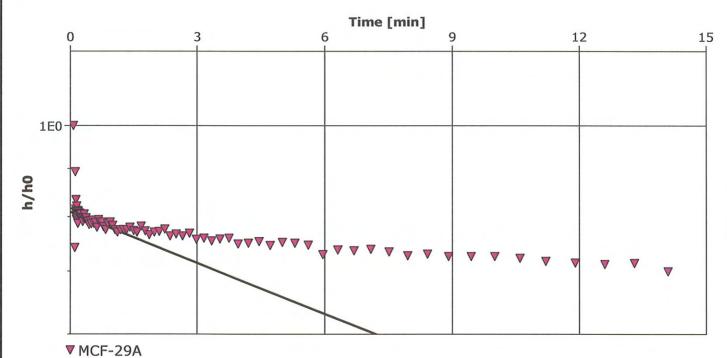
Client: BRC

Location: Slug Test: Slug 3 Out Test Well: MCF-29A

Test Conducted by: KJH Test Date: 9/29/2009

Analysis Performed by: KJH Hvorslev Analysis Date: 9/30/2009

Aquifer Thickness: 113.40 ft



Calculation after Hvorslev		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-29A	2.01 × 10 ⁻¹	



Slug Test Analysis Report Figure-44

Project: BMI Common Areas / East Side

Toject. Divil Collinoli Aleas / Last Sic

Client: BRC

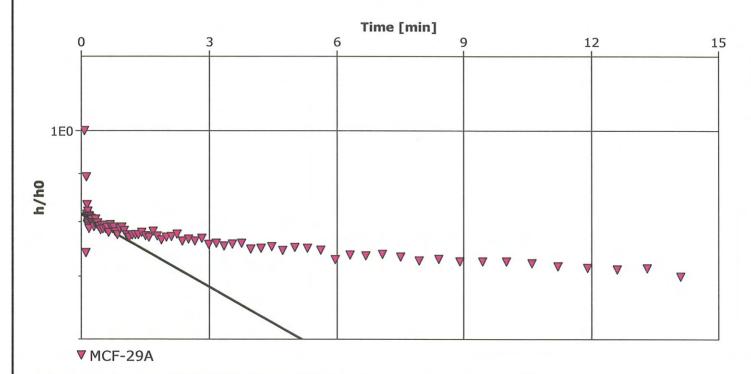
Number: 09-33220-01

 Location:
 Slug Test: Slug 3 Out
 Test Well: MCF-29A

 Test Conducted by: KJH
 Test Date: 9/29/2009

 Analysis Performed by: KJH
 Bouwer & Rice
 Analysis Date: 9/30/2009

Aquifer Thickness: 113.40 ft



Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-29A	2.71 × 10 ⁻¹	



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Slug Test Analysis Report

Figure-45

Project: BMI Common Areas / East Side
Number: 09-33220-01

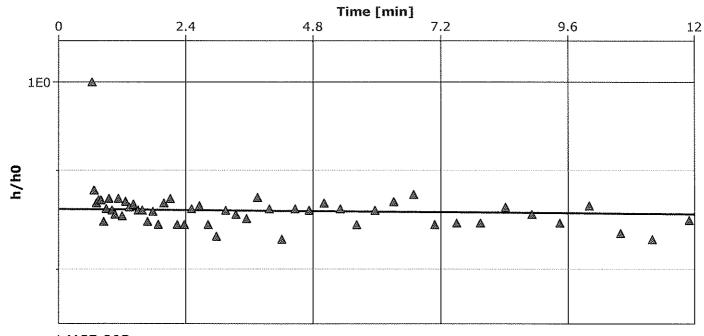
Client: BRC

 Location:
 Slug Test: Slug 1 In
 Test Well: MCF-29B

 Test Conducted by: KJH
 Test Date: 9/16/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/22/2009

Aquifer Thickness: 317.94 ft



▲ MCF-29B

Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-29B	2.43 × 10 ⁻³	



 Slug Test Analysis Report
 Figure-46

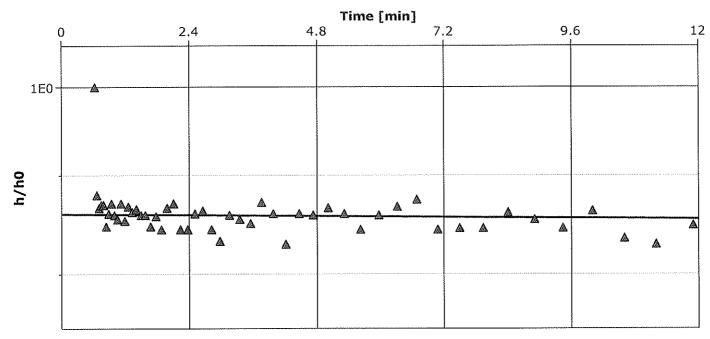
 Project:
 BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 1 In	Test Well: MCF-29B
Test Conducted by: KJH		Test Date: 9/16/2009
Analysis Performed by: KJH		Analysis Date: 9/22/2009

Aquifer Thickness: 317.94 ft



Calculation after Bouwer & Rice		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-29B	2.50 × 10 ⁻³	



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Slug Test Analysis Report

Project: BMI Common Areas / East Side

Figure-47

Number: 09-33220-01

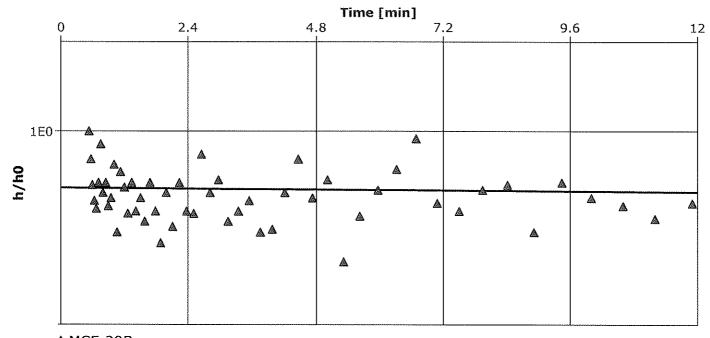
Client: BRC

 Location:
 Slug Test: Slug 1 Out
 Test Well: MCF-29B

 Test Conducted by: KJH
 Test Date: 9/16/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/22/2009

Aquifer Thickness: 317.94 ft



Calculation after Hvorslev		
Observation Well	Hydraulic Conductivity	
	[fl/d]	
MCF-29B	9.17 × 10 ⁻⁴	



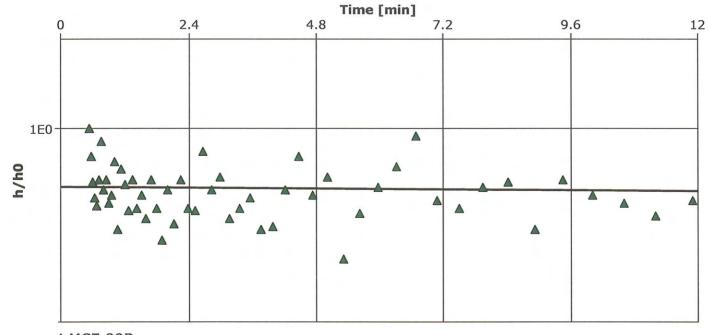
Slug Test Analysis Report Figure-48 Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

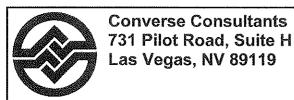
Location: Slug Test: Slug 1 Out Test Well: MCF-29B Test Conducted by: KJH Test Date: 9/16/2009 Bouwer & Rice Analysis Date: 9/22/2009 Analysis Performed by: KJH

Aquifer Thickness: 317.94 ft



▲ MCF-29B

Calculation after Bouwer & Rice		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-29B	9.17 × 10 ⁻⁴	



Slug Test Analysis Report

Project: BMI Common Areas / East Side

Figure-49

Number: 09-33220-01

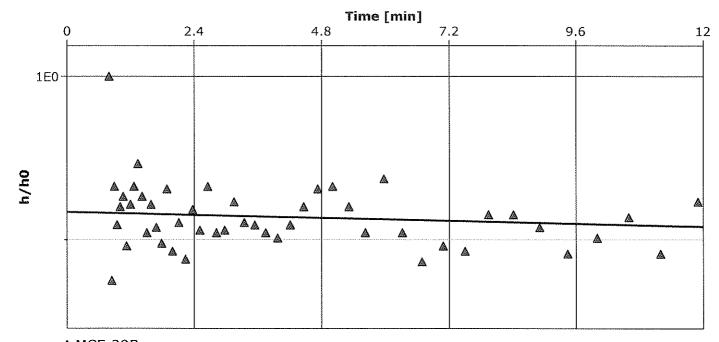
Client: BRC

 Location:
 Slug Test: Slug 2 In
 Test Well: MCF-29B

 Test Conducted by: KJH
 Test Date: 9/16/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/22/2009

Aquifer Thickness: 317.94 ft



Calculation after Hvorslev		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-29B	3.86 × 10 ⁻³	



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Slug Test Analysis Report

Project: BMI Common Areas / East Side

Figure-50

Number: 09-33220-01

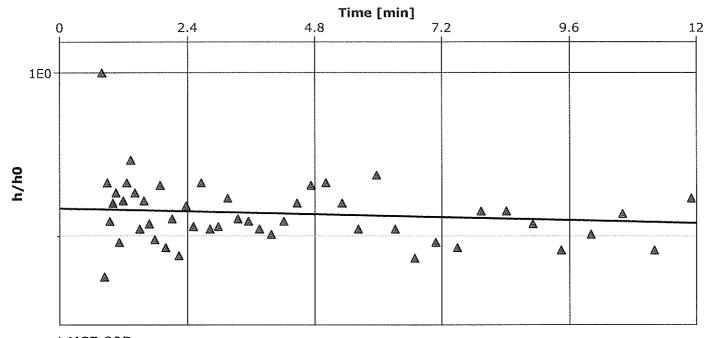
Client: BRC

 Location:
 Slug Test: Slug 2 In
 Test Well: MCF-29B

 Test Conducted by: KJH
 Test Date: 9/16/2009

 Analysis Performed by: KJH
 Bouwer & Rice
 Analysis Date: 9/22/2009

Aquifer Thickness: 317.94 ft



Calculation	after	Rouwer	ጲ	Rice

Observation Well	Hydraulic Conductivity [ft/d]	
MCF-29B	3.97 × 10 ⁻³	



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Slug Test Analysis Report

Project: BMI Common Areas / East Side

Figure-51

Number: 09-33220-01

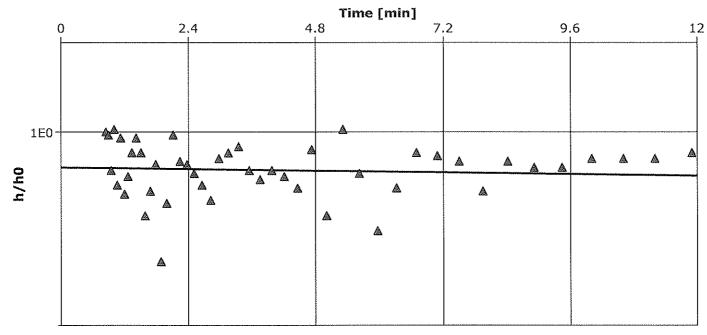
Client: BRC

 Location:
 Sług Test: Slug 2 Out
 Test Well: MCF-29B

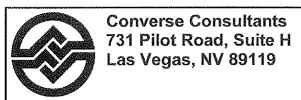
 Test Conducted by: KJH
 Test Date: 9/16/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/22/2009

Aquifer Thickness: 317.94 ft



Calculation after Hvorslev		
Observation Well	Hydraulic Conductivity	
	[fVd]	
MCF-29B	1.82 × 10 ⁻³	



Slug Test Analysis Report

Project: BMI Common Areas / East Side

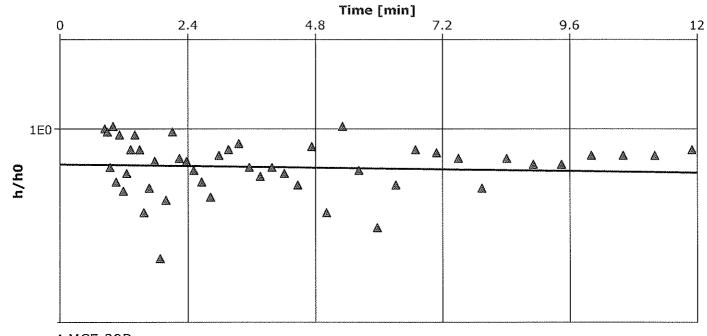
Figure-52

Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 2 Out	Test Well: MCF-29B
Test Conducted by: KJH		Test Date: 9/16/2009
Analysis Performed by: KJH	Bouwer & Rice	Analysis Date: 9/22/2009

