

SPICE SILO (SOLUTION)

by Ong Kah Kien

The first step is to solve the given 39 clues. The commonality and aha is that all the intended answers are in the form of a letter and a digit, with the digits ranging from 1 to 7. This matches the number of silos/columns shown in the image/grid, suggesting a correspondence. The 7x6 grid, and the alternating red and black-colored clues, reference the popular [Connect Four](#) game. In a Connect Four game, red and black tokens belonging to the first and second players respectively, are alternatingly dropped down one of the seven columns (occupying the lowest available space within the column) with the objective to be the first to form a horizontal, vertical, or diagonal line of four of one's own tokens. Thematically, this references how silos are filled from the top, and is also hinted by the flavortext words "connected" and "line".

The table below summarizes the answers for the clues:

Move orders	Clues	Answers
1	Battalion logistics officer	S4
2	Sitocalciferol is this type of vitamin	D5
3	Investors visa for US treaty nations	E2
4	Audi sedan series started in 2007	A5
5	Pioneer version	V1
6	Ågesta Nuclear Plant	R3
7	Adam Clayton plays bass guitar in this band	U2
8	Facility nicknamed Jigarthanda, for testing hypersonic speeds	S2
9	First Yamaha 321cc bike	R3
10	European paper size of almost 1/8 square metre	A3
11	A Colt carbine used extensively by the US Army	M4
12	Easiest JC subject level	H1
13	Famous boy band from Meteor Garden	F4
14	Subway line in Berlin which is the shortest	U4
15	Polyunsaturated fatty acids like ALA, EPA and DHA	N3
16	Rivaldi Fatah	R7
17	Mall with first rooftop Ferris wheel in Europe	T1
18	Find Petalclouds here at Changi	T4
19	Tetrahedral die	D4
20	Block-chain platform Corda is developed by this company	R3
21	Event for the video game industry organized by ESA	E3
22	Floor which is on the ground	L1
23	Essential licence for driving ambulances in the UK	C1
24	Pilot season	S1
25	Formaldehyde Sargenti paste	N2
26	Gaseous oxygen in the atmosphere	O2
27	Astromech droid belonging to Luke Skywalker	R2
28	Root lattice for Lie groups with dimension 78	E6
29	Real Yellowstone wolf from the bestselling book American Wolf	O6
30	PSLE year	P6
31	Safe response using the Caro-Kann	C6

Move orders	Clues	Answers
32	Plain envelope that measures 114mm x 162mm	C6
33	Roadway between Kinali and Balikesir	06
34	Salute emote	07
35	Same as above	07
36	Latest model BYD mid-size sedan	E7
37	Brigadier general pay grade in the Marines	07
38	A lumbar vertebra often associated with spondylolysis	L5
39	Some ethanol fuel blends with 95% gasoline	E5

Therefore, the answers to the 39 clues could be interpreted as successive moves in a Connect Four game, with the digit indicating the column to drop that token, and each colored token having a letter from the answer. The moves when played out form a logical game, with the first/red player forming a line of four and winning on the last given move. The grid below shows the completed Connect Four game with the order of the tokens dropped and their letters.

24S	27R	21E	19D		33O	
23C	26O	20R	18T		32C	37O
22L	25N	15N	14U	39E	31C	36E
17T	8S	10A	13F	38L	30P	35O
12H	7U	9R	11M	4A	29O	34O
5V	3E	6R	1S	2D	28E	16R

Reading the red and black letters in grid/row-major order yields two clue phrases REDO CONNECT FOUR MOVES and SORT CLUES ALPHA ORDER. Sorting the 39 given clues by alphabetical order gives a new ordering for their answers/moves to replay out another new logical Connect Four game as shown in the grid below.

25V	21E	27N	39D		33C	
24S	20O	17R	38U		32E	35O
23T	19N	13E	16T	37E	31O	34O
18L	14S	12A	15F	36D	29O	30R
11C	5R	8R	7S	6A	28P	22E
10H	3U	4R	1M	2L	26C	9O

Reading the red letters forming the winning line of four in this new Connect Four game gives the answer to this puzzle **VEND**.

Constructor's notes:

This is fairly straightforward puzzle that uses the Connect Four game as a thematic representation of how spice silos are filled. With the answer being a 4-letter word, it was also apt to use the winning line as the final extraction. The idea of extracting directly using single letters from the board is new, as other hunt puzzles involving Connect Four had only used words to represent the moves, and extracting using them. The first challenge in the construction was finding the right phrases which could also yield the final answer. Then, it was about playing out two different logical Connect Four games that had the same tokens in each column, which was not easy. As Connect Four is a solved game with the first/red player winning in 21 moves with perfect play from both players, hence the moves made in the two games in this puzzle, while logical, are intentionally not fully optimal. The last challenge is phrasing the clues (often with constraining answers) such that they fit the right alphabetical order. And it was fortunate that this was possible without the clues appearing too contrived, and some of the more unusual phrasing could in fact help confirm the need to re-sort the clues alphabetically.