

# Hounsfieid Heights

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Questions from Hounsfieid Heights Open House:

**1. What is the difference between “Open House” and an obligation pursuant to the Order issued in 2020?**

An Open House is a way to have a two-way dialogue with the community that Suncor has adopted in order to comply with Suncor’s obligation to communicate to the community as required by the Order.

**2. Why is there more information on the ESAR site?**

The Suncor website documents reports available for the site back to 2014 which corresponds with the earliest reports placed on the Sears Canada EPO website. ESAR houses all documents which have been submitted to AEP for the Site dating back to earliest investigation in 1989. The link for the ESAR is available on Suncor’s page for anyone who would like to review these files.

**3. You had collapsed wells down gradient of 11<sup>th</sup> and the PRB, were these important wells replaced?**

The two wells, BH1943 and BH1979, located down-gradient of 11<sup>th</sup> Avenue NW within the laneway between 15<sup>th</sup> and 16<sup>th</sup> Street NW were recommended for decommissioning and replacement since they could not be located following construction of an adjacent home. In December 2020, Clifton contracted Tronnes Geomatics to see if they could pinpoint the locations of these two monitoring wells prior to completing the decommissioning. Upon identifying the locations of the wells, it was determined that they were approximately 0.3 m below the surface. Clifton then exposed the ground surface and discovered the monitoring wells to be intact and serviceable. Access to the wells will be restored, and the wells will be sampled during the next groundwater monitoring and sampling event scheduled for May/June 2021.

**4. The letter you distributed to neighbours says that “you already drilled the six additional wells” Have I misunderstood your letter distributed to residents?**

The letter which was dropped off at select residences stated: “In addition to installing six new groundwater monitoring wells on City of Calgary lands, we are reaching out to select residents within the potentially affected area to determine if access to their property would be granted for the purposes of subsurface investigations to determine if LPH is present.” The six additional wells referenced within the letter have not been drilled as yet. Currently, there are an additional six proposed groundwater monitoring wells for installation on City property in Spring 2021. We were waiting on City of Calgary approval, which we just recently received. The permitting process for wells to be advanced within City of Calgary property began in December 2020. These wells are associated with the Liquid Petroleum Hydrocarbon (LPH) Assessment which is to be completed by August 2021 as per the Ministerial Order 09/2020.

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**5. Why are you proposing discontinuing the vapor monitoring in the north part of the community? (given that you are now saying that there is evidence of hydrocarbons entering the “impermeable barrier” in the northern part of the community)**

The soil vapour monitoring program was first implemented in 2016. For all seven sampling events completed that included the probes north of 11th Avenue NW, there has never been an exceedance of any of the soil vapour quality guidelines for probes within the area north of 11<sup>th</sup> Avenue NW. In addition, the results from the probes north of 11<sup>th</sup> Avenue have predominantly been either below detection limits or an order of magnitude(s) below the applicable guidelines. Based on this, it was recommended to continue with the soil vapour sampling program with a focus on areas south of 11<sup>th</sup> Avenue NW where the groundwater is shallower and there is a change in the geology in comparison to areas north of 11<sup>th</sup> Avenue. The soil vapour probes north of 11<sup>th</sup> Avenue NW will be maintained should additional evidence be gathered in the future that suggests that soil vapour sampling in these areas should be restarted.

The development of site-specific soil vapour quality guidelines for the protection of human health through the vapour inhalation pathway have taken into account the specific geology (including permeability) in each area of the site. Based on the guidelines created for the areas north of 11<sup>th</sup> Avenue NW, we have not seen any exceedances.

**6. Why has all of this taken so long and again, an open house constitutes the obligations you had in Q1 2020 to communicate with residents (on the order?)**

We realize that the lifespan of this project has been long. We also appreciate that the last year has been particularly tough as the transition of this project came amid a global pandemic and required adjusting to a new reality of working together. Even with these new challenges, we are working hard to effectively meet the Ministerial Order requirements while also ensuring that we are communicating with the Hounsfield Heights community in a timely and effective manner. We will look to continue to work with the community on these efforts.

The Ministerial Order has the following requirements for communication with the community:

- The Parties to the EPO shall assign a key contact person to respond to questions or inquiries from the community, including the residents of the Hounsfield Heights neighbourhood, within 5 business days of the question or inquiry being received by the Parties individually or collectively.
- The Parties to the EPO shall assign a key contact person to work collaboratively with the residents of the Hounsfield Heights neighbourhood and the Parties to develop and implement an effective two-way communication strategy.
- The Parties shall post on the communications website:
  - regular status updates;
  - copies of all finalized and stamped sampling and monitoring reports; and
  - a summary of the results of the posted finalized and stamped reports.