Aquifer Thickness: 317.94 ft



Calculation	ofter	RAINMAR	R.	Dica	

I	Observation Well	Hydraulic Conductivity	
		[ft/d]	
	MCF-29B	1.87 × 10 ⁻³	



Slug Test Analysis Report

Figure-53

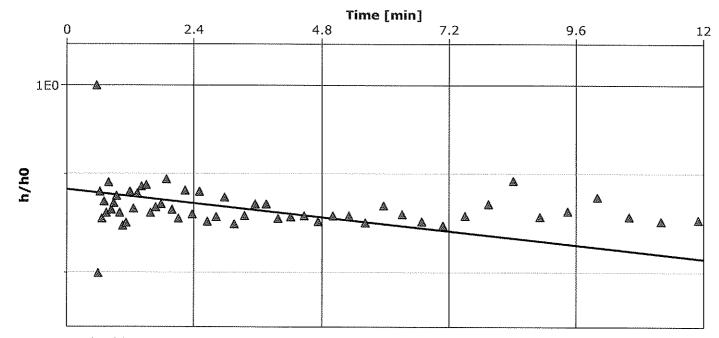
Project: BMI Common Areas / East Side

Number: 09-33220-01 BRC

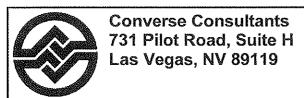
Location: Slug Test: Slug 3 In Test Well: MCF-29B Test Conducted by: KJH Test Date: 9/16/2009 Analysis Performed by: KJH Hvorslev Analysis Date: 9/22/2009

Client:

Aquifer Thickness: 317.94 ft



Calculation after Hvorslev			
	Observation Well	Hydraulic Conductivity	
		[ft/d]	
	MCF-298	3.33 × 10 ⁻²	



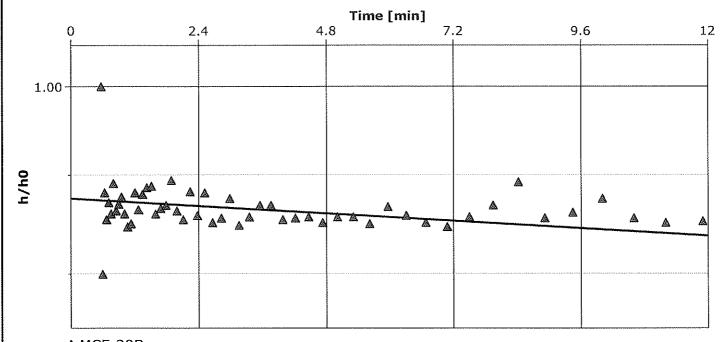
Slug Test Analysis Report Figure-54
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 3 In	Test Well: MCF-29B	
Test Conducted by: KJH		Test Date: 9/16/2009	
Analysis Performed by: KJH Bouwer & Rice		Analysis Date: 9/22/2009	

Aquifer Thickness: 317.94 ft



Calculation after Bouwer & Rice		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-29B	1.83 × 10 ⁻²	



Slug	Test	Ana	lysis	Report	

Figure-55

Project: BMI Common Areas / East Side

Number: 09-33220-01

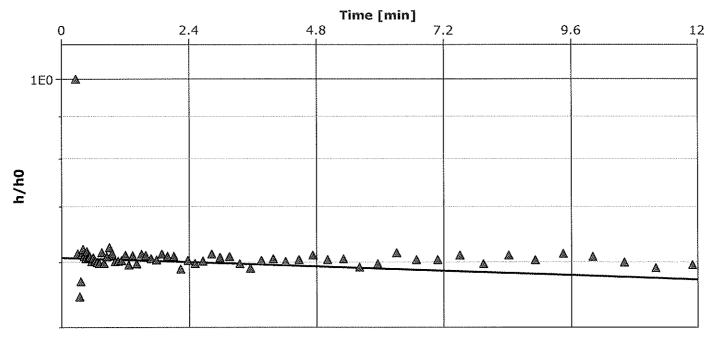
Client: BRC

 Location:
 Slug Test: Slug 3 Out
 Test Well: MCF-29B

 Test Conducted by: KJH
 Test Date: 9/16/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/22/2009

Aquifer Thickness: 317.94 ft



Calculation	after	Hyorsley
Calculation	altol	114019164

Outoballot allot trotoo		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-29B	2.47 × 10 ⁻²	



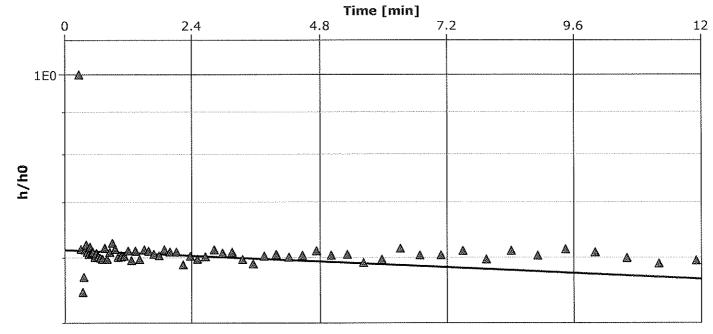
Slug Test Analysis Report Figure-56
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location: Slug Test: Slug 3 Out		Slug Test: Slug 3 Out	Test Well: MCF-29B
	Test Conducted by: KJH		Test Date: 9/16/2009
	Analysis Performed by: KJH	Bouwer & Rice	Analysis Date: 9/22/2009

Aquifer Thickness: 317.94 ft



Calculation after Bouwer & Rice			
Observation Well	Hydraulic Conductivity		
	[ft/d]		
MCF-29B	3.33 × 10 ⁻²		



Slug Test Analysis Report Figure-57

Project: BMI Common Areas / East Side

Number: 09-33220-01

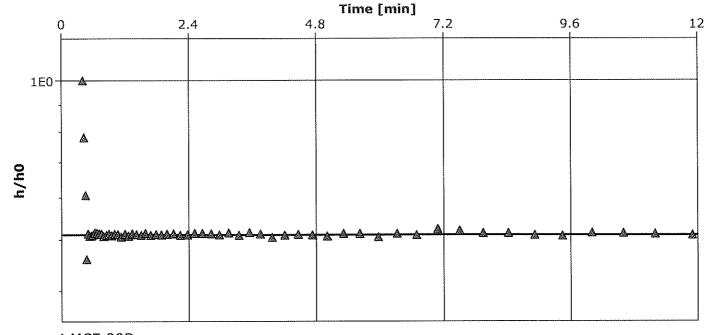
Client: BRC

 Location:
 Siug Test: Slug 4 In
 Test Well: MCF-29B

 Test Conducted by: KJH
 Test Date: 9/29/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/30/2009

Aquifer Thickness: 317.94 ft



Calculation after Hvorsle	V	
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-29B	3.74 × 10 ⁻⁴	



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Slug Test Analysis Report

Project: BMI Common Areas / East Side

Figure-58

Number: 09-33220-01

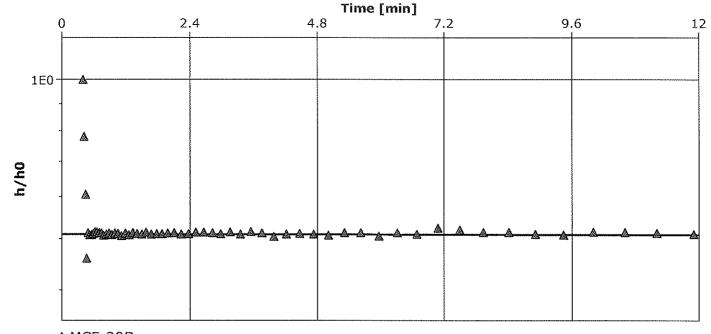
Client: BRC

 Location:
 Slug Test: Slug 4 In
 Test Well: MCF-29B

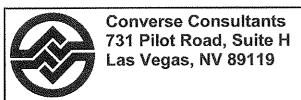
 Test Conducted by: KJH
 Test Date: 9/29/2009

 Analysis Performed by: KJH
 Bouwer & Rice
 Analysis Date: 9/30/2009

Aquifer Thickness: 317.94 ft



Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-29B	1.67 × 10 ⁻³	



Slug Test Analysis Report
Project: BMI Common Areas / East Side

Figure-59

Number: 09-33220-01

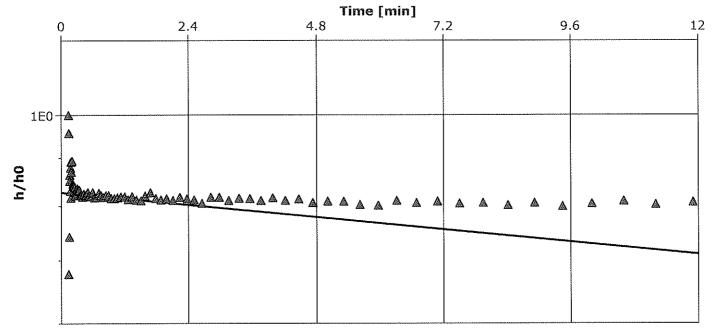
Client: BRC

 Location:
 Siug Test: Slug 4 Out
 Test Well: MCF-29B

 Test Conducted by: KJH
 Test Date: 9/29/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/30/2009

Aquifer Thickness: 317.94 ft



1	Calculation after Hvorslev		
	Observation Well	Hydraulic Conductivity	
		[ft/d]	
	MCF-29B	6.06 × 10 ⁻²	



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Slug Test Analysis Report

Project: BMI Common Areas / East Side

Figure-60

Number: 09-33220-01

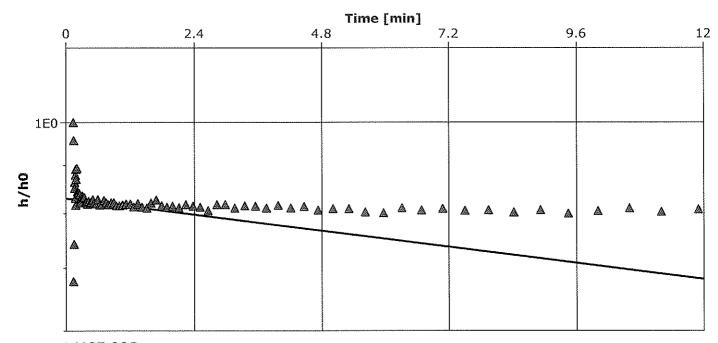
Client: BRC

 Location:
 Slug Test: Slug 4 Out
 Test Well: MCF-29B

 Test Conducted by: KJH
 Test Date: 9/29/2009

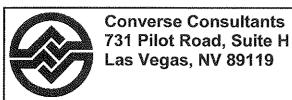
 Analysis Performed by: KJH
 Bouwer & Rice
 Analysis Date: 9/30/2009

Aquifer Thickness: 317.94 ft



Calculation afte	Bouwer	&	Rice	
------------------	--------	---	------	--

Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-29B	8.18 × 10 ⁻²	



Slug Test Analysis Report

Project: BMI Common Areas / East Side

Figure-61

Number: 09-33220-01

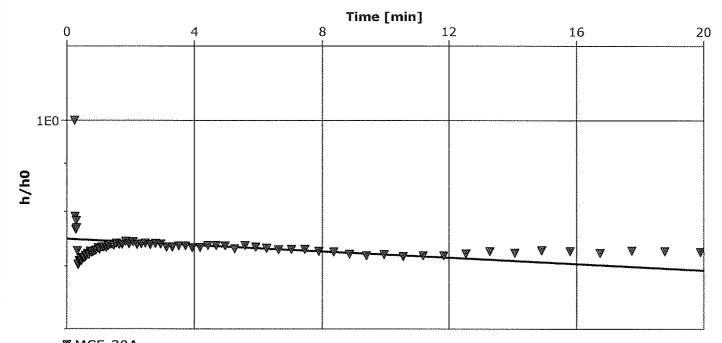
Client: BRC

 Location:
 Slug Test: Slug 1 in
 Test Well: MCF-30A

 Test Conducted by: MBT
 Test Date: 9/16/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/25/2009

Aquifer Thickness: 338.40 ft



▼ MCF-30A

Calculation after Hvorslev		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-30A	1.83 × 10 ⁻²	



Slug Test Analysis Report Figure-62
Project: BMI Common Areas / East Side

Analysis Date: 9/25/2009

Number: 09-33220-01

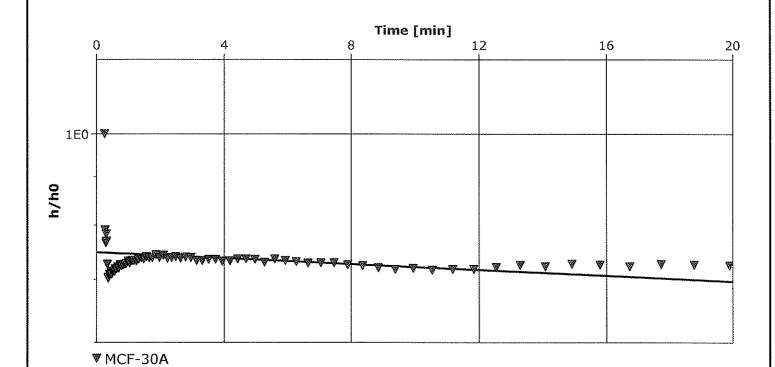
Client: BRC

Slug Test: Slug 1 In	Test Well: MCF-30A
	Test Date: 9/16/2009

Analysis Performed by: KJH
Aquifer Thickness: 338.40 ft

Test Conducted by: MBT

Location:



