Exhibit M: Fire Hydrant Flow Test Report

HYDRANT FLOW TEST REPORT

Project Name/#/Address: Grimm's Yard/#11113/SW 128th Avenue, Tualatin

Client: Intel Corporation

Document Owner: John Christiansen

SAFETY PLAN

N/A	Notify fire department
y	Identify discharge point
y	Verify downstream
N/A	Traffic Control
y	PPE
y	Gauge Calibration

Notes: Tualatin Hydrant Flow Test Permit #: HFT25-0317; The incorrect diffuser gauge was used during the test for the LPD-250A diffuser. 29 psi Pitot pressure would yield 852 gpm per the table on the LPD-250A diffuser, not the 920 gpm shown in the report photo.

Date/time of test:	2/20/2020 @ 8:30 AM
Tested by:	David Webb , Curtis Eschman, and Mitch Davenport
Witness:	Ernie Castro of City of Tualatin, operated the hydrants for the test
Test duration:	< 10 minutes

FLOWED HYDRANT

	1F-A		1F-B	
Make:	Mueller			
Static:	66	PSI		PSI
Pitot:	29	PSI		PSI
Inside diameter of outlet:	2.5	Inch		Inch
Discharge coeff:	0.9		0.9	
Observed flow:	**852**	**GPM**		**GPM**
Flow method:	LPD-250A Diffuser with Pitot			
Ground elevation:	135	FT		FT
Location description:	Southern-most hydrant on SW 128th Avenue			

GAUGE HYDRANT

	1G-A	
Make:	Mueller	
Static:	64	PSI
Residual:	61	PSI
Ground Elevation:	140	FT
Location Description:	Northern-most hydrant on SW 128th Avenue	

Note: Pressure drop at gauge hydrant must be 25% to determine projected fire flow

PROJECTED FIRE FLOW

Projected Flow at 20-PSI:

Insufficient pressure drop to calculate projected fire flow at 20-PSI, based on flow observed at 61-PSI the water main is expected to deliver more than 1,000-gpm at 20-PSI residual

NOTES/OBSERVATIONS

Q_{Flowed} = Observed from gauge

$Q_{Projected}$= QF x ((GS – Pdesign)^0.54)/((GS – GR)^0.54)

Dave Webb

AKS Engineering & Forestry

2/25/2025 | 8 Photos

AKS Job ID: 11113, Hyrant Flow Test

Grimm's Fuel Storage Yard

Flow Test Details

A hydrant flow test was performed at AKS Job 11113 Grimm's Fuel Storage Yard on 2/20/2025. The test was performed by David Webb, Curtis Eschman, and Mitch Davenport, all of AKS. The test was assisted by Ernie Castro of City of Tualatin, who operated the hydrant valves during the test. The flow apparatus consisted of the LPD-250A diffuser with de-chlorination tablets loaded in the diffuser, connected to the flow hydrant via a section of fire hose, and directed to a downslope stormwater catch basin. The pitot gauge used during the test was incorrect, but it accurately yielded a flow psi of 30. This pressure aligns with a flow rate of 852 gpm per the flow chart of the LPD diffuser, rather than the 920 gpm shown in the report photo.

1

The flow hydrant, a Mueller 5 1/4.

Project: 11113 Grimms Fuel Storage Yard
Date: 2/20/2025, 8:25am
Creator: Mitchell Davenport

2

The static psi of the flow hydrant at 66 psi.

Project: 11113 Grimms Fuel Storage Yard
Date: 2/20/2025, 8:32am
Creator: Dave Webb

3

The gauge/residual hydrant, a Mueller 5 1/4.

Project: 11113 Grimms Fuel Storage Yard
Date: 2/20/2025, 8:38am
Creator: Curtis Eschman

4

The static psi of the gauge/residual hydrant at 64 psi.

Project: 11113 Grimms Fuel Storage Yard
Date: 2/20/2025, 8:42am
Creator: Curtis Eschman

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The flow test conducted with the LPD-250A diffuser with de-chlorination tablets loaded in the diffuser chamber.

Project: 11113 Grimms Fuel Storage Yard
Date: 2/20/2025, 8:48am
Creator: Dave Webb

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Ernie Castro of City of Tualatin operating the hydrant valves.

Project: 11113 Grimms Fuel Storage Yard
Date: 2/20/2025, 8:48am
Creator: Dave Webb

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Residual psi of the gauge hydrant during the flow test at 61-62 psi.

Project: 11113 Grimms Fuel Storage Yard
Date: 2/20/2025, 8:49am
Creator: Curtis Eschman

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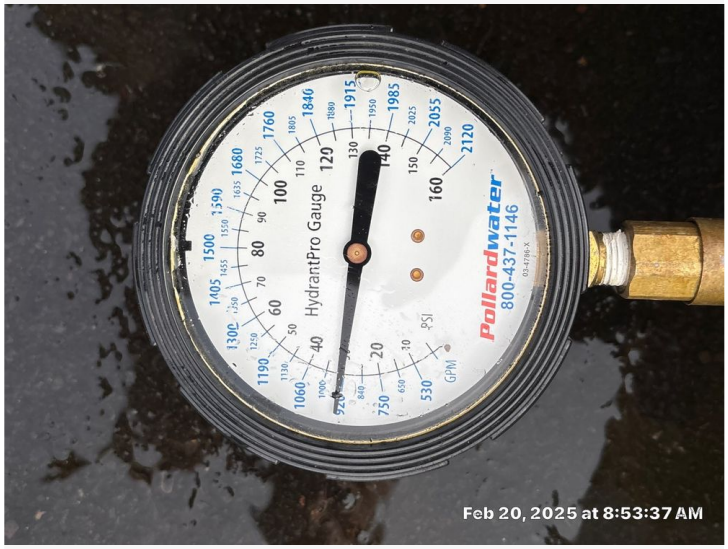

The diffuser pitot flow gauge at 30 psi. The incorrect gauge was used, but the 30 psi translates to a flow rate of 852 gpm per the correct gauge and the chart affixed to the diffuser.

Project: 11113 Grimms Fuel Storage Yard
Date: 2/20/2025, 8:53am
Creator: Dave Webb