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Communications efforts to date:

- Effective August 7, 2020, the legal transition from Sears to Suncor was completed regarding the responsibility to satisfy the obligations required by the EPO and Ministerial Order including full responsibility to manage and complete any remediation work to the satisfaction of Alberta Environment and Parks (AEP). Clifton, on behalf of Suncor, sent a Notice to residents and other stakeholders (via email and Canada Post) to this effect on August 14, 2020.
- Week of November 30, 2020 Suncor sent out a copy of the quarterly community bulletin (November 2020 Bulletin) to residents via email and Canada Post. The Bulletin was also posted on the Suncor website. The Bulletin communicated the link to the Suncor website, introduced the members of the Suncor Team, and how to contact the Team at [HounsfieldHeights@suncor.com](mailto:HounsfieldHeights@suncor.com), if residents have any questions or comments. It also provided a brief remedial activities status update.
- The Bulletin also mentioned Suncor's plan to have a virtual meeting in the new year and that we would be reaching out to residents to schedule that meeting in March 2021. Hence the virtual meeting we had on March 18 which you attended.

Regarding communications tactics, we will continue to update you through the web site, bulletins and mailed notices; however, if there is a method of communication that you feel would be more efficient or would be beneficial, please reach out. We are always looking for ways to ensure you are receiving the most recent information available.

**7. Why are you asking for access to people's lands for purposes of drilling when, now you are indicating you haven't drilled any other wells in the community?**

As part of the LPH assessment referenced within Ministerial Order 09/2020, we have begun approaching select residents within the community of Hounsfield Heights to determine if they would be open to having investigatory work completed on their property. This request is being completed concurrently with the proposed drilling within City of Calgary property which is scheduled for the Spring 2021. As per ministerial order 09/2020, the LPH assessment work is to be completed by August 2021, with the potential for three additional months should gaining access to private lands require more time.

In addition to planning our LPH assessment which is scheduled for Spring 2021, we completed further investigation involving the installation on City lands of two new groundwater monitoring wells and four shallow soil vapour probes associated with the soil vapour probe SV-32 delineation program in December 2020.

**8. One of the issues that came up in the hearing and subsequent to that was the defining of the extent of the movement of the plume – how far is the plume moving? The current extent of**

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detectable dissolved phase contaminants of concern in groundwater (the “inferred plume”) extends from the lands at North Hill Mall to its southern extent between 10 and 11<sup>th</sup> Avenue NW, bound to the east by the laneway between 14<sup>th</sup> and 15<sup>th</sup> Street NW and to the west by 16A Street. The dissolved phase plume has currently been delineated in all units across the entire site. One method of assessing contaminant mobility is by looking at the concentrations within the monitoring wells and whether or not they are showing increasing, decreasing or stable trends. This data has been presented in the most recent groundwater monitoring and sampling event reports and does show for the large part that the concentrations are stable and are in fact decreasing at several locations. There are, however, a few locations south of 11<sup>th</sup> Avenue (3 wells) and one location in Lion’s Park, based on the November 2020 sampling event where we do see an indication of increasing concentrations. These areas have been targeted for additional remedial options assessment to further determine the appropriate actions to ensure that the concentrations stabilize and then reduce. Additionally, the wells south of 11<sup>th</sup> Avenue may require more time to see the full effects of the permeable reactive barrier.

## 9. This has gone on for decades, can you clean it up?

We understand that the lifespan of this project has been long; however, we want to reiterate the changing of remediation quality objectives and guidelines throughout the duration of this project.

1. Contamination was first discovered within the community of Hounsfield Heights in the mid to late 1990s. At that time, and up to 2006 when the original Site Management Plan was prepared and submitted to AEP, the groundwater concentrations within the community of Hounsfield Heights were below the Site-Specific Quality objectives. Based on this, the goal of the plan was to remove the liquid petroleum hydrocarbon within the community and continue to monitor the groundwater to ensure concentrations remained below the remedial guidelines.
2. In 2007, Alberta Environment introduced their new Alberta Tier 1 Soil and Groundwater Remediation Guidelines. Along with this document, Alberta Environment also provided acceptance of the Site Management Plan remediation quality objectives, with some exceptions and conditions, including the application of the Tier 1 Guidelines south of 11<sup>th</sup> Avenue NW. However, guidelines for the area north of 11<sup>th</sup> Avenue for select parameters remained as what was originally proposed. That is, the concentrations of the contaminants of concern north of 11<sup>th</sup> Avenue were below the remedial objectives.
3. In 2012 and in subsequent years, the remediation objectives were further revised to have the Tier 1 Guidelines be applied across the entire site, not just south of 11<sup>th</sup> Avenue. At this point, concentrations of contaminants of concern in the area north of 11<sup>th</sup> Avenue were now above the remedial guidelines. To provide context, and as an example of the changing guidelines, the required benzene guideline value for groundwater went from a range of 12-

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39 mg/L, depending on site location, to 0.005 mg/L. That is, the remedial objective has decreased five orders of magnitude from 2012.