Bouwer & Rice

Calculation after Bouwer & Rice

۱	Observation Well	Hydraulic Conductivity	
۱		[ft/d]	
	MCF-30A	1.83 × 10 ⁻²	



Slug Test Analysis Report Figure-63

Project: BMI Common Areas / East Side

Number: 09-33220-01

 Location:
 Slug Test: Slug 1 Out
 Test Well: MCF-30A

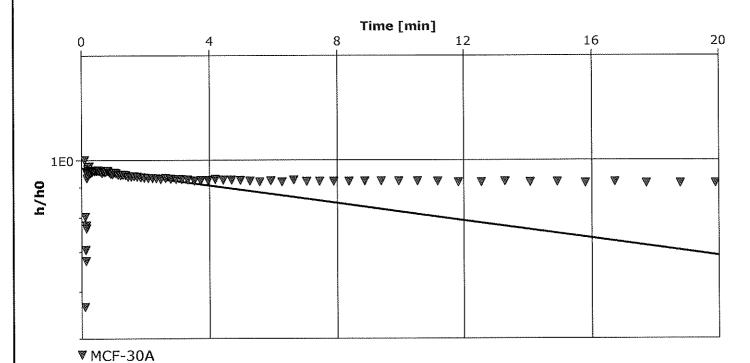
 Test Conducted by: MBT
 Test Date: 9/16/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/25/2009

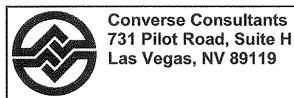
Client:

BRC

Aquifer Thickness: 338.40 ft



Calculation after Hvorslev		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-30A	8.18 × 10 ⁻²	



Slug Test Analysis Report

Project: BMI Common Areas / East Side

Figure-64

Number: 09-33220-01

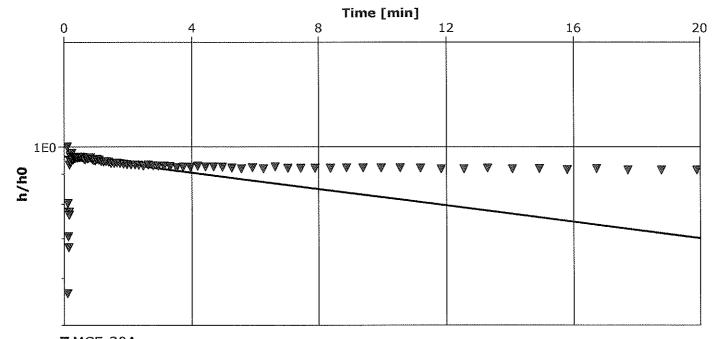
Client: BRC

 Location:
 Slug Test: Slug 1 Out
 Test Well: MCF-30A

 Test Conducted by: MBT
 Test Date: 9/16/2009

 Analysis Performed by: KJH
 Bouwer & Rice
 Analysis Date: 9/25/2009

Aquifer Thickness: 338.40 ft



▼MCF-30A

Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-30A	8.18 × 10 ⁻²	



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Slug Test Analysis Report

Figure-65

Project: BMI Common Areas / East Side

Number: 09-33220-01

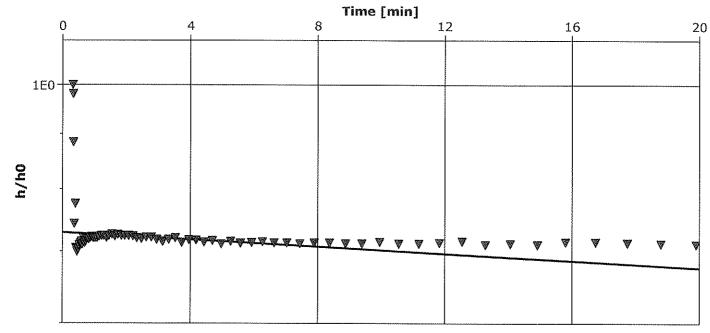
Client: BRC

 Location:
 Slug Test: Slug 2 In
 Test Well: MCF-30A

 Test Conducted by: MBT
 Test Date: 9/16/2009

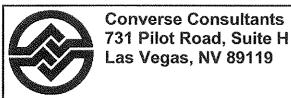
 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/25/2009

Aquifer Thickness: 338.40 ft



▼MCF-30A

	Calculation after Hvorslev		
ı	Observation Well	Hydraulic Conductivity	
		[ft/d]	
	MCF-30A	1.83 × 10 ⁻²	



Slug Test Analysis Report

Project: BMI Common Areas / East Side

Figure-66

Number: 09-33220-01

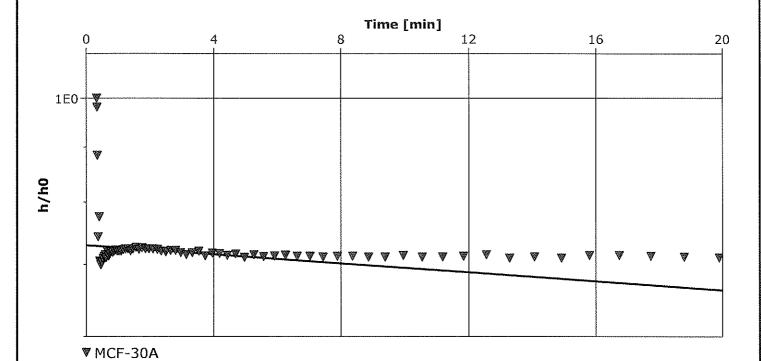
Client: BRC

 Location:
 Slug Test: Slug 2 In
 Test Well: MCF-30A

 Test Conducted by: MBT
 Test Date: 9/16/2009

 Analysis Performed by: KJH
 Bouwer & Rice
 Analysis Date: 9/25/2009

Aquifer Thickness: 338.40 ft



Calculation after Bouwer & Rice

Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-30A	2.47 × 10 ⁻²	



Slug Test Analysis Report

Project: BMI Common Areas / East Side

Figure-67

Number: 09-33220-01

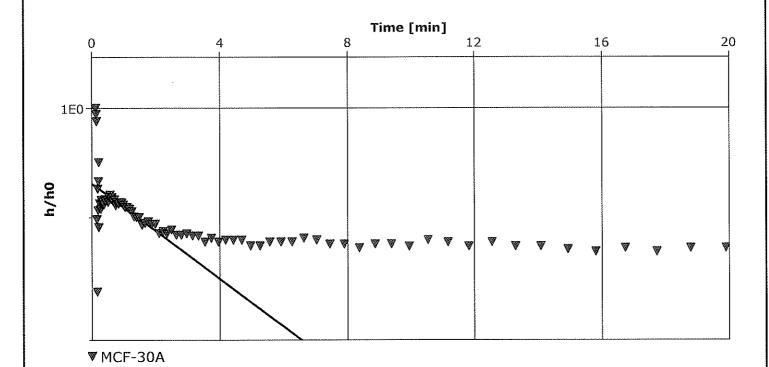
Client: BRC

 Location:
 Slug Test: Slug 2 Out
 Test Well: MCF-30A

 Test Conducted by: MBT
 Test Date: 9/16/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/25/2009

Aquifer Thickness: 338.40 ft



Calculation after Hvorslev

Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-30A	1.10 × 10 ⁻¹	



Slug Test Analysis Report

Figure-68

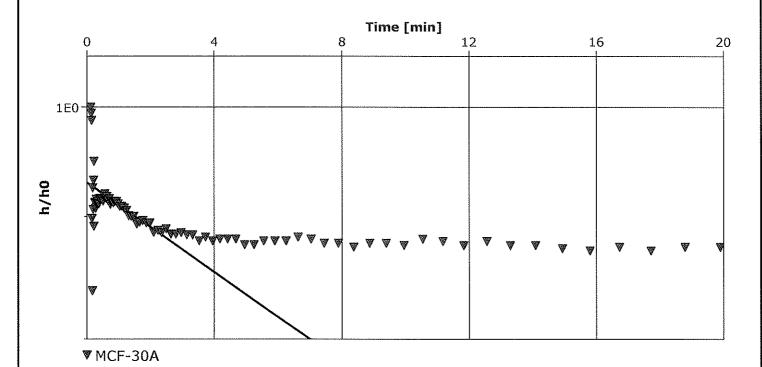
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 2 Out	Test Well: MCF-30A
Test Conducted by: MBT	Test Date: 9/16/2009	
Analysis Performed by: KJH	Bouwer & Rice	Analysis Date: 9/25/2009

Aquifer Thickness: 338.40 ft



Calculation after Bouwer & Rice

Observation Well	Hydraulic Conductivity	
***	[ft/d]	
MCF-30A	1.10 × 10 ⁻¹	



Slug Test Analysis Report Figure-69

Project: BMI Common Areas / East Side

Client: BRC

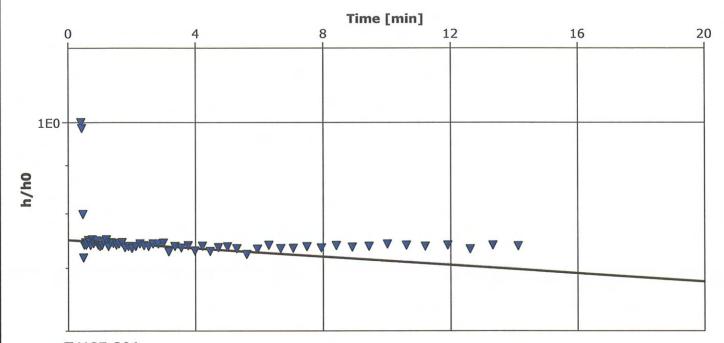
Number: 09-33220-01

 Location:
 Slug Test: Slug 3 In
 Test Well: MCF-30A

 Test Conducted by: KJH
 Test Date: 9/29/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/30/2009

Aquifer Thickness: 338.40 ft



▼ MCF-30A

Calculation after Hvorslev				
Observation Well	Hydraulic Conductivity			
	[ft/d]			

MCF-30A 2.47 × 10⁻²

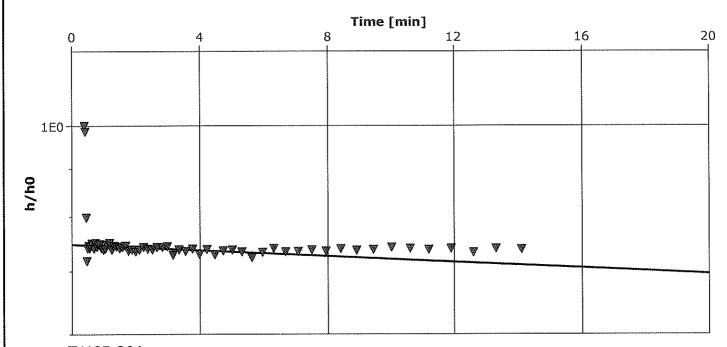


Slug Test Analysis Report Figure-70
Project: BMI Common Areas / East Side
Number: 09-33220-01

Location:	Slug Test: Slug 3 In	Test Well: MCF-30A	
Test Conducted by: KJH		Test Date: 9/29/2009	
Analysis Performed by: KJH		Analysis Date: 9/30/2009	

Client: BRC

Aquifer Thickness: 338.40 ft



▼MCF-30A

Calculation after Bouwer & Rice		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-30A	1.83 × 10 ⁻²	

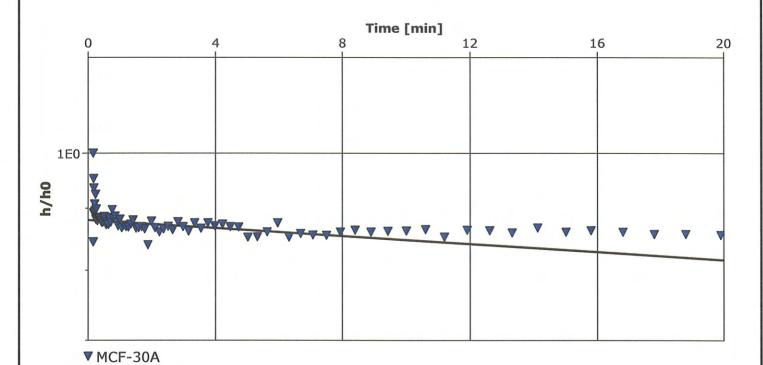


Slug Test Analysis Report Figure-71
Project: BMI Common Areas / East Side
Number: 09-33220-01

Location: Slug Test: Slug 3 Out		Test Well: MCF-30A
Test Conducted by: KJH		Test Date: 9/29/2009
Analysis Performed by: KJH	Hvorslev	Analysis Date: 9/30/2009

Client: BRC

Aquifer Thickness: 338.40 ft



Calculation after Hvorslev

Observation Well Hydraulic Conductivity [ft/d]

MCF-30A 1.83 × 10⁻²



Slug Test Analysis Report Figure-72

Project: BMI Common Areas / East Side

Client: BRC

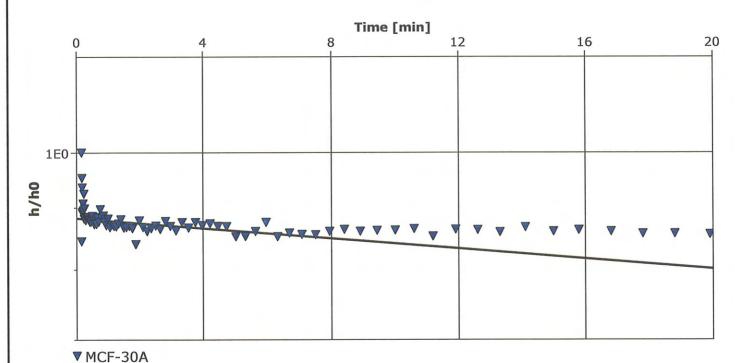
Number: 09-33220-01

 Location:
 Slug Test: Slug 3 Out
 Test Well: MCF-30A

 Test Conducted by: KJH
 Test Date: 9/29/2009

 Analysis Performed by: KJH
 Bouwer & Rice
 Analysis Date: 9/30/2009

Aquifer Thickness: 338.40 ft



Calculation after Bouwer & Ric	alculation after Bouwer & Rice		
Observation Well	Hydraulic Conductivity [ft/d]		
MCF-30A	2.47 × 10 ⁻²		

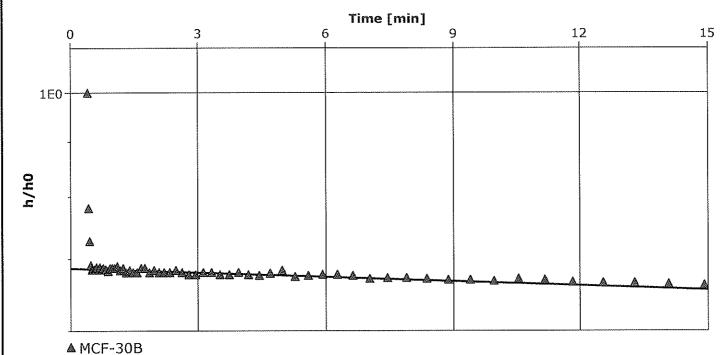


Slug Test Analysis Report Figure-73 Project: BMI Common Areas / East Side Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 1 In	Test Well: MCF-30B
Test Conducted by: MBT		Test Date: 9/16/2009
Analysis Performed by: KJH Hvorslev		Analysis Date: 9/25/2009

Aquifer Thickness: 132.40 ft



Calculation after Hvorslev		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-30B	1.48 × 10 ⁻²	



 Slug Test Analysis Report
 Figure-74

 Project:
 BMI Common Areas / East Side

Number: 09-33220-01

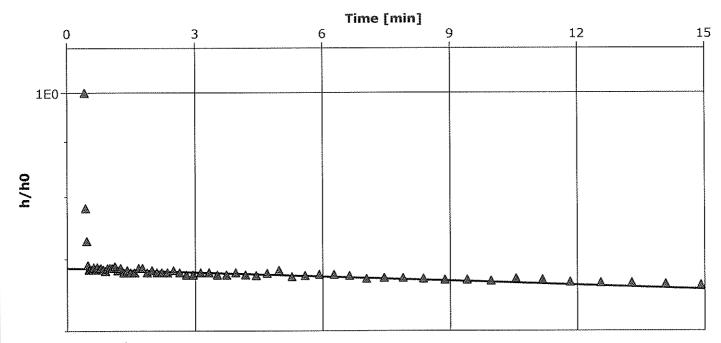
Client: BRC

 Location:
 Slug Test: Slug 1 In
 Test Well: MCF-30B

 Test Conducted by: MBT
 Test Date: 9/16/2009

 Analysis Performed by: KJH
 Bouwer & Rice
 Analysis Date: 9/25/2009

Aquifer Thickness: 132.40 ft



▲ MCF-30B

Calculation after Bouwer & Rice		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-30B	1.43 × 10 ⁻²	



Siug Test Analysis Report

Figure-75

Project: BMI Common Areas / East Side

Number: 09-33220-01

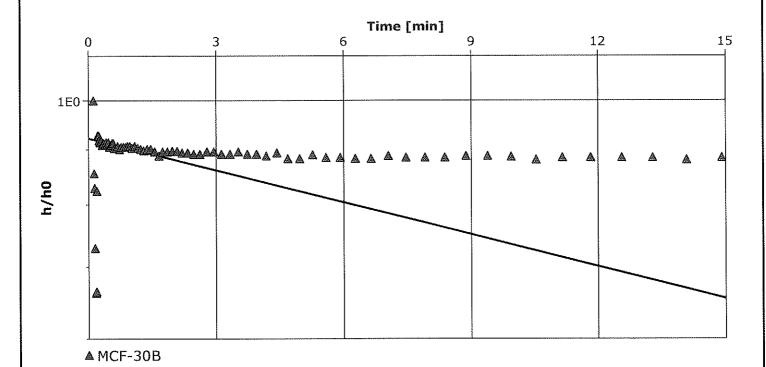
Client: BRC

 Location:
 Slug Test: Slug 1 Out
 Test Well: MCF-30B

 Test Conducted by: MBT
 Test Date: 9/16/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/25/2009

Aquifer Thickness: 132.40 ft



Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-30B	1.10 × 10 ⁻¹	



Figure-76 Slug Test Analysis Report

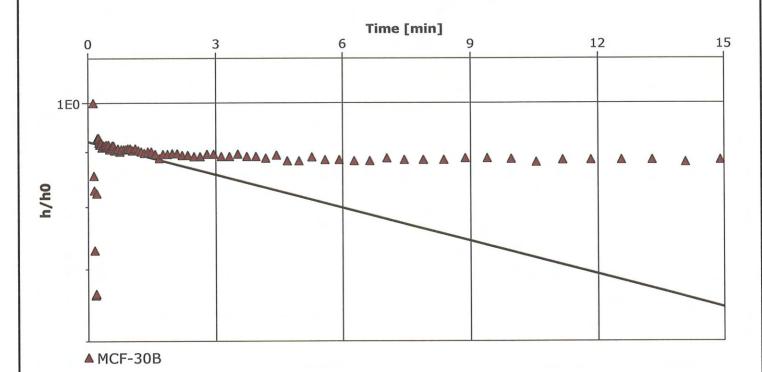
Project: BMI Common Areas / East Side

Number: 09-33220-01 BRC

Slug Test: Slug 1 Out Test Well: MCF-30B Location: Test Date: 9/16/2009 Test Conducted by: MBT Analysis Date: 9/25/2009 Bouwer & Rice Analysis Performed by: KJH

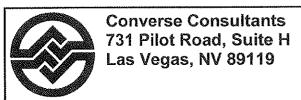
Client:

Aquifer Thickness: 132.40 ft



Calculation after Bouwer & Rice

Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-30B	1.10 × 10 ⁻¹	



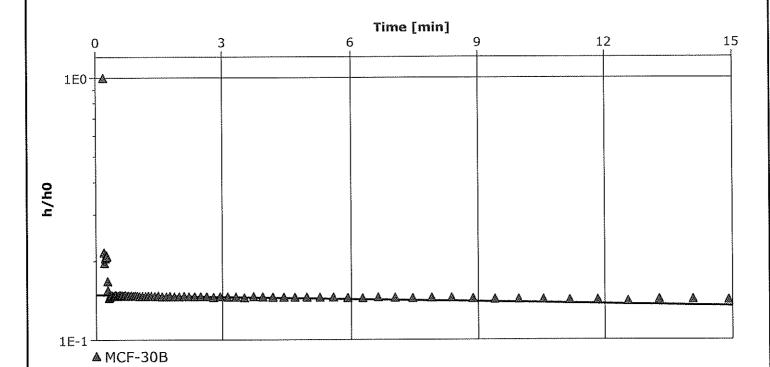
Slug Test Analysis Report Figure-77
Project: BMI Common Areas / East Side

Client: BRC

Number: 09-33220-01

Location:	Slug Test: Slug 2 In	Test Well: MCF-30B
Test Conducted by: MBT		Test Date: 9/16/2009
Analysis Performed by: KJH Hvorslev		Analysis Date: 9/25/2009

Aquifer Thickness: 132.40 ft



Calculation after Hvorslev

Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-30B	3.23 × 10 ⁻²	



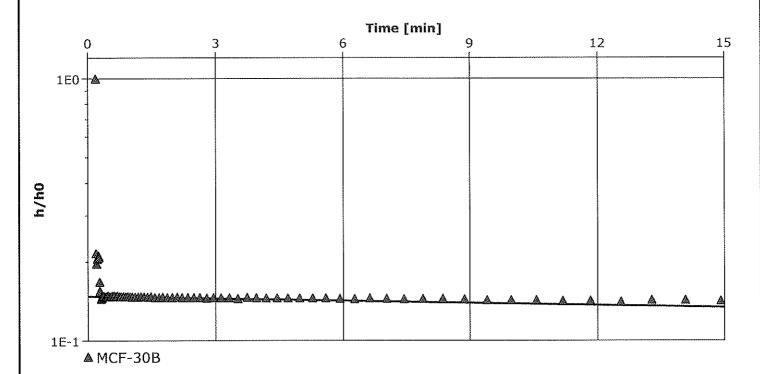
Slug Test Analysis Report Figure-78
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 2 In	Test Well: MCF-30B
Test Conducted by: MBT		Test Date: 9/16/2009
Analysis Performed by: KJH	Bouwer & Rice	Analysis Date: 9/25/2009

Aquifer Thickness: 132.40 ft



Calculation after Bouwer & Rice		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-30B	3.12 × 10 ⁻²	



Slug Test Analysis Report

Figure-79

Project: BMI Common Areas / East Side

Number: 09-33220-01

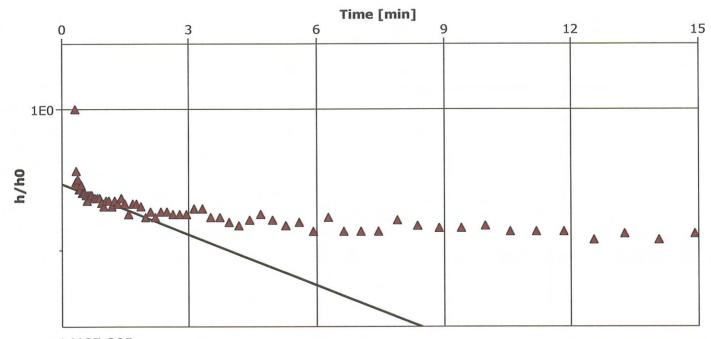
Client: BRC

 Location:
 Slug Test: Slug 2 Out
 Test Well: MCF-30B

 Test Conducted by: MBT
 Test Date: 9/16/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/25/2009

Aquifer Thickness: 132.40 ft



▲ MCF-30B

Calculation after Hvorsle	v	
Observation Well	Hydraulic Conductivity [ft/d]	
MCF-30B	6.06 × 10 ⁻²	



Figure-80 **Slug Test Analysis Report**

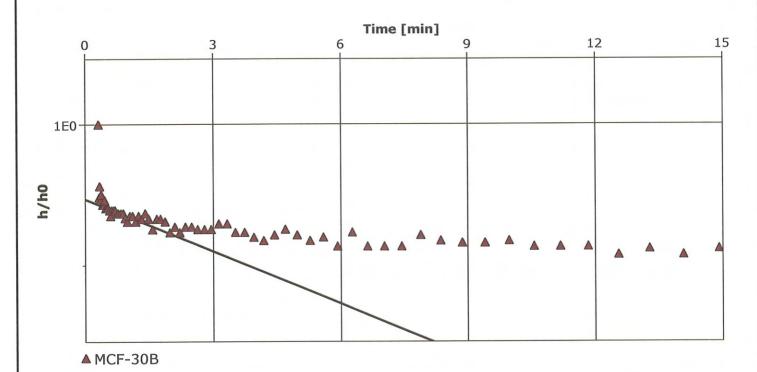
Project: BMI Common Areas / East Side

Number: 09-33220-01 BRC

Slug Test: Slug 2 Out Test Well: MCF-30B Location: Test Date: 9/16/2009 Test Conducted by: MBT Bouwer & Rice Analysis Date: 9/25/2009 Analysis Performed by: KJH

Client:

Aquifer Thickness: 132.40 ft



Calculation after Bouwer & Rice

Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-30B	6.06 × 10 ⁻²	



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Slug Test Analysis Report

Project: BMI Common Areas / East Side

Figure-81

Number: 09-33220-01

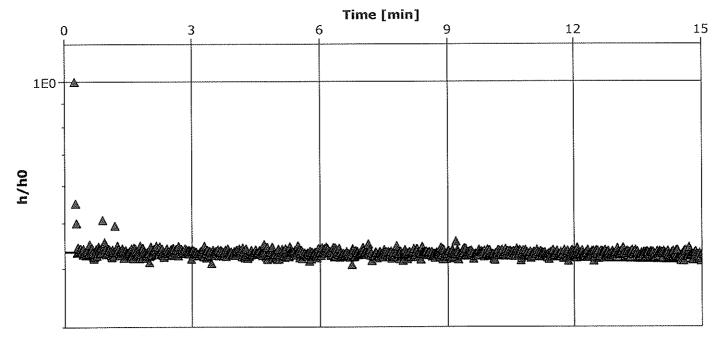
Client: BRC

 Location:
 Slug Test: Slug 3 In
 Test Well: MCF-30B

 Test Conducted by: MBT
 Test Date: 9/29/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/30/2009

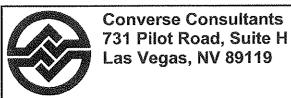
Aquifer Thickness: 132.40 ft



▲ MCF-30B

0.4	- £4	
Calculation	aner	MADIZIEA

Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-30B	1.83 × 10 ⁻²	



Slug Test Analysis Report	Figure-82
Project: RMI Common Areas / East Side	

Project: BMI Common Areas / East Side

Client: BRC

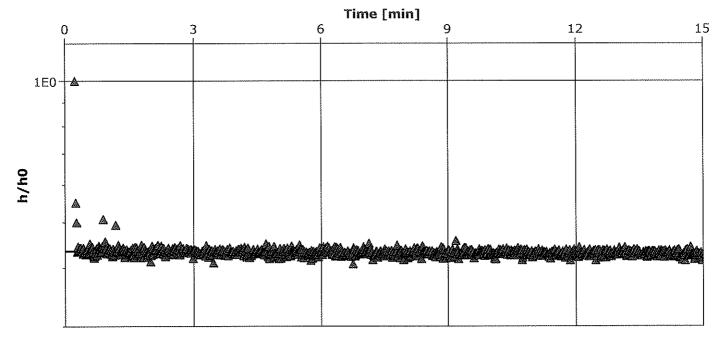
Number: 09-33220-01

 Location:
 Slug Test: Slug 3 In
 Test Well: MCF-30B

 Test Conducted by: MBT
 Test Date: 9/29/2009

 Analysis Performed by: KJH
 Bouwer & Rice
 Analysis Date: 9/30/2009

Aquifer Thickness: 132.40 ft



	Calculation	after	Bouwer	&	Rice
--	-------------	-------	--------	---	------

Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-30B	1.01 × 10 ⁻²	



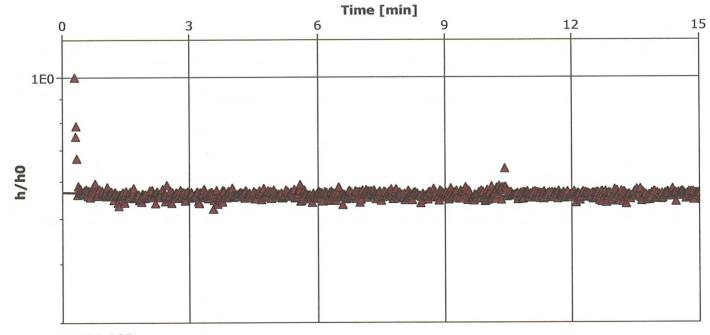
Slug Test Analysis Report Figure-83
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location: Slug Test: Slug 4 In		Test Well: MCF-30B	
Test Conducted by: KJH		Test Date: 9/29/2009	
Analysis Performed by: KJH	Hvorslev	Analysis Date: 9/30/2009	

Aquifer Thickness: 132.40 ft



Calculation after Hvorsle	v	
Observation Well	Hydraulic Conductivity [ft/d]	
MCF-30B	1.01 × 10 ⁻²	



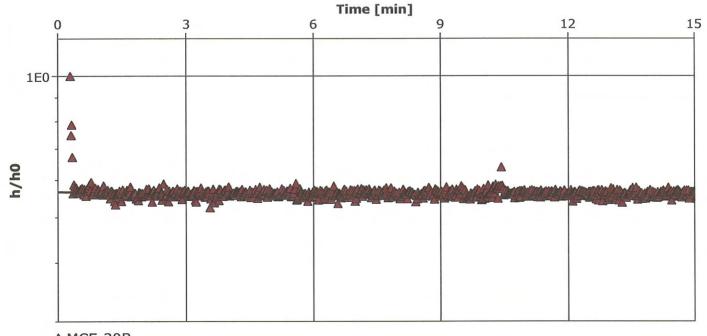
Slug Test Analysis Report Figure-84 Project: BMI Common Areas / East Side

Number: 09-33220-01 **BRC**

Slug Test: Slug 4 In Test Well: MCF-30B Location: Test Date: 9/29/2009 Test Conducted by: KJH Bouwer & Rice Analysis Date: 9/30/2009 Analysis Performed by: KJH

Client:

Aquifer Thickness: 132.40 ft



Calculation after Bouwer & Rice	Calculation	after	Bouwer	&	Rice
---------------------------------	-------------	-------	--------	---	------

Observation Well	Hydraulic Conductivity				
	[ft/d]				
MCF-30B	1.36 × 10 ⁻²				



Slug Test Analysis Report

Figure-85

Project: BMI Common Areas / East Side

Number: 09-33220-01

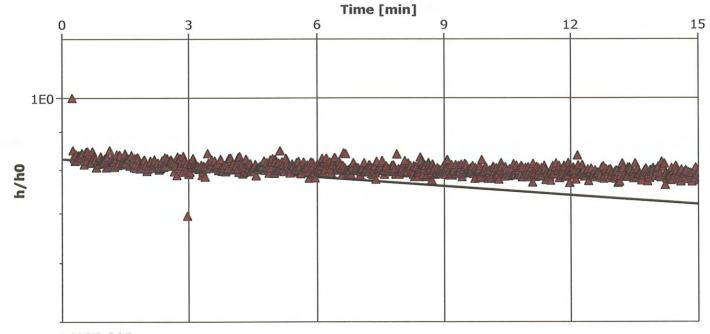
Client: BRC

 Location:
 Slug Test: Slug 4 Out
 Test Well: MCF-30B

 Test Conducted by: MBT
 Test Date: 9/29/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/30/2009

Aquifer Thickness: 132.40 ft



Calculation after Hvorslev		
Observation Well	Hydraulic Conductivity [ft/d]	
MCF-30B	4.49 × 10 ⁻²	



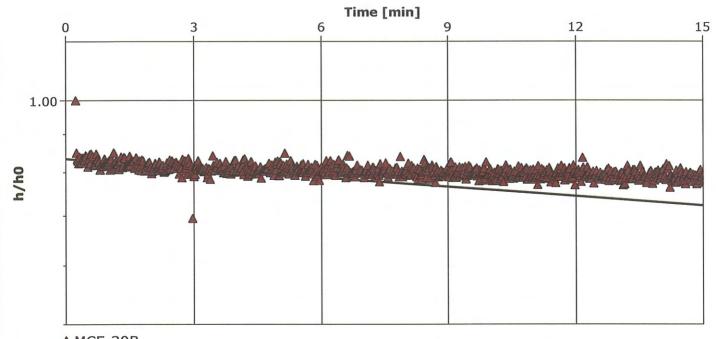
Slug Test Analysis Report Figure-86
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location: Slug Test: Slug 4 Out		Test Well: MCF-30B
Test Conducted by: MBT	Test Date: 9/29/2009	
Analysis Performed by: KJH Bouwer & Rice		Analysis Date: 9/30/2009

Aquifer Thickness: 132.40 ft



Calculation	ofter	PALIMOR	Ω.	Dico
Calculation	aner	Douwer	CX	LICE

Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-30B	4.49 × 10 ⁻²	



Converse Consultants 731 Pilot Road, Suite H Las Vegas, NV 89119

Slug Test Analysis Report

Project: BMI Common Areas / East Side

Figure-87

Number: 09-33220-01

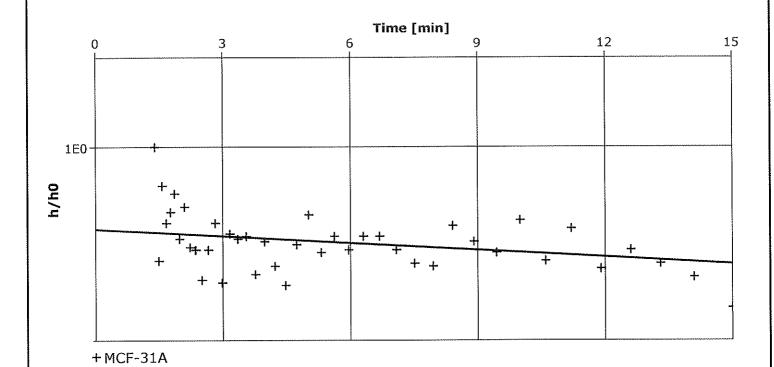
Client: BRC

 Location:
 Slug Test: Slug 1 In
 Test Well: MCF-31A

 Test Conducted by: KJH
 Test Date: 9/17/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/24/2009

Aquifer Thickness: 374.90 ft



Calculation after Hvorslev		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-31A	6.06 × 10 ⁻³	



Slug Test Analysis Report

Project: BMI Common Areas / East Side

Figure-88

Number: 09-33220-01

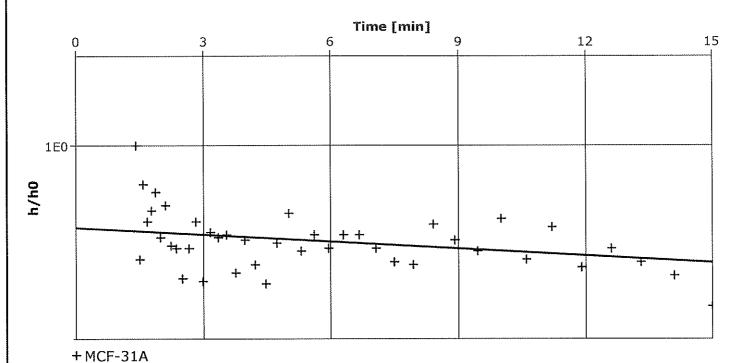
Client: BRC

 Location:
 Slug Test: Slug 1 in
 Test Well: MCF-31A

 Test Conducted by: KJH
 Test Date: 9/17/2009

 Analysis Performed by: KJH
 Bouwer & Rice
 Analysis Date: 9/24/2009

Aquifer Thickness: 374.90 ft



Calculation after Bouwer & Rice		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-31A	6.53 × 10 ⁻³	

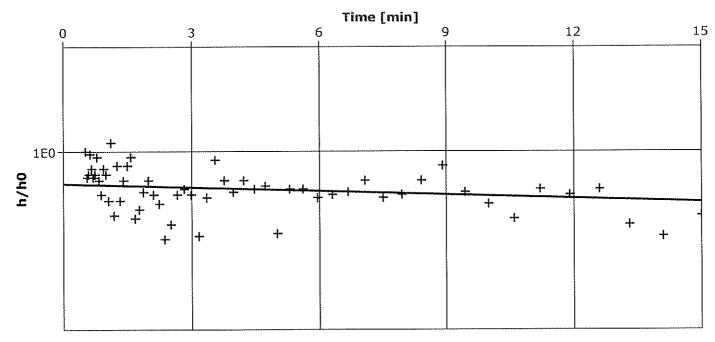


 Slug Test Analysis Report	Figure-89
Project: BMI Common Areas / East Side	
Number: 09-33220-01	

Location:	Slug Test: Slug 1 Out	Test Well: MCF-31A
Test Conducted by: KJH	Test Date: 9/17/2009	
Analysis Performed by: KJH		Analysis Date: 9/24/2009

Client: BRC

Aquifer Thickness: 374.90 ft



+MCF-31A

Calculation after Hvorslev		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-31A	2.76 × 10 ⁻³	

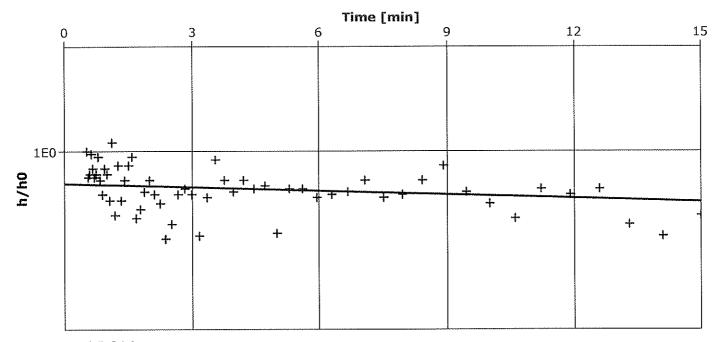


Slug Test Analysis Report Figure-90
Project: BMI Common Areas / East Side
Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 1 Out	Test Well: MCF-31A
		Test Date: 9/17/2009
Analysis Performed by: KJH	Bouwer & Rice	Analysis Date: 9/24/2009

Aquifer Thickness: 374.90 ft



+MCF-31A

Calculation after Bouwer & Rice		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-31A	2.97 × 10 ⁻³	

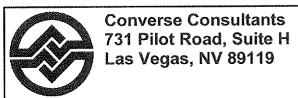


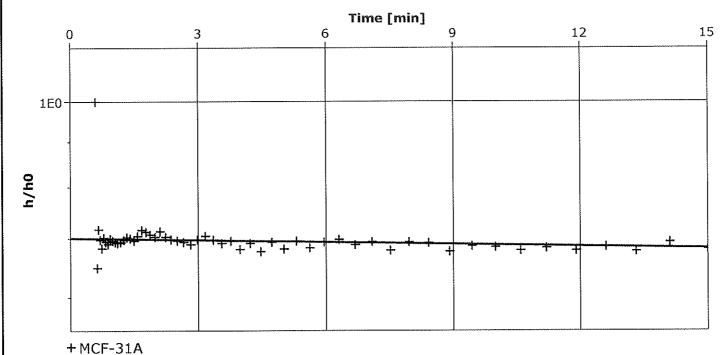
Figure-91 Slug Test Analysis Report Project: BMI Common Areas / East Side

Number: 09-33220-01

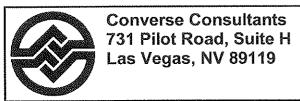
Client: BRC

Location:	Slug Test: Slug 2 In	Test Well: MCF-31A
Test Conducted by: KJH	Test Date: 9/17/2009	
Analysis Performed by: KJH	Hvorslev	Analysis Date: 9/24/2009

Aquifer Thickness: 374.90 ft



Calculation after Hvorslev		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-31A	8.63 × 10 ⁻³	

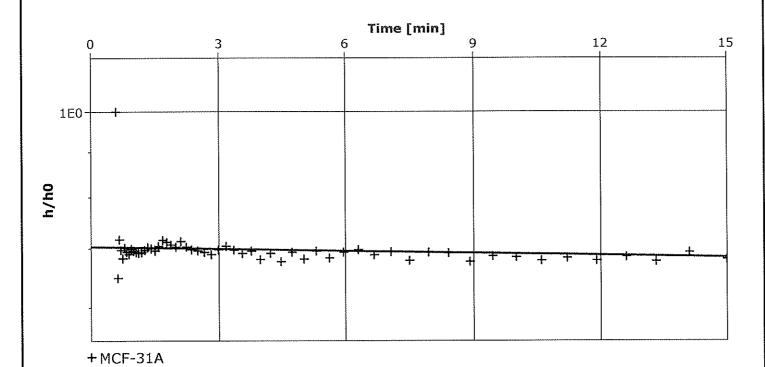


Slug Test Analysis Report Figure-92
Project: BMI Common Areas / East Side
Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 2 In	Test Well: MCF-31A
Test Conducted by: KJH		Test Date: 9/17/2009
Analysis Performed by: KJH	Bouwer & Rice	Analysis Date: 9/24/2009

Aquifer Thickness: 374.90 ft



Calculation after Bouwer & Rice

0.0000		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-31A	9.29 × 10 ⁻³	



Slug Test Analysis Report Figure-93

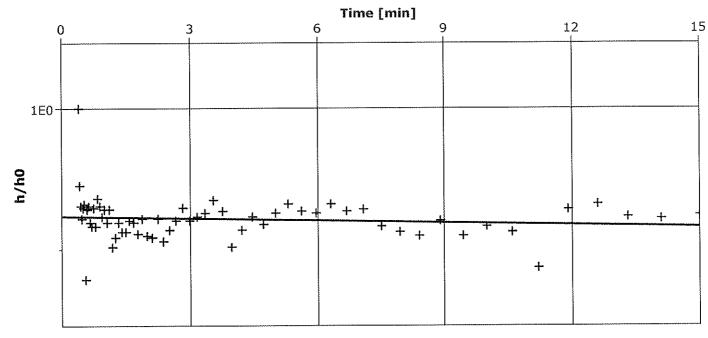
Project: BMI Common Areas / East Side

Number: 09-33220-01

ī	_ocation:	Slug Test: Slug 2 Out	Test Well: MCF-31A
7	Test Conducted by: KJH	Test Date: 9/17/2009	
7	Analysis Performed by: KJH	117010101	Analysis Date: 9/24/2009

Client: BRC

Aquifer Thickness: 374.90 ft



+MCF-31A

Calculation after Hvorslev		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-31A	2.63 × 10 ⁻³	



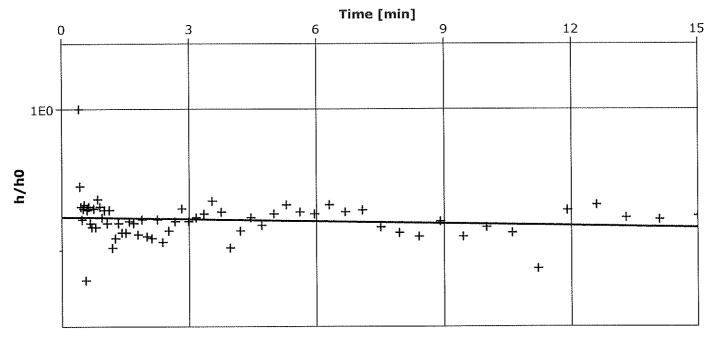
Slug Te	st Analysis Report	Figure-94
Project:	BMI Common Areas / East Side	

Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 2 Out	Test Well: MCF-31A
Test Conducted by: KJH	Test Date: 9/17/2009	
Analysis Performed by: KJH Bouwer & Rice		Analysis Date: 9/24/2009

Aquifer Thickness: 374.90 ft



+MCF-31A

Calculation after Bouwer & Rice		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-31A	2.83 × 10 ⁻³	



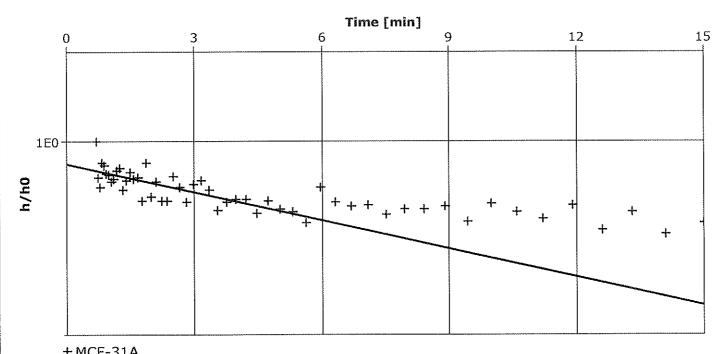
Slug Test Analysis Report Figure-95
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

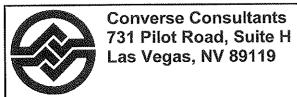
Location:	Slug Test: Slug 3 In	Test Well: MCF-31A
Test Conducted by: KJH	Test Date: 9/29/2009	
Analysis Performed by: KJH Hvorslev		Analysis Date: 9/30/2009

Aquifer Thickness: 379.40 ft



7	۱۷I	Cr	-5	T/	4

Calculation after Hvorslev			
Observation Well Hydraulic Conductivity			
	[ft/d]		
MCF-31A	2.47 × 10 ⁻²		

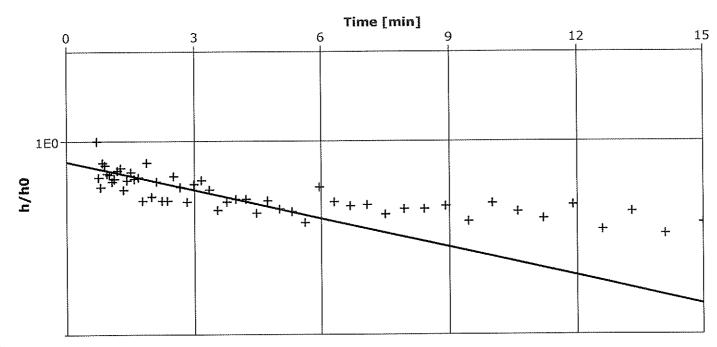


Slug Test Analysis Report Figure-96
Project: BMI Common Areas / East Side
Number: 09-33220-01

Location:	Slug Test: Slug 3 in	Test Well: MCF-31A
Test Conducted by: KJH		Test Date: 9/29/2009
Analysis Performed by: KJH Bouwer & Rice		Analysis Date: 9/30/2009

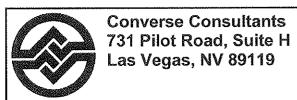
Client: BRC

Aquifer Thickness: 379.40 ft



+MCF-31A

Calculation after Bouwer & Rice		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-31A	2.47 × 10 ⁻²	



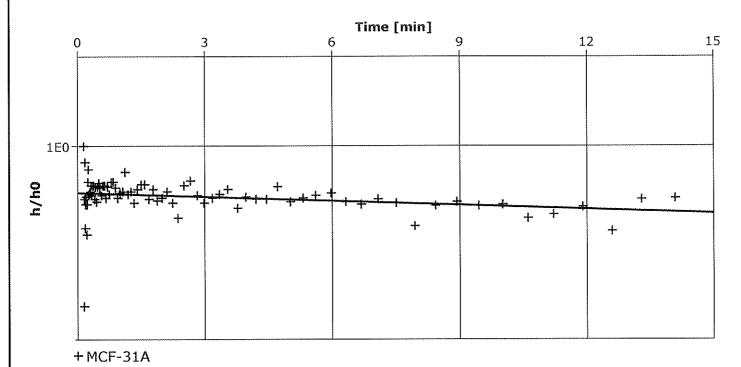
Slug Test Analysis Report Figure-97
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 3 Out	Test Well: MCF-31A
Test Conducted by: KJH	Test Date: 9/29/2009	
Analysis Performed by: KJH Hvorslev		Analysis Date: 9/30/2009

Aquifer Thickness: 379.40 ft



Calculation after Hvorslev

Odiodiation alto, 1770-050	Salodiation and Thomas		
Observation Well	Hydraulic Conductivity		
	[ft/d]		
MCF-31A	3.60 × 10 ⁻³		



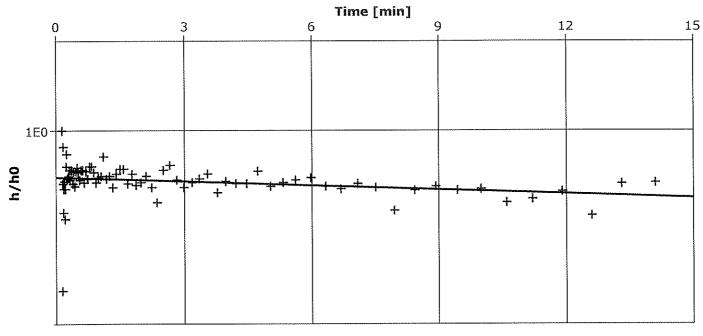
Slug Test Analysis Report Figure-98
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 3 Out	Test Well: MCF-31A	
Test Conducted by: KJH		Test Date: 9/29/2009	
Analysis Performed by: KJH Bouwer & Rice		Analysis Date: 9/30/2009	

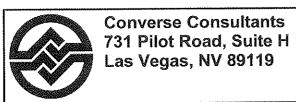
Aquifer Thickness: 379.40 ft



+MCF-31A

Calculation after Bouwer & Rice	

Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-31A	3.57 × 10 ⁻³	



Slug Test Analysis Report Figure-99
Project: BMI Common Areas / East Side
Number: 09-33220-01

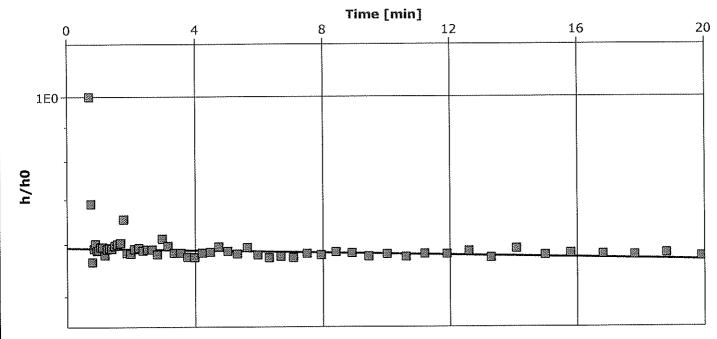
Client: BRC

 Location:
 Slug Test: Slug 1 In
 Test Well: MCF-31B

 Test Conducted by: KJH
 Test Date: 9/17/2009

 Analysis Performed by: KJH
 Hvorslev
 Analysis Date: 9/24/2009

Aquifer Thickness: 223.90 ft



™MCF-31B

Calculation after Hvorslev		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-31B	1.01 × 10 ⁻²	



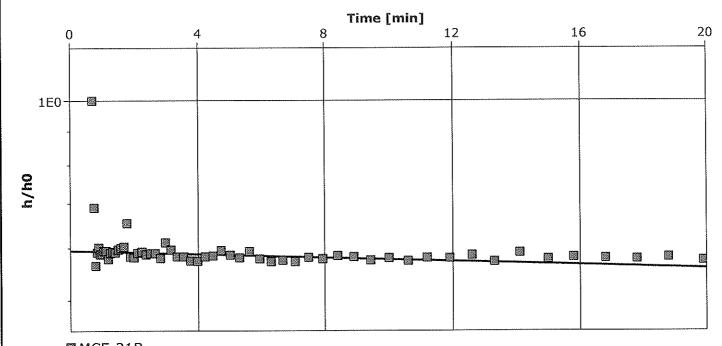
Figure-100 Slug Test Analysis Report Project: BMI Common Areas / East Side

Number: 09-33220-01 BRC

Location:	Slug Test: Slug 1 In	Test Well: MCF-31B
Test Conducted by: KJH		Test Date: 9/17/2009
Analysis Performed by: KJH	Bouwer & Rice	Analysis Date: 9/24/2009

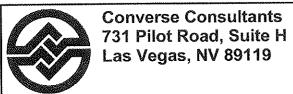
Client:

Aquifer Thickness: 223.90 ft



⊠ MCF-31B

Calculation after Bouwer & Rice		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-31B	1.50 × 10 ⁻²	



 Slug Test Analysis Report
 Figure-101

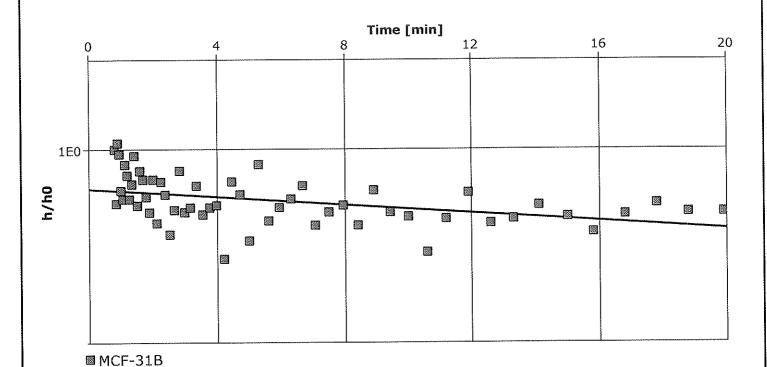
 Project:
 BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location:	Siug Test: Slug 1 Out	Test Well: MCF-31B
Test Conducted by: KJH		Test Date: 9/17/2009
Analysis Performed by: KJH	Hvorslev	Analysis Date: 9/24/2009

Aquifer Thickness: 223.90 ft



Calculation after Hvorslev

Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-31B	5.30 × 10 ⁻³	



Slug Test Analysis Report

Figure-102

Project: BMI Common Areas / East Side

Number: 09-33220-01

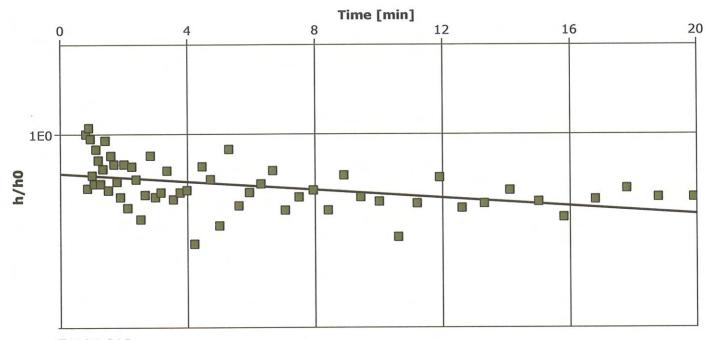
Client: BRC

 Location:
 Slug Test: Slug 1 Out
 Test Well: MCF-31B

 Test Conducted by: KJH
 Test Date: 9/17/2009

 Analysis Performed by: KJH
 Bouwer & Rice
 Analysis Date: 9/24/2009

Aquifer Thickness: 223.90 ft



■ MCF-31B

MCF-31B

 5.42×10^{-3}

١	Calculation after Bouwer & Rice		
	Observation Well	Hydraulic Conductivity	
		[ft/d]	



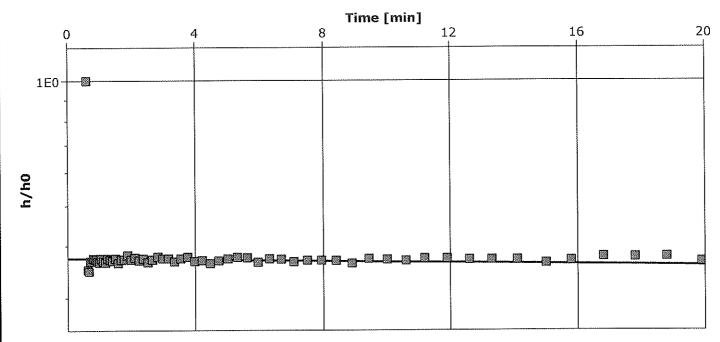
Figure-103 Slug Test Analysis Report Project: BMI Common Areas / East Side

Number: 09-33220-01 BRC

Slug Test: Slug 2 In Test Well: MCF-31B Location: Test Date: 9/17/2009 Test Conducted by: KJH Analysis Date: 9/24/2009 Hvorslev Analysis Performed by: KJH

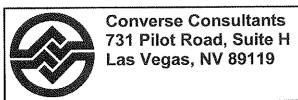
Client:

Aquifer Thickness: 223.90 ft



MCF-31B

Calculation after Hvorslev		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-31B	1.00 × 10 ⁻²	



Slug Test Analysis Report Figure-104

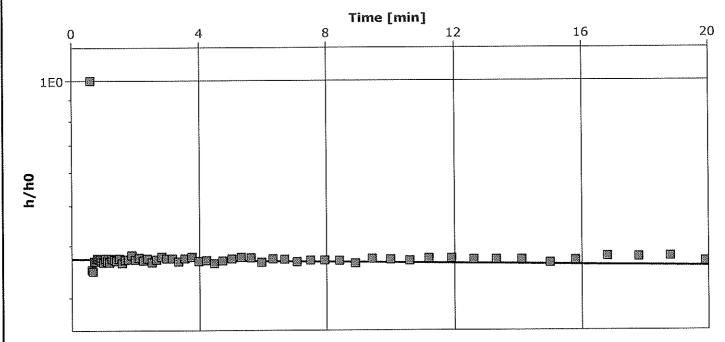
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 2 In	Test Well: MCF-31B
Test Conducted by: KJH		Test Date: 9/17/2009
Analysis Performed by: KJH Bouwer & Rice		Analysis Date: 9/24/2009

Aquifer Thickness: 223.90 ft



■ MCF-31B

Calculation after Bouwer & Rice		
Observation Well	Hydraulic Conductivity	
	[fVd]	
MCF-31B	1.03 × 10 ⁻²	



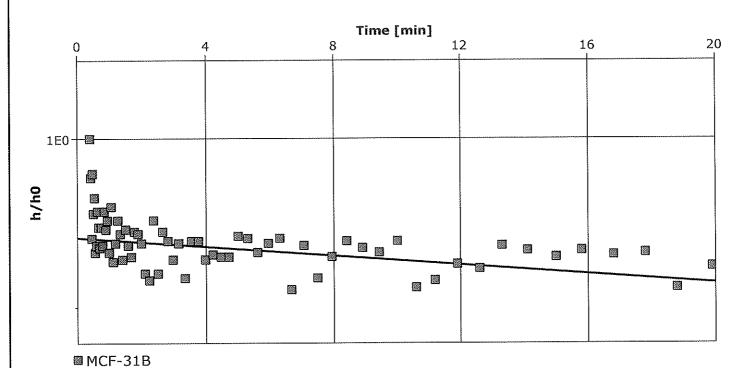
Slug Test Analysis Report Figure-105
Project: BMI Common Areas / East Side

Number: 09-33220-01

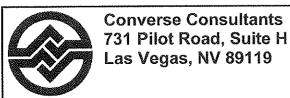
Client: BRC

	Location:	Slug Test: Slug 2 Out	Test Well: MCF-31B
	Test Conducted by: KJH		Test Date: 9/17/2009
Analysis Performed by: KJH		Hvorslev	Analysis Date: 9/24/2009

Aquifer Thickness: 223.90 ft



Calculation after Hvorslev		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-31B	6.80 × 10 ⁻³	



Slug Test Analysis Report

Project: BMI Common Areas / East Side

Figure-106

Number: 09-33220-01

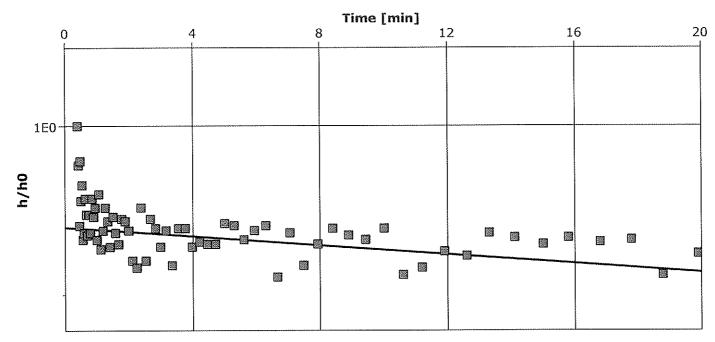
Client: BRC

 Location:
 Slug Test: Slug 2 Out
 Test Well: MCF-31B

 Test Conducted by: KJH
 Test Date: 9/17/2009

 Analysis Performed by: KJH
 Bouwer & Rice
 Analysis Date: 9/24/2009

Aquifer Thickness: 223.90 ft



™MCF-31B

Onlawladian		Darmeror	٥	Dies
Calculation	aner	bouwer	α	RICE

Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-31B	6.95 × 10 ⁻³	



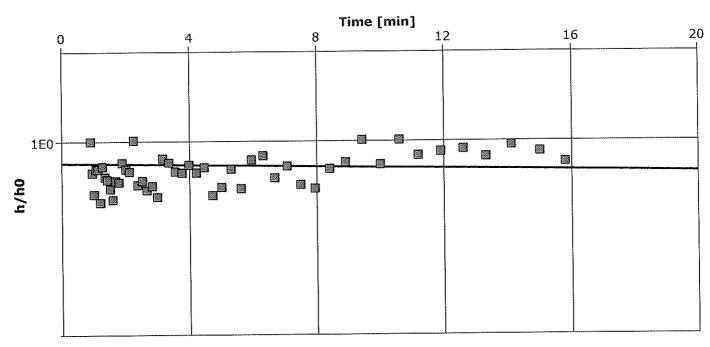
Slug Test Analysis Report Figure-107

Project: BMI Common Areas / East Side

Number: 09-33220-01

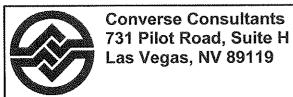
		Client: BR	C
Location:	Slug Test: Slug 3 In		Test Well: MCF-31B
Test Conducted by: KJH			Test Date: 9/29/2009
Analysis Performed by: KJH Hvorslev			Analysis Date: 9/30/2009
-			

Aquifer Thickness: 223.90 ft



™ MCF-31B

	Calculation after Hvorslev		
	Observation Well	Hydraulic Conductivity	
		[ft/d]	
- 1			
	MCF-31B	1.24 × 10 ⁻³	



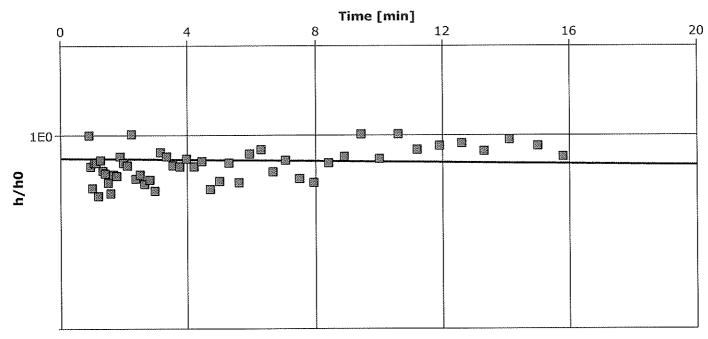
Slug Test Analysis Report Figure-108
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 3 In	Test Well: MCF-31B
rear conducted by their		Test Date: 9/29/2009
Analysis Performed by: KJH	Bouwer & Rice	Analysis Date: 9/30/2009

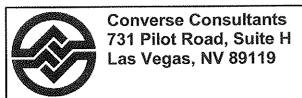
Aquifer Thickness: 223.90 ft



■ MCF-31B

Calculation	after	Bouwer	ጼ	Rice

Calcalation and Boarron and woo		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-31B	9.17 × 10 ⁻⁴	
	,,	



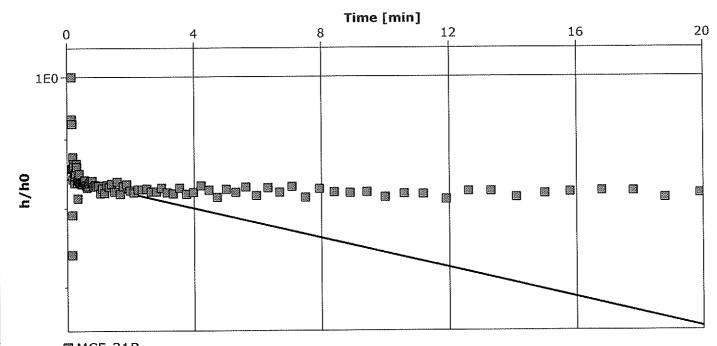
Slug Test Analysis Report Figure-109
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC Test Well: MCF-31B

Location:	Slug Test: Slug 3 Out	Test Well: MCF-31B
Test Conducted by: KJH		Test Date: 9/29/2009
Analysis Performed by: KJH	Hvorslev	Analysis Date: 9/30/2009

Aquifer Thickness: 223.90 ft



■ MCF-31B

Calculation after Hvorslev		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-31B	6.06 × 10 ⁻²	



 Slug Test Analysis Report
 Figure-110

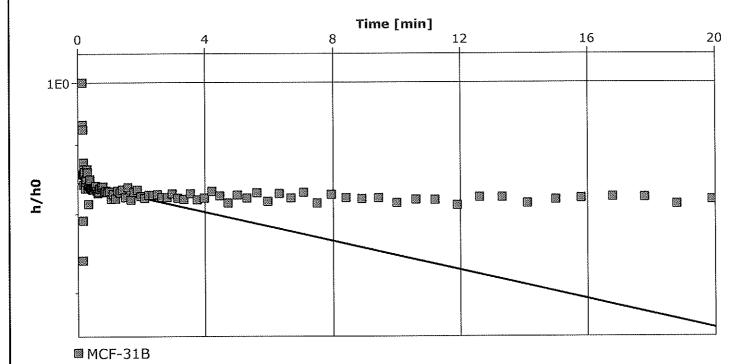
 Project:
 BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 3 Out	Test Well: MCF-31B	
		Test Date: 9/29/2009	
Analysis Performed by: KJH Bouwer & Rice		Analysis Date: 9/30/2009	

Aquifer Thickness: 223.90 ft



.....