The changes in guidelines established by the AEP that have occurred over the past 25 years have resulted in improved science and a better understanding of exposure pathways and potential receptors. However, the remedial goal posts have moved significantly, particularly in the last nine years, which is resulting in a longer remedial timeframe.

## **10. Have you adequately dealt with the definition of the source region?**

The original source of the dissolved phase plume is associated with the former underground storage tanks located at the North Hill Mall property. These tanks were removed in 1995. Since that time, the original source of the plume has been removed. Subsequently, liquid petroleum hydrocarbons had been observed in the monitoring well network located within the northern portion of Hounsfieid Heights. The presence of the LPH led to the recommendation and subsequent installation and operation of the dual phase vapour extraction system within this area. Most recently, there has been no observed LPH within our monitoring well network since the Spring 2019. Further work is being undertaken within the Spring and Summer of 2021 to complete additional LPH assessment within the community of Hounsfieid Heights. This assessment is being completed in part to determine the effectiveness of the dual phase vapour extraction system by investigating areas where we had previously observed LPH to determine if it is still present.

## **11. You indicated that the plume is stable, what does this mean? How can you say that the plume is stable but it's moving?**

Plume stability as used in this context would refer to dissolved phase chemical concentrations that are being attenuated at a rate equal to or greater than the groundwater velocity, and that concentrations at select locations are no longer increasing, but in fact are remaining stable or are decreasing. Plume stability has been assessed in the most recent groundwater monitoring and sampling events and a full summary is provided in each report. Generally speaking, the wells assessed as part of the stability analysis are showing that the chemical concentrations are decreasing and/or remaining stable at most areas. However, there are some localized areas south of 11<sup>th</sup> Avenue NW (3 wells) and one location in Lion's Park, based on the November sampling data, that are showing increasing trends, warranting further investigation through a remedial options analysis. It should be noted that the wells south of 11<sup>th</sup> Avenue may require more time to determine the full effect of the permeable reactive barrier within these areas. Furthermore, the wells located at the southern boundary of the extent of our Site continue to show concentrations below detection limits for the contaminants of concern.

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**12. I understood this would be resolved in 15 years, is this accurate?**

The current Revised Remediation Plan (Version 3.0) has proposed a timeline of greater than 15 years to meet the current AEP 2019 Tier 1 Guidelines across the entire Site. This timeline will be refined as additional data is gathered. With respect to this timeline, this does not mean that the entire site will take longer than 15 years to meet the applicable guidelines. In fact, we currently have wells within the community which once exceeded the applicable guidelines and are now below them. Furthermore, preliminary decay rate analysis shows (with some uncertainty) that there are wells which are likely to drop below the applicable guidelines within the next 5, 10 and 15 years. With the focus of removing any potential LPH, thereby eliminating the source, the plume should continue to decrease in concentration moving towards the current AEP 2019 Tier 1 Guidelines.

**13. Why aren't you cleaning up Lyon's Park?**

The southeast portion of Lyon's Park is partly under the influence of the dual phase vapour extraction system and therefore is actively being addressed as part of the Revised Remediation Plan (Version 3.0). Furthermore, Lyon's Park is one portion of the Site where a remedial options analysis is currently underway as a result of wells within this area showing an increasing trend in concentration. The remedial options analysis will be used to determine what additional methods may be available to reduce the hot spots within this area.

**14. Why are you not stopping product from coming into the community at 14<sup>th</sup> Avenue (as you advised in 2005)?**

We are not observing any LPH within our monitoring well network that would suggest a continued movement of product from the former source area into the community of Hounsfield Heights.

**15. In 2003, we signed a deal – that we would give access to our land – in return we would receive two things – communications about what was on our land; and action. The frustration for the homeowners is that there have not been communications. We have not had communication to the homeowners. How will this time be different?**

As we work to transition all the pieces over to Suncor, we are also working on ensuring the communications are clear and provided in a way that works for you. The forms of communication addressed in question 6 are intended to provide information relevant to potential impact to your property. We understand that the information that homeowners need may be different, so if you have a question related directly to your property, please reach out to us at [hounsfieldheights@suncor.com](mailto:hounsfieldheights@suncor.com)