Calculation after Bouwer	& Rice	
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-31B	6.06 × 10 ⁻²	



Slug Test Analysis Report

Figure-111

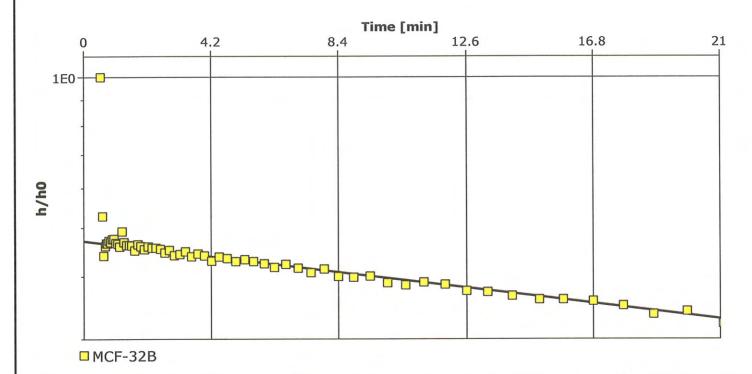
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 1 In	Test Well: MCF-32B
Test Conducted by: MBT		Test Date: 10/5/2009
Analysis Performed by: KJH	Hvorslev	Analysis Date: 10/12/2009

Aquifer Thickness: 104.90 ft



Calculation after Hyorsley				
	Calculation	ofter	Hyorelay	

Observation Well	Hydraulic Conductivity [ft/d]	
MCF-32B	8.18 × 10 ⁻²	



Slug Test Analysis Report Figure-112

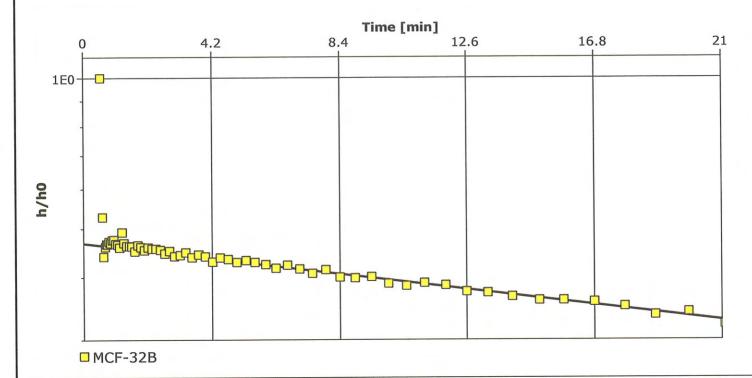
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 1 In	Test Well: MCF-32B
Location.	Oldy 100t. Oldy 1 m	
Test Conducted by: MBT		Test Date: 10/5/2009
Analysis Performed by: KJH	Bouwer & Rice	Analysis Date: 10/12/2009

Aquifer Thickness: 104.90 ft



Calculation after Bouwer & Rice

Observation Well	Hydraulic Conductivity [ft/d]	
MCF-32B	7.63 × 10 ⁻²	



Slug Test Analysis Report Figure-113

Project: BMI Common Areas / East Side

Number: 09-33220-01

Location: Slug Test: Slug 1 Out Test Well: MCF-32B

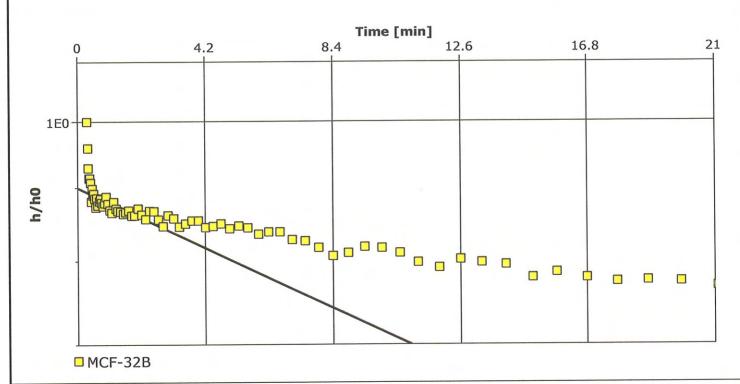
Test Conducted by: MBT Test Date: 10/5/2009

Analysis Performed by: KJH Hvorslev Analysis Date: 10/12/2009

Client:

BRC

Aquifer Thickness: 104.90 ft



Calculation after Hvorslev

Observation Well	Hydraulic Conductivity [ft/d]	
MCF-32B	1.10 × 10 ⁻¹	



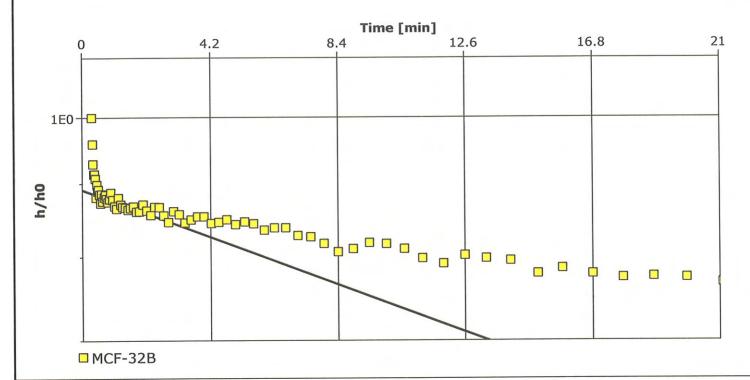
Slug Test Analysis Report Figure-114 Project: BMI Common Areas / East Side

Number: 09-33220-01 **BRC**

Test Well: MCF-32B Slug Test: Slug 1 Out Location: Test Date: 10/5/2009 Test Conducted by: MBT Analysis Date: 10/12/2009 Bouwer & Rice Analysis Performed by: KJH

Client:

Aquifer Thickness: 104.90 ft



Calculation after Bouwer & Rice

Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-32B	8.18 × 10 ⁻²	



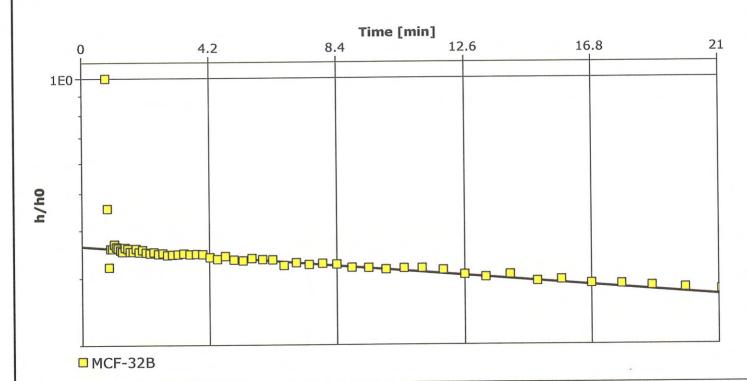
Figure-115 Slug Test Analysis Report Project: BMI Common Areas / East Side

Number: 09-33220-01 **BRC**

Slug Test: Slug 2 In Test Well: MCF-32B Location: Test Date: 10/5/2009 Test Conducted by: MBT Analysis Date: 10/12/2009 Hvorslev Analysis Performed by: KJH

Client:

Aquifer Thickness: 104.90 ft



Calculation after Hvorslev

Odiodiction and		
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-32B	6.80 × 10 ⁻²	



Slug Test Analysis Report Figure-116
Project: BMI Common Areas / East Side

Number: 09-33220-01

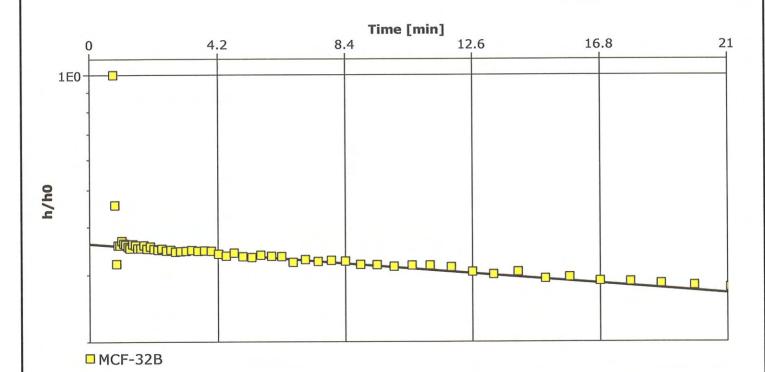
Client: BRC

 Location:
 Slug Test: Slug 2 In
 Test Well: MCF-32B

 Test Conducted by: MBT
 Test Date: 10/5/2009

 Analysis Performed by: KJH
 Bouwer & Rice
 Analysis Date: 10/12/2009

Aquifer Thickness: 104.90 ft



Calculation after Bouwer & Rice

Calculation artor Boarro. Gr.	Outoution artor bounds of the	
Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-32B	6.40 × 10 ⁻²	



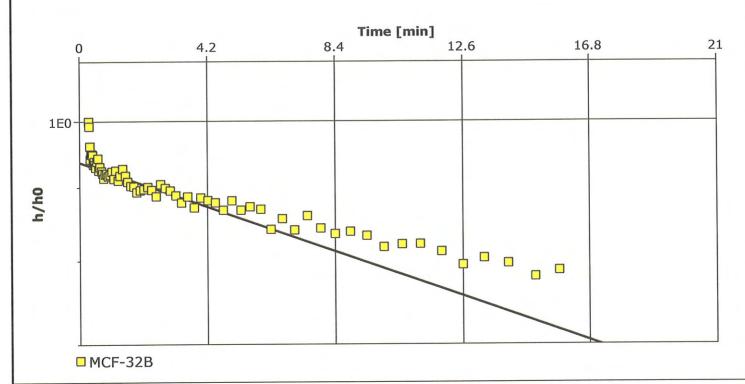
Figure-117 Slug Test Analysis Report Project: BMI Common Areas / East Side

BRC Client:

Number: 09-33220-01

Test Well: MCF-32B Slug Test: Slug 2 Out Location: Test Date: 10/5/2009 Test Conducted by: MBT Analysis Date: 10/12/2009 Hvorslev Analysis Performed by: KJH

Aquifer Thickness: 104.90 ft



Calculation after Hvorslev

Observation Well	Hydraulic Conductivity	
	[ft/d]	
MCF-32B	8.18 × 10 ⁻²	



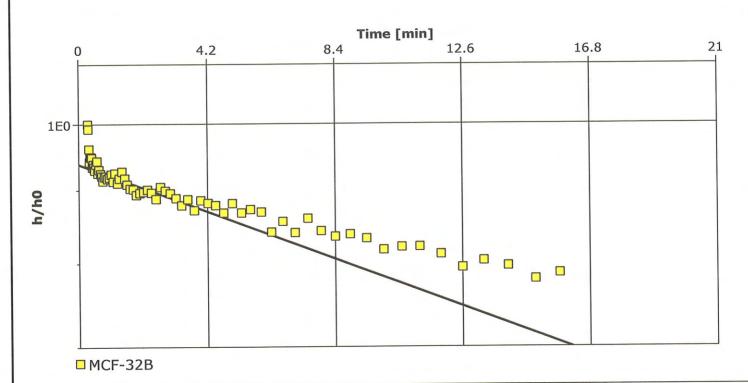
Slug Test Analysis Report Figure-118
Project: BMI Common Areas / East Side

Number: 09-33220-01

Client: BRC

Location:	Slug Test: Slug 2 Out	Test Well: MCF-32B
Test Conducted by: MBT		Test Date: 10/5/2009
Analysis Performed by: KJH	Bouwer & Rice	Analysis Date: 10/12/2009

Aquifer Thickness: 104.90 ft



Calculation after Bouwer & Rice

Observation Well	Hydraulic Conductivity [ft/d]	
MCF-32B	8.18 × 10 ⁻